DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR 2002

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

HOUSE OF REPRESENTATIVES

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

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U.S. Department of Transportation

BUDGET IN BRIEF
FY 2002

U.S. Department of Transportation
2002 Budget In Brief

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Performance Progress Report

	...In 1996	...In 1998	...In 1999	And In 2000	2002 GOAL
SAFETY					
Percent of front occupants using seat belt	68	70	67	71	87
Highway fatalities per 100 million vehicle miles	1.7	1.6	1.5	1.6 *	1.4
Percent of highway fatalities that are alcohol-related	41	39	38	38 *	33
Large truck fatalities	5,142	5,395	5,362	5,307 *	4,710
Runway incursions	268	311	330	403	236
Transit fatalities per 100 million passenger-miles	0.520	0.564	0.530	0.519	0.492
Rail-related fatalities per million train-miles	1.55	1.48	1.31	1.29 *	1.20
Grade crossing incidents divided by the product of million train-miles and trillion VMT	2.57	1.98	1.83	1.78 *	1.39
Serious hazardous materials transportation incidents	468	430	377	398 *	391
Recreational boating fatalities	770	864	778	742 *	742
MOBILITY					
Percent of National Highway System miles meeting acceptable ride pavement performance standards	91.5	92.1	93.0	93.8 #	95
Percent of runways in good or fair condition	93	95	95	95	95
Percent key rail stations Americans with Disabilities Act (ADA) compliant	19	29	49	52	68
Percent bus fleet ADA compliant	63	72	77	80	86
Amtrak ridership (in millions)	19.7	21.1	21.5	22.5	26.7
ECONOMIC GROWTH					
Passengers (in millions) in international markets with open skies aviation agreements	38.4	43.0	49.4	56.3 *	59.7
Gross tonnage (in thousands) of commercial vessels on order or under construction in U.S. shipyards	N/A	407	595	1,100 *	1,100
HUMAN & NATURAL ENVIRONMENT					
Tons (in millions) of mobile source emissions from on-road motor vehicles	66.9	63.7	61.6 #	59.7 #	61.1
Passenger-miles traveled (in billions) by transit	39.0	42.6	43.3	45.3	47.5
Gallons of oil spilled per million gallons shipped by maritime sources	7.2	3.1	2.7	4.6 *	3.6
NATIONAL SECURITY					
Percent seizure rate for cocaine that is shipped through the transit zone	5.3	10.1	12.2	10.6	18.7
Percent of DOD-designated strategic ports that are available when requested by DOD	64	93	93	93	93

N/A= Not Available

* Preliminary estimate

\# Projection

A Message From the Secretary

The 2002 budget envisions a national transportation system that can meet the demands of our citizens. These demands include those of the American public – who want to be safe and secure – and those of American businesses – which want access to consumers in all regions of the country, as well as a safe and dependable means to deliver their products. The U.S. Department of Transportation's 2002 budget proposes a record $59.5 billion investment in our national transportation system, the highest level in the history of the Department.

The Bush Administration understands that the connection between transportation investment, economic prosperity, job creation, and quality of life is both immediate and direct. Three decades ago, when I was mayor of San Jose, California, the tool that made the most difference in my community was transportation. Nothing else has as great an impact on our economic development, on the pattern of growth or on the quality of life than transportation. And what I have found in the years since is that this is true not only locally, but also regionally and nationally.

President Bush has asked us to set aggressive goals to address our Nation's key transportation priorities. These priorities are to: increase transportation safety, enhance mobility for all Americans, support the Nation's economic growth by providing access to new markets and new economic opportunities, and protect our Nation's environment and security. All U.S. Department of Transportation employees are held accountable to helping meet these priorities.

The Department's activities place the safety of the American public above all other objectives. We will work to eliminate transportation-related deaths through expanded enforcement efforts to enhance the deterrence and detection of safety hazards; broader public outreach to increase the awareness of important safety precautions; and increased research to find new solutions to safety challenges. The 2002 budget includes $7.3 billion for critical transportation safety programs, a funding increase of 7.5 percent.

A central challenge for the Department and the Nation is to close the gap between demand for transportation and the capacity of our transportation infrastructure. Through funding of aviation capital modernization and delay reduction initiatives, the budget will help address the dramatic growth in the number of aviation passengers projected for the coming years. The budget proposes strong investment in transportation infrastructure totaling $42.8 billion. This investment in our roads, bridges, airports and transit infrastructure will allow us to improve conditions and performance and increase capacity.

The President and I take great pride in proposing this budget. In the coming year, I look forward to pursuing the Administration's commitment to the future of our country through an improved transportation system.

Norman Y. Mineta
Secretary

OVERVIEW

The Nation's transportation system touches our lives every day. It connects resources with consumers and enables our citizens to travel to where they need and want to go. The activities of the U.S. Department of Transportation (DOT) aim to make real improvements in the country's transportation system, the security of our Nation and the quality of life of the American people.

The Department's 2002 budget totals $59.5 billion and is 6 percent above the 2001 funding level adjusted for one-time appropriations totaling $2.8 billion. The budget invests in the safety, mobility, economic growth, environment and national security of the United States in a manner that is responsible and forward-looking. The budget calls for the highway and transit funding guaranteed in the Transportation Equity Act for the 21st Century (TEA-21) and aviation operating, capital and airport grant funding authorized in the Aviation Investment and Reform Act for the 21st Century (AIR-21).

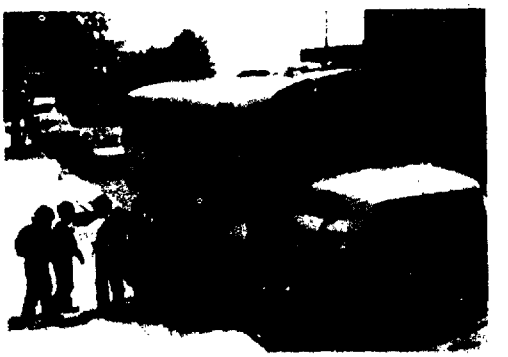
Safety

Guaranteeing the safety of the traveling public is the number-one job at DOT. The United States has an enviable transportation safety record, and leads the world in safety in many modes of transportation. Even in our biggest and most difficult category of transportation fatalities, those on our highways, the number of fatalities in recent years has been held relatively flat, despite significantly rising numbers of vehicles on our roads. However, in 2000 we saw a slight reversal of that trend, where the preliminary number of fatalities increased while the preliminary number of vehicle miles traveled remained essentially the same.

This serves to make us vitally aware that the Department must constantly search for the most effective means to provide the public the greatest possible safety improvement for each dollar spent. The 2002 budget proposes overall transportation safety funding of $7.3 billion, $511 million or 7.5 percent above 2001. Continued and increased investment in motor carrier safety, motor vehicle safety, pipeline safety, aviation safety, transit safety, rail safety, and marine safety is critical to the future success of our transportation system as a whole.

Motor Carrier Safety. Motor carriers represent only 4 percent of all registered vehicles, but are involved in 13 percent of all crashes resulting in a fatality. For motor carrier safety, the budget calls for a total of $400 million, 49 percent above 2001. For safety efforts at our border with Mexico, new funding is requested to add 80 Federal enforcement staff, support State inspection operations, and provide new inspection infrastructure.

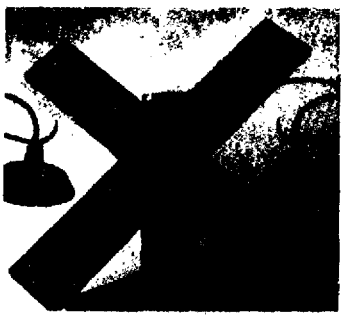
Motor Vehicle Safety. In 2000, Congress enacted the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act to improve motor vehicle safety. The National Highway Traffic Safety Administration (NHTSA) budget includes funding to implement the TREAD Act mandates to update the tire safety standard, increase crash data collection to include information regarding tire failure, develop dynamic rollover tests and improve the safety of child restraints.



Pipeline Safety. DOT continually strives to improve and target its pipeline safety efforts, and the budget provides funding of $54 million, 15 percent above 2001, to support enhanced Federal pipeline safety efforts. Increased efforts will be targeted at oversight and enforcement of recently strengthened Federal pipeline standards.

Aviation Safety. Funding for aviation safety will increase by 4 percent to $4.1 billion in 2002, supporting DOT's commitment to an 80 percent reduction in fatal aviation accident rates of U.S. commercial carriers by 2007. To address the increase in runway incursions, the budget includes $112 million, 13 percent above 2001, for runway incursion safety enhancement efforts. These funds will allow us to (1) complete the steps necessary to make automated alerts of pending runway incursions operational, (2) begin the production contract for 25 additional airport surface radars to complement the 40 existing radars that warn air traffic controllers of pending runway incursions, (3) improve the analysis of incursions and their causal factors, and (4) increase education and training programs.

Transit Safety. In an effort to bolster the safety oversight activities of States operating guideway systems, the budget includes a proposal to allow States to use funds made available for capital projects for safety oversight activities. This Federal assistance would allow States to enhance their internal rail safety expertise while improving the frequency and quality of safety audits and reviews.



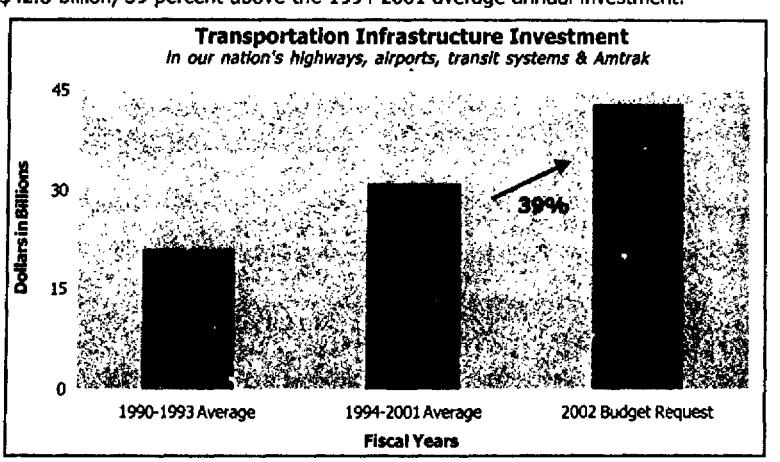
Rail Safety. Freight movement on our Nation's railroads continues to grow at unprecedented rates, resulting in more trains competing for space on increasingly congested rail lines. Despite the increased levels of traffic, the Federal Railroad Administration's safety efforts have produced tangible improvement – rail-related fatalities per million train-miles in 2000 reached the lowest level in two decades. Rail safety spending is proposed to increase 9 percent over 2001 to $154 million in 2002.

Marine Safety. There are many dramatic examples of the U.S. Coast Guard's success in saving lives at sea. The 2002 budget proposes $1.1 billion, 12 percent over 2001, for Coast Guard safety activities to improve the detection of those in distress, enhance passenger vessel safety, and improve staffing and communications at search and rescue facilities.

Mobility

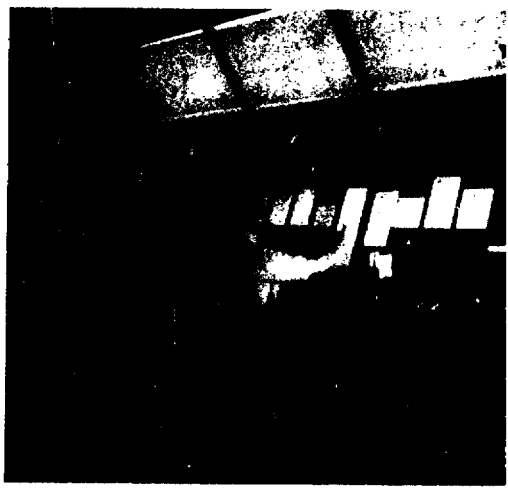
A central challenge for the Department is to close the gap between demand for transportation and the capacity of our transportation infrastructure. That gap is what generates the congestion on the highways, the delay experienced on the taxiway or at an airport gate, and the inefficiencies that shippers face when shipments are jammed up in a rail bottleneck.

The funding levels guaranteed in TEA-21 and authorized for operations and capital in AIR-21 are an important step in helping to invest in ways to solve these problems. In total, highway, transit, aviation, and rail infrastructure investment will equal $42.8 billion, 39 percent above the 1994-2001 average annual investment.



In order to ensure the mobility of all Americans, the proposed budget provides funding for a New Freedom Initiative that will help Americans with disabilities by increasing access to assistive technologies, expanding educational opportunities, increasing the ability of Americans with disabilities to integrate into the workforce, and promoting increased access into daily community life. The Federal Transit Administration's (FTA) Job Access and Reverse Commute Program is funded at $125 million in 2002 and will help provide transportation services from low income neighborhoods to areas of job growth.

The number of passengers trying to fly and shippers trying to move packages by air has grown dramatically. In 2000, we had 208 million more aviation passengers than we did in 1991, a number nearly equal to the entire population of the United States. Given the fact that it is impossible to quickly expand air traffic control capacity, airport capacity and airline capacity, it is not surprising that the result is an increase in the numbers of delays at large airports. In 2002, $3.3 billion is proposed for airport grants. Approximately one-quarter, or over $700 million, of Federal airport grants goes for projects that increase airport capacity, such as new or extended airport runways or aprons. The bulk of the remaining funding ($2.5 billion) goes toward improving runway pavement.



To address our mobility challenges, DOT also strives to find better ways to manage our existing transportation infrastructure to make more efficient use of our investments. This includes using new technology to make our road pavements last longer and improving the efficiency of our highways and skyways to accommodate increased traffic demand.

The budget proposed for aviation capital modernization includes funding for the introduction of new air traffic control technology. The budget also proposes to increase Federal Aviation Administration (FAA) capital spending on delay reduction initiatives by 33 percent. Funding is requested to provide new air traffic control automation aids to increase capacity 3-5 percent during the peak operating periods at 5 of the busiest U.S. airports. In addition, more sophisticated weather systems for airport towers will be operational in 2002, allowing controllers to minimize disruptions to traffic flow from severe weather and reduce delays and diversions caused by imperfect knowledge of the location of severe weather.

The search for new technological and innovative solutions to our mobility challenges is well supported in the 2002 budget, with investment in technology, research, and development proposed at $1.2 billion, 7.5 percent above 2001. Development and increased use of technologies, such as Intelligent Transportation Systems (ITS) are proposed in the 2002 budget. A total of $253 million, 32 percent more than 2001 funding levels, is requested for ITS to further increase the number of integrated ITS locations.

Economic Growth

Transportation is key to generating and enabling economic growth, in determining the patterns of that growth, and in determining the competitiveness of our businesses in the world economy.

DOT is opening international air travel to market forces and removing antiquated service restrictions through "open skies" agreements that permit unrestricted air service by authorized carriers to, from and beyond the territories of their partners. Understanding long-term trends in the airline industry's operating and competitive structures is required as the Department formulates effective negotiating strategies to ensure pro-competitive liberalization. Additional staff are requested in 2002 to enhance DOT's activities in this area.

Environment

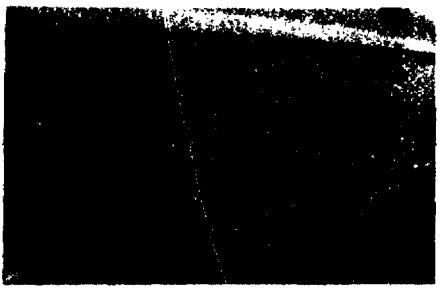
The Department recognizes the undesired environmental consequences associated with our transportation system and seeks to mitigate those harmful effects to the maximum extent possible. The 2002 budget increases funding for environmental programs to $6.6 billion, almost 8 percent above 2001.

A large part of DOT's environmental strategies are funded by the Congestion Mitigation and Air Quality Improvement (CMAQ) Program, which supports activities that help communities reach and sustain healthy air standards. Through the CMAQ program and other transportation enhancements, the Department funds innovative projects that promote transit ridership, clean fuels, and emissions-reducing inspection and maintenance programs. In addition, bicycle- and pedestrian-oriented projects have provided community and recreational alternatives to the car in many of our heavily populated urban areas. The 2002 budget includes $1.7 billion, within the TEA-21 funding levels, for the CMAQ program.

The Department, through the Maritime Administration (MARAD), is responsible for disposal of obsolete vessels that pose a danger to the environment. The budget includes $10 million to dispose of at least three such vessels in 2002.

National Security

DOT also plays a critical role in ensuring the U.S. transportation system is secure and U.S. borders are safe from illegal intrusion. Even in times of peace, our transportation system is vulnerable to intentional harm, and our borders are vulnerable to intrusion through the smuggling of contraband and illegal migrants. The 2002 budget proposes a total of $1.9 billion for national security programs, 5.7 percent over 2001.



In support of the President's drug control strategy, the 2002 budget proposes $759 million, 19 percent over 2001, for the U.S. Coast Guard to fulfill the Department's commitment to conduct counter-drug law enforcement operations. This includes an additional $243 million to fully fund the levels contained in the Western Hemisphere Drug Elimination Act and modernize Coast Guard's capital assets.

The 2002 budget also includes funding to enhance airport security and FAA information security. For airport security, the budget includes $97.5 million to continue the purchase of explosive detection systems.

Conclusion

The DOT goal is to provide the resources necessary to improve our Nation's transportation system. The funding requested in 2002 will help improve transportation safety, maintain and expand our transportation infrastructure and increase its capacity, reduce environmental degradation, enhance national security, and improve quality of life for our citizens.

The following pages provide highlights of the Department's budget by operating administration.

Federal Aviation

Overview: The 2002 budget request for the Federal Aviation Administration (FAA) reflects the Administration's strong commitment to increasing the performance and capacity of our aviation system. The capital and operating levels authorized in the Aviation Investment and Reform Act for the 21st Century (AIR-21) are requested in the budget.

FAA Budget

Dollars in millions

	2000 Actual	2001 Enacted	2002 Request
Operations	5,568	6,516	6,886
Facilities & Equipment	2,075	2,651	2,914
Research, Engineering & Development	156	187	188
Airport Grants	1,896	3,195	3,300
TOTAL	10,096	12,549	13,288

Performance:

SAFETY:

In 2000, the preliminary fatal aviation accident rate for U.S. commercial air carriers was 0.033 per 100,000 departures, beating the 0.045 goal. This is down from a 1994-1996 baseline of 0.051 fatal accidents per 100,000 departures. The 2002 goal is 0.038.

MOBILITY:

Since 1997, the airports community, with active support from FAA, has maintained in good or fair condition 95 percent of runways at all commercial service airports and reliever airports, as well as selected general aviation airports. The 2002 goal is to maintain this high standard of runway condition.

In 2002, FAA's goal for National Airspace System Capacity is a cumulative increase of 3.8 percent in through-put during peak periods at certain major airports and a cumulative increase of 7.6 percent in direct routings for en route flight phase.

ENVIRONMENT:

In 2000, the number of people in the U.S. exposed to significant aircraft noise (65dB or higher) was reduced to 448,000. This is down from a 1985 level of 3.4 million. In 2002, the goal is to continue to limit the number of people exposed to aircraft noise to the 2000 level.

Administration

FY 2002 Budget

Operations: $6.886 billion, 5.7 percent ($370 million) above 2001, consistent with the AIR-21 authorized level. Most of the increase ($328 million) is needed to maintain current operations.

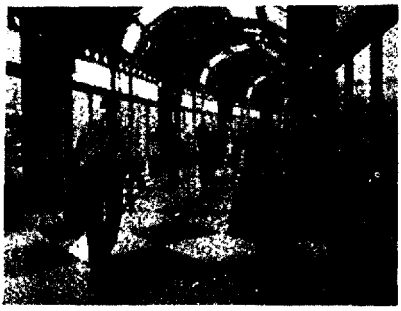
- Air Traffic Services ($5.447 billion) - FAA is responsible for the Nation's air traffic control system. To keep pace with the growth of aviation, the 2002 budget for air traffic services includes $32 million to expand its workforce by 600 controllers. FAA will also continue to redesign the Nation's airspace to address capacity constraints, and will increase air traffic funding by $7 million for runway safety programs.

- Aviation Regulation and Certification ($745 million) - FAA maintains safety oversight of the Nation's aviation system, including aircraft, repair stations, pilots and maintenance crews. In 2002, FAA will perform almost 41,000 flight standards investigations (up 4 percent over 2001) and over 430,000 air people and operator certifications (up 7 percent over 2001).

- Civil Aviation Security ($150 million) - FAA works to protect the aviation system and its own facilities and employees from terrorist and other criminal intrusion, and helps in the Nation's efforts to interdict unlawful narcotics entering the United States.

- Regions and Center Operations ($91 million) - The 2002 budget includes $14 million in new funds for development of Air Tour Management Plans that address aircraft noise over national parks and tribal lands, as authorized by AIR-21.

Airport Grants: $3.3 billion, an increase of 3.3 percent over 2001, for airport improvement grants and related administrative costs. The Grants-in-Aid program issues grants to airports and State and local governments for projects that improve safety, increase capacity, and help mitigate noise for areas adjacent to airports. The budget request includes $57 million in administrative expenses, $8 million for airport-related research, and an estimated $10 million for the Essential Air Service program.



Facilities and Equipment: $2.9 billion, an increase of 10 percent ($263 million) over 2001, to continue to improve and modernize the equipment central to the national airspace system. The request includes:

- Safety - $453 million for projects that support safety performance goals such as improvements to weather sensing and reporting systems, safety information databases and computer systems to assist safety inspections, improvements to flight services for general aviation, and runway incursion research and new technology.

- Mobility - $2.2 billion for projects to support mobility goals such as replacement of older radars, new automation for terminal control facilities, free flight and oceanic automation to improve flight route flexibility and significant infrastructure improvements to reduce outages caused by older, less capable facilities and equipment.

- Environment - $78 million for projects to support environmental performance goals such as replacing fuel tanks at FAA facilities, removing environmental hazards and cleaning up hazardous materials at identified sites.

- National Security - $168 million for projects in support of national security performance goals such as purchase of explosive detection devices, protection of FAA facilities and information systems, and improvements to the emergency communications network.

Research, Engineering, and Development: $188 million, which includes $53 million for continued research in aircraft structures and materials, and $50 million for explosive detection and other security research. The remaining research funding is in the areas of weather information, resolution of environmental issues, human factors, safety issues and support of the FAA laboratories.

FAA Major Facilities & Equipment

Safety	
New and Improved Weather Systems	$67.0
Improved Communications Systems	$54.1
Safety Database and Computer Systems	$30.5
Safe Flight 21	$26.5
Flight Service Improvements	$52.3
Runway Incursion R&D and New Technology	$48.1
Other	$88.9
Mobility	
Free Flight Phase 1	$122.6
Free Flight Phase 2	$114.9
Oceanic Automation	$88.1
WAAS, LAAS, and Landing aids	$134.7
En Route Automation	$235.0
Terminal Automation	$203.2
ATC Beacon Interrogator	$65.9
Terminal Radar Replace	$156.1
Improve Communications Systems	$73.6
Replace Towers	$100.7
Improve Towers and En Route Facilities	$98.6
Other	$308.5
Environment	
Replace Fuel Tanks	$9.3
Hazardous Material Clean-Up	$22.7
Workplace Environmental Compliance	$28.4
National Security	
Explosive Detection Devices	$97.5
Facility and Information Security	$36.0
Recovery Communication	$4.8
Project Support	
FAA Personnel	$377.1
Center for Advanced Aviation System Development	$76.4
Systems Engineering Support	$26.3
Installation Support	$84.1
Other Project Support	$82.1

United States

Overview: The United States Coast Guard (USCG) is a military, multi-missioned maritime service and one of the Nation's five Armed Services. Its mission is to protect the public, the environment, and U.S. economic interests in the Nation's ports and waterways, along the Nation's coast, on international waters, and in any maritime region as required to support national security.

USCG Budget

Dollars in millions

	2000 Actual	2001 Enacted	2002 Request
Operating Expenses	2,779	3,185	3,383
Acquisition, Construction & Improvement	385	414	659
Research	19	21	22
Retired Pay	730	778	876
Reserve Training	72	80	83
Environmental Compliance & Restoration	17	17	17
Alteration of Bridges	15	15	15
SUBTOTAL	*4,017*	*4,511*	*5,056*
Supplemental Appropriations	700	—	—
TOTAL*	4,717	4,511	5,056

*Does not include mandatory appropriation costing $64M in 2000, $64M in 2001 and $64M proposed in 2002 for State Boat Safety Grants.

Performance:

SAFETY:

Preliminary 2000 data indicate that the number of recreational boating fatalities was 742. This is down from 778 in 1999. The 2002 target is 742.

ENVIRONMENT:

Preliminary 2000 data indicate that the rate of oil discharged into the water by maritime sources was 4.6 gallons per million gallons shipped. This is down from the 1995 rate of 6.6. The 2002 target is 3.6.

NATIONAL SECURITY:

In 2000, the Coast Guard seized over 132,000 pounds of cocaine — a record for interdictions. This amounted to a seizure rate of 10.6 percent for cocaine that is shipped through the transit zone. The 2002 target is 18.7 percent.

Coast Guard

FY 2002 Budget

Operations: $3.4 billion, 6 percent ($198 million) above 2001, for the continued operation and maintenance of a wide range of ships, boats, aircraft, shore units, and aids to navigation. The $198 million increase includes $108 million in offsets from management efficiencies; $266 million for pay raises, contract adjustments, and other base adjustments; $8.5 million for improvements to search and rescue and marine safety; and $31 million for operation of assets acquired in 2001.

Capital: $659 million, 59 percent ($245 million) above 2001, which supports the President's initiative to fully fund the Western Hemisphere Drug Elimination Act and the Coast Guard's recapitalization of vessel and aircraft fleets, information resource management systems, shore facilities, and aids to navigation. This includes $338 million for the deepwater capability replacement, which will fund the initial phase of the full production contracts for the development of an integrated system of assets to carry out Coast Guard's deepwater missions. It also includes: $70 million for two seagoing buoy tenders; $90 million for enhancements to Coast Guard information systems, National Distress System, commercial satellite communication system, and vessel tracking systems; and $63 million for renovations and improvements to Coast Guard facilities, and for additional housing as well as repairs to existing units.

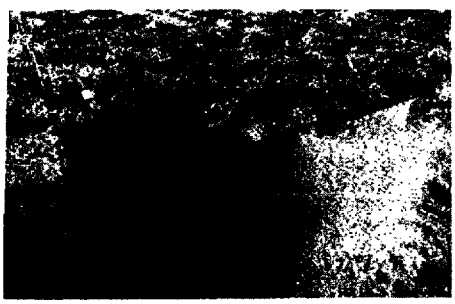
Research: $22 million, for research, development, testing and evaluation to provide for technologies, materials, and human factors research directly related to the improvement of Coast Guard mission performance and delivery of services to the public.

Retired Pay: $876 million, which includes annuities and medical care for retired military personnel and former Lighthouse Service members and their dependents and survivors.

Reserve Training: $83 million to train, support, and sustain a ready military Selected Reserve Force. The Reserves are required to meet current commitments for direct support to the Department of Defense, and provide surge capacity for responses to emergencies, such as humanitarian missions in the event of natural disasters and clean-up operations following oil spills.

Environmental Compliance: $17 million, including funding for major clean-up projects for Kodiak, Alaska and Elizabeth City, North Carolina.

Boat Safety: $64 million, consisting of $59 million for Boating Safety Grants and $5 million to coordinate and carry out a National Boating Safety program to ensure compliance with national safety standards for boating equipment.



Federal Highway

Overview: The highway system serves as the backbone to the Nation's intermodal surface transportation infrastructure. Our challenge is to maintain our high-quality network while achieving our goals to improve safety and protect the natural environment. The budget request for the Federal Highway Administration (FHWA) will allow us to meet this challenge by building on the Transportation Equity Act for the 21st Century (TEA-21) and providing the guaranteed funding envisioned when TEA-21 was enacted.

FHWA Budget
(Dollars in millions)

	2000 Actual	2001 Enacted	2002 Request
Federal-aid Highways Ob Lim	25,873*	29,596	31,563
Other	2	2,759	0
Mandatory Federal-aid Highways	1,133	1,069	955
Limitation on Admin. Expenses [non-add]	[304]	[294]	[318]
TOTAL	27,008	33,425	32,518

*Amount in FY 2000 is net of $1.6 billion fleeted from highways to transit.

Performance:

MOBILITY:

In 2000, the percentage of miles on the National Highway System meeting acceptable ride pavement performance standards is projected to be 93.8 percent. This is up from 91.5 percent in 1996. The 2002 goal is 95 percent.

In 2000, 21.5 percent of bridges on the National Highway System were rated deficient. This is down from 25.8 percent in 1996. The 2002 goal is 21 percent.

ENVIRONMENT:[1]

Through creative and ambitous efforts, every acre of wetlands affected by Federal-aid highway projects in 2000 was replaced by 3.8 acres. The 2002 goal is to replace every acre affected with 1.5 acres or more.

In 1998, on-road mobile source emissions were reduced to 63.7 million tons, down from the 1996 baseline of 66.9 million tons. The 2002 goal is 61.1 million tons (or lower).

FY 2002 Budget

Federal-Aid Highway Program: Our Nation's highways and intermodal connectors are the critical link in our national intermodal transportation system - virtually every trip, whether by passenger or freight, involves passing over a road at some point. To safeguard our tremendous highway infrastructure investment, advance programs to improve safety, protect the environment, reduce congestion, and improve the efficiency and operation of our highways, the 2002 budget request includes a $31.6 billion obligation limitation, 7 percent above 2001 and consistent with TEA-21 guaranteed funding levels. The 2002 budget continues to distribute the majority of the funding for

Administration

the Federal-aid highway program to the States in the five major program categories – Interstate Maintenance, National Highway System (NHS), Surface Transportation Program, Bridge Replacement and Rehabilitation Program, and Congestion Mitigation and Air Quality Improvement Program. Included within this total are the following important initiatives:

- New Freedom Initiative - includes $145 million of Revenue Aligned Budget Authority for two programs that are part of the President's New Freedom Initiative. A Pilot Program for Innovative Transportation will provide $45 million to promote innovative transportation solutions for people with disabilities. Matching Grants for Alternative Transportation will provide $100 million in competitive matching grants to promote access to alternative methods of transportation. The funds will aid community-based organizations that seek to integrate Americans with disabilities into the workforce.

- Border Infrastructure Improvements – provides $50 million for State and Federal motor carrier inspection facility contruction at the U.S.-Mexico border.

- Transportation Infrastructure Finance and Innovation Act Program – provides an estimated $123 million to leverage our Federal investment in transportation infrastructure. This will translate into as much as $2.4 billion in credit assistance to support investments of approximately $7 billion in nationally significant surface transportation projects.

- Research and Technology – proposes to fully fund research and technology programs within the Federal-aid obligation limitation, ensuring that the entire $503.7 million in budgetary resources, including Revenue Aligned Budget Authority, are available for use. This includes a total of $253.2 million for Intelligent Transportation Systems (ITS), 32 percent above 2001: $135 million for ITS to accelerate rural, regional, and commercial motor vehicle deployment and $118.2 million for ITS standards, research, operational tests, and development. Programs to improve pavements, reduce congestion, and strengthen bridges are proposed at $250.4 million, 27 percent above 2001.

- Limitation on Administrative Expenses – includes $317.7 million for the salaries and expenses of the FHWA.

National Highway Traffic

Overview: Preliminary results indicate that traffic crashes claimed a total of 41,800 lives in 2000, accounting for over 90 percent of transportation-related deaths and the leading cause of death for persons age 5 through 29. The economic cost of motor vehicle crashes is more than $150 billion annually. Emerging demographic trends, such as a continuing increase in the number of drivers and a significant growth in both elderly and teenage drivers, pose increased traffic safety challenges that must be addressed. The National Highway Traffic Safety Administration (NHTSA) provides grants to States for the operation of highway traffic safety programs and conducts critical highway safety research.

Performance:

SAFETY:

In 2000, the preliminary rate of fatalities per 100 million vehicle miles of travel (VMT) was 1.6 and the preliminary rate of injured persons per 100 million VMT was 119. The 2002 goals are 1.4 for fatalities and 111 for injured persons.

In 2000, the preliminary percentage of highway fatalities that were alcohol-related totaled 38 percent. NHTSA's alcohol-impaired driving countermeasures, designed to reach high-risk drinking drivers, will assist in achieving the 2002 goal of 33 percent.

In 2000, seat belt usage reached an all-time high of 71 percent, up from less than 50 percent in 1990. The 2002 goal is 87 percent, with the ultimate goal of 90 percent by 2005.

FY 2002 Budget

Operations and Research: $196 million, an increase of $5 million (3 percent) over 2001. Operations and research activities include:

- $57 million for research and analysis to support activities including: (1) the National Transportation Biomechanics Research Center, which studies the effects on the human body of highway crashes, leading to safer vehicle design;

Safety Administration

(2) crash avoidance research to support programs such as antilock braking system effectiveness, light vehicle rollover, and heavy vehicle visibility; (3) the National Center for Statistics and Analysis (NCSA) including the Fatality and Accident Reporting System (FARS), which tracks all fatal crashes in the U.S.; (4) testing of driver distraction and effects of alcohol on driver performance through the National Advanced Driving Simulator (NADS); and (5) initiatives required by the TREAD Act including tire safety, dynamic rollover and child safety seat testing.

- $75 million to maintain the existing workforce and to hire, train, and develop safety professionals; maintain critical information systems; design, print and distribute safety-related literature; and other operational costs and services.

- $42 million for highway safety programs that address impaired driving deterrence, increased seat belt usage and correct placement of child safety restraints. Countermeasures will be developed and tested for traffic enforcement, deterrence of aggressive driving, speeding and distracted driving. Initiatives will be undertaken in emergency medical system education, safe operation around school buses, and for occupant protection usage surveys.

- $15 million for Safety Assurance, including enhancing the Office of Defects Investigation by increasing vehicle testing and modernizing databases to improve the processing of consumer complaints, with a continuation of the 2001 funding increase provided by the TREAD Act.

- $7 million for Safety Performance Standards including the New Car Assessment Program, which provides consumers with information on vehicle safety performance. The program will continue frontal and side impact crash tests, and will provide consumers with additional information on light vehicle rollover propensity. TREAD Act initiatives include updating the tire safety standards, improving child restraint systems and developing a child restraint ratings program.

Highway Traffic Safety Grants: $223 million obligation limitation, an increase of $10 million (5 percent) over 2001. This is the level guaranteed in TEA-21. Included is: $160 million for State and Community Highway Safety Grants to support a full range of highway safety programs in every State, territory, and the Indian nations; $38 million for Alcohol-Impaired Driving Countermeasures Incentive Grants designed to encourage States to pass strong anti-drunk-driving legislation; $15 million for Occupant Protection Incentive Grants to encourage States to promote and strengthen occupant protection laws, including child protection laws; and $10 million for State Highway Safety Data Grants to improve the accuracy, uniformity, and accessibility of highway safety data.

Federal Motor Carrier

Overview: The number of large trucks traveling the Nation's highways is increasing. In 2000, an estimated 5,307 Americans died and an estimated 145,000 were injured in traffic crashes involving large trucks, about 13 percent of all people killed in motor vehicle crashes. Yet trucks represent only 4 percent of all registered vehicles and about 7 percent of vehicle miles of travel. The Federal Motor Carrier Safety Administration's (FMCSA) main function is to improve safety among commercial motor vehicles (CMVs). The 2002 budget request for FMCSA, totaling $344 million, 28 percent above 2001, will help meet the challenge of improving motor carrier safety.

FMCSA Budget
(Dollars in Millions)

	2000 Actual	2001 Enacted	2002 Request
Motor Carrier Safety	76	92	139
National Motor Carrier Safety Program	105	177	205
TOTAL	181	269	344

Performance:

SAFETY:

Motor carrier safety represents an especially challenging problem, but we have begun to make progress. Based on preliminary estimates, fatalities involving large trucks fell from 5,362 in 1999 to 5,307 in 2000. The 2002 goal is 4,710. The 2009 goal is 2,687.

FY 2002 Budget

Motor Carrier Safety (Operations and Research): $139 million, 51 percent above 2001, to support critical motor carrier safety activities that will save lives and prevent injuries on our Nation's highways. The 2002 budget includes a proposal to increase the FMCSA administrative takedown from one-third to two-thirds of one percent. This increase will fund motor carrier safety priorities including: oversight and border enforcement; motor carrier safety research and technology; crash data improvements; State Commercial Driver's License (CDL) program enhancements; increased inspection and compliance review activities; and safety data quality improvements. The budget proposes funding for the following safety program enhancements:

- $19 million for increased oversight and enforcement activities including stationing 80 additional Federal enforcement personnel at the U.S./Mexico border.
- $14 million for motor carrier safety research, $4 million above 2001. New initiatives include: field testing advanced truck safety technologies; testing dynamic roadside enforcement equipment; developing new driver selection, testing, licensing and training techniques; using simulation and instrumented vehicles to determine unsafe motor carrier driver actions; and researching countermeasures guided by early crash causation study results.

Safety Administration

- $11 million to advance motor carrier crash data improvements, the Commercial Driver's License Improvement Program, and staff FMCSA's 24-hour safety telephone hotline.

- $86 million, $7 million or 9 percent above 2001, for motor carrier safety operations to further increase motor carrier inspections and compliance reviews.

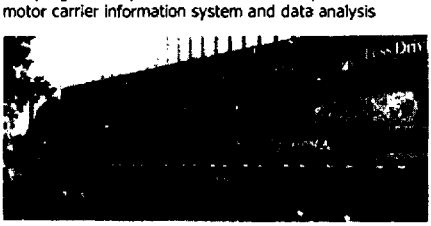
- $9 million for the Bureau of Transportation Statistics' Safety Data Quality Improvement program.

National Motor Carrier Safety Program: $205 million, 16 percent above FY 2001, as part of an aggressive expansion of State enforcement of interstate commercial motor vehicle regulations.

- $183 million is dedicated to State motor carrier safety grants, with $160 million provided for the Motor Carrier Safety Assistance Program (MCSAP); $18 million for enhanced State enforcement operations at the southern border; and $5 million for State CDL program improvements. MCSAP grants may be used to increase the number of compliance reviews in States; identify and apprehend traffic violators; increase the volume of roadside inspections; improve State CDL oversight activities; and support State border enforcement efforts.

- $5 million to continue a comprehensive study on commercial vehicle crash causation initiated in 2001. The study will identify data requirements and collection procedures, reports and other measures that will improve both FMCSA and the States' ability to evaluate future crashes involving commercial motor vehicles; monitor crash trends and identify causes and contributing factors; and develop effective safety improvement policies and programs.

- $17 million is included for the Informations Systems and Strategic Safety Initiatives (ISSSI) program. The program's implementation is shared by FMCSA and the States and supports motor carrier information system and data analysis activities including: SAFESTAT technology, used to target high-risk motor carriers for compliance reviews; and the Performance Registration Information Systems and Management (PRISM) program, which links State motor vehicle registration systems with carrier safety data in an effort to identify unsafe commercial motor carriers.



Border Infrastructure Improvements: $56 million, derived from Federal Highway Administration (FHWA) Revenue Aligned Budget Authority, for State and Federal motor carrier inspection facilities construction at the U.S./Mexico border. Advancing these infrastructure projects will be the joint responsibility of FMCSA, FHWA, and the States.

Federal Transit

Overview: Transit moves millions of people every day, safely and efficiently. Transit reduces the costs of congestion and helps to protect the environment. The Federal Transit Administration (FTA) 2002 budget seeks to continue implementation of the innovations envisioned by the Transportation Equity Act for the 21st Century (TEA-21). The budget preserves and increases investment in our Nation's public transit infrastructure. When combined with State and local funding, the proposed $6.7 billion, 8 percent above 2001, will promote mobility and access for transit-dependent riders.

FTA Budget
Dollars in millions

	2000 Actual	2001 Enacted	2002 Request
Formula Grants Program	4,641[1]	3,287	3,592
Capital Investment Grants	2,492	2,695	2,841
Job Access and Reverse Commute	75	100	125
Research and Planning	163[2]	110	116
Other	66	70	73
TOTAL	**7,437**	**6,261**	**6,747**

[1]Includes $1,593 million in FHWA Flex Funding.
[2]Includes $54 million in FHWA Flex Funding.

Performance:

SAFETY:

In 2000, transit fatalities were reduced to .519 per 100 million passenger miles traveled, while injured persons fell to 107.5 per 100 million passenger miles traveled. The 2002 goal is .492 transit fatalities and 109.4 transit injured persons (or lower).

MOBILITY:

In 2000, FTA met and achieved a new high with 80 percent of the bus fleet compliant with the Americans with Disabilities Act (ADA). This is up from 77 percent in 1999. In 2000, 52 percent of key rail stations were compliant with ADA, up from 49 percent in 1999. The 2002 goal for ADA compliance is 86 percent for the bus fleet, and 68 percent for key rail stations.

FY 2002 Budget

Formula Grants Program: $3.6 billion, 9 percent above 2001, is available for all transit purposes, including planning, bus and railcar purchases, facility repair and construction, maintenance and, where eligible, operating expenses. This program includes grants specifically targeted to urbanized areas, non-urbanized areas, and the special needs of the elderly and persons with disabilities.

Administration

- In 2002, funds proposed for the Formula Grants program will contribute almost $7 million to the Over-the-Road Bus Accessibility program. This program will help to improve the accessibility of over-the-road buses for riders with disabilities. It will also protect the basic mobility of rural and disadvantaged communities by mitigating the costs of compliance with the Americans with Disabilities Act and keeping fare prices affordable.

Transit Safety: To further improve transit safety, the budget includes a proposal to allow States to use funds made available for capital projects for rail transit safety oversight activities.

Capital Investment Grants: $2.8 billion, 5 percent above 2001, is proposed in 2002 for the following initiatives: $568 million for the replacement, rehabilitation, and purchase of buses and the construction of bus-related facilities (legislative language is proposed to formularize this program starting in 2002); $1.1 billion for the modernization of existing fixed guideway systems, including heavy and light rail, commuter rail, and ferryboat operations; $1.1 billion for the construction of new fixed guideway systems and extensions to existing fixed guideway systems. These program levels represent the Federal commitment to investment in transit infrastructure.

Project Financial Management Oversight: $45 million to provide oversight of DOT grants to States and localities. Grants management and oversight is a core management responsibility of FTA and assures that Federal funds are spent efficiently and effectively. To address an increased demand for project management oversight resources and services, legislative language is proposed to increase the Capital Investment Grants Oversight takedown from .75 percent to 1 percent.

Research and Technology Program: $49 million, 4 percent above 2001, for the National Research and Technology Program. The Research and Technology Program also includes $8.3 million in funding for the Transit Cooperative Research Program, $4.0 million for the National Transit Institute, and $5.3 million for the Rural Transit Assistance Program.

Metropolitan and Statewide Planning Programs: $67 million, 6 percent above 2001, in formula grants to support the activities of regional planning agencies and States, helping them to plan for the capital transit investments that best meet the needs of the urban and rural communities they serve.

University Transportation Centers: $6 million to provide continued support for research, education, and technology transfer activities aimed at addressing regional and national transportation problems.

Job Access and Reverse Commute Program: $125 million, 25 percent above 2001, to help individuals transition from welfare to work. Since only a small percentage of Americans on welfare own a vehicle, lack of transportation is a frequent barrier to employment and self-sufficiency. This program makes grants to States, local governments, and non-profit groups to provide transportation services to people moving from welfare rolls to payrolls. This program can also support transportation services that help all people, regardless of their income level, to reach the dramatic growth of jobs in suburban locations. Legislative language is proposed to formularize this program starting in 2002.

Federal Railroad

Overview: The 2002 budget request for the Federal Railroad Administration (FRA) represents a commitment to improve a strong railroad safety record, advance traditional and high-speed rail research, and move Amtrak toward achieving operational self-sufficiency by 2003 with general capital grants.

FRA Budget
(Dollars in millions)

	2000 Actual	2001 Enacted	2002 Request
Amtrak Capital	571	520	521
Safety and Operations*	94	101	111
Research and Development	22	25	28
Next Generation High-Speed Rail	27	25	25
Pennsylvania Station	0	20	20
Other	26	64	2
TOTAL	740	755	707

*In 2001, does not include $1.5 million transferred from other accounts.
NOTE: $55 million in user fees is proposed in 2002 to cover part of the costs of the Safety and Operations and R&D accounts.

Performance:

SAFETY:

Preliminary results indicate that in 2000, rail-related fatalities per million train-miles were reduced to 1.29, the lowest in two decades. In 2000, train accidents per million train-miles decreased from 4.25 in 1993 to 4.01 (preliminary). The 2002 goal is to reduce rail-related fatalities to 1.20.

The estimated 2000 highway-rail grade-crossing accident rate was 1.78 (per the product of million train-miles times trillion highway vehicle-miles traveled), a significant decline from the 1997 rate of 2.27. The 2002 goal is 1.39.

MOBILITY:

Between 1996 and 2000, Amtrak ridership increased from 19.7 million passengers to 22.5 million. A key to Amtrak self-sufficiency is ridership. The 2002 goal is 26.7 million passengers.

FY 2002 Budget

Amtrak Capital: $521 million, which is consistent with the glidepath to Amtrak operating self sufficiency. This funding will be used to make and support critical capital investments for safety, yards and shops, and rehabilitation and modernization of stations, consistent with the definition of capital investment utilized since 2000. The budget request assumes that these funds will all be spent in FY 2002.

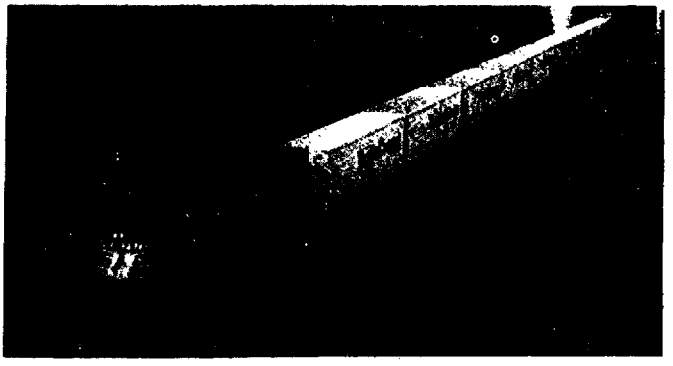
Administration

Safety and Operations: $111 million, up $8 million or about 8 percent, from the total funding available (including funds transferred) in 2001. Funding will enhance FRA's partnership programs with railroad labor and mangement, including the Safety Assurance and Compliance Program and the Railroad Safety Advisory Committee. Funding will also support national outreach programs, continue FRA's information technology initiative and, provide staff and support for ongoing and expanded regulatory and enforcement work and other critical safety programs.

Research and Development: $28 million, up $3 million or approximately 12 percent, from 2001. Research efforts will focus on train occupant protection, human factors in train operations, grade crossings, track and vehicle-track interaction safety, and railroad systems safety and security.

Next Generation High-Speed Rail: A total of about $25 million for the following projects:

- $11 million to continue the high priority development and demonstration of two major train control projects. The projects are designed to enhance the safety of high-speed systems and lower the capital costs of developing high-speed ground systems, making communications-based train control an affordable technology.
- $6.8 million to facilitate the development and deployment of domestically produced high-speed, high-acceleration locomotives that do not require electric power from wayside supplies via costly catenary systems.
- $4.3 million to support the implementation of high-speed rail service on the existing infrastructure by mitigating grade crossing hazards and developing low-cost, innovative technologies.
- $1.3 million to identify and demonstrate advanced and more economical technologies to resolve corridor capacity constraints and bottlenecks.
- $1.7 million for corridor planning.



Research & Special

Overview: The Research and Special Programs Administration (RSPA) focuses on improving hazardous materials and pipeline safety, coordinates and advances transportation research, technology and education activities to promote innovative multi-modal transportation solutions, and manages the Department's transportation-related emergency response and recovery responsibilities. RSPA also provides planning and training grants to States and Indian tribes to increase hazardous materials emergency preparedness.

RSPA BUDGET
Dollars in millions

	2000 Actual	2001 Enacted	2002 Request
Research and Special Programs	32	36	42*
Emergency Preparedness Grants	25	14	14
Pipeline Safety	37	47	54
TOTAL	93	98	110

*Includes $12 million in proposed new user fees.

Performance:

SAFETY:

Preliminary 2000 data indicate that serious hazardous materials incidents increased to 396 from 377 in 1999. Even though this is down from 466 in 1996, more can be done to address hazardous materials transportation incidents. The 2002 goal is 391.

ENVIRONMENT:

Between 1999 and 2000, the spill rate for liquid pipelines was reduced from .0229 to .0131 tons per million ton-miles shipped by pipelines. The 2002 goal is 0.0142 or lower.

Programs Administration

FY 2002 Budget

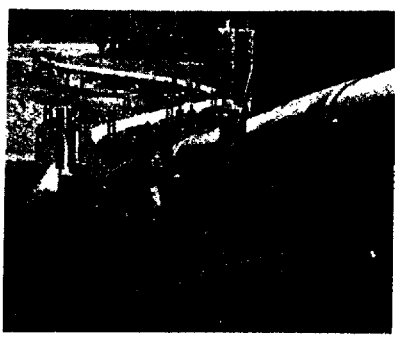
Hazardous Materials Safety Program: $21 million, 10 percent ($2 million) above 2001, to improve the safety of hazardous materials transportation, both domestic and international. This funding will support regulatory outreach, training, enforcement, and research programs to promote safe and efficient transportation of hazardous materials and to address the increase in the number of hazardous materials incidents that occurred in 2000.

Emergency Preparedness Grants: $14 million, the same level of funding as 2001, for the States to train hazardous materials responders and improve response plans. The grants help to ensure that training is provided to a larger segment of the emergency response community.

Research and Technology: $5 million, the same level of funding in 2001, for RSPA's research programs, primarily in strategic planning and management, human factors and transportation infrastructure assurance, which will enable the Department to respond to recent directives to enhance the protection of critical national transportation infrastructure.

Emergency Transportation Program: $2 million, the same level of funding as in 2001, to provide operational oversight in civil emergency preparedness, response, and recovery for transportation services across a large spectrum of crises. The request supports the coordination of transportation assistance to the victims of disasters and enhances public safety and national security. This program includes the centralized Crisis Management Center, which provides information to help make timely and informed decisions on restoring the transportation infrastructure, and supports Federal, State, and local emergency responders during disasters.

Pipeline Safety: $54 million, 15 percent ($7 million) above 2001, to support enhanced Federal pipeline safety efforts. RSPA will: (1) begin oversight and enforcement of recently strengthened Federal standards for the integrity of pipeline systems operation and management; (2) assist communities in protecting their citizens from pipeline failures; (3) expand and strengthen its partnership with the States; and (4) continue research and development efforts.



Maritime

Overview: The Maritime Administration (MARAD) has primary Federal responsibility for ensuring the availability of efficient water transportation service to shippers and consumers. Programs operated by MARAD support education and training of merchant mariners at the U.S. Merchant Marine Academy and 6 State maritime schools. In addition, MARAD oversees the National Defense Reserve Fleet, Ready Reserve Force and U.S. cargo preference compliance.

MARAD Budget
Dollars in millions

	2000 Actual	2001 Enacted	2002 Request
Operations and Training	73	87	89
Maritime Security	96	98	0
Title XI Loans	10	34	4
Ship Disposal	0	0	10
TOTAL	179	219	103

Performance:

NATIONAL SECURITY:

All vessels in the Ready Reserve Force (RRF) require licensed and unlicensed U.S. merchant marines. The U.S. Merchant Marine Academy and the State maritime schools directly support mariner availability by graduating qualified candidates for the merchant marine. From 1999 to date, 100 percent of the mariners needed to crew the sealift and commercial fleets have been available. The 2002 goal is 100 percent.

Between 1997 and 2000, the percentage of Department of Defense (DOD) - designated strategic ports for military use considered able to meet DOD readiness requirements on 48-hour notice increased from 60 percent to 93 percent. The 2002 goal is to maintain 90 percent (or higher) readiness.

ENVIRONMENT:

As of December 2000, 115 obsolete vessels in the National Defense Reserve Fleet are designated for disposal, with plans for three disposals in 2001. By the end of 2001, MARAD anticipates an inventory of 155 ships. The 2002 goal is to dispose of the three vessels in the poorest condition.

FY 2002 Budget

Operations and Training: $89 million, to support the U.S. Merchant Marine Academy, State maritime schools, and MARAD operations. A total of $48 million is requested for the Merchant Marine Academy, including $13 million for critical capital modernization projects, $34 million is requested for MARAD operations and $7 million is requested to support State maritime schools.

Administration

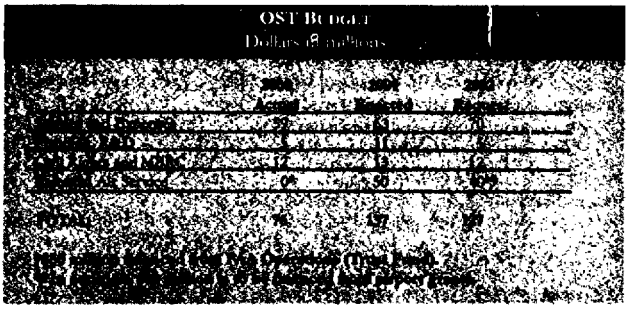
Maritime Security: Vessels supported by this program are committed to carry military cargo during war or national emergencies. To consolidate the management of like , programs and achieve greater efficiencies, the budget proposes to transfer the Maritime Security Program and its funding from the U.S. Department of Transportation to the Department of Defense (DOD).

Title XI Loans: The budget includes $4 million to cover the costs of administering loan guarantees for U.S. flag and export ship construction, and for shipyard modernization. From 1994 through 1999, MARAD approved $4.7 billion of Title XI financing for 405 vessels and 8 shipyard modernization projects. During 2000, Title XI loan guarantee commitments were made for 21 vessels totaling over $800 million. The budget proposes no new funding for subsidies, as carryover of $10 million is projected to be available in 2002.

Ready Reserve Force: The Ready Reserve Force (RRF) is managed by MARAD, but funded in the DOD budget. The 2001 level for the RRF is $259 million. MARAD will meet the DOD planned readiness level for the RRF with the $251 million requested by DOD for 2002 activities.

Ship Disposal: MARAD is responsible for the disposal of obsolete ships in the National Defense Reserve Fleet and, in consultation with the Navy and Environmental Protection Agency, MARAD is developing a new scrapping plan. With the proposed $10 million in 2002, MARAD expects to dispose of at least three ships.

Office of



Performance:

MOBILITY:

Since 1978, the Office of the Secretary (OST) has successfully implemented the Essential Air Service (EAS) program. EAS provides eligible communities reliable access to the Nation's air transportation system, with no disruption in service if air carriers choose to discontinue operations. The 2002 goal is to ensure 3 round trip flights per day, 6 days/week at 75 percent of the eligible communities.

ECONOMIC GROWTH:

In 1999, the agreements among 36 "open skies" countries and Canada covered 49 million passengers. Fiscal year 2000 saw "open skies" agreements increased to 47 countries and Canada covering over 56 million passengers (preliminary data). The 2002 goal is 59.7 million passengers covered in those international markets with open skies aviation agreements.

FY 2002 Budget

Salaries and Expenses: $69.5 million is requested to support a staff level of 450, which includes 12 additional staff and $2.8 million in the Office of General Counsel to focus primarily on airline consumer rights protection, unfair competition issues, and alternative dispute resolution activities.

Airline consumer complaints to the Department have risen dramatically. From 1998 to 2000, the number of disability-related complaints against airlines rose more than 80 percent and customer service complaints increased 130 percent. DOT has made it a priority to resolve or prosecute existing backlogged cases to ensure that the rights of passengers are upheld. The budget will allow DOT to become more proactive in its investigations of carrier compliance with Federal consumer protection requirements. Further, the additional employees are important for successful outreach efforts to provide technical assistance to individuals with disabilities under the Air Carrier Access Act.

the Secretary

Planning, Research, and Development: $5.2 million is requested for 2002, including $0.7 million and 6 additional staff for domestic and international aviation work. The domestic airline industry continues to undergo major changes. International deregulation, which poses even more complex and controversial issues, is barely underway. Common to all of the aviation issues currently facing DOT is the need for in-depth and intensive analysis of practices, mergers, and international alliances. The additional staff in 2002 will help build a strong core of experienced analysts having broad policy backgrounds and capable of using sophisticated analytical tools to meet these challenges.

Office of Civil Rights: $8.5 million, to support internal and external civil rights and equal opportunity matters; support the Minority Serving Institutions student internship program; enforce Federal civil rights statutes; carry out special emphasis commemoration, hiring, reporting and diversity programs; implement executive orders; investigate EEO complaints, support the Disability Resource Center, support the Shared Neutrals Alternative Dispute Resolution Program; and oversee and coordinate equity programs throughout the Department.

Minority Business Resource Center (MBRC): $3.9 million is requested for MBRC activities. $0.9 million in Federal subsidy will fund an $18 million short-term loan guarantee program to assist small, disadvantaged and women-owned transportation related businesses; and $3 million will fund the MBRC Outreach program, which includes a clearinghouse for national dissemination of information on transportation-related projects and grants to minority educational institutions.

Essential Air Service: $50 million, of which $40 million is financed through aviation overflight fees and $10 million from FAA's Airport Grant program. The budget proposes modifying the program criteria for eligibility. Specifically, a community will not be eligible for the subsidy if it is located fewer than 100 highway miles from the nearest large or medium hub airport, or fewer than 70 highway miles from the nearest small hub airport, or fewer than 50 highway miles from the nearest airport providing scheduled service with jet aircraft. This change will enable more effective use of resources targeted to communities with the greatest need.

SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

The Saint Lawrence Seaway Development Corporation (SLSDC) is a wholly-owned government corporation created to construct, operate and maintain that part of the St. Lawrence Seaway between Montreal and Lake Erie, within the territorial limits of the United States. The SLSDC coordinates its activities with its Canadian counterpart particularly with respect to rules and regulations, the Tariff of Tolls, overall day-to-day operations, traffic management, navigational aids, safety, environmental programs, operating dates, and trade development initiatives. The unique binational nature of the Great Lakes St. Lawrence Seaway System requires 24-hour, year-round coordination between the Seaway entities.

The 2002 budget proposal totals $13.345 million from the Harbor Maintenance Trust Fund, which together with miscellaneous other non-Federal revenues, will finance SLSDC's 2002 activities.

To ensure the availability and long-term reliability of the two U.S. Seaway locks and related navigation facilities in the St. Lawrence River, the SLSDC's 2002 goal is 99 percent availability. In 2000, SLSDC achieved 98.7 percent availability.

BUREAU OF TRANSPORTATION STATISTICS

The 2002 budget request for the Bureau of Transportation Statistics (BTS) totals $44 million. This includes a $4 million direct appropriation from the Airport and Airway Trust Fund to replace funding for the Office of Airline Information currently provided out of Federal-Aid Highways. It also includes $9 million, to be funded within FMCSA's administrative takedown, to improve safety data. The remaining funds, $31 million authorized in TEA-21 from Federal-Aid Highways, will support continuation of BTS major programs:

- Collecting data on travel behavior, freight movement, motor carrier operations, and customer satisfaction.
- Improving data quality by reviewing DOT data programs, establishing data collection standards and identifying best practices, ensuring the reliability of data used for DOT performance measures, and advising other DOT modes on statistical issues and problems.
- Compiling, storing, and disseminating data through the Intermodal Transportation Data Base, the National Transportation Library, the monthly Transportation Indicators report, the annual *National Transportation Statistics* report, and Geographic Information Science.
- Analyzing data on the economic and environmental impacts of transportation, conducting focused studies of critical transportation issues and emerging trends, developing measures for DOT's strategic goals, publishing the *Transportation and Statistics Annual Report*, sponsoring the *Journal of Transportation and Statistics*, and making statistical research grants.

SURFACE TRANSPORTATION BOARD

The 2002 budget proposal for the Surface Transportation Board (STB) totals $18.5 million. The STB, established in 1996 by the ICC Termination Act of 1995, is responsible for the economic regulation of the rail industry and the transportation of commodities by pipeline other than oil and gas. The STB is also responsible for certain non-licensing regulation of motor and water carriers.

The STB is charged with promoting substantive and procedural regulatory reform in the economic regulation of surface transportation, and with providing an efficient and effective forum for the resolution of disputes. During 2000, the STB initiated a proceeding and rulemaking to comprehensively reexamine its rail merger policies and rules impacting major rail consolidations and the present and future structure of the North American rail industry. As a result of this rulemaking, the STB suspended all major rail merger activity until June 2001 when the new rules are to be adopted. The STB also concluded rulemakings streamlining or otherwise improving applicable regulations and the regulatory process, handled several pending rail maximum rate and pipeline complaints, initiated oversight of the Illinois Central acquisition by the Canadian National, continued oversight of the Union Pacific/Southern Pacific merger and rail service in the Western United States and of the Conrail acquisition by CSX and Norfolk Southern, conducted a review of various rail access and competition issues, completed action on several labor arbitration appeals, processed numerous other rail restructuring cases, issued decisions in rail abandonment and rail line construction cases, and completed action on a significant number of non-rail matters, including a number of rate cases in non-contiguous domestic water trade. The STB has processed various matters brought before it in a way that has promoted private-sector negotiations and resolutions, where appropriate, and has facilitated market-based activities in the public interest.

In the performance of its functions, the STB seeks to resolve matters brought before it fairly and expeditiously through use of its regulatory exemption authority, streamlining of the decisional process, and consistent application of legal and equitable principles. The STB continues to strive to develop, through rulemakings and case disposition, new and better ways to analyze unique and complex problems, to reach fully justified decisions more quickly, and to reduce costs associated with regulatory oversight.

TRANSPORTATION ADMINISTRATIVE SERVICE CENTER

The Transportation Administrative Service Center (TASC) provides administrative services on a negotiated fee-for-service basis to the Department's operating administrations and other government organizations.

OFFICE OF INSPECTOR GENERAL

The 2002 budget request for the Office of Inspector General totals $56.1 million. This includes a $50.6 million appropriation, $2 million of reimbursable funding from FTA, and $3.5 million of reimbursable funding from FHWA. This is an overall increase of $3.3 million above 2001 funding, mostly for mandatory pay increases.

APPROPRIATIONS

ADMINISTRATION	2000 ACTUAL	2001 ENACTED	2002 REQUEST
Federal Aviation Administration	$10,096	$12,549	$13,288
United States Coast Guard	4,717	4,511	5,056
Federal Highway Administration	27,008	33,425	32,518
National Highway Traffic Safety Administration	367	403	419
Federal Motor Carrier Safety Administration	181	269	344
Federal Transit Administration	7,437	6,261	6,747
Federal Railroad Administration	740	755	707
Research and Special Programs Administration	93	98	110
Saint Lawrence Seaway Development Corporation	12	13	13
Surface Transportation Board	17	18	18
Maritime Administration	179	219	103
Bureau of Transportation Statistics 1/	—	—	4
Office of Inspector General	44	49	51
Office of the Secretary	76	137	127
TOTAL DOT Appropriations	**$50,968**	**$58,706**	**$59,505**

NOTE: Columns may not add due to rounding. Includes Appropriations, Obligation Limitations, User Fees, Asset Sales and Mandatory Highway Obligations in annual Appropriations Acts.

1/ In all years, additional ITS funding of $31 million from the Highway Trust Fund is included in the FHWA totals.

BUDGET AUTHORITY

ADMINISTRATION	2000 ACTUAL	2001 ENACTED	2002 REQUEST
Federal Aviation Administration	$10,948	$11,977	$12,957
United States Coast Guard	4,830	4,636	5,181
Federal Highway Administration	29,957	36,320	35,331
National Highway Traffic Safety Administration	367	404	419
Federal Motor Carrier Safety Administration	181	268	389
Federal Transit Administration	7,450	6,271	6,747
Federal Railroad Administration	736	749	702
Research and Special Programs Administration	93	98	110
Saint Lawrence Seaway Development Corporation	12	13	13
Surface Transportation Board	16	17	18
Maritime Administration	311	312	151
Bureau of Transportation Statistics 1/	—	—	4
Office of Inspector General	44	49	51
Office of the Secretary	75	137	127
SUBTOTAL	$55,021	$61,251	$62,200
Offsetting Collections	(279)	(206)	(262)
TOTAL Budget Authority	**$54,742**	**$61,045**	**$61,937**

NOTE: Columns may not add due to rounding.

1/In all years, additional BTS funding of $31 million from the Highway Trust Fund is included in the FHWA totals.

OUTLAYS

ADMINISTRATION	2000 ACTUAL	2001 ENACTED	2002 REQUEST
Federal Aviation Administration	$9,561	$11,021	$12,188
United States Coast Guard	4,462	4,667	5,021
Federal Highway Administration	25,207	27,458	29,944
National Highway Traffic Safety Administration	328	435	436
Federal Motor Carrier Safety Administration	155	237	319
Federal Transit Administration	5,330	5,507	5,727
Federal Railroad Administration	759	833	1,041
Research and Special Programs Administration	42	118	105
Saint Lawrence Seaway Development Corporation	12	13	13
Surface Transportation Board	16	18	18
Maritime Administration	240	324	128
Bureau of Transportation Statistics 1/	—	—	3
Office of Inspector General	45	48	50
Office of the Secretary	85	141	129
SUBTOTAL	$46,242	$50,821	$55,121
Offsetting Collections	(279)	(206)	(262)
TOTAL	$45,963	$50,615	$54,858

NOTE: Columns may not add due to rounding.

1/ In all years, additional BTS funding of $31 million from the Highway Trust Fund is included in the FHWA totals.

Full Time Equivalent Employment (FTE)

ADMINISTRATION	2000 ACTUAL	2001 ENACTED	2002 REQUEST
Federal Aviation Administration	48,640	49,824	50,496
United States Coast Guard			
Civilian	5,816	5,999	6,001
Military	35,695	35,934	35,132
Federal Highway Administration	2,697	2,931	2,935
National Highway Traffic Safety Administration	612	636	651
Federal Motor Carrier Safety Administration	673	770	899
Federal Transit Administration	506	510	518
Federal Railroad Administration	723	761	774
Research and Special Programs Administration	863	909	937
Saint Lawrence Seaway Development Corporation	148	157	157
Surface Transportation Board	133	143	143
Maritime Administration	873	945	945
Bureau of Transportation Statistics	55	114	158
Transportation Administrative Services Center	281	281	281
Office of Inspector General	443	455	455
Office of the Secretary	547	568	591
TOTAL	**98,725**	**100,937**	**101,073**
Civilian	63,009	65,003	65,941
Military	35,716	35,934	35,132

SALARY TABLE 2001-DCB

INCORPORATING THE 2.70% GENERAL SCHEDULE INCREASE AND A LOCALITY PAYMENT OF 10.23%
FOR THE LOCALITY PAY AREA OF WASHINGTON-BALTIMORE, DC-MD-VA-WV
(INCLUDING ST. MARY'S COUNTY, MD)
(Net Increase: 3.81%)

Effective January 2001

Annual Rates by Grade and Step

GS-1	$15,701	$16,225	$16,747	$17,266	$17,790	$18,098	$18,611	$19,132	$19,152	$19,642
2	$17,653	$18,072	$18,658	$19,152	$19,369	$19,938	$20,508	$21,078	$21,648	$22,218
3	$19,262	$19,903	$20,545	$21,186	$21,828	$22,469	$23,111	$23,752	$24,394	$25,035
4	$21,623	$22,344	$23,065	$23,785	$24,506	$25,227	$25,948	$26,669	$27,390	$28,111
5	$24,192	$24,999	$25,806	$26,613	$27,420	$28,227	$29,033	$29,840	$30,647	$31,454
6	$26,986	$27,864	$28,762	$29,661	$30,559	$31,457	$32,356	$33,254	$34,153	$35,051
7	$29,966	$30,965	$31,963	$32,962	$33,961	$34,959	$35,958	$36,957	$37,955	$38,954
8	$33,187	$34,294	$35,400	$36,507	$37,614	$38,720	$39,827	$40,934	$42,041	$43,147
9	$36,656	$37,877	$39,099	$40,320	$41,541	$42,763	$43,984	$45,205	$46,427	$47,648
10	$40,367	$41,713	$43,059	$44,405	$45,751	$47,097	$48,443	$49,789	$51,135	$52,481
11	$44,352	$45,830	$47,309	$48,787	$50,265	$51,743	$53,221	$54,699	$56,178	$57,656
12	$53,156	$54,928	$56,699	$58,470	$60,242	$62,013	$63,785	$65,556	$67,327	$69,099
13	$63,211	$65,319	$67,427	$69,534	$71,642	$73,749	$75,857	$77,965	$80,072	$82,180
14	$74,697	$77,187	$79,678	$82,168	$84,658	$87,148	$89,638	$92,128	$94,618	$97,108
15	$87,864	$90,793	$93,722	$96,651	$99,580	$102,508	$105,437	$108,366	$111,295	$114,224

NOTE: Locality rates of pay are basic pay only for certain purposes--see "Salary Tables for 2001" cover sheet.

SCHEDULE 1--GENERAL SCHEDULE

(Effective on the first day of the first applicable pay period beginning on or after January 1, 2001)

	1	2	3	4	5	6	7	8	9	10
GS-1	$14,244	$14,719	$15,193	$15,664	$16,139	$16,418	$16,884	$17,356	$17,375	$17,819
2	16,015	16,395	16,926	17,375	17,571	18,088	18,605	19,122	19,639	20,156
3	17,474	18,056	18,638	19,220	19,802	20,384	20,966	21,548	22,130	22,712
4	19,616	20,270	20,924	21,578	22,232	22,886	23,540	24,194	24,848	25,502
5	21,947	22,679	23,411	24,143	24,875	25,607	26,339	27,071	27,803	28,535
6	24,463	25,278	26,093	26,908	27,723	28,538	29,353	30,168	30,983	31,798
7	27,185	28,091	28,997	29,903	30,809	31,715	32,621	33,527	34,433	35,339
8	30,107	31,111	32,115	33,119	34,123	35,127	36,131	37,135	38,139	39,143
9	33,254	34,362	35,470	36,578	37,686	38,794	39,902	41,010	42,118	43,226
10	36,621	37,842	39,063	40,284	41,505	42,726	43,947	45,168	46,389	47,610
11	40,236	41,577	42,918	44,259	45,600	46,941	48,282	49,623	50,964	52,305
12	48,223	49,830	51,437	53,044	54,651	56,258	57,865	59,472	61,079	62,686
13	57,345	59,257	61,169	63,081	64,993	66,905	68,817	70,729	72,641	74,553
14	67,765	70,024	72,283	74,542	76,801	79,060	81,319	83,578	85,837	88,096
15	79,710	82,367	85,024	87,681	90,338	92,995	95,652	98,309	100,966	103,623

SCHEDULE 2--FOREIGN SERVICE SCHEDULE

(Effective on the first day of the first applicable pay period beginning on or after January 1, 2001)

	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9
1	$79,710	$64,588	$52,335	$42,407	$34,362	$30,719	$27,462	$24,550	$21,947
2	82,101	66,526	53,905	43,679	35,393	31,641	28,286	25,287	22,605
3	84,564	68,521	55,522	44,990	36,455	32,590	29,134	26,045	23,284
4	87,101	70,577	57,188	46,339	37,548	33,567	30,008	26,826	23,982
5	89,714	72,694	58,904	47,729	38,675	34,575	30,909	27,631	24,702
6	92,406	74,875	60,671	49,161	39,835	35,612	31,836	28,460	25,443
7	95,178	77,121	62,491	50,636	41,030	36,680	32,791	29,314	26,206
8	98,033	79,435	64,365	52,155	42,261	37,780	33,775	30,193	26,992
9	100,974	81,818	66,296	53,720	43,529	38,914	34,788	31,099	27,802
10	103,623	84,273	68,285	55,332	44,835	40,081	35,832	32,032	28,636
11	103,623	86,801	70,334	56,991	46,180	41,284	36,907	32,993	29,495
12	103,623	89,405	72,444	58,701	47,565	42,522	38,014	33,983	30,380
13	103,623	92,087	74,617	60,462	48,992	43,798	39,154	35,002	31,291
14	103,623	94,850	76,856	62,276	50,462	45,112	40,329	36,053	32,230

SCHEDULE 3--VETERANS HEALTH ADMINISTRATION SCHEDULES DEPARTMENT OF VETERANS AFFAIRS

(Effective on the first day of the first applicable pay period beginning on or after January 1, 2001)

Schedule for the Office of the Under Secretary for Health (38 U.S.C. 7306)*

Deputy Under Secretary for Health	$135,370	**
Associate Deputy Under Secretary for Health	129,659	***
Assistant Under Secretaries for Health	125,837	***

	Minimum	Maximum	
Medical Directors	$107,365	$121,683	***
Service Directors	93,486	116,102	
Director, National Center for Preventive Health	79,710	116,102	

Physician and Dentist Schedule

Director Grade	$93,486	$116,102
Executive Grade	86,324	110,017
Chief Grade	79,710	103,623
Senior Grade	67,765	88,096
Intermediate Grade	57,345	74,553
Full Grade	48,223	62,686
Associate Grade	40,236	52,305

Clinical Podiatrist and Optometrist Schedule

Chief Grade	$79,710	$103,623
Senior Grade	67,765	88,096
Intermediate Grade	57,345	74,553
Full Grade	48,223	62,686
Associate Grade	40,236	52,305

Physician Assistant and Expanded-Function Dental Auxiliary Schedule ****

Director Grade	$79,710	$103,623
Assistant Director Grade	67,765	88,096
Chief Grade	57,345	74,553
Senior Grade	48,223	62,686
Intermediate Grade	40,236	52,305
Full Grade	33,254	43,226
Associate Grade	28,616	37,202
Junior Grade	24,463	31,798

* This schedule does not apply to the Assistant Under Secretary for Nursing Programs or the Director of Nursing Services. Pay for these positions is set by the Under Secretary for Health under 38 U.S.C. 7451.

** Pursuant to section 7404(d)(1) of title 38, United States Code, the rate of basic pay payable to this employee is limited to the rate for level IV of the Executive Schedule, which is $125,700.

*** Pursuant to section 7404(d)(2) of title 38, United States Code, the rate of basic pay payable to these employees is limited to the rate for level V of the Executive Schedule, which is $117,600.

**** Pursuant to section 301(a) of Public Law 102-40, these positions are paid according to the Nurse Schedule in 38 U.S.C. 4107(b) as in effect on August 14, 1990, with subsequent adjustments.

SCHEDULE 4--SENIOR EXECUTIVE SERVICE

(Effective on the first day of the first applicable pay period beginning on or after January 1, 2001)

ES-1	$109,100
ES-2	114,200
ES-3	119,400
ES-4	125,500
ES-5	125,700
ES-6	125,700

SCHEDULE 5--EXECUTIVE SCHEDULE

(Effective on the first day of the first applicable pay period beginning on or after January 1, 2001)

level I	$161,200
level II	145,100
level III	133,700
level IV	125,700
level V	117,600

SCHEDULE 6--VICE PRESIDENT AND MEMBERS OF CONGRESS

(Effective on the first day of the first applicable pay period beginning on or after January 1, 2001)

Vice President	$186,300
Senators	145,100
Members of the House of Representatives	145,100
Delegates to the House of Representatives	145,100
Resident Commissioner from Puerto Rico	145,100
President pro tempore of the Senate	161,200
Majority leader and minority leader of the Senate	161,200
Majority leader and minority leader of the House of Representatives	161,200
Speaker of the House of Representatives	186,300

SCHEDULE 7--JUDICIAL SALARIES

(Effective on the first day of the first applicable pay period beginning on or after January 1, 2001)

Chief Justice of the United States	$186,300
Associate Justices of the Supreme Court	178,300
Circuit Judges	153,900
District Judges	145,100
Judges of the Court of International Trade	145,100

SCHEDULE 8—PAY OF THE UNIFORMED SERVICES

(Effective on January 1, 2001)

Part I—MONTHLY BASIC PAY

YEARS OF SERVICE (COMPUTED UNDER 37 U.S.C. 205)

Pay Grade	2 or less	Over 2	Over 3	Over 4	Over 6	Over 8	Over 10	Over 12	Over 14	Over 16	Over 18	Over 20	Over 22	Over 24	Over 26
COMMISSIONED OFFICERS															
O-10 **	$8,518.80	$8,818.50	$8,818.50	$8,818.50	$8,818.50	$9,156.90	$9,156.90	$9,664.20	$9,664.20	$10,356.00	$10,356.00	$11,049.30	$11,103.90	$11,334.60*	$11,737.20*
O-9	7,550.10	7,767.90	7,912.80	7,912.80	7,912.80	8,114.10	8,114.10	8,451.60	8,451.60	9,156.90	9,156.90	9,464.20	9,903.30	10,004.70	10,356.00
O-8	6,838.20	7,062.30	7,210.50	7,252.20	7,437.30	7,767.80	7,819.60	8,114.10	8,198.70	8,451.60	8,814.50	9,156.90	9,382.80	9,382.80	9,382.80
O-7	5,682.30	6,048.60	6,068.40	6,112.50	6,340.80	6,514.50	6,715.50	6,915.90	7,116.90	7,747.80	8,280.90	8,280.90	8,280.90	8,280.90	8,522.60
O-6	4,211.40	4,426.80	4,430.70	4,430.70	4,449.30	5,160.90	5,189.10	5,189.10	5,360.70	6,005.80	6,311.40	6,617.40	6,791.40	6,967.80	7,309.80
O-5	3,368.70	3,994.90	4,228.80	4,280.40	4,450.50	4,450.50	4,584.30	4,831.80	5,153.80	5,481.00	5,637.00	5,760.30	5,964.60	5,964.60	5,964.60
O-4	2,839.20	3,457.20	3,687.90	3,739.50	3,953.40	4,127.70	4,409.70	4,629.30	4,781.70	4,935.00	4,984.60	4,984.60	4,984.60	4,984.60	4,984.60
O-3 ***	2,638.20	2,991.00	3,228.00	3,489.30	3,656.40	3,839.70	3,992.70	4,149.80	4,292.10	4,292.10	4,292.10	4,292.10	4,292.10	4,292.10	4,292.10
O-2 ***	2,301.00	2,820.80	3,018.60	3,120.30	3,184.80	3,184.80	3,184.80	3,184.80	3,184.80	3,184.80	3,184.80	3,184.80	3,184.80	3,184.80	3,184.80
O-1 ***	1,997.70	2,079.00	2,512.80	2,512.80	2,512.80	2,512.80	2,512.80	2,512.80	2,512.80	2,512.80	2,512.80	2,512.80	2,512.80	2,512.80	2,512.80
COMMISSIONED OFFICERS WITH OVER 4 YEARS ACTIVE DUTY SERVICE AS AN ENLISTED MEMBER OR WARRANT OFFICER															
O-3E	-	-	-	$3,489.30	$3,656.40	$3,839.70	$3,992.70	$4,149.80	$4,355.70	$4,450.50	$4,580.40	$4,580.40	$4,580.40	$4,580.40	$4,580.40
O-2E	-	-	-	3,120.30	3,184.80	3,285.90	3,457.20	3,589.50	3,687.90	3,687.90	3,687.90	3,687.90	3,687.90	3,687.90	3,687.90
O-1E	-	-	-	2,512.80	2,684.10	2,783.10	2,884.20	2,981.10	3,120.30	3,120.30	3,120.30	3,120.30	3,120.30	3,120.30	3,120.30

* Basic pay for these officers is limited to the rate of basic pay for level III of the Executive Schedule, which is $11,141.70 per month.

** For officers serving as Chairman or Vice Chairman of the Joint Chiefs of Staff, Chief of Staff of the Army, Chief of Naval Operations, Chief of Staff of the Air Force, Commandant of the Marine Corps, or Commandant of the Coast Guard, basic pay for this grade is calculated to be $12,900.00 per month, regardless of cumulative years of service computed under section 205 of title 37, United States Code. Nevertheless, actual basic pay for these officers is limited to the rate of basic pay for level III of the Executive Schedule, which is $11,141.70 per month.

*** Does not apply to commissioned officers who have been credited with over 4 years of active duty service as an enlisted member or warrant officer.

SCHEDULE 5—PAY OF THE UNIFORMED SERVICES (PAGE 2)

YEARS OF SERVICE (COMPUTED UNDER 37 U.S.C. 205)

Pay Grade	2 or less	Over 2	Over 3	Over 4	Over 6	Over 8	Over 10	Over 12	Over 14	Over 16	Over 18	Over 20	Over 22	Over 24	Over 26
								WARRANT OFFICERS							
W-5	-	-	-	-	-	-	-	-	-	-	-	$4,640.70	$4,800.00	$4,959.90	$5,120.10
W-4	$2,668.80	$2,891.70	$2,974.80	$3,056.70	$3,197.40	$3,336.30	$3,479.00	$3,614.10	$3,756.30	$3,897.50	$4,332.60	4,168.20	4,309.40	4,448.40	4,590.90
W-3	2,443.20	2,649.90	2,649.90	2,684.10	2,793.90	2,919.00	3,084.30	3,184.80	3,294.60	3,420.30	3,545.10	3,668.90	3,794.70	3,919.80	4,045.20
W-2	2,139.60	2,315.10	2,315.10	2,391.00	2,512.80	2,649.90	2,750.70	2,851.50	2,949.60	3,058.20	3,169.50	3,280.80	3,391.80	3,503.40	3,503.40
W-1	1,797.60	2,043.90	2,043.90	2,214.60	2,315.10	2,419.20	2,523.30	2,626.80	2,731.50	2,835.90	2,910.00	3,018.60	3,018.60	3,018.60	3,018.60
								ENLISTED MEMBERS							
E-9 *	-	-	-	-	-	-	-	$3,126.90	$3,197.40	$3,287.10	$3,382.40	$3,498.00	$3,601.80	$3,702.80	$3,802.40	$4,060.80
E-8	-	-	-	-	-	-	$2,622.00	2,697.90	2,768.40	2,853.30	2,945.10	3,041.10	3,138.00	3,278.10	3,417.30	3,612.60
E-7	$1,831.20	$1,999.20	$2,075.10	$2,149.80	$2,227.20	2,303.10	2,379.00	2,454.90	2,529.60	2,607.00	2,683.80	2,758.80	2,890.80	3,034.50	3,250.50
E-6	1,575.00	1,740.30	1,817.40	1,891.80	1,968.50	2,044.00	2,122.80	2,196.90	2,272.50	2,327.70	2,367.90	2,367.90	2,370.30	2,370.30	2,370.30
E-5	1,381.80	1,549.20	1,623.90	1,701.90	1,777.80	1,855.80	1,930.50	2,007.90	2,007.90	2,007.90	2,007.90	2,007.90	2,007.90	2,007.90	2,007.90
E-4	1,288.80	1,423.80	1,500.60	1,576.20	1,653.00	1,653.00	1,653.00	1,653.00	1,653.00	1,653.00	1,653.00	1,653.00	1,653.00	1,653.00	1,653.00
E-3	1,214.70	1,307.10	1,383.60	1,385.40	1,385.40	1,385.40	1,385.40	1,385.40	1,385.40	1,385.40	1,385.40	1,385.40	1,385.40	1,385.40	1,385.40
E-2	1,169.10	1,169.10	1,169.10	1,169.10	1,169.10	1,169.10	1,169.10	1,169.10	1,169.10	1,169.10	1,169.10	1,169.10	1,169.10	1,169.10	1,169.10
E-1 **	1,042.80	1,042.80	1,042.80	1,042.80	1,042.80	1,042.80	1,042.80	1,042.80	1,042.80	1,042.80	1,042.80	1,042.80	1,042.80	1,042.80	1,042.80
E-1 ***	964.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* For noncommissioned officers serving as Sergeant Major of the Army, Master Chief Petty Officer of the Navy or Coast Guard, Chief Master Sergeant of the Air Force, or Sergeant Major of the Marine Corps, basic pay for this grade is $4,893.60 per month, regardless of cumulative years of service under section 205 of title 37, United States Code.

** Applies to personnel who have served 4 months or more on active duty

*** Applies to personnel who have served less than 4 months on active duty.

SCHEDULE B-PAY OF THE UNIFORMED SERVICES (PAGE 3)

Part II-RATE OF MONTHLY CADET OR MIDSHIPMAN PAY

The rate of monthly cadet or midshipman pay authorized by section 203(c) of title 37, United States Code, is $600.00.

Note: As a result of the enactment of sections 602-604 of Public Law 105-85, the National Defense Authorization Act for Fiscal Year 1998, the Secretary of Defense now has the authority to adjust the rates of basic allowances for subsistence and housing. Therefore, these allowances are no longer adjusted by the President in conjunction with the adjustment of basic pay for members of the uniformed services. Accordingly, the tables of allowances included in previous orders are not included here.

SCHEDULE 9--LOCALITY-BASED COMPARABILITY PAYMENTS

(Effective on the first day of the first applicable pay period beginning on or after January 1, 2001)

Locality Pay Area[1]	Rate
Atlanta, GA	8.66%
Boston-Worcester-Lawrence, MA-NH-ME-CT-RI	12.13%
Chicago-Gary-Kenosha, IL-IN-WI	13.00%
Cincinnati-Hamilton, OH-KY-IN	10.76%
Cleveland-Akron, OH	9.17%
Columbus, OH	9.61%
Dallas-Fort Worth, TX	9.71%
Dayton-Springfield, OH	8.60%
Denver-Boulder-Greeley, CO	11.90%
Detroit-Ann Arbor-Flint, MI	13.14%
Hartford, CT	12.65%
Houston-Galveston-Brazoria, TX	16.66%
Huntsville, AL	8.12%
Indianapolis, IN	7.89%
Kansas City, MO-KS	8.32%
Los Angeles-Riverside-Orange County, CA	14.37%
Miami-Fort Lauderdale, FL	11.09%
Milwaukee-Racine, WI	8.91%
Minneapolis-St. Paul, MN-WI	10.30%
New York-Northern New Jersey-Long Island, NY-NJ-CT-PA	13.62%
Orlando, FL	7.71%
Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD	10.80%
Pittsburgh, PA	8.54%
Portland-Salem, OR-WA	10.32%
Richmond-Petersburg, VA	8.60%
Sacramento-Yolo, CA	10.73%
St. Louis, MO-IL	8.00%
San Diego, CA	11.31%
San Francisco-Oakland-San Jose, CA	16.98%
Seattle-Tacoma-Bremerton, WA	10.45%
Washington-Baltimore, DC-MD-VA-WV	10.23%
Rest of U.S.	7.68%

SCHEDULE 10-ADMINISTRATIVE LAW JUDGES

(Effective on the first day of the first applicable pay period beginning on or after January 1, 2001)

AL-3/A	$ 82,100
AL-3/B	88,300
AL-3/C	94,700
AL-3/D	101,000
AL-3/E	107,300
AL-3/F	113,600
AL-2	120,000
AL-1	125,700

[1]Locality Pay Areas are defined in 5 CFR 531.603.

[FR Doc. 00-33650 Filed 12-28-00; 8:45 am]

U.S. Department
of Transportation

BUDGET ESTIMATES

FISCAL YEAR 2002

BUREAU OF TRANSPORTATION STATISTICS

SUBMITTED FOR USE OF
THE COMMITTEES ON APPROPRIATIONS

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BUREAU OF TRANSPORTATION STATISTICS

FY 2002

GENERAL STATEMENT

Introduction

It is often said that knowledge is power. The eternal quest for more and better information has brought the world closer together and made it progressively more prosperous, healthy, and safe. Our job at the Bureau of Transportation Statistics (BTS) is to lead the search for information that will make transportation more efficient, accessible, safe, and clean. This is a challenging task, as each marginal improvement requires more ingenuity and richer data than the last. For example, the next significant transportation safety advances will likely result from education campaigns targeting the highest risk populations. Knowing who to target and how to influence their behavior requires extensive demographic and attitudinal data, some of which we are currently gathering.

BTS' legislative mandate covers four key areas: 1) compiling, analyzing, and publishing a comprehensive set of transportation statistics; 2) making statistics readily accessible; 3) implementing a long term data collection program; and 4) improving transportation data and advancing its effective use in public and private sector decision making. Over the first six years of our existence, we established ourselves by focusing mainly on the first three areas. Now we are expanding our data quality and data analysis activities – in fact, they are the priorities in our 2002 budget request.

2000 and 2001 Accomplishments

BTS has made significant progress since last year's Congressional budget submission. The highlights:

- The Intermodal Transportation Data Base (ITDB), mandated by TEA-21, will soon be available to DOT users through the intranet. Public access over the Internet, with additional tools for easily querying the database, will follow soon thereafter.

- The National Transportation Library (NTL), another mandated program, continues to grow. Today, we provide indexed access to over 150,000 transportation research documents and abstracts for another half million.

- We launched two new monthly reports to aid transportation policy officials, the Transportation Indicators report and the Transportation Omnibus Survey report. The Indicators report tracks key variables that influence transportation decision making, including indicators of the economic and social context for transportation as well as many aspects of system use and performance. The Omnibus Survey polls 1,000

households about their travel behavior, satisfaction with the transportation system, and opinions and perceptions about important transportation issues.

- We established an Office of Motor Carrier Information to improve the completeness, accuracy, and timeliness of Federally mandated trucking company financial and operating statistics. We will soon offer a web-based data reporting option and our new motor carrier statistics data base will greatly simplify economic and safety analyses.

- We made our first transportation statistics research grants in 2000. We think that the five funded projects will advance the science of applying statistical methods to solve transportation problems. The grant program is authorized in TEA-21.

- We are leading the modernization of Geographic Information Sciences (GIS) programs in DOT. This includes, among other things, enhancing the National Transportation Atlas Database required by TEA-21 and developing spatial data analysis and Internet mapping tools. The premise of our work is that the human eye can detect patterns on maps that might otherwise be hidden in reams of numbers.

- We are transitioning our airline data from a mainframe to a mid-tier server, a one-time expense which will greatly reduce recurring data processing costs and expand our analytical capabilities.

- We compiled the *Changing Face of Transportation* report, which examines the evolution of the nation's transportation system over the past 25 years and projects the trends and choices we will face during the next quarter-century. The report should be a useful reference for transportation policy officials for years to come.

The 2002 Request

This budget request is the first in which BTS seeks an increase above our $31 million TEA-21 authorized level. The request, which totals $43.76 million, includes two major new initiatives: implementing the *Safety Data Action Plan* ($9 million, requested within the Motor Carrier Safety Obligation Limitation) and funding the Office of Airline Information (OAI) from the Airport and Airways Trust Fund as authorized by AIR-21 ($3.76 million).

Safety Data Action Plan

The *Safety Data Action Plan* was devised out of concern that without better information about accidents and risk factors, our progress in improving transportation safety may come to a standstill. From a series of four mode-specific workshops and a national safety data conference came ten recommended safety data improvement projects ranging from improving measures of actual transportation risk levels to better understanding accident causes to making safety data more timely.

In 2001, BTS is developing implementation plans for nine of the safety data improvement projects (the tenth project is fast-tracking the ITDB, which is already underway). Our 2002 proposal would implement four of them, with a special focus on improving data quality: Reengineer Safety Data Programs, Advance the Timeliness of Safety Data, Develop Common Data on Accident Circumstances, and Improve Safety Data Analysis. These projects, which will be carried out in cooperation with many other DOT modes, will make DOT's safety programs more efficient and effective by facilitating earlier, more targeted interventions to head off emerging safety problems.

In his confirmation hearing testimony, Secretary Mineta stressed the need for better data to manage DOT programs – safety and otherwise. The lack of useful data has been identified in Inspector General and NTSB reports, as well as internal DOT reports, such as the 1999 Dry Run Performance Report and the 2000 Hazardous Materials Program Evaluation. Further, a recent Congressionally requested BTS review of four randomly selected DOT data programs found three of them in need of reengineering or complete overhaul due to poor data reliability.

OAI Funding

The Aviation Improvement and Reform Act for the 21st Century (AIR-21) authorizes an annual appropriation of $4 million from the Airport and Airways Trust Fund for OAI. OAI's operations are currently funded – along with the rest of BTS – from the Highway Trust Fund. AIR-21 offers opportunities to fund OAI from a more appropriate source, increase its base funding level by nearly $500 thousand, and focus more TEA-21 resources on surface transportation data collection and analysis.

The Secretary, Congress, the airline industry, many other Federal agencies, and consumers rely on OAI's flight delay, airline service quality, and airline competition data. With airway congestion worsening and a new round of airline merger proposals on the table, this data has perhaps never been more vital. The funding increase proposed would be used to make OAI's data analysis more sophisticated.

Other Activities

In addition to the initiatives described above, BTS' first priority will be to meet its legislative mandates. In doing so, our emphasis will be on three objectives: improving data quality, providing better data analysis for decision making, and filling data gaps. Specifically, we will:

- Expand and improve mandated programs and reports, such as the ITDB, NTL, National Transportation Atlas Database, and Transportation Statistics Annual Report.

- Ensure the reliability of data used for DOT's GPRA performance measures and develop measures for DOT's new strategic goals.

- Issue data collection, processing, presentation, and interpretation guidelines for all of DOT.

- Build our staff of transportation experts, who will collaborate with statisticians on focused studies of "hot" transportation issues. We think that by looking more closely at data, we will make discoveries that challenge conventional wisdom and lead to better transportation policies. Our current efforts in this area are limited, but they include applying control chart methods to highway safety data to detect and provide advance warning of unusual patterns such as the Firestone tire problems.

- Fill gaps in transportation data that we identify in a far-reaching "visioning" effort taking place in 2001.

- Continue and refine the Omnibus Survey and Indicators report, which are critical tools for collecting new data and making it useful to decision makers.

Special Issues

As you review this budget submission, two things will likely leap out at you. The first is the dramatic increase in BTS' obligation level from 2000 to 2001. The second is the near-tripling of our FTE level from 2000 to 2002. These trends deserve explanation.

Obligation Spike

BTS obligated about $24.4 million in 2000 and plans to obligate $54.7 million in 2001, including $23.7 million carried over from 2000. The reasons for this spike in obligations are threefold. First, BTS carried over a $15 million unobligated balance from 1998 to 1999, the result of the delayed passage of TEA-21. Second, BTS' obligations are "lumpy" by nature, because we sponsor two large surveys on concurrent five-year cycles, the Commodity Flow Survey (CFS) and the American Travel Survey (ATS, now part of the National Household Transportation Survey). Both surveys will begin in 2001, at a combined cost of $10-17 million. Third, BTS is maturing as an agency. Some of our major programs, such as the ITDB, NTL, Indicators report, Omnibus Survey, and Motor Carrier data program, are just this year getting into full gear, with plans, staff, and contract support in place.

FTE Growth

BTS' FTE level grows from 54 in 2000 to 155 in 2002. Much of this growth is related to the maturation process mentioned above. We expect 2001 to be the first year in which we utilize our entire $31 million TEA-21 authorization for recurring expenses, which is necessary to fulfill our TEA-21 mandates and achieve our related strategic and performance goals. It is no secret that developing, expanding, and improving programs requires human resources.

Another important factor in the FTE increase is a substantial change to BTS' mix of civil servants and contractors. The change was prompted by realizations that we 1) had become overly reliant on contractors for the intellectual work of the agency and lacked the capability to properly manage many of our contracts, and 2) were using some contractors in ways that verged on personal services. We will continue to use contractors for information technology support, specialized technical expertise, and certain routine functions, such as product distribution, mass mailings, and database management. However, we think that civil servants, not contractors, should carry out core agency functions on a day-to-day basis.

How This Submission Is Organized

We have chosen to arrange this budget submission largely around programs, rather than organizational units. The reason is that most of our programs are not confined to a single office; they span the agency, utilizing an array of talents and specialties. While this creates some resource tracking challenges, we think it is an effective way to keep staff motivated and accomplish our goals.

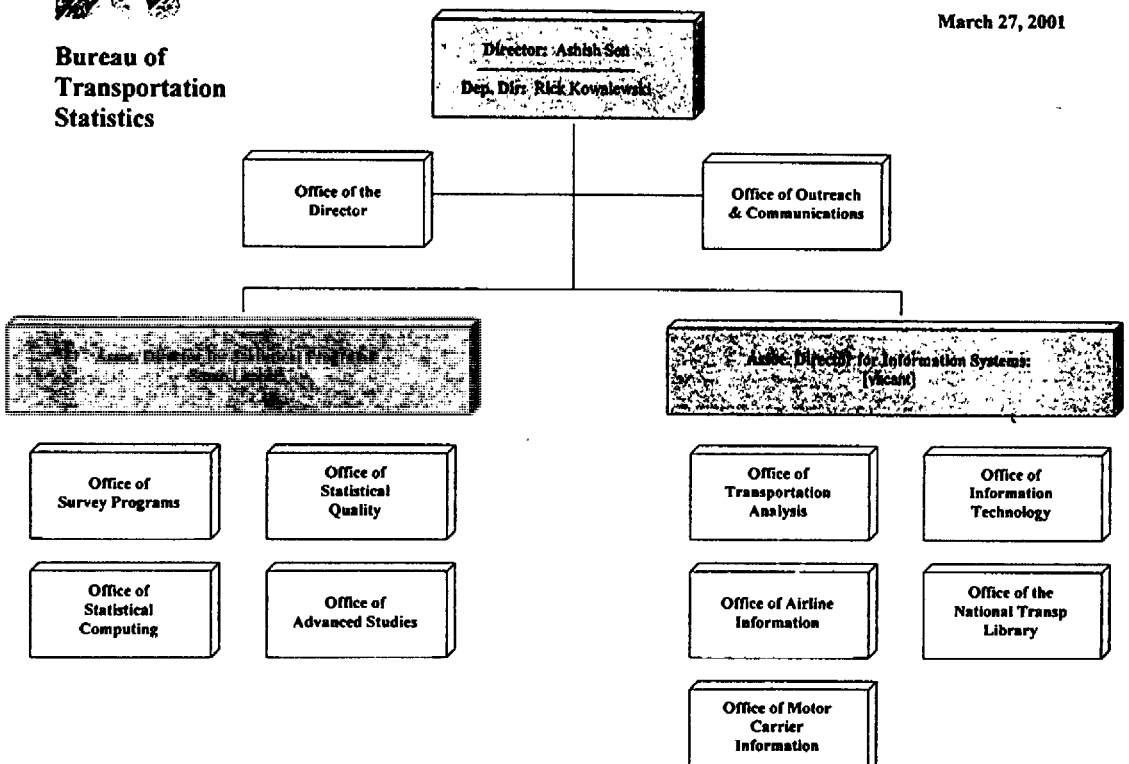
The programs are grouped into five categories along the lines of our Congressional mandates: Data Collection; Data Quality; Compiling, Storing, and Disseminating Data; Data Analysis; and Leadership and Support.

Conclusion

BTS is at an exciting place in its short history. We have established ourselves as the clearinghouse for transportation data and research, and now we are poised to fulfill the rest of our mandate by closing critical data gaps, improving data quality across DOT, and providing data analysis to assist policy officials. Our efforts will surely contribute to meeting DOT's outcome goals by making DOT programs smarter and more cost-effective.

Bureau of Transportation Statistics

March 27, 2001



Survey Programs

Fiscal Year	2000	2001	2002
Funding	$1,889,202	$17,135,610	$689,700
FTE	2.7	2.8	3.9

Objectives

BTS' Survey Programs collect information on the quantity and characteristics of commodity and passenger movements between and within regions, States, and metropolitan areas of the United States as well as the domestic movement of foreign trade and foreign visitors on the Nation's transportation systems. BTS also collects information on travel behavior and user satisfaction with the Nation's transportation systems.

FY 2001 Anticipated Accomplishments

- Conduct the National Household Travel Survey (NHTS) in cooperation with FHWA. The NHTS combines two surveys, the Nationwide Personal Transportation Survey (NPTS) and the American Travel Survey (ATS), both last conducted in 1995. The NHTS will provide data on daily and long-distance travel by American households. This data will be used in a variety of ways, from analyzing long-term trends in travel behavior and the impacts of policy and safety initiatives to assisting state and local planning organizations in developing travel demand forecasts.
- Design the 2002 Commodity Flow Survey (CFS) and sign an Interagency Agreement with the Census Bureau for data collection. DOT, other Federal agencies, State DOTs, Metropolitan Planning Organizations (MPOs), and the private sector use CFS data to help guide policy decisions, assess infrastructure investment needs, better understand and project economic growth, and guide individual business decisions.
- Continue the monthly Omnibus Household Survey and launch the Omnibus Establishment Survey. The Household Survey, which started in August 2000, gathers data from 1,000 households about travel behavior, perceptions of transportation policies, and satisfaction with DOT services and the transportation system. The Establishment Survey will ask similar questions of businesses. Other DOT modes can add questions to these surveys on a reimbursable basis and the results are posted on the BTS web site.
- Conduct the Highway User Survey (National Quality Initiative), as directed by Congress.
- Initiate a bicycle/pedestrian data collection program to fill gaps identified in a 2000 BTS report, *Bicycle and Pedestrian Data: Sources, Needs, and Gaps.* The highest priority gaps, according to transportation planners and researchers, are usage, trip, and user characteristics and crash and safety data.

- Collect data on recreational boating activity, which will allow DOT to measure boating fatality and accident rates, not just raw counts. Only with rates can we accurately gauge boating safety changes from year to year.
- Develop measures of customer satisfaction to support DOT's Organizational Excellence strategic goal.

FY 2002 Activities

- Complete data collection for the NHTS. Perform processing, using improved statistical techniques for estimation. Conduct methodological studies to improve future data collection. Begin data analysis.
- Continue CFS planning and development and begin data collection.
- Continue the Omnibus Household and Establishment Surveys, and expand the analysis of survey results.
- Continue collecting data and develop better methods to measure customer satisfaction in support of DOT's Organizational Excellence strategic goal.
- Begin data collection to fill gaps identified in BTS' Vision for Transportation Data report.

Motor Carrier Information

Fiscal Year	2000	2001	2002
Funding	$224,851	$1,039,473	$796,832
FTE	1.3	2.5	5.0

Objectives

The Motor Carrier Information program manages the Congressionally mandated financial and operating statistics (F&OS) data collection program and develops motor carrier information for users and potential users. Data are collected quarterly and annually from trucking and bus companies. The information collected is available to users. From these data, BTS has created an analytical database that will be part of the Intermodal Transportation Data Base (ITDB).

FY 2001 Anticipated Accomplishments

- Increase the *comprehensiveness* of the F&OS database by encouraging several hundred more trucking companies to file annual and quarterly reports.
- Improve the *completeness* and *accuracy* of the F&OS data by implementing stricter quality-control and edit-check procedures.
- Enhance the *relevance* and *utility* of the data by developing quarterly "trucking indicators" performance measures for use on the BTS web site.
- Implement web-enablement so users can download current-year individual-carrier data and report filers can input their data into the F&OS analytical data base via the Internet.
- Develop F&OS analytical research products, such as benchmark statistics for segments of the trucking industry and examinations of truck and bus industry financial conditions and operating measures.

FY 2002 Activities

- Collect over 2,000 annual reports and 8,000 quarterly reports from trucking companies and 21 annual reports from bus companies.

- Increase the number of companies filing reports and monitor and document the companies that should be but are not yet filing F&OS reports.
- Expand the scope of research reports and explanatory materials on the trucking and bus industries.
- Continue outreach efforts to users and potential users by sponsoring special F&OS Data User Conferences (FOSDUC), sessions for non-filers needing information on the data collection program, and projects with other agencies.
- Create stronger F&OS data research partnerships with trucking and bus associations, academics, and other "data stakeholders."

Office of Airline Information

Fiscal Year	2000	2001	2002
Funding	$4,073,878*	$3,842,544*	$3,760,000
FTE	14.1	17.0	21.0

* 2000 includes a $900,000 one-time cost related to the closing of the TASC Computer Center. 2001 includes a $550,000 one-time cost for transitioning aviation data bases from a mainframe to a mid-tier server.

Objectives

The Office of Airline Information (OAI) manages BTS' aviation information program through the collection, processing, and dissemination of individual air carrier (airline) financial and operating data. OAI's mission is to provide Congress, DOT, and several other Federal agencies with uniform and comprehensive aviation data that are accurate, timely, and relevant for use in making aviation policy and administering programs. Other customers served by OAI include State and local governments, universities, the aviation industry, and consumers.

The Aviation Improvement and Reform Act for the 21st Century (AIR-21) authorizes a $4 million annual appropriation for OAI from the Airport and Airways Trust Fund. This is the most appropriate funding source for OAI and would mean increased base resources, which are needed to effectively respond to growing demands for data and analysis about airway congestion, flight delay, and airline competition issues.

FY 2001 Anticipated Accomplishments

- Complete the migration of the aviation databases from a mainframe to a mid-tier operating environment. This is a significant one-time expense that will pay for itself quickly through reduced data processing costs and better data analysis capability.
- Issue a notice of proposed rulemaking to eliminate data gaps within current aviation databases and increase uniformity of reported statistics, thereby facilitating data analysis within the air transportation industry.
- Complete, jointly with the Office of the Secretary, an action plan to guide the modernization of aviation data collection, processing, and dissemination.
- Implement a Professional Development Plan that enables the staff to maintain and/or develop the skill levels that are critical to providing uniform and reliable aviation data in a changing technological environment.
- Double our Alaska Field Office staff from one to two. Data collected by this office is used to set mail rates, among other things. The existing staffer must travel extensively and is often unavailable to respond to information requests.

FY 2002 Activities

- Collect, process, and disseminate air carrier financial, market/traffic, and customer service data.
- Initiate web-based aviation data collection and dissemination.
- Prepare aviation data modernization rulemakings.
- Build an analytical capability so that we can go "beneath the surface" of the data to spot emerging trends and provide better information to policy officials. This is critical to supporting Secretary Mineta's efforts to reduce airway congestion.

Data Gaps Programs

Fiscal Year	2000	2001	2002
Funding	$70,488	$612,188	$944,376
FTE	0.6	6.5	9.5

Objectives

BTS is charged in its legislation with identifying gaps in transportation data, and collecting appropriate data not gathered by others. Collecting data can be expensive and intrusive, but at the same time good data are needed to make informed decisions. Many shortfalls have been highlighted over the years, for example:

- Productivity in various parts of the transportation sector
- Travel times, costs, and reliability
- Variables influencing travel behavior
- Variables that influence global competitiveness
- Cross-modal estimates of safety risk
- Comprehensive indicators of the condition of the transportation system
- Measures of transportation capital stocks
- Throughput at intermodal terminals

We have begun the process of identifying gaps with several "visioning" sessions, including one with the Advisory Council on Transportation Statistics (ACTS), to help identify current needs as well as future issues. We also have outreach sessions planned with Wall Street analysts and the media, to help develop key indicators.

FY 2001 Anticipated Accomplishments

- Launch a major research and outreach effort to craft a detailed vision for the long-term data collection program called for in our legislation. We plan to hear from other DOT modes, Congress, States and MPOs, industry, interest groups, academics, and others.
- Provide staff support to write Safety Data Action Plan project implementation plans.

FY 2002 Activities

- Publish the Vision for Transportation Statistics report and begin implementation activities.

Data Collection

- Provide staff support to implement Safety Data Action Plan projects.

Data Improvement Programs

Fiscal Year	2000	2001	2002
Funding	$964,162	$2,074,013	$2,944,725
FTE	5.7	16.9	25.1

Objectives

Data improvement is a continuous process, and is one of BTS' highest priorities. Congress has given BTS the responsibility to ensure that all data collected and reported by the entire DOT is accurate, reliable, relevant, and in a form that permits systematic analysis. We have a special mandate to review and report to the DOT Secretary on the sources and reliability of the statistics proposed under GPRA to measure outputs and outcomes.

BTS made a major contribution to DOT's first GPRA performance report. We coordinated the development of source and accuracy statements for DOT data systems, and included uncertainty statements for every measure. Our statistical analyses went beyond those done by any other federal agency. Congressional reviewers singled out the report as a model for other agencies.

Altogether, BTS has agreed to perform quality reviews of about 70 major DOT data bases, most of them related to the DOT Performance Plan or the Safety Data Action Plan. These include data bases related to hazardous materials, motor carrier safety, runway incursions, grade crossing safety, highway performance monitoring, seat belt usage, and recreational boating accidents.

BTS' independence as a statistical agency and its extensive statistical expertise provide a degree of credibility and depth that agencies are not likely to be able to achieve on their own. The aim is not perfect data (which cannot be achieved) but a reasonable level of confidence in the data and transparency of the data collection and processing—essentially the same attributes that are sought in academic and professional research. The results of data quality reviews can offer some assurance that data programs are sound.

BTS also supports the other DOT operating administrations and OST offices in their statistical work by running a free consulting program. We have many specialized competencies that can help in data collection and analysis. Over the last two years, consulting projects have included:

- Analysis of cadaver injuries in NHTSA crash tests
- Survey design to help MARAD measure the pool of trained mariners available for national emergencies
- Analysis of contributory factors in airline flight delays for FAA
- Design of studies to discover whether enforcement agents use illegal forms of racial profiling for airport baggage inspection, highway stops, and border crossings.

FY 2001 Anticipated Accomplishments

- Review all major DOT safety-related data bases as a prerequisite to implementing the Safety Data Action Plan's data system reengineering project.
- Pursuant to a March 2000 DOT program evaluation, complete a quality review of hazardous materials data bases in RSPA, NHTSA, FAA, and other DOT modes and lead an effort to fix data problems, fill data gaps, and better understand root causes of hazmat incidents.
- Further develop our *Guide to Good Statistical Practice*, a handbook for data program managers and analysts. It contains guidance on documenting data quality, determining the type and amount of error in the data, and analyzing and presenting data. The draft is available on the BTS web site, and it will be expanded to cover other aspects of data collection, processing, presentation and interpretation.
- Ensure the reliability of data used for DOT's 2002 Performance Plan/2000 Performance Report.

FY 2002 Activities

- Continue data quality reviews.
- Continue work to identify and resolve hazmat data problems.
- Provide statistical consulting services to other DOT modes and OST offices.
- Ensure the reliability of data used for DOT's 2003 Performance Plan/2001 Performance Report.
- Provide staff to implement the Safety Data Action Plan projects.

Safety Data Action Plan

Fiscal Year	2000	2001	2002
Funding	$0	$2,664,000	$9,000,000 1/
FTE	0.0	[2.5] 2/	[8.0] 2/

1/ Funds are requested within the Motor Carrier Safety (Operations and Research) Limitation on Obligations.
2/ FTE are non-add. Staff support for this project is drawn from the Data Gaps and Data Improvement programs. Funding is for contract support, outreach activities, and other non-personnel costs.

Objectives

The origin of the Safety Data Action Plan (SDAP) is a 1999 DOT Safety Conference, which recommended the creation of a task force to address critical shortcomings in DOT's safety data. These shortcomings have since been cited by Secretary Mineta, the DOT Inspector General, the National Transportation Safety Board, and internal DOT program evaluations.

Working with the task force, BTS sponsored four mode-specific workshops and a national safety data conference to hear from a broad array of stakeholders. The resulting SDAP recommends 10 safety data improvement projects. We are requesting one-time funds to implement the four highest priority projects in 2002: 1) Reengineer DOT safety data programs; 2)Advance the timeliness of safety data; 3) Develop common data on accident circumstances; and 4) Expand, improve and coordinate safety data analysis.

Safety is the top priority of the Department of Transportation, a point recently underscored by Secretary Mineta in his confirmation hearing. During the last decade, DOT has reduced accident rates in every major category of transportation. The tools used to achieve this success were broad educational campaigns (drunk driving, seatbelt use, truck no-zones), widespread implementation of new technology (better black boxes in aircraft, airbags, weather satellite reports), and national enforcement initiatives (hazardous spill reporting, zero-tolerance policies on drugs and alcohol, aggressive accident investigation, and appropriate prosecution).

The strategies listed above are analogous to the nationwide inoculation and fluoridation programs used in public health, in that they are essential, but better-focused efforts can reap major additional benefits. For DOT to achieve the next level of safety improvement, new tools are needed that focus very specifically upon the causes and circumstances of accidents, in the same way that modern public health researchers have gone beyond national vaccination programs by sifting medical data to find risk factors. Success requires the analysis of high-quality accident data to identify patterns that might be addressed by technology, new legislation, or other interventions.

Lack of timeliness and comparability and problems with data quality are found in safety data programs throughout the Department. The Secretary's 1999 National Transportation Safety Conference identified better data collection and reporting across all jurisdictions as one of the top priorities to improve safety. More recently, the Deputy Inspector General testified that data quality problems are hindering the Department's ability to achieve its safety strategic goals.

FY 2001 Anticipated Accomplishments

- Develop implementation plans for nine of the ten SDAP projects. The odd project out is Link safety data with other data, which we are aggressively pursuing already through the Intermodal Transportation Data Base program. In the event of resource or time constraints, we will of course focus on the four projects that we propose to implement in 2002.

FY 2002 Activities

Here are descriptions of the four proposed projects:

Reengineer DOT data programs.

The Problem: The Department of Transportation maintains in excess of 40 programs that capture either safety data or crucial related information, such as measures of exposure. But a recent data quality review requested by Congress suggests that quality improvements can be made that will better serve the DOT mission.

What we need: The first step in improving our data programs will be a data quality audit. The Bureau of Transportation Statistics intends to perform a full quality audit of all major safety data systems in FY 2001. This audit will be done in two stages: the first stage will identify broad quality issues for each program, and the second stage will produce a detailed report describing problems and potential remedies. For FY 2002, BTS proposes funding to begin implementing these remedies.

Following this initial assessment of major data collection systems, areas for possible process improvement activities will be identified, working closely with the modal data collection organizations and data suppliers. Process improvements then will be developed and implemented. There will be periodic review of data collection to keep the process flexible and up-to-date and to ensure quality.

Benefits: Unless we have reliable and accurate data, we will be basing program decisions on a misguided understanding of the transportation system and its operating environment. With improved data, DOT's safety programs will become not only more effective, but more cost-effective as well. As DOT more accurately focuses its inspection, education, regulatory,

investment, and research efforts, both the numbers of fatalities and injuries and the costs for prevention will decline.

Workplan: Based on the Congressionally-mandated audit, BTS assumes that about three out of four of the Department's safety databases will require modifications, with one in four needing to be substantially reengineered. These changes involve revising software and improving quality control, reworking data reporting forms, training data reporters, and gathering data user input.

Budget Request: $3,000,000

Advance the timeliness of safety data

The problem: Much of our safety data are reported only on an annual basis, and for most of our safety data there are reporting lags of up to several months after the accident or end of reporting period. When we reported safety results in our first DOT Performance Report to Congress, we could not provide complete data for many of the measures three months after the end of the year. A senior DOT official characterized this situation as like "light from a distant star—it may have been extinguished long ago by the time we see it." This is not adequate for managing and redirecting our programs throughout the year, and it is not adequate for reporting performance against our goals.

What we need: We should have safety data on a monthly basis at least, and with no more than a 30-day lag. To achieve this, we will need to reexamine our processes for collecting the data, and explore options for alternative data collection where the processes cannot be changed easily. The solutions may involve new technology or different operating procedures. In any event, we will need to be very aware of how incentives act on the behavior of those who report or collect the data.

Benefits: More timely data will allow us to identify trends earlier, and take corrective actions earlier. This could mean program design changes or reallocation of resources, but the effect would be fewer deaths, injuries and accidents. More timely data will also provide greater credibility in our performance reporting, helping to underpin the department's budget requests.

Workplan: In 2001, develop plans to improve the reporting frequency of five databases that support DOT performance measures from annually or quarterly to monthly.

In 2002, implement timeliness improvement plans for the databases evaluated in FY 2001 and evaluate five additional databases. Implementation would typically involve some combination of new data collection, automation of existing data collection, and increased analytical support to process data collected.

Budget Request: $2,500,000

Data Quality

Develop common data on accident circumstances

The problem: Over time, each mode has developed its own taxonomy for describing the circumstances surrounding accidents. In fact, much of the focus has been on defining "causes" of accidents and developing "causal" data. However, determining the cause of an accident involves a subjective judgment, and often leads to a statement such as "operator error"—which by itself does not offer much for the data analyst to understand the underlying causes of accidents so they can be prevented. Perhaps more important is a description of the chain of events and the operating environment, including characteristics of the operator, the vehicle, the weather, and the system. But there is no consistency in collecting such data across modes. This inconsistency inhibits the sharing of information (such as in the area of human factors or the effects of weather), and fails to take advantage of advances in different modes. Event recorders, for example, are used in aviation extensively, but are not widely used in other modes. Extending the use of event recorders is one of NTSB's ten most wanted safety improvements in transportation.

What we need: We should be taking advantage of technology like event recorders, and of research on classifying accident circumstances. We need data which will help identify the causal chain for individual accident investigations, and which will be useful also in analyzing data statistically across a wide variety of accidents—even in different modes.

First, we will need to identify and evaluate the range of taxonomies across modes (and look at failure mechanisms in other areas like occupational safety, nuclear safety, etc. for ideas). We also need to evaluate the range of technologies already available. Then we will need to develop a common framework for thinking about transportation accidents.

Benefits: Common data on accident circumstances would allow easy sharing of research findings, and could improve most modes' data and understanding of accidents. Expanded use of event recording technology, in particular, could provide a wealth of data to help isolate important factors that could be addressed through targeted government or private sector intervention. We could expect greater visibility of accident circumstances, and thus more cost-effective actions to prevent or mitigate accidents.

Workplan: In FY 2001, assess the current knowledge of accident circumstances across modes, assist ongoing modal event recorder research, and explore other means of capturing more detailed accident circumstance data in all modes.

In FY 2002, conduct field tests of promising accident circumstance data collection methods. These field tests may involve event recording technology, post-accident interviews, and forensic investigations. Also, begin making database changes necessary to organize and analyze the new data being collected.

Budget Request: $2,500,000

Data Quality

Expand, improve and coordinate safety data analysis

The problem: The purpose of collecting data is to understand the causes and circumstances of transportation-related deaths and injuries, and then to help reduce deaths and injuries. But data analysis methods and skills vary widely, and there is no good forum for sharing research findings or best practices in this area. Also, after two decades of decline, the level of resources for analysis/evaluation is widely believed to be too low. As a result of these shortcomings, the effectiveness of our analyses is limited, which in turn limits the effectiveness of our programs.

What we need: We need a sophisticated and coordinated analysis capability to help guide our transportation safety programs. To achieve this, we should benchmark other agencies, and evaluate the variety of modal approaches to data analysis. We need to develop a plan for building the department's analytical capability, and create a mechanism for sharing best practices and research results.

Benefits: Good analysis underpins virtually every successful program. It can help identify transportation problems, as well as help develop policy options, interpret performance, and assess program effectiveness. Using the data will also drive improvements to the data.

Workplan: In FY 2001, assess each mode's data analysis capability and develop a plan for improving data analysis in the Department, including analysis standards.

In FY 2002, implement safety data analysis improvements. Likely improvements are the development of a training curriculum for safety data analysts and building mechanisms for data analysts to share best practices. BTS will use its base resources to create a safety data analysis "strike force" to provide specialized expertise to all of DOT.

Budget Request: $1,000,000

Intermodal Transportation Data Base

Fiscal Year	2000	2001	2002
Funding	$2,264,603	$2,171,013	$3,194,669
FTE	0.4	4.1	8.1

Objectives

The Intermodal Transportation Data Base (ITDB) is a network-based portal to the wealth of transportation-related data collected by DOT as well as others outside DOT. The aim is *one-stop shopping* for transportation data, and ultimately—in conjunction with the National Transportation Library (NTL)—one-stop shopping for all of the information needed to carry out transportation research. The premise is fairly simple: By reducing the overall amount of time needed for data gathering, more time is available for analysis; and by providing easy linkages across data sets, we can facilitate new insights. Having all of the data in one place also provides side benefits (and challenges). It potentially exposes discrepancies in definitions, differences in schemes, and data gaps—offering new opportunities for improving data quality, comparability and coverage. It also provides an opportunity to more easily develop standards for presentation and documentation, to make transportation data more usable.

TEA-21 guides our development of "*... a data base [that] must be suitable for analyses carried out by the Federal government, the States, and Metropolitan Planning Organizations.*" The most prominent feature of ITDB will the scope of its data—we are aiming to include all of the major data sets within DOT, as well as a variety of demographic, economic, and social data, to enable wide-ranging analyses. The ITDB also will contain powerful web-based tools to look at the data, including the ability to construct tables, graphics, and maps. Various means of accessing the data will be available, including both the Internet and Intranet.

FY 2001 Anticipated Accomplishments

- Deploy a first version of ITDB through the Internet by Spring 2001, adding databases and querying tools, plus various display options by the end of the fiscal year. The Spring release will present approximately 40 transportation-related databases, over 20 geo-spatial databases, and an interim portal service that directs users to web sites for downloading databases not yet incorporated into the ITDB database framework.
- Launch ITDB on the departmental Intranet, with additional tools for easily querying databases, since the client-server environment is better supported than Internet applications.
- Conduct extensive user testing and obtain feedback on usability, database coverage, desired tools and specific applications. Incorporate recommendations, as relevant and applicable.

FY 2002 Activities

- Add data sets based on a priority list. Top priority data sets are those that help fulfill BTS' Congressional mandates, followed by those used in performance-based reporting (e.g., GPRA), followed by safety-related data sets not otherwise included, others used in BTS publications, etc.
- Expand the functionality of ITDB-Internet by introducing new database query tools, tabular and graphical display capabilities, and mapping tools for geo-spatial data applications. Keep pace with emerging tools for web-based applications; identify and implement/customized state-of-the-art tools for tabular and graphical display of data.
- Provide additional database modeling capabilities that facilitate cross-database activities for analytical users and more casual users.
- Provide additional interface possibilities that enhance usability for the general public and others less facile with database manipulation. Improve usability through the use of technologies such as *natural-language querying*.
- Provide additional interface possibilities to accommodate the expected growth in wireless communication and hand-held computers.

National Transportation Library

Fiscal Year	2000	2001	2002
Funding	$615,263	$2,382,138	$2,792,983
FTE	1.0	4.5	7.0

Objectives

Good access to the right information increases the rate of technology implementation, saves money by helping organizations avoid duplication of effort, and makes for more informed decision-making. The National Transportation Library (NTL), charged with facilitating access to transportation-related information needed by decision-makers at the Federal, State, and local levels, partners with other organizations and agencies to ensure timely access to the information that supports the Nation's transportation research programs, operations, and investments.

The NTL is committed to developing and applying new tools for organizing the transportation community's information on the World Wide Web. Along with the Transportation Research Board (TRB), the NTL makes the Transportation Research Information Service (TRIS) database available to the public at no cost. TRIS-Online contains over 500,000 bibliographic records, 2,200 links to full-text documents, 100,000 links to corporate authors, and over 5,000 links for direct orders.

NTL also responds to more than 2,000 online reference questions each month and maintains the Department of Transportation's search engine (called DOTBOT), which fields over 25,000 queries daily.

FY 2001 Anticipated Accomplishments

- Integrate the NTL digital collection (full-text documents with NTL addresses) and TRIS-Online to increase the number of full-text documents linked to TRIS-Online.
- Expand DOTBOT to search for transportation-related materials on other Federal agency web sites (Environment, Agriculture, Interior, Energy, etc.).
- Add the TRB Research-in-Progress database to TRIS-Online.
- Add 10,000 NTIS reports to the NTL digital collection.
- Create a "union catalog" for the 23 DOT libraries and document collections.

FY 2002 Activities

- Increase the number of full-text links in TRIS-Online to 10,000
- Create links to 75% of the electronic documents on the DOT website.
- Expand the "union catalog" to include bibliographic catalogs from the major U.S. university-based transportation libraries (Northwestern, UC-Berkeley).
- Access foreign research documents from the Organization for Economic Cooperation and Development's (OECD's) International Transportation Research Database.
- Scan the American Association of State Highway and Transportation Officials' (AASHTO's) historic documents to make them available electronically.

Outreach and Communications

Fiscal Year	2000	2001	2002
Funding	$4,103,753	$4,604,615	$3,779,006
FTE	7.3	11.1	14.8

Objectives

The Outreach and Communications program encompasses a number of functions related to the dissemination of BTS information to stakeholders and the general public. These include operation of the BTS web site and Statistical Information Line; editing, layout, and printing of BTS reports; distribution of BTS products; and Congressional, intergovernmental, media, and customer relations. Outreach and Communications staff also organize BTS conferences and outreach sessions for a variety of purposes and manage BTS' partnerships with statistical and transportation organizations. As BTS' front line link to the outside world, the Outreach and Communications program contributes to achieving our strategic goal of providing *relevant* information to transportation decision makers.

FY 2001 Anticipated Accomplishments

- Finalize refurbishment of the BTS web site. A new contractor was hired to clean out defunct and broken links and improve the content, appearance, and navigability of the site.
- Working with BTS survey statisticians, develop and implement a comprehensive BTS customer satisfaction survey program. This program will not duplicate efforts of the broader Omnibus survey and will provide information to help guide BTS' decisions on the type of data to offer customers.
- Develop and implement web-based interface allowing BTS staff to generate product distribution reports and update the web-based catalog. This innovation will reduce contractor labor hours to generate ad-hoc reports and make additions/changes to the web-based product catalog.
- Pursue an aggressive public affairs plan to disseminate BTS information more widely to the public. Our recent release of airline holiday travel statistics gained national recognition, as has our Transportation Fact of the Day, which is routinely used in *USA Today*. We have instituted a monthly media blitz on BTS' Transportation Indicators and our data products have been featured in *US News & World Report*, the *Chicago Tribune* and the *Chicago Sun Times*.
- Work with the Transportation Analysis staff to develop a more user-friendly format for the *Transportation Statistics Annual Report*.

- Sponsor a national safety data conference to update stakeholders on progress made and gather input for our future activities in this area.
- Enter a two-year Transportation Research Board sponsorship, giving BTS access to a wealth of transportation expertise to assist with our work.
- Edit, layout, and print all BTS publications, including *the Transportation Statistics Annual Report*, the *National Transportation Statistics* report, and the *North American Transportation in Figures* report.

FY 2002 Activities

- Support BTS programs by helping them to gather stakeholder input to improve their products; transforming their statistical and analytical work in to attractive, readable publications; and disseminating their findings to those who can put them to use in making transportation better.
- Operate the BTS web site and Statistical Information Line.
- Reduce product distribution costs by expanding web access to publications, streamlining operations, and using print-on-demand technology.

Geographic Information Science

Fiscal Year	2000	2001	2002
Funding	$572,477	$4,436,813	$2,148,125
FTE	1.0	5.2	7.0

Objectives

Geographic Information Science (GIS) offers powerful tools to help visualize, analyze and present spatial data. It puts data on a map, where the human eye can often detect patterns that might otherwise be hidden in the data. By linking disparate data sources, highway projects and grant funding can be mapped into Congressional districts, airports can be screened for a variety of criteria to determine eligibility for special tax treatment, transportation systems can be associated with household income distributions, and noise contours can be drawn around railroad crossings or airports to measure population exposures.

BTS is the lead administration in DOT for geographic information, and represents DOT in the Federal Geographic Data Committee chaired by the Secretary of the Interior. We create, maintain and distribute geospatial data through the National Transportation Atlas Data Base (NTAD) program, outlined in TEA-21 legislation. These data include the National Highway Planning network, a national rail network, public use airports and runways, and Amtrak stations. The NTAD program distributes transportation geodata and a number of geographic reference files including state, county, Congressional district, and Metropolitan Statistical Area (MSA) boundaries.

GIS is a rapidly growing field. To coordinate the development of data, standards and tools within DOT, BTS created and chairs a Geographic Information working group. We are also partnering with other federal agencies to share geospatial data over the Internet. And GIS will be built into the design of the Intermodal Transportation Data Base to provide dynamic mapping of statistical information over the web. BTS can help others with mapping, spatial analyses, building Internet mapping applications, and building other GIS tools and applications.

FY 2001 Anticipated Accomplishments

- Implement a major GIS Modernization Plan in DOT, which includes: 1) adding layers for land use, waterways, transit, intelligent transportation systems, and the national highway network to the NTAD and the National Spatial Data Infrastructure; 2) improve the accuracy, completeness, and consistency of all DOT spatial data sets; and 3) develop software applications to enable better spatial data presentation and analysis.

FY 2002 Activities

- Continue to improve, expand, and disseminate geospatial data through the NTAD program.
- Develop methods for the use of airport noise contour spatial data and analysis of affected areas and population.
- Establish cooperative agreements with other Federal Agencies and private industry to acquire and improve geospatial data for a complete road network including Federal Lands.
- Develop methods for the use of airport noise contour spatial data and analysis of affected areas and population.
- Establish cooperative agreements with other Federal Agencies to acquire and improve geospatial data for a complete road network including Federal Lands.
- Establish public-private partnerships to improve transportation geospatial data, for example, to create an improved Intermodal terminals data set.
- Work more closely with MARAD and the USCG to add geospatial capabilities to the Marine Transportation System.
- Develop GIS applications to assist in the analysis of topics such as urban sprawl and asset management.
- Through the Federal Geographic Data Committee (FGDC) Ground Transportation Subcommittee, develop a Transportation Content Standard for the transportation layer of the National Spatial Data Infrastructure (NSDI).
- Continue working with various Federal, State, and local governments and other organizations through the OMB Information Initiative.
- Develop interoperable Internet mapping applications whereby DOT geospatial data is served through other Federal Agency Internet mapping applications and their geospatial data is served through the BTS Internet mapping application(s).
- Working with BTS statisticians, improve the use of geographic information systems to better understand and quantify travel behavior.

International Programs

Fiscal Year	2000	2001	2002
Funding	$835,869	$661,750	$771,418
FTE	1.4	2.0	2.0

Objectives

The U.S. is a trading nation. Trade provides intrinsic economic benefits and a better quality of life overall, but it also raises issues of competitiveness for firms and industries, it highlights differences in regulatory standards (safety, environmental, and even physical standards for shipping), and it imposes additional stresses on transportation infrastructure. Understanding the scope and magnitude of these issues is particularly difficult, given the range of players and disparities in data collection systems.

BTS compiles, analyzes and publishes information on U.S. foreign trade, variables that may influence U.S. global competitiveness, key international trends in transportation, and comparative statistics of transportation in various countries. These data provide context for understanding how the U.S. transportation system might be affected by exports, imports and international travel, and set the stage for harmonizing international data. We work closely with our statistical counterparts in Canada, Mexico, and many other countries, including a variety of exchange and collaborative activities.

FY 2001 Anticipated Accomplishments

- Issue *North American Transportation in Figures* report, a joint effort with Canadian and Mexican statistical agencies.
- Provide access to monthly North American Transborder Surface Freight data and border crossing data.

FY 2002 Activities

- Contribute to a web-based update of *North American Transportation in Figures*.
- Continue the development of the BTS International Transportation Data Harmonization project.
- Continue to collect and disseminate international trade and border crossing data.

Statistical Compilations

Fiscal Year	2000	2001	2002
Funding	$983,559	$1,444,377	$1,474,188
FTE	1.9	6.5	7.6

Objectives

Statistical compilations serve as useful reference documents for researchers and policy officials and as means of disseminating new information to the transportation community. BTS' Statistical Compilations program publishes three recurring reports: *National Transportation Statistics*, the *Pocket Guide to Transportation*, and *Transportation Indicators*. These reports are described below. BTS also produces special compilations, such as the 1999 *Maritime Trade and Transportation* report, and is in the process of compiling data on the transportation workforce and the financing of the transportation system.

National Transportation Statistics and Pocket Guide to Transportation

The annual NTS report is the transportation equivalent of the Census Bureau's *Statistical Abstract of the United States*. The soon-to-be-published NTS 2000 provides over 240 tables of data on:

- The extent, condition, use and performance of the physical transportation network;
- Accidents, crashes, fatalities and injuries for each mode and for hazardous materials;
- The relationship between transportation and the economy, including share of GDP, employment, and transportation expenditures; and
- Transportation energy use and environmental impacts.

NTS data are used as a ready reference, and as a primary source of data for BTS' *Pocket Guide to Transportation*—a popular guide to changes in the U.S. transportation system since 1970—and the *Transportation Statistics Annual Report*. The NTS includes a brief discussion of the quality of data used in the tables, as well as extensive explanatory notes with each table, highlighting differences in data collection across modes and over time.

Transportation Indicators

This monthly report tracks key variables that give context for transportation decision making, including indicators of the economic and social context for transportation as well as many aspects of system use and performance. Initially developed for DOT Senior Staff, the report is now publicly disseminated through the BTS web site on the last Thursday of each month. Each

indicator includes both graphical and tabulated data over time, along with a brief discussion of the indicator and its significance.

Since the first issue in July 2000, BTS now publishes more than 60 transportation indicators that are updated regularly—including some weekly, monthly, quarterly and annual time series. We are currently exploring ways to make it easier for Internet users to get more background data for each indicator, and we are continuing research to develop additional indicators.

FY 2001 Anticipated Accomplishments

- Produce the 2000 *National Transportation Statistics*, as a print and web-based document with expanded scope of over 240 tables on transportation data accompanied by source and accuracy profiles; and the 2000 *Pocket Guide to Transportation* containing more timely data than previous editions.
- Produce monthly *Transportation Indicators* reports on current transportation system trends to assist in timely policy decision making.
- Prepare a *Government Financial Statistics* report on Federal, State, and local transportation-related revenues and expenditures, which will be published on the BTS web site.
- Begin research into the transportation workforce. With the aging of the U.S. workforce, many corners of the transportation industry have begun to forecast serious shortfalls of skilled labor in the near future. Some sectors may be hit harder than others, depending on the age distribution of the existing workforce—shrinking sectors may be more likely to retain older workers.
- Compile over 250 transportation facts for *Fact of the Day* on the BTS website.

FY 2002 Activities

- Produce the 2001 annual reports-- *National Transportation Statistics, and Pocket Guide to Transportation*--and the monthly *Transportation Indicators* report.
- Compile daily transportation facts for BTS website's Fact of the Day.
- Assist in the development and updating of the Intermodal Transportation Database
- Expand *Government Financial Statistics* to include revenue and expenditures by functional areas and analysis of the efficiency with which transportation dollars are being used.
- Compile reports on regional, State, and local level transportation issues, such as mobility, safety, energy, environment, and condition and extent of the transportation system.
- Redesign printed compilations for web-based publishing.
- Publish a transportation workforce statistics report.

Transportation Analysis

Fiscal Year	2000	2001	2002
Funding	$667,923	$402,563	$513,875
FTE	1.6	1.9	2.7

Objectives

The central function of the Transportation Analysis program is to publish the *Transportation Statistics Annual Report* (TSAR), a legislative mandate. The TSAR provides the most comprehensive annual overview of U.S. transportation. TSAR examines the extent of the system, how it is used, how well it works, how it affects people and the economy, and how it relates to energy use and environmental impacts. It also outlines the state of transportation statistics and new developments in data collection and analysis.

BTS also provides data and analytical support to DOT's Center for Climate Change and Environmental Forecasting and publishes special analytical products, such as the Railroad Rationalization and Diversion analysis required by the 1999 Senate Appropriations Report, a study of transportation for people with disabilities, and a National Intermodal Analysis System. The purpose of the Climate Change Center is to identify and evaluate strategies for managing transportation greenhouse gas emissions and mitigating climate change impacts on transportation infrastructure. The development of this expertise enables DOT to speak authoritatively in interagency and other deliberations.

FY 2001 Anticipated Accomplishments

- Publish TSAR2000 and begin work on TSAR2001. TSAR2000 has been completely redesigned from previous issues. We have moved to a much more issue-oriented, graphic-intensive format that allows readers to find areas of interest more easily, and to more quickly grasp the essence of an issue. We have also added information on more current issues, including airline delays, highway and port congestion, tire safety, and gasoline prices.

FY 2002 Activities

- Publish TSAR2001.
- Provide data and analytical support to the DOT Center for Climate Change and Environmental Forecasting.

- Develop special analytical products as needed.
- Respond to quick turnaround information requests from the Office of the Secretary, Congress, and the BTS Statistical Information Line.

Economic Analysis

Fiscal Year	2000	2001	2002
Funding	$815,479	$518,124	$832,502
FTE	0.1	1.4	2.0

Objectives

While transportation is fundamental to economic life as we know it, we know surprisingly little about the relationship between transportation and the economy even today. BTS has several major research projects underway to help fill the gaps in our understanding.

The Transportation Satellite Account (TSA) has been a joint effort with the Bureau of Economic Analysis (BEA) to provide more detailed resolution of transportation in the nation's gross domestic product (GDP). By enhancing the data used in constructing GDP estimates, we have been able to quantify detailed values for input-output models that allow in-depth resolution of the economic interactions between specific categories of transportation and other segments of the U.S. economy.

Also through a collaborative research effort, BTS and BEA have been developing a method for "capital stock accounting" – to measure the value of the nation's transportation infrastructure – as directed in our TEA-21 legislation. This supports efficient asset management, and enables other DOT modes to forecast remediation requirements.

FY 2001 Anticipated Accomplishments

- Report the first transportation capital stocks data.
- Develop a measure of the transportation sector's contribution to the nation's overall economic productivity.
- Determine the contribution of household transportation to the nation's Gross Domestic Product (GDP).

FY 2002 Activities

- Extend the Transportation Satellite Account and capital stocks accounting program to cover non-highway modes.
- Extend capital stocks account to the State level.

Advanced Studies

Fiscal Year	2000	2001	2002
Funding	$832,213	$1,995,600	$1,849,375
FTE	1.7	10.0	13.5

Objectives

Advanced Studies is a new and growing BTS program. We seek to apply methods of theoretical statistics, econometrics, and regional science to problems in the area of transportation, provide consulting support to ensure that our data are relevant to decision makers, identify emerging trends, conduct focused studies of significant issues, and broadly explore the range of transportation research issues to improve the collective understanding of transportation.

FY 2001 Anticipated Accomplishments

- Complete the study of the highway transportation of international trade, as required by TEA-21.
- Develop broad measures for DOT's new strategic outcome goals. Areas of focus will be system condition, trip times, accessibility, cost, workforce capacity, and environmental impacts.
- Test a consumer price index for airfares.
- Enhance a widely used model for estimating freight and vehicle flows for use by transportation planners.
- Use the Internet to provide customer-oriented statistical summaries and analysis of all airline delay data for the last three years.
- Apply tools from industrial process control and data mining to a number of different DOT data series in order to provide early alerts of emerging transportation trends.
- Assess the effect of environmental streamlining on highway construction schedules.
- Model transit vehicle availability and repair frequency data to allow for ready analysis.

FY 2002 Activities

- Continue work to develop measures for DOT strategic outcome goals.
- Continue to provide consulting support and independent research of transportation issues to the department.
- Design a measure of congestion that supports both local and national decision making.

- Create new transportation indicators out of existing airline and motor carrier data.
- Establish dynamic statistical graphics (essentially movies) as a tool for disseminating transportation information.
- Construct a sprawl indicator and one or more measures of mobility.
- Develop a transportation-based measure of quality of life.

Journal of Transportation and Statistics

Fiscal Year	2000	2001	2002
Funding	$112,335	$119,188	$129,625
FTE	0.1	0.1	0.1

Objectives

The *Journal of Transportation and Statistics* is now in its fourth year of publication. It is the only research journal that stands at the interface of statistics and transportation. Because BTS began it and edits it, the *Journal* ensures that our expertise will always track the leading edge of academic and industry research. *Journal* articles are peer-reviewed, and many raise provocative issues for transportation. Some recent examples include:

- A special issue on the difficulties in measuring automobile emissions
- An article identifying risk factors in fatal truck accidents
- A study of the effect of use fees to ease congestion

The *Journal of Transportation and Statistics* is published three times a year. The editorial board includes many distinguished scholars and researchers.

FY 2001 Anticipated Accomplishments

- Publish three issues of the *Journal*.

FY 2002 Activities

Ongoing Activities

- Publish three issues of the *Journal*.

Statistical Research Grants

Fiscal Year	2000	2001	2002
Funding	$401,248	$506,431	$507,700
FTE	0.1	0.1	0.1

Objectives

The BTS Grants program allows us to directly shape the directions of university research in transportation statistics—an emerging new discipline that BTS is nurturing. TEA-21 authorizes up to $500,000 in grants each year (49 U.S.C., Section 111(g)).

Last year, the program focused on raising the standard of statistical methodology in transportation studies, by fostering research that applied specialized sampling methods to longstanding problems in safety and traffic flow estimation. The Texas Transportation Institute at Texas A&M received an award for work to combine expert opinion with empirical data in order to improve statistical inference. Boston University was funded to study public choice models for air travel. Other awardees included the University of Minnesota, University of Illinois at Chicago, and University of Connecticut. The program is agile, and can adapt to fund emerging areas of new transportation interest.

FY 2001 Anticipated Accomplishments

Make up to $500,000 in grants to worthy projects. The 2001 call for proposals identified the following areas of emphasis: 1) visualizing and mining of transportation databases; 2) aggregating and analyzing databases maintained by DOT agencies, especially where the research involves multiple modes of transportation; 3) improving the quality and usability of federal transportation statistics; 4) developing exposure measures (e.g., vehicle miles traveled) for use in risk analyses; 5) improving the statistical use of geographic information systems to better understand and quantify travel behavior; 6) developing performance measures for the transportation system; 7) designing and analyzing transportation surveys; 8) improving data quality and data collection; and 9) enhancing or extending the National Transportation Library to better express or incorporate statistical analyses.

FY 2002 Activities

- Make up to $500,000 in grants.

Leadership and Support

Fiscal Year	2000	2001	2002
Funding	$5,140,925	$7,933,586	$7,630,903
FTE	12.8	20.3	26.2

Objectives

Leadership and Support consists of the Office of the Director, the Associate Directors and their immediate staffs, professional development, travel, awards, information technology (IT) support, and common services such as rent, office supplies, and Transportation Administrative Services Center (TASC) allocated charges. The Office of the Director and the Associate Directors provide program leadership and administrative oversight for BTS. Office of the Director staff coordinate budget formulation and execution, strategic and performance planning, personnel operations, space management, procurement, and many other vital activities.

FY 2001 Anticipated Accomplishments

- Complete Organizational Assessment aimed at improving staff morale, productivity, and retention.
- Implement Professional Development Plan that increases investment in staff training.
- Develop and "operationalize" revised Performance Plan to establish clear outcome goals and hold managers accountable for results.
- Take advantage of DOT's new DELPHI accounting system to better track agency spending down to the project level.
- Improve procurement support to eliminate bottlenecks and develop a handbook and statement of principles to help program managers acquire the contract support they need.
- Complete comprehensive IT plan, including benchmarks and best practices. Use the plan to write a performance based IT support contract.
- Acquire additional BTS space to accommodate growing staff.

FY 2002 Activities

- Continue to provide leadership and administrative services to facilitate efficient program management and achievement of strategic and performance goals.
- Publish first Performance Report.

Bureau of Transportation Statistics

FY 2002 Performance Plan

March 2001

... Numbers to Move People ...

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Overview

BTS is committed to managing for results. To this end, in 2000 we discarded our old strategic plan -- which focused too much on activities and outputs rather than outcomes -- and replaced it with a radically different plan that is focused on the continuous, measurable improvement of our products and services. This performance plan "operationalizes" our new strategic plan by establishing a series of specific measures with numerical targets for each strategic goal. As you will see, many of our performance measures are still under development and lack baseline data. However, we have already implemented a number of them and will have a much more robust performance plan and report next year.

Strategic Plan for Transportation Statistics

MISSION STATEMENT

Our mission is to lead in developing transportation data and information of high quality, and to advance their effective use in both public and private transportation decision making.

VISION STATEMENT

Data and information of high quality will support every significant transportation policy decision, thus advancing the quality of life and economic well being of all Americans.

STRATEGIC GOALS FOR TRANSPORTATION STATISTICS

Relevance -- We aim to anticipate the needs of decision makers, provide the information that is most useful to them, and demonstrate a thorough understanding of major transportation issues and trends. If our work is not relevant, BTS is not needed.

Quality -- We aim to provide data, analysis and information of high quality for transportation decision making. Whatever we provide will be accurate, reliable, and objective.

Timeliness -- We aim to reduce the lag in data reporting, so that decision makers have a nearly "real-time" view of the transportation system and the factors that affect it. Where appropriate to the data, program managers and senior leadership should be able to talk about where things stand "as of last night."

Comparability -- We aim to provide a view of transportation that is consistent across modes and across time, to enable people to make comparisons and to make broad program and resource decisions. Comparability is hindered to some extent by the separate, historical development of transportation programs. It is also constrained to some extent by the need to rely on external data sources.

Completeness -- We aim to have data that cover transportation in every area of interest.

Utility -- We aim to make data easy to access, easy to understand, and easy to use.

How We Selected Our Performance Goals

Our ultimate goals are those of DOT as a whole: to enhance safety, mobility, economic growth, the human and natural environment, and national security. Our role in achieving these goals is to provide transportation policy makers at all levels of government and in the private sector with the information they need to make sound, forward-looking decisions. To be successful, transportation decision makers must have information with the attributes highlighted in our strategic plan. The information must be relevant, accurate (quality), timely, consistent across modes (comparability), complete, and easy to access and use (utility). On the continuum from inputs to ultimate outcomes, our strategic goals would be considered intermediate outcomes, but they lie at the outer reaches of our influence as an agency. This influence extends beyond our own operations; the scope of our mission is all transportation data, not just the data we collect in BTS.

The performance goals in this plan are a mixture of output and intermediate outcome goals. They all connect logically to our strategic goals and in turn to the DOT strategic goals. For example, one of our Timeliness performance goals is to increase the percentage of DOT safety data programs reporting monthly data. We believe that if safety data were updated more frequently, safety program managers could spot emerging trends and intervene sooner than they can today, resulting in accidents prevented and lives saved.

In addition to connecting our performance goals to both our own and DOT's strategic plans, we also followed the recommendations in the Interagency Council on Statistical Policy's (ICSP's) "Guidelines for Reporting the Performance of Statistical Agencies." These recommendations include:

- Use peer review to measure product quality.
- Continuously survey customer satisfaction with all aspects of your operations.
- Measure and monitor all facets of survey error.
- Monitor the timeliness of data products.
- Use a combination of indicators to track web site usage.
- Count citations of agency work in the media, government reports, and journals to gauge relevance.
- Use brief written "nuggets" as indicators of impact on policy decisions or departmental outcomes.

ICSP believes, and we agree, that statistical agencies play unique roles within their departments and cannot be measured in the same way as "operating" agencies. Common approaches to performance measurement among statistical agencies will assist with benchmarking and identifying best practices.

Our process for developing performance goals and measures has been highly participatory, because we want everyone in BTS to be able to see how their work relates to achieving the goals and we want the measures used as management tools. Instead of being lofty and general, many of the goals and measures are closely tied to ongoing BTS programs and projects. This plan will be fluid and nimble, just like BTS.

Another feature of this plan is that it relies heavily on customer feedback. This is because we are a highly customer-oriented agency, our customers being DOT policy officials; Congress; Federal, state, and local agencies; the transportation industry; advocacy groups; academic researchers; and the general public. If we are not providing these customers with the information they need, when they need it, then we are failing to achieve our mission.

We hope that this plan gives you a good sense of our priorities, aspirations, and plans. We have tried to be honest about the limitations of our chosen measures, and we welcome your suggestions for making this a better product.

Relevance: We aim to anticipate the needs of decision makers, provide the information that is most useful to them, and demonstrate a thorough understanding of major transportation issues and trends. If our work is not relevant, BTS is not needed.

Performance Measure #1: Percent of customers satisfied or very satisfied with overall relevance of BTS information.*

	2000	2001	2002
Targets:	NA		
Actuals:	NA		

Performance Measure #2: Average number of citations of BTS or BTS work in the mainstream media and selected trade journals per month.

	2000	2001	2002
Targets:	NA	20	25
Actuals:	NA		

Performance Measure #3: Number of Congressional requests for data or analysis.

	2000	2001	2002
Targets:	NA	15	25
Actuals:	7		

Performance Measure #4: Narrative descriptions of how BTS data or analyses were used by senior officials to make transportation policy decisions.*

	2000	2001	2002
Targets:	NA		
Actuals:	NA		

* Measure is under development

Last Year: Although BTS has FY 2000 baseline data for media citations and Congressional requests for information, these indicators were not used for management purposes. For this reason, the data should not be interpreted as "results," but as baselines.

BTS launched a monthly Transportation Indicators report. The report is a compilation of the latest economic, safety, environmental, and other data related to transportation. Its purpose is to inform transportation decision makers of changes or emerging trends as soon as possible.

We also published a major report titled *The Changing Face of Transportation*, which details the evolution of America's transportation system over the past 25 years and forecasts the impacts of today's policies and emerging trends on the next quarter-century. We expect that this volume will serve as both a reference and a blueprint for future transportation policy makers.

How We'll Achieve Our Goals:

- BTS is expanding its Outreach and Communications staff in order to better understand what types of information our stakeholders need to make transportation decisions and to raise awareness of the products and services that we currently offer.
- We are hiring several analysts with transportation expertise to complement our strong core of statisticians. These analysts will track transportation issues and identify opportunities for BTS to inform decision makers. They will also collaborate with our statisticians and economists on focused studies of key transportation issues or questions.
- We will continue our monthly Transportation Omnibus Survey, launched in FY 2000. This survey gauges public opinions and perceptions about the transportation system and transportation policy issues. We expect that the responses will help to guide our work.

- We are kicking off a major effort to identify transportation data gaps, reaching out to stakeholders nationwide to find out what critical information they need to improve transportation. The output in FY 2002 will be a comprehensive vision for transportation data, which is required of us by statute and will become a key point of reference as we plan our future data collection and analysis activities.

- We will develop key indicators of the aviation and trucking industries. The aviation industry in particular has been the focus of attention from policy makers and the media due to increasing congestion and proposed airline mergers.

- The 2000 Transportation Statistics Annual Report (TSAR2000) has been completely redesigned from previous issues. We have moved to a much more issue-oriented, graphic-intensive format that allows readers to find areas of interest more easily, and more quickly grasp the essence of an issue. We have also added information on more current issues, including airline delays, highway and port congestion, tire safety, and gasoline prices. TSAR2000 will be available in early 2001.

- We will develop direct measures of DOT's Strategic Plan outcome goals. These measures will provide the public with a better understanding of how the transportation system impacts them.

About the Measures:

Measure #1 – BTS is in the process of developing a customer satisfaction survey, which will both measure satisfaction with existing products and gather feedback to improve or generate future products. Since we place a greater value on the latter function, we plan to use a mail or e-mail survey. Such surveys are subject to bias – the most likely respondents will be those who have strong opinions (one way or the other) about our products – but they also encourage more thoughtful and detailed feedback.

Measure #2 – The Office of Outreach and Communications reviews over 20 major newspapers plus selected trade journals for mentions of BTS or BTS data/analysis. One of the difficulties with this measure is discerning the causes of changes in the results. For example, increased media citations may be attributable to the release of more relevant data, to a more aggressive public affairs staff, or to some combination of the two. BTS will have to interpret this measure in combination with the others; improving customer satisfaction ratings combined with increased media citations would suggest that we are providing more relevant information.

Measure #3 – The Office of Outreach and Communications tracks and records all Congressional requests for data or analysis coming by phone, e-mail, meeting, or correspondence. This measure was chosen as a proxy for the extent to which BTS information is used to make public policy decisions.

Measure #4 – BTS employees are asked to document cases in which BTS information is used to make transportation policy decisions. This is an experimental measure that will be tested in FY 2001. Though we could count these cases, the measure is really qualitative. It is meant to complement Measure #3 by capturing information about *how* BTS information is used, not just *how often*. One obvious limitation of the measure is that BTS employees are not always privy to decision making processes in which our data are used.

Quality. We aim to provide data, analysis and information of high quality for transportation decision making. Whatever we provide will be accurate, reliable, and objective.

Performance Measure #1: Grade Point Average based on peer reviews of BTS products.*

	2000	2001	2002
Targets:	NA	3.0	3.5
Actuals:	NA		

Performance Measure #2: Percent of customers satisfied or very satisfied with overall quality of BTS products and services.*

	2000	2001	2002
Targets:	NA	65	75
Actuals:	NA		

Performance Measure #3: Weighted average quality rating (1-5, 5 being the best) of DOT data programs based on BTS reviews.*

	2000	2001	2002
Targets:	NA	2.5	3.0
Actuals:	NA		

Performance Measure #4: Percent of DOT surveys meeting standards of excellence.*

	2000	2001	2002
Targets:	NA	NA	100
Actuals:	NA		

* Measure is under development.

Last Year: In FY 2000, BTS was asked by Congress to review four DOT data programs, selected at random. The results of the review showed a wide range of quality issues and opportunities for improvement.

Last year we also published the *Safety Data Action Plan*, which was the product of four mode-specific safety data workshops and a national safety data conference. The plan identifies several safety data concerns and recommends ten projects to improve the safety data used to design and administer DOT safety programs. These projects include expanding the collection of "near-miss" data, collecting exposure data for additional modes (such as recreational boating and general aviation), and gaining a better understanding of accident precursors and causes.

Another step we took to improve data quality in DOT was the development of a draft *Guide to Good Statistical Practice*, a handbook for data program managers and analysts. It contains guidance on documenting data quality, determining the type and amount of error in the data, and analyzing and presenting data.

How We'll Achieve Our Goals:

- We have proposed a $9 million *Safety Data Action Plan* budget initiative. The initiative would implement several of the recommended projects. We are spending $2.7 million in FY 2001 to develop detailed implementation plans.
- We have initiated a quality review of hazmat data bases in RSPA, NHTSA, FAA and other DOT modes, and we have started working with RSPA to evaluate their Hazardous Materials Information System (HMIS) and UNISHIP data bases. Work on this project will be closely coordinated with research under the *Safety Data Action Plan*, BTS efforts to identify data gaps, and our data quality reviews. Hazmat data will be central to all of these efforts.
- BTS will perform quality reviews of about 70 major data bases. These reviews will involve first a quick triage process to sort out the most problematic data bases, followed by complete audits based on DOT's management priorities. The result in each case will be a report to the data base administrator, making specific recommendations for quality improvement.

About the Measures:

Measure #1 – In addition to being relevant to policy makers and accessible to the public, we want our information to be useful to transportation professionals and researchers. If we can put the data they need at their fingertips, they can spend less time gathering information and more time analyzing information and thinking about what it means, thereby increasing the likelihood of theoretical and practical advances.

This measure captures the opinions of transportation and statistical experts about BTS products and services. We will invite panels of these experts to review our products a few times per year and ask for both in-depth critiques and numerical scores on all dimensions of our Strategic Plan (Relevance, Quality, Timeliness, Comparability, Completeness, and Utility), plus an overall score.

Measure #2 – The strengths and weaknesses of this measure are discussed in the Relevance section of the Performance Plan.

Measure #3 – As noted above, BTS is undertaking reviews of at least 70 data programs throughout DOT. These reviews will follow a uniform protocol and each data program will receive a numerical score, in addition to substantive recommendations for improvement. We hope that this is a case where the process of measurement itself will lead to programmatic improvements.

The numerical scores will be weighted based on a BTS categorization of data programs by level of importance. The most important data programs are those used for safety operations, such as air traffic control and Coast Guard vessel inspections.

A potential problem with this measure is that data programs will not be reviewed randomly or cyclically.

BTS will probably review the most troubled data programs first and revisit them periodically to check progress, whereas sound programs may be reviewed once and never again unless problems become apparent.

Until BTS has reviewed all 70 data programs, the results for this measure will be skewed toward the poor performers. However, once a complete baseline is established, the measure will provide meaningful information about DOT's progress toward better data.

Measure #4 – This year, BTS will begin measuring, monitoring, and documenting several aspects of survey accuracy in a consistent way. Specifically, we will measure sampling error, sampling standard error, nonresponse error, response rate, imputation rate, processing error, and, if obtainable, coverage error.

The results of these measurements will be used to develop Survey Standards of Excellence for BTS and DOT as a whole. We hope that these standards -- which will likely vary by type of survey – will serve to improve transportation survey design and the reliability of survey data.

Timeliness. We aim to reduce the lag in data reporting, so that decision makers have a nearly "real-time" view of the transportation system and the factors that affect it. Where appropriate to the data, program managers and senior leadership should be able to talk about where things stand "as of last night."

Performance Measure #1: Percent of measures in the DOT Performance Report using past year results or reliable estimates of results.

	2000	2001	2002
Targets:	NA	100	100
Actuals:	88		

Performance Measure #2: Percent of DOT safety data programs reporting monthly data.

	2000	2001	2002
Targets:	NA	50	60
Actuals:	40		

Performance Measure #3: Average lag time (in months) between the close of the reference period and the release of information in BTS products.*

	2000	2001	2002
Targets:	NA		
Actuals:	NA		

Performance Measure #4: Percent of customers satisfied or very satisfied with overall timeliness of BTS information.*

	2000	2001	2002
Targets:	NA		
Actuals:	NA		

* Measure is under development

Last Year: In the process of developing the *Safety Data Action Plan*, we found that much of our safety data are reported only on an annual basis, and for most of our safety data there are reporting lags of up to several months after the accident or end of reporting period. When DOT reported safety results in its first DOT Performance Report to Congress, we could not provide the data for many of the measures even three months after the end of the year. The situation has been characterized as like "light from a distant star—it may have been extinguished long ago by the time we see it." This is not adequate for managing and redirecting our programs throughout the year, and it is not adequate for reporting performance against our goals.

Our monthly Transportation Indicators report -- begun last year -- gives transportation policy officials the most recent available data concerning all aspects of transportation, but it has also revealed that a lot of important information is not updated as frequently as it should be.

How We'll Achieve Our Goals:

- One of the projects in the *Safety Data Action Plan* is to advance the timeliness of DOT safety data, making it available monthly at least. To achieve this, we will need to reexamine our processes for collecting the data, and explore options for alternative data collection where the processes cannot be changed easily. The solutions may involve new technology or different operating procedures. In any event, we will need to be very aware of how incentives act on the behavior of those who report or collect the data.

- The journey of data from collection to release can be delayed at many points. Much of the data in BTS' publications is collected and processed by others. We intend to use our influence (and in some cases resources) to make all the data we use more timely, particularly the data from other DOT modes.

This will take time. In the short-term, we plan to look for ways to reduce the time from when we receive data to when we release it in publications.

About the Measures:

Measure #1 – BTS has a statutory mandate to review and report to the Secretary on the sources and reliability of the statistics proposed under GPRA to measure outputs and outcomes [49 U.S.C. 111(c)(3)]. Our approach to this responsibility is proactive; we work closely with the Office of the Secretary to develop sound measures and data sources to support DOT's goals. We consider this to be a maintenance measure, since the percentage of DOT performance measures using past year results or reliable estimates is already high.

Measure #2 – Safety is DOT's top priority, yet many safety programs collect data only annually, and even then it is not finalized until three months or more after the close of the reference period. We believe that safety programs would be more effective if they could track results on a monthly basis. Monthly data would allow program managers to respond immediately to emerging problems and evaluate new strategies more quickly.

This is clearly a stretch goal for BTS, since all of DOT's safety data programs are managed by other modes. Our challenge will be to persuade these modes that their data need improvement, then assist them in the process.

The baseline data for this measure is derived from a sample of 18 (out of a total of 44) DOT safety data bases.

Measure #3 – No single measure of data lag time is ideal. As noted above, many factors can influence data lag time. Moreover, acceptable lag times differ depending on the type of data. For instance, we can wait longer for greenhouse gas emissions data than for runway incursions data, because we know that reducing emissions is a long-term proposition, whereas runway safety measures can be more readily implemented when problems become apparent.

Our initial approach to measuring data lag will be to concentrate on two of our data products that capture a broad array of transportation data: the National Transportation Statistics report and the monthly Transportation Indicators report. Most of the data for both reports come from outside sources; for this reason, we will attempt to measure both the time from the close of the reference period to release by the data source and the time from release by the data source to publication by BTS. That way, we can isolate data collection and processing by others from our own publication process. However, as noted above, we intend to address both aspects of the data lag issue.

Measure #4 – The strengths and weaknesses of this measure are discussed in the Relevance section of the Performance Plan.

Comparability. We aim to provide a view of transportation that is consistent across modes and across time, to enable people to make comparisons and to make broad program and resource decisions. Comparability is hindered to some extent by the separate, historical development of transportation programs. It is also constrained to some extent by the need to rely on external data sources.

Performance Measure #1: Narrative descriptions of progress made in developing cross-modal measures of safety, system usage, system condition, etc.

Performance Measure #2: Number of critical data harmonization issues resolved with G-8 nations and major trading partners.*

	2000	2001	2002
Targets:	NA		
Actuals:	NA		

* Measure is under development

Last Year: Comparability is a major thrust of the *Safety Data Action Plan.* Currently, the DOT modes use several different criteria for reporting deaths and injuries and for measuring exposure to risk. Consequently, it is difficult, if not impossible, to determine the relative safety of each mode of transportation.

BTS has engaged in a variety of efforts to improve data documentation across all of its products and services, which thereby facilitate effective comparisons and analyses. The *National Transportation Statistics 1999* and *2000* contain extensive accuracy statements, which are critical to understanding and identifying the key differences in data for specific modes and transportation subjects. Similar efforts have previously been conducted for other BTS products, such as the *Transborder Surface Freight Data.* The Intermodal Transportation Data Base will contain extensive documentation on a number of critical transportation data sets.

BTS has also worked to improve the understanding of U.S. transportation systems and services with other countries. In 2000, BTS released the first product of an ongoing trilateral research effort with Canada and Mexico, the *North American Transportation in Figures* report. The objectives of this project have been to: identify key information that will help provide a comprehensive view of transportation in North America; characterize transportation activity and impacts across and between Canada, Mexico and the United States; reveal specific data comparability differences within and across countries; identify data gaps within and across countries; and begin discussions for reducing comparability differences and data gaps through cooperative activities.

As a result of the trilateral project and internal initiatives, Mexico has made changes to its transportation statistics and analysis program. For example, Mexico will now routinely begin releasing merchandise trade data by all methods of transportation with state level geographic information. In the safety area, Mexico is revising its data collection instrument for road fatalities and injuries, and will now collect information on whether seat belts were in use during a crash.

How We'll Achieve Our Goals:

- As part of the *Safety Data Action Plan,* we will develop common criteria for reporting transportation deaths and injuries and common denominators for transportation safety measures. These projects will require extensive cooperation from other DOT modes and from state and local data sources.
- We will initiate an *International Transportation Data Harmonization* project. This will include convening an initial workshop that focuses on the international needs and requirements for transportation data harmonization. Our objective is to explore the current international approaches to transportation data harmonization, to identify critical issues of systems comparability, to initiate discussions for

future international cooperative activities, and to agree upon a declaration of principles for moving forward. We will then develop a number of options for continuing these activities, including: the development of a web site to facilitate continued international participation in this effort; coordination with the United Nations Statistical Directorate and Regional Commissions involved in transportation data; and coordination with other partner countries and regional organizations (such as Eurostat) on issues of joint interest (for example, freight/trade and international travel data).

- As part of ongoing work for the North American Transportation Statistics Project, we will also work to update the *North American Transportation in Figures* report through an online data base, and work with Canada and Mexico to more fully document data definitions, methodologies, time series and collection instruments for the following subject categories: economy; safety; energy/environment; freight; travel; trade; infrastructure/vehicles/equipment. This will allow users to conduct more informed analyses on North American transportation issues. In addition, the three countries will discuss collaborative efforts toward harmonizing data and reducing critical data gaps.

About the Measures:

Measure #1 – This measure is entirely qualitative, mainly because we are still in the early stages of research to determine whether the cross-modal measures we desire are statistically feasible. For instance, we would like to develop a universal measure of transportation risk exposure, but doing so means overcoming significant differences in how transportation modes operate.

Measure #2 – This measure will be based on a list of priority international transportation data harmonization milestones that we hope to achieve in the next few years, which is currently under development. Recognizing our limited influence on other countries' statistical programs, we want to focus on progress achieved, not what remains to be done. So we are counting the number, not percentage, of milestones met. The milestones will be made available to interested customers when they are ready and will be included in future editions of this plan.

It is important to note that data comparability does not necessarily mean data standardization. In some areas, working towards greater standardization may be necessary and beneficial. In other areas, the documentation and recognition of key differences across data sets is sufficient, and facilitates informed analyses and transportation decisions.

Understanding how the statistical programs and transportation trends in other countries compare with the U.S. is prerequisite to effectively analyzing global transportation trends and how they impact the U.S. BTS can contribute to data harmonization by initiating discussions and providing forums this goal can be promoted and encouraged across countries.

Completeness. We aim to have data that cover transportation in every area of interest.

Performance Measure #1: Percent of priority data gaps filled.*

	2000	2001	2002
Targets:			
Actuals:			

Performance Measure #2: Intermodal Transportation Data Base (*itdb*) Completeness Index.*

	2000	2001	2002
Targets:	NA		
Actuals:			

Performance Measure #3: Percent of customers satisfied or very satisfied with the completeness of BTS information.*

	2000	2001	2002
Targets:	NA		
Actuals:	NA		

* Measure is under development.

Last Year: BTS is charged in its legislation with identifying gaps in transportation data, and collecting appropriate data not gathered by others. Collecting data can be expensive and intrusive, but at the same time good data are needed to make informed decisions. Many shortfalls have been highlighted over the years, for example:

- Productivity in various parts of the transportation sector
- Travel times, costs, and reliability
- Variables influencing travel behavior
- Variables that influence global competitiveness
- Comprehensive indicators of the condition of the transportation system
- Measures of transportation capital stocks
- Throughput at intermodal terminals

We have begun the process of identifying gaps with several "visioning" sessions, including one with the Advisory Council on Transportation Statistics (ACTS), to help identify current needs as well as future issues.

Our legislation also requires that we maintain an Intermodal Transportation Data Base (*itdb*) suitable for analyses carried out by the federal government, states, and metropolitan planning organizations. The *itdb* is a network-based portal to the wealth of transportation-related data collected by DOT as well as others outside DOT. The aim is *one-stop shopping* for transportation data, and ultimately—in conjunction with the National Transportation Library (NTL)—one-stop shopping for all of the information needed to carry out transportation research.

The most prominent feature of *itdb* will the scope of its data—we are aiming to include all of the major data sets within DOT, as well as a variety of demographic, economic, and social data, to enable wide-ranging analyses. The *itdb* also will contain powerful web-based tools to look at the data, including the ability to construct tables, graphics, and maps.

How We'll Achieve Our Goals:

- We recently embarked on a major effort to develop a vision for transportation data. In the process, we will reach out to the entire transportation community, plus other stakeholders, such as Wall Street and the media. The resulting document, which we plan to publish in FY 2002, will comprehensively identify critical gaps in transportation data and will guide BTS' work for years to come.

- The *itdb* is currently under development. We expect to deploy a first version for DOT users through the intranet by Spring 2001. Public access over the Internet, with additional tools for easily querying the data base, will follow.

About the Measures:

Measure #1 – One of the outputs of the transportation data visioning project will be a list of priority data gaps that must be filled. We will track our progress against this list.

Measure #2 – The *itdb* Completeness Index encourages the "smart growth" of the *itdb* by placing special emphasis on the most important data bases. We have grouped the data bases that we want to include in the *itdb* into priority categories, with each category assigned a point value. The top category includes data bases mandated by our legislation (5 points), the next category includes data bases supporting the DOT strategic and performance plans (3 points), and the last category includes other data bases of interest that do not fit into the higher categories (1 point).

The *itdb* Completeness Index is calculated as follows:

1. Multiply each data base included in the *itdb* by its category point value.
2. Sum the point values.
3. Divide the sum by the total possible point value (which is the sum of point values for all data bases planned for inclusion).

Measure #3 -- The strengths and weaknesses of this measure are discussed in the Relevance section of the Performance Plan. We are aware that any single customer is a poor judge of completeness, since he/she is probably looking only for certain types of information and not at the "big picture." Nonetheless, we figure that if enough customers tell us that we are providing them with what they are looking for, we must be doing something right.

Utility. We aim to make data easy to access, easy to understand, and easy to use.

Performance Measure #1: Web site visits per month.*

Total Visits

	2000	2001	2002
Targets:	NA		
Actuals:	NA		

Repeat Visits

	2000	2001	2002
Targets:	NA		
Actuals:	NA		

Performance Measure #2: Percent of web site users satisfied or very satisfied with the overall quality of the site.*

	2000	2001	2002
Targets:	NA		
Actuals:	NA		

Performance Measure #3: Number of full text research and reference documents posted on the National Transportation Library.

	2000	2001	2002
Targets:	NA	15,000	25,000
Actuals:	6,000		

Performance Measure #4: Percent of customers satisfied or very satisfied with the overall ease of use of BTS products and services.*

	2000	2001	2002
Targets:	NA		
Actuals:	NA		

* Measure is under development

Last Year: We took several steps in FY 2000 to improve the accessibility and utility of transportation information.

First, we began a renovation of our web site. We are still in the process of purging outdated content, repairing broken links, tidying up the site's appearance, and adding several new features to make the site more relevant and user-friendly.

Second, the National Transportation Library (NTL) brought the Transportation Research Information Services (TRIS) to the internet. TRIS Online provides access to over 500,000 bibliographic records maintained by the Transportation Research Board.

Third, we moved our Statistical Information Line operation from the Volpe Center in Boston to our headquarters in Washington, D.C., where it is closer to the technical experts and other resources that we tap to answer customer questions.

How We'll Achieve Our Goals:

- We plan to complete our web site renovation by early summer 2001. We have already established a web site management protocol to ensure that the site remains current.
- The NTL currently has 6,000 full-text documents in its data base and is working with the National Technical Information Service (NTIS) to obtain 9,000 more. The NTL will also develop a union catalog that provides information about the collections maintained by the 23 traditional libraries in DOT.
- Data sets included in the Intermodal Transportation Data Base will be completely documented to prevent misunderstandings or misuse.

About the Measures:

Measure #1 – We use Internet tracking software to collect a wealth of data on the use of our web site, all of which we carefully monitor. We chose number of visits and repeat visits as our performance plan measures

because they are the most basic and understandable indicators of the site's usage rate. We recognize that web site usage is also a measure of Relevance, Quality, and Completeness, not to mention promotional skill. We place it here because the BTS web site is our primary tool for making our work more accessible and widely used. Some might argue that merely posting our information on the web meets the goal of accessibility; we believe that the accessibility of work is proven by its actual use.

One limitation of these measures is that all visits are counted, regardless of duration. To the extent that our visitors arrive inadvertently or are "just passing through" these measures will overstate genuine usage of the site. Although we believe that this is a minor concern, we do track visit duration, and may eventually choose to exclude visits under a certain length of time from these measures.

Regardless of how we modify the measures, we know we will have to try to separate the effects of web site promotion from changes in the site's content and functionality.

Measure #2 - Number of visits is one important indicator of a web site's quality, but it can only tell us so much. To capture more direct and substantive information about our web site's usefulness, we are introducing a customer survey. Visitors will be able to access the survey by clicking an icon that will appear on HTML pages throughout the site. The survey will consist of only 2-3 questions and a comment box. This measure will be derived from a question about the customer's overall level of satisfaction with the web site.

An obvious limitation of this measure is that the survey is not scientific. The participants are not chosen randomly; they are volunteers. To the extent the customers most likely to participate are those with strong positive or negative opinions about the site, the results will be biased.

Another limitation is that each customer's assessment of the web site will be based on only those pages that he/she visited. Due to the need to keep the survey very brief (to encourage participation), we will not be able to ask which pages the respondent visited. Hopefully some of this more specific feedback will be gathered through the comment box.

We think that if we make the survey easy enough to access and complete, we will hear from a wide variety of customers whose opinions, in the aggregate, will be a fairly accurate measure of our web site's Utility.

We expect to see increasing satisfaction with the BTS web site as the renovation project progresses.

Measure #3 – BTS aims to maximize access to important transportation literature. The highest degree of accessibility is for customers to be able to download full-text documents directly from the web, which is why we chose this measure. We are aware that this measure values quantity over quality, but we have developed internal protocols to ensure that the NTL's collection is highly relevant.

Measure #4 – The general strengths and weaknesses of this measure are discussed in the Relevance section of the Performance Plan.

BUREAU OF TRANSPORTATION STATISTICS
PERFORMANCE PLAN

Summary Table

Strategic Goals	Performance Measures	2000 Value	Future Targets		
			2001	2002	2005
Relevance. We aim to anticipate the needs of decision makers, provide the information that is most useful to them, and demonstrate a thorough understanding of major transportation issues and trends. If our work is not relevant, BTS is not needed.	Percent of customers satisfied or very satisfied with overall relevance of BTS information	NA			
	Average number of citations of BTS or BTS work in the mainstream media and selected trade journals per month	NA			
	Number of Congressional requests for data or analysis	7	15	25	TBD
	Narrative descriptions of how BTS data or analyses were used by senior officials to make transportation policy decisions	NA	NA	NA	NA
Quality. We aim to provide data, analysis and information of high quality for transportation decision making. Whatever we provide will be accurate, reliable, and objective.	Grade Point Average based on peer reviews of BTS products	NA	3.0	3.5	TBD
	Percent of customers satisfied or very satisfied with overall quality of BTS information	NA			
	Weighted average quality rating of DOT data programs based on BTS reviews (1-5, 5 being highest)	NA	2.5	3.0	TBD
	Percent of DOT surveys meeting standards of excellence	NA	NA	100	100

Strategic Goals	Performance Measures	2000 Value	Future Targets		
			2001	2002	2005
Timeliness. We aim to reduce the lag in data reporting, so that decision makers have a nearly "real-time" view of the transportation system and the factors that affect it. Where appropriate to the data, program managers and senior leadership should be able to talk about where things stand "as of last night."	Percent of measures in the DOT Performance Report using past year results or reliable estimates of results	88	100	100	100
	Percent of DOT safety data programs reporting monthly data	40	50	60	100
	Average lag time (in months) between the close of the reference period to the release of information in BTS products	NA			
	Percent of customers satisfied or very satisfied with overall timeliness of BTS information	NA			
Comparability. We aim to provide a view of transportation that is consistent across modes and across time, to enable people to make comparisons and to make broad program and resource decisions. Comparability is hindered to some extent by the separate, historical development of transportation programs. It is also constrained to some extent by the need to rely on external data sources.	Narrative description of progress made in developing cross-modal measures of safety, system usage, system condition, etc.	NA	NA	NA	NA
	Number of critical data harmonization issues resolved with G-8 nations and major trading partners.	NA			
Completeness. We aim to have data that cover transportation in every area of interest.	Percent of priority data gaps filled	NA			
	ITDB Completeness Index	NA			
	Percent of customers satisfied or very satisfied with completeness of BTS information	NA			

Strategic Goals	Performance Measures	2000 Value	Future Targets		
			2001	2003	2005
Utility. We aim to make data easy to access, easy to understand, and easy to use.	Average number of web site visits per month	NA			
	Average number of repeat web site visits per month	NA			
	Percent of web site users satisfied or very satisfied with the overall quality of the site	NA			
	Number of full-text research and reference documents posted on the NTI.	6,000	15,000	25,000	TBD
	Percent of customers satisfied or very satisfied with the overall ease of use of BTS products	NA			

BUREAU OF TRANSPORTATION STATISTICS
FY 2001 BUDGET
(in thousands of dollars)
BUDGET AUTHORITY

EXHIBIT 1A

APPROPRIATION TITLE	BA Form	M or D	FY 2000 ACTUAL	FY 2001 ENACTED	FY 2002 REQUEST
Bureau of Transportation Statistics (TF) 1/	CA	M	30,818	30,932	40,000
Office of Airline Information (TF) 2/	CA	M	NA	0	3,760
TOTAL, BTS BUDGET AUTHORITY			30,818	30,932	43,760
	Mandatory		30,818	30,932	43,760

1/ TEA-21 authorizes a $31 million annual allocation for BTS from the Highway Trust Fund. An additional $9 million is proposed in FY 2002 from the Motor Carrier Safety Limitation on Obligations. These amounts are included in the FHWA and FMCSA totals. They are shown here for display purposes only.
2/ OAI funding is requested from the Airport and Airways Trust Fund, as authorized by AIR-21.

The abbreviations in columns 2 and 3 mean the following

BA Form
CA = Contract Authority

M or D
M = Mandatory
D = Discretionary

BUREAU OF TRANSPORTATION STATISTICS
FY 2002 BUDGET
(in thousands of dollars)
OBLIGATIONS

EXHIBIT 1B

APPROPRIATION TITLE	FY 2000 ACTUAL	FY 2001 ENACTED	FY 2002 REQUEST
Bureau of Transportation Statistics (TF) 1/	24,568	54,504	40,000
Office of Airline Information (TF)	NA	0	3,760
TOTAL, BTS DIRECT OBLIGATIONS	24,568	54,504	43,760

1/ BTS obligation amounts are included in the total's for the Federal-aid Highway and Motor Carrier Safety programs. They are shown here for display purposes only.

BUREAU OF TRANSPORTATION STATISTICS
FY 2002 BUDGET

EXHIBIT 1C

OUTLAYS

APPROPRIATION TITLE	M or D	FY 2000 ACTUAL	FY 2001 ENACTED	FY 2002 REQUEST
Bureau of Transportation Statistics (TF) 1/	D	20,820	NA	NA
Office of Airline Information (AI) 2/	D	NA	NA	3,384
TOTAL, BTS OUTLAYS		20,820	0	3,384

1/ Discretionary outlays for these programs are included in the Federal-aid Highway account. Applying the Federal-aid Highway outlay rate to BTS for estimating purposes would be misleading
2/ OAI was funded from the BTS appropriation in 2000 and 2001.

The abbreviations:
BA Form
CA= Contract Authority

M or D
M= Mandatory
D= Discretionary

BUREAU OF TRANSPORTATION STATISTICS
FY 2002
RESOURCE SUMMARY - STAFFING
POSITIONS (FULL-TIME PERMANENT)

EXHIBIT 2

	FY 2000 ACTUAL	FY 2001 ENACTED	FY 2002 REQUEST
FULL-TIME PERMANENT (FTP) POSITIONS:			
Bureau of Transportation Statistics	71	144	141
Office of Airline Information 1/	NA	NA	21
TOTAL FTPs	71	144	162
FULL TIME EQUIVALENT (FTE) STAFF YEARS	54	113	155
TOTAL FTP END-OF-YEAR EMPLOYMENT	59	144	162

1/ OAI staffing data broken out for 2002 due to request for separate appropriation.

Notes:
Staffing increases shown in this exhibit are discussed in the General Statement.
BTS staffing amounts are included in the totals for FHWA. They are shown here for display purposes only

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRANSPORTATION STATISTICS
Budget Summary by Program
(FTE and Obligations)

EXHIBIT 3

Program	2000 FTE	2000 Total	2001 FTE	2001 Total	2002 FTE	2002 Total
TOTAL	**53.7**	**24,568,377**	**112.9**	**54,504,024**	**155.4**	**43,760,000**
Data Collection	**18.7**	**8,258,419**	**28.8**	**22,629,815**	**39.4**	**8,190,907**
Survey Programs	*2.7*	*1,889,202*	*2.8*	*17,135,610*	*3.9*	*689,700*
Motor Carrier Information	*1.3*	*224,851*	*2.5*	*1,039,473*	*5.0*	*796,832*
Office of Airline Information	*14.1*	*4,073,878*	*17.0*	*3,842,544*	*21.0*	*3,760,000*
Data Gaps	*0.6*	*70,488*	*6.5*	*612,188*	*9.5*	*944,375*
Data Quality	**5.7**	**964,162**	**16.9**	**4,738,013**	**25.1**	**11,944,725**
Data Improvement Programs	*5.7*	*964,162*	*16.9*	*2,074,013*	*25.1*	*2,944,725*
Safety Data Action Plan	*0.0*	*0*	*[2.5]*	*2,664,000*	*[8.0]*	*9,000,000*
Compiling, Storing, and Disseminating Data	**13.0**	**9,375,424**	**33.4**	**15,700,705**	**46.4**	**14,150,388**
Intermodal Transportation Data Base	*0.4*	*2,264,503*	*4.1*	*2,171,013*	*8.1*	*3,194,669*
National Transportation Library	*1.0*	*615,263*	*4.5*	*2,382,138*	*7.0*	*2,792,983*
Outreach and Communications	*7.3*	*4,103,753*	*11.1*	*4,604,615*	*14.8*	*3,779,006*
Geographic Information Science	*1.0*	*572,477*	*5.2*	*4,436,813*	*7.0*	*2,148,125*
International Programs	*1.4*	*835,869*	*2.0*	*661,750*	*2.0*	*771,418*
Statistical Compilations	*1.9*	*983,559*	*6.5*	*1,444,377*	*7.6*	*1,474,188*
Data Analysis	**3.8**	**2,829,446**	**13.4**	**3,501,906**	**18.4**	**3,833,077**
Transportation Analysis	*1.6*	*567,923*	*1.9*	*402,563*	*2.7*	*513,875*
Economic Analysis	*0.1*	*815,479*	*1.4*	*518,124*	*2.0*	*832,502*
Advanced Studies	*1.7*	*832,213*	*10.0*	*1,955,500*	*13.5*	*1,849,375*
Journal of Transportation and Statistics	*0.1*	*112,583*	*0.1*	*119,188*	*0.1*	*129,625*
Statistical Research Grants	*0.1*	*401,248*	*0.1*	*506,431*	*0.1*	*507,700*
Leadership and Support	**12.8**	**5,140,925**	**20.3**	**7,833,586**	**26.2**	**7,630,903**

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRANSPORTATION STATISTICS
(TRANSPORTATION STATISTICS)
OBJECT CLASSIFICATION
(dollars in thousands)

EXHIBIT 4A

		FY 2000 ACTUAL	FY 2001 ESTIMATED	FY 2002 ESTIMATED
11.1	Full-time permanent	3,845	7,778	9,922
11.3	Other than full-time permanent	205	163	134
11.5	Other personnel compensation	115	118	136
11.8	Special personnel services payments	0	0	0
11.9	Total Personnel Compensation	4,165	8,059	10,192
12.1	Civilian personnel benefits	837	1,985	2,481
13.0	Benefits of former personnel	0	0	0
21.0	Travel and transportation of persons	201	361	300
22.0	Transportation of things	4	30	30
23.1	Rental payments to GSA	860	1,257	1,415
23.3	Comm, utl, and misc charges	10	14	20
24.0	Printing and reproduction	547	611	677
25.1	Advisory and Assistance Services	7,480	20,027	16,726
25.2	Other services	6,955	6,531	5,904
25.3	Purchases of goods and services from other government accounts	1,817	12,561	540
26.0	Supplies and materials	348	413	345
31.0	Equipment	952	2,155	870
41.0	Grants	392	500	500
99.0	Subtotal, Direct Obligations	24,568	54,504	40,000
99.0	Reimbursable Obligations	650	447	150
99.9	Total Obligations 1/, 2/, 3/	25,218	54,951	40,150

1/ 2002 obligations do not include the Office of Airline Information, which is shown in a separate table

2/ 2002 direct obligations include $9 million from the Motor Carrier Safety Limitation on Obligations.

3/ BTS Object Classification amounts are included within totals for Federal-aid highways and Motor Carrier Safety. They are shown here for display purposes only.

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRANSPORTATION STATISTICS
(OFFICE OF AIRLINE INFORMATION)
OBJECT CLASSIFICATION
(dollars in thousands)

EXHIBIT 4B

		FY 2000 ACTUAL	FY 2001 ESTIMATED	FY 2002 ESTIMATED
11.1	Full-time permanent			1,537
11.3	Other than full-time permanent			4
11.5	Other personnel compensation			16
11.8	Special personnel services payments			0
11.9	Total Personnel Compensation			1,557
12.1	Civilian personnel benefits			366
13.0	Benefits of former personnel			0
21.0	Travel and transportation of persons			62
22.0	Transportation of things			0
23.1	Rental payments to GSA			186
23.3	Comm, utl, and mis charges			5
24.0	Printing and reproduction			5
25.1	Advisory and Assistance Services			1,145
25.2	Other services			316
25.3	Purchases of goods and services from other government accounts			0
26.0	Supplies and materials			108
31.0	Equipment			10
99.0	Subtotal, Direct Obligations			3,760
99.0	Reimbursable Obligations			200
99.9	Total Obligations 1/			3,960

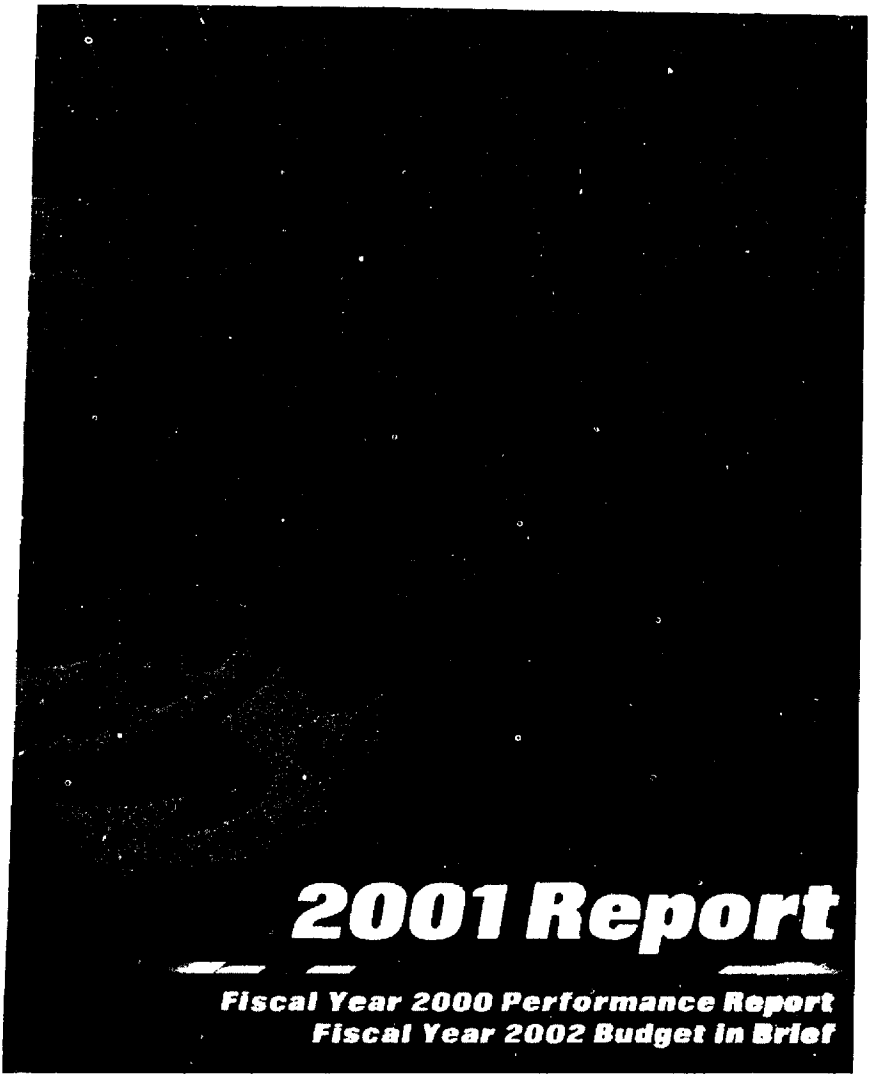
1/ OAI obligations for 2000 and 2001 are included in total BTS obligations.

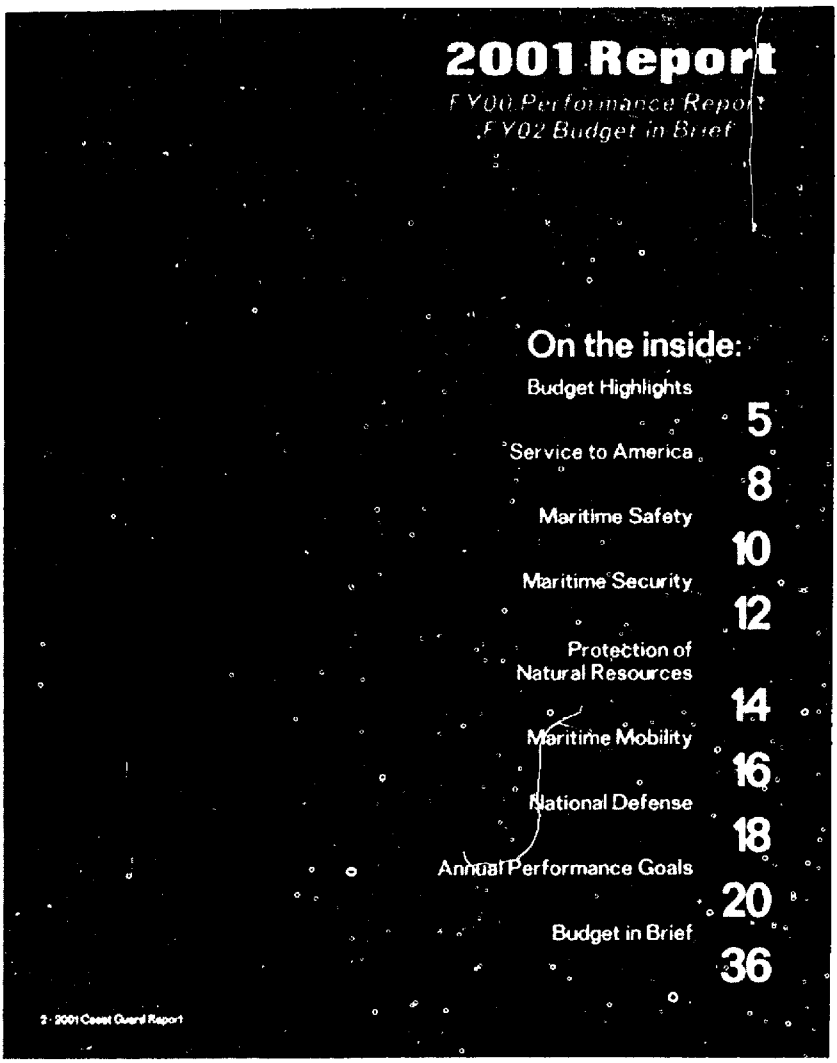
DEPARTMENT OF TRANSPORTATION
BUREAU OF TRANSPORTATION STATISTICS
Appropriations History
1992-2001
($ in millions)

EXHIBIT 5

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Budget Authority	5.0	10.0	15.0	15.0	20.0	25.0	31.0	30.8	30.8	30.9

Note: Amounts shown include rescissions.


2001 Report
Fiscal Year 2000 Performance Report
Fiscal Year 2002 Budget in Brief


2001 Report
FY00 Performance Report
FY02 Budget in Brief
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2 · 2001 Coast Guard Report

THE COMMANDANT OF THE UNITED STATES COAST GUARD
WASHINGTON, D.C. 20593-0001

I am pleased to present the United States Coast Guard's fiscal year 2002 Budget-in-Brief and fiscal year 2000 Performance Report. Together they provide an overview of the astonishing breadth of the Coast Guard's services to America and their modest cost to the taxpayer.

In 2000, the Interagency Task Force Report on the Roles and Missions of the Coast Guard validated the importance of the Coast Guard's missions and predicted that the need for all of them will increase in the coming years. Fortunately, the Coast Guard hao already undertaken the challenge of transforming itself to meet this growing demand for its services, having begun projects ten years earlier to modernize its fleets of patrol boats, buoy tenders, and other coastal assets. The 2002 budget takes the next crucial step in that transformation by moving forward with the replacement of our open-ocean assets through the Integrated Deepwater System acquisition project and by continuing progress to restore readiness in select areas.

I invite you to read this report carefully and to learn more about the Coast Guard's plan for maintaining its remarkable level of performance while preparing to meet America's ever growing need for a military, multi-mission, maritime service.

J. M. Loy
Admiral, U. S. Coast Guard

Strategic Goals

Described below are the U.S. Coast Guard's five strategic goals.

Maritime Safety: Eliminate deaths, injuries, and property damage associated with maritime transportation, fishing, and recreational boating.

Maritime Security: Protect our maritime borders from all intrusions by halting the flow of illegal drugs, aliens, and contraband into this country through maritime routes; preventing illegal incursions of our Exclusive Economic Zone; and suppressing violations of federal law in the maritime region.

Protection of Natural Resources: Eliminate environmental damage and natural resource degradation associated with all maritime activities, including transportation, commercial fishing, and recreational boating.

Maritime Mobility: Facilitate maritime commerce and eliminate interruptions and impediments to the economical movement of goods and people, while maximizing recreational access to and enjoyment of the water.

National Defense: Defend the nation as one of the five U.S. Armed Services. Enhance regional stability in support of the National Security Strategy, utilizing our unique and relevant maritime capabilities.

The Coast Guard has identified 16 performance goals in support of these strategic goals to help us measure our progress. Based upon our FY00 results and our long term performance trends, we have identified performance targets for FY02. These targets are discussed in detail in our performance plan. The U.S. Coast Guard's FY02 budget, which was developed in support of the United States Coast Guard's strategic plan, will enable us to improve our performance and further our ability to meet our strategic goals. A discussion of our performance results can be found later in this document.

"Our readiness concerns include training and maintenance deficiencies, spare parts shortages, a young and inexperienced workforce, personnel recruiting and retention challenges, increasing casualty rates and higher maintenance costs."

– Vice Admiral Thomas Collins, USCG

Budget Highlights

Restoring Our Readiness

The United States Coast Guard can only meet its wide-ranging mission requirements when operation and support units are properly staffed, trained, equipped, and maintained. To restore readiness, we must continue our multi-year, phased approach to establish an equilibrium at which we can sustain normal operations and perform appropriate training, maintenance and administrative work all the while maintaining "surge" capacity for emergency operations.

The President's FY02 budget addresses "Restoring Coast Guard Readiness" through the following:

- Operating new 47-foot motor lifeboats and coastal patrol boats ensures our capability to meet heavy weather search and rescue (SAR) missions and continue effective SAR services in the coastal zone—where most recreational boats operate.

- Operating the modernized Vessel Traffic Services (VTS) in Sault Ste. Marie, Michigan and Berwick Bay, Louisiana a result of the "Ports and Waterways Safety Systems" initiative supports improved waterway mobility and safety.

- Operating new 49-foot stern loading buoy boats will ensure we retain our ability to maintain short-range aids to navigation, facilitating navigation and improving safety and mobility on the Nation's waterways.

- Acquiring and operating new seagoing buoy tenders to replace maintenance intensive, 50-year-old ships.

- Integrating the Global Maritime Distress and Safety System (GMDSS) into our operations improves distress communications capability by automatically sorting, evaluating, and identifying distress calls.

- Providing Aviation Parts Sustainment funding to begin to restore our aircraft's mission readiness.

- Improving Oil and Hazardous Material Spill Response Capability through a National Contingency Preparedness Plan to minimize the environmental and economic impacts from a Spill of National Significance.

- Ensure the safety of passengers by improving our ability to respond to a passenger vessel incident and by overseeing the design, consruction and operation of all cruise ships, gaming vessels and ferries operating in or from the United States.

- Restoring Search and Rescue System capabilities by standardizing operating procedures and training, filling critical personnel shortfalls at SAR command centers, eliminating high crew fatigue at busy SAR stations and addressing the problems and challenges associated with a junior, less experienced workforce.

- Developing a Readiness Management System that will monitor, assess, and manage readiness data providing the necessary information to make rational, risk-based policy and resource allocation decisions.

Shaping Our Future

We must plan the U.S. Coast Guard's future now. The ability to anticipate and respond to new threats, risks, demands, and opportunities is critical to our success. We must become more agile in both operations and support systems. Collaboration and planning between operations and support must improve so we can quickly identify new requirements; acquire, develop, and deploy new capabilities; and shift between missions to meet emerging needs. Both operations and support systems must reinvent themselves to take advantage of new technologies, information systems, and ways of doing business. We must increase our operational assets' effectiveness by expanding intelligence use and increasing Maritime Domain Awareness (MDA*). We will be innovative and bold as we invest in the people, technology, information systems and strategies to meet our nation's 21st century maritime challenges. As such, the President's FY02 budget addresses "Shaping the Coast Guard's Future" as follows:

- Executing the Integrated Deepwater System capabilities restoration program replacing 93 ships and 206 aircraft. We will use an approach that integrates surface, air, shoreside, and C4ISR** assets and logistics support systems to maximize operational effectiveness at minimum total ownership costs.

- Modernizing the National Distress and Response System (NDRS) will replace obsolete communications equipment, eliminate the more than 65 communication gaps around our nation's waters, and add direction finding and immediate recorded voice playback capability resulting in more lives being saved from the perils of the sea.

- Leading efforts to enhance the Marine Transportation System (MTS) by providing personnel and funds to manage the safety, security, environmental protection, and efficiency of the MTS.

** MDA—Maritime Domain Awareness: ability to acquire, track, and identify in real time vessels and aircraft entering America's maritime domain... and maintain awareness of national and international trends in critical aspects of marine activities and the marine industry,*

*** C4ISR—Command, Control, Communications, Computers, Intelligence, Sensors, and Reconnaissance.*

"We know that we are sustaining our operations only through the heroic efforts of our people, but faced with tired and aging platforms, depleted inventories, stretched logistics and support systems, even our heroes are getting tired."

– Admiral James M. Loy

Deepwater

Deepwater missions are U.S. Coast Guard operations performed at least 50 miles from shore. These missions often demand long transit times, extended on-scene capabilities and the ability to operate in severe maritime environments.

Additionally, coastal operations requiring long-term commitment and logistical support—such as the TWA Flight 800 recovery operation—would also be considered Deepwater Missions.

USCG Deepwater cutters are the 37th oldest of 39 similar fleets worldwide with the resulting technological limitations. The increasing demands for our services are greater than what we can provide with these aging assets. Despite our operational forces' superb performance, we are concerned about our ability to sustain current performance levels with aging and obsolescent Deepwater cutters and aircraft.

The United States Coast Guard's major cutters and aircraft are aging and technologically obsolete. As a result, these platforms have excessive operating and maintenance costs, and lack essential capabilities in speed, sensors, and interoperability that limit overall mission effectiveness and efficiency. Their replacement is a near-term top national priority.

The Deepwater Program seeks to renovate, modernize, or replace U.S. Coast Guard Deepwater assets with an integrated system of surface, air, command, control, communications, computers, intelligence, surveillance, reconnaissance and logistics systems. Rather than focus on a specific cutter or aircraft class, we are focusing on the capability to perform all of our 14 federally mandated missions in the deepwater region.

In September 1998, Chief of Naval Operations Admiral Jay Johnson and U.S. Coast Guard Commandant Admiral James Loy signed the *National Fleet Policy Statement*. This statement ensures that the U.S. Coast Guard and Navy recapitalize their forces in the 21st Century, synchronize planning, training, and procurement to provide the highest maritime capability level for the nation's investment. As a result of the U.S. Navy's and Coast Guard's future plans, we will build a fleet of major cutters (USCG) that are adaptable, interoperable, and complementary capable. By ensuring interoperability, we can increase our effectiveness in all mission areas. Working together, we will form our National Fleet.

People – our most valuable asset

It all begins with people. Through hard work, innovation, and ingenuity, our personnel get the job done. As a credit to our people's dedication, the U.S. Coast Guard overcame aging assets, parts supply shortages, and increased work pace in FY00 to meet our performance goals. Our people are the U.S. Coast Guard's most valuable resource—and they are what we are most proud of and concerned about today.

After a two-year concentrated effort, the U.S. Coast Guard's military workforce component is numerically back up to full strength. However, today's workforce is the youngest and least experienced that we have had in decades. Retention remains a concern—with FY00 attrition exceeding projected levels for commis-sioned officers by 12 percent, enlisted personnel by 15 percent, and civilian employees by 12 percent. At the same time, the technical rates of our enlisted workforce component continue to face a significant disparity between the desired and the actual skill sets of the incumbents. In this strong economy, our ability to recruit and retain our talented workforce remains challenging. It is not enough to simply expect the best of our people. We need to also expect the best for them. As such, we have established the following priorities for our people:

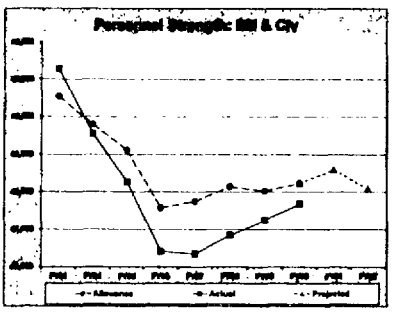
• Safety and welfare. Our immediate goal is to increase our people's safety and welfare by more effectively managing workload and readiness. This means we strive to operate only to the level that can be sustained by existing resources and systems. To go farther could possibly endanger lives.

• Knowledge management. Invest in developing our critical thinking, analytical skills, and our information management abilities. Develop tools and processes to effectively plan and make decisions for managing risk, supporting innovation, and making the best of our resources.

• Succession planing. Develop a long-range, comprehensive workforce reinvention-plan, that explores better ways to obtain, train, qualify, and deliver people to U.S. Coast Guard units.

• Quality of life. Create a quality of life comparable to other armed services through improved compensation and increased job satisfaction.

The United States Coast Guard is committed to ensuring that when we embark upon a mission, our crews will have the training, experience, and support they need to accomplish the job safely and effectively. U.S. Coast Guard women and men, their families, and the public we serve deserve nothing less.



Service to America

Maritime Mobility
$588.3 Million

More than two billion tons of domestic and foreign commerce, worth one trillion dollars, move through United States ports and waterways annually. The U.S. Coast Guard maintains aids to navigation and Vessel Traffic Services to facilitate the safe transit of commercial vessels.

U.S. Coast Guard icebreaking services keep commercially navigable waterways open in the Northeast and through the Great Lakes, St. Lawrence Seaway, and polar regions during the winter--facilitating shipments of fuel and other commerce to these regions.

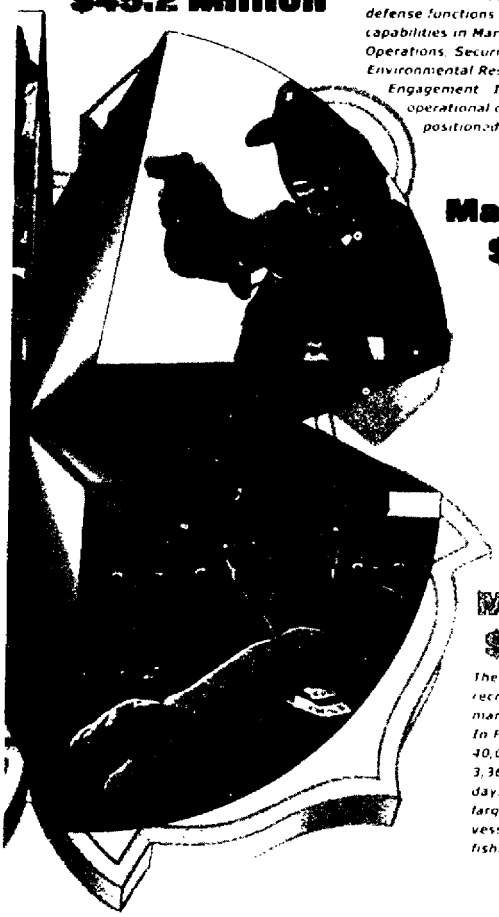
Protection of Natural Resources
$682.6 Million

Commercial and recreational fisheries contribute about $50 billion annually to the U.S. economy. In FY00 the U.S. Coast Guard boarded 6,622 fishing vessels to enforce safety and environmental laws.

Accidents like the Exxon Valdez oil spill in Alaska and the New Carissa oil spill in Oregon illustrate the enormous magnitude of the environmental and economic impacts that could result from a marine pollution accident. Every day pollution investigators respond to 20 oil or hazardous chemical spills.

National Defense
$45.2 Million

As one of the nation's five armed services, the U.S. Coast Guard provides an essential and complementary element to our national security structure. Our defense functions are targeted to the service's unique capabilities in Maritime Interception Operations, Port Operations, Security and Defense, Military Environmental Response Operation and Peacetime Engagement. In addition, with our vast array of operational capabilities we are uniquely positioned to be a leader in homeland security.



Maritime Security
$850 Million

Our Exclusive Economic Zone is the largest in the world, covering 3.36 million square miles of ocean and 95,000 miles of coastline. The U.S. Coast Guard is the only agency with the maritime authority and infrastructure to project federal law enforcement presence over this huge area. In FY00, the U.S. Coast Guard interdicted 4,210 undocumented migrants attempting to enter the United States via maritime routes, seized 50,463 pounds of marijuana products, and seized a record 132,480 pounds of cocaine.

Maritime Safety
$848.7 Million

There are more than 78 million recreational boaters and over 250,000 maritime workers in the United States. In FY00, the U.S. Coast Guard answered 40,068 calls for assistance and saved 3,365 lives in imminent danger. Every day, our marine inspectors board 100 large vessels for port safety checks and vessel examiners conduct 20 commercial fishing safety examinations.

Dollar Figures Based on Coast Guard Operating Expenses in FY2000

20 A

Maritime Safety

Eliminate deaths, injuries, and property damage associated with maritime transportation, fishing, and recreational boating.

One of the most basic responsibilities of the United States government is to protect the lives and safety of Americans. In the maritime arena, the real responsibility falls to the U.S. Coast Guard. With other federal agencies, state and local governments, marine industries, and individual mariners, the Coast Guard preserves safety at sea through focused programs of prevention, response, enforcement, and investigation. Ignoring safety at sea can carry a high price in lives and dollars. Marine-related commercial accidents cost marine industries approximately $1.1 billion per year, and this figure does not capture the intangible costs associated with lost lives and damage to the environment.

The United States Coast Guard strives to maintain a readiness level that facilitates aggressive programs aimed at preventing accidents at sea, yet the maritime arena is massive and complex, and mishaps will inevitably happen. Our prevention activities in the pursuit of maritime safety are often inseparable from those to protect the marine environment or police the U.S. Marine Transportation System. Actions in one mission area often reinforce those required for other missions.

Overall, the U.S. Coast Guard's numerous accident-prevention efforts, including the Coast Guard Auxiliary's search and rescue and education activities, have saved countless lives and contributed to the economic and environmental health of the United States. Each year, we respond to approximately 40,000 calls for assistance at sea. About 100,000 mariners receive some form of emergency assistance from us each year—of which 4,000 involve people in imminent danger. When emergencies and accidents at sea occur, the Coast Guard must be poised to respond immediately to save lives and property.

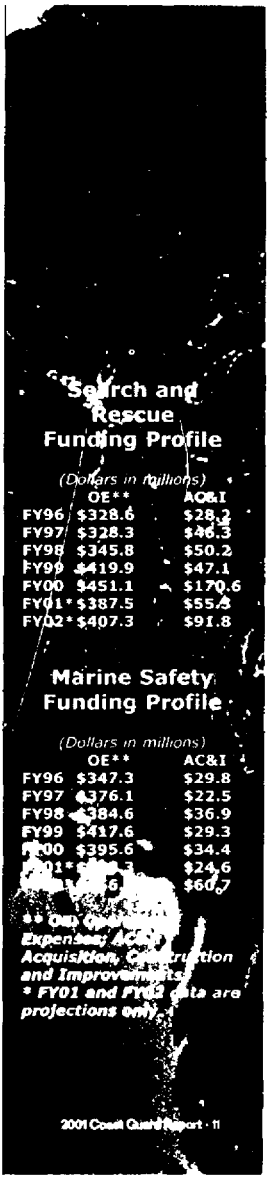
Furthermore, the U.S. Coast Guard investigates accidents to determine causes and whether or not laws have been violated. As such, we conduct nearly 7,000 marine-related investigations per year, and the data collected become valuable for use in our prevention programs.

The challenges of preserving maritime safety in the United States and international waters will increase in the years ahead as the numbers of ships and individuals using U.S. ocean, coastal, and inland waterways grows. The U.S. Coast Guard has stood "always ready" to preserve life, health, and commerce in all areas of maritime responsibility. Our future must be reshaped now to ensure we can continue to provide basic maritime safety services to the American public.

As such, we will focus on modernizing our equipment and communication network, acquiring technology and improving our search and rescue planning and decision-making tools. This will ensure we modernize systems to save as many lives as possible and eliminate injuries and property damage associated with maritime transportation, fishing, and recreational boating.

On the threshold of the 21st century, with many revolutions in technology and systems to aid them, America's Lifesavers still need personal courage, dedication, and unique skills to protect lives and property at sea. Operational training will be optimized through a new, entry-level navigation and boat handling school.

In addition, we will continue to conduct public service campaigns with states, safety organizations, and industry to promote personal floatation device (PFD) use, operator training, and prudent seamanship. We will work with other local maritime jurisdictions to complete safety boardings and enforce "boating under the influence" statutes. Through our U.S. Coast Guard Auxiliary we will offer boating safety courses, and dockside vessel safety checks. Moreover, states will receive $59 million in grant money from the U.S. Coast Guard to conduct recreational boating safety education and training programs.



Maritime Security

Protect our maritime borders from all intrusions by halting the flow of illegal drugs, aliens, and contraband into this country through maritime routes; preventing illegal incursions of our Exclusive Economic Zone; and suppressing violations of federal law in the maritime region.

Maritime security is the highest priority of the United States Coast Guard's numerous responsibilities. With maritime law enforcement experience and capabilities, we play a key role in maintaining our homeland security, ensuring safety at sea and protecting the marine environment. The specialized experience, skills and capabilities required to enforce federal law at sea, prevent illegal fishing, and halt the flow of illegal drugs, contraband, and undocumented migrants through maritime routes are the basis of our unique national defense missions capability. Ensuring the United States' marine and security also means that we protect U.S. maritime borders against the growing threat and lethality of terrorism and ensure economic security by guarding against impediments to America's Marine Transportation System.

While traditional law enforcement against piracy, smuggling, organized crime, and the illegal weapons movement continues today, the U.S. Coast Guard's most resource-intensive efforts support drug interdiction, alien migrant interdiction, and the protection of living marine resources (LMR).

Our expertise in interdiction at sea has put us on the front line of defending America's seaward frontier against a torrent of illegal drugs. The Coast Guard is designated as the lead agency for maritime drug interdiction under the National Drug Control Strategy. We also share lead-agency responsibilities with the U.S. Customs Service for air-interdiction operations.

The six-million square-mile transit zone is roughly the size of the continental United States, and includes the Caribbean, Gulf of Mexico, and Eastern Pacific. Countering the illegal drug threat to the United States will become more difficult as advanced equipment and technology are increasingly employed by drug cartels. In response to U.S. Coast Guard's efforts, smugglers have begun investing in high-speed craft and low-observable, radar-evading "stealth" vessels and aircraft in an attempt to evade detection at sea. Other capabilities include sophisticated counter-intelligence technologies enabling criminal organizations to challenge U.S. and international law enforcement.

Undocumented migrant interdiction operations are as much humanitarian efforts as they are law enforcement missions. Undocumented migrants typically take great risks and endure significant hardships in their attempts to flee their countries and enter the United States. In many cases, migrant vessels interdicted at sea are overloaded and not seaworthy, lack basic safety equipment, and often operated by inexperienced mariners.

We also face daunting challenges patrolling and protecting LMR under United States jurisdiction, in addition to patrolling the high-seas areas enforcing international fishery laws. Sustained at-sea law enforcement has resulted in increased deterrence and apprehension of illegal fishing in the nearly 3.4-million-square-mile U.S. Exclusive Economic Zone (EEZ). The EEZ includes some of the world's most valuable fisheries, supporting a more than $27 billion United States commercial industry, as well as a recreational fishery estimated to be worth $25 billion and growing.

To meet maritime security responsibilities, the Coast Guard is developing an Integrated Deepwater System of surface, air, command and control, intelligence, and logistics. Maritime interception missions require deepwater assets for effective execution.

As the United States confronts the complex and growing challenges of the 21st century, the demands on the Coast Guard's people, platforms, and systems for effective maritime security will only increase. The Coast Guard intends to meet the future head-on with new capabilities to carry out its critical maritime safety duties.

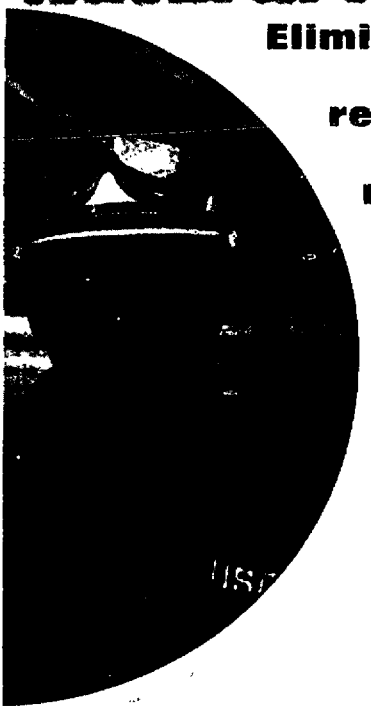
Enforcement of Laws & Treaties Funding Profile

(Dollars in millions)

	OE	AC&I
FY96	$1011.7	$62.9
FY97*	$706.9	$50.9
FY98*	$695.1	$64.8
FY99*	$839.8	$301.8
FY00	$850.0	$295.0
FY01**	$875.5	$78.0
FY02**	$922.4	$198.5

** Domestic Fisheries & Marines Sanctuaries Enforcement Funding Profiles removed for FY97, FY98, and FY99.*
*** FY01 and FY02 data are projections only. For FY02, Funding Profile for drug interdiction is $565.2 million for Operating Expenses (OE) and $47.7 million Acquisition, Construction & Improvements (AC&I).*

Protection of Natural Resources



Eliminate environmental damage and natural resource degradation associated with all maritime activities, including transportation, commercial fishing, and recreational boating.

annually

America's marine waters and ecosystems are vital to the health, wellbeing, and economy of the nation. Extending to the full expanse of our 200-nautical mile Exclusive Economic Zone (EEZ) — encompassing some 3.4 million square miles of ocean space—the United States marine environment is among the most valuable and productive natural resources on Earth, containing one-fifth of the world's fishery resources. The EEZ is also a region of extraordinary recreation and transportation activities. For these reasons, the U.S. Coast Guard has a unique role in carrying out the nation's mandates to protect the marine environment. We work with our partners in the commercial maritime industry, educators, environmental organizations and agencies and international maritime organizations to prevent pollution and threats to fisheries and protected species.

We must be ready to perform our fundamental roles in the protecting our natural resources by mitigating environmental damage and natural resource degradation associated with maritime transportation, fishing and recreational boating.

The U.S. Coast Guard's prevention of oil spills from all sources and activities avoids costs of nearly six billion dollars each year in oil losses, cleanup costs, and environmental damage.

Although less dramatic than massive oil spills that capture the public's attention, the inadvertent introduction of alien marine species transported in ships poses severe threats to U.S. ecosystems. Foreign ballast water pumped into U.S. harbors may contain exotic species and pathogens that threaten to displace or eliminate native species and damage important fisheries. Foreign viruses have reduced U.S. marine aquaculture production by half since 1996 and may cost the Great Lakes commercial and sport fisheries more than $500 million by the year 2005. Current estimates indicate that control measures to reduce problems caused by nonindigenous species can cost the American public more than six billion dollars each year.

As a world leader in marine environmental protection, the U.S. Coast Guard shapes the safety and pollution-control standards for international and domestic maritime transportation and offshore industries that can pose grave threats to fragile marine ecosystems. Coast Guard people need the latest information, technological support and training to be effective ambassadors of natural resources protection.

U.S. Coast Guard National Strike Teams, located on the East, Gulf, and West Coasts, are at the ready to respond to major oil or other hazardous materials spills in the inland waterways and coastal regions. However, in future crisis scenarios, these Strike Teams should be prepared for the possibility of being the nation's "first-responders" to a terrorist attack using chemical, biological, or nuclear weapons in a crowded port or roadstead.

Furthermore, increasing coastal population and industrial growth threatens critical marine habitats. Illegal dumping of waste oil and other pollutants continues to wreck waterways and coastal regions of the United States. U.S. Coast Guard assets must be able to police our environment as maritime commerce continues to grow.

Modernizing U.S. Coast Guard deepwater capability through an integrated system of surface, air, command and control, intelligence, and logistics systems is critical to the future of pollution prevention and fisheries management. Deepwater assets are needed to enforce more complex fisheries management plans and to perform policing activities and maritime interception of suspect vessels. Effective prevention and enforcement will hinge upon our offshore interceptions and inspections of suspect vessels before they enter U.S. territorial seas and ports.

Marine Environmental Protection Funding Profile

(Dollars in millions)

	OE*	AC&I
FY96	$268.0	$39.0
FY97	$288.3	$29.6
FY98	$299.6	$26.8
FY99	$323.0	$28.7
FY00	$329.6	$39.3
FY01*	$358.2	$34.3
FY02*	$374.5	$46.0

Domestic Fisheries & Marine Sanctuaries Enforcement Funding Profile

(Dollars in millions)

	OE**	AC&I
FY96#	$455.9	—
FY97	$387.4	$44.1
FY98	$397.8	$74.4
FY99	$380.9	$75.1
FY00	$353.0	$189.0
FY01*	$504.[illegible]	$59.0
FY02*	$[illegible]23.3	$115.2

 # FY[illegible] [illegible]nding Profiles [illegible]de foreign fisher[illegible] enforcement.
*** FY01 and 02 da[illegible] are projections only**
***** OE: Operating Expenses; AC&I: Acquisition Construction and Improvements***

Maritime Mobility

Facilitate maritime commerce and eliminate interruptions and impediments to the economical movement of goods and people, while maximizing recreational access to and enjoyment of the water.

The U.S. Coast Guard is [illegible] ensuring the nation's mobility. [illegible] we maintain more than [illegible] federal navigation aids marking U.S. navigable waterways. Icebreakers support international [illegible] operations and [illegible] and keep vital shipping lanes open, ensuring deliveries of heating fuel and other vital commodities. Vessel Traffic Services (VTS) coordinate safe passages through busy ports and waterways. We maintain free access for navigation on navigable waters and a fair balance between the interests of water, road, and rail traffic through oversight of the regulation and maintenance of some 18,000 bridges throughout the United States. We are also responsible for controlling access of certain vessels to all U.S. ports, territorial seas, and inland waters.

In the international arena, we serve as the United States' principal contact in a variety of organizations, including the International Maritime Organization (IMO). The IMO is a United Nations agency with 157 member states. The IMO's purpose is to improve international shipping safety and ship pollution prevention.

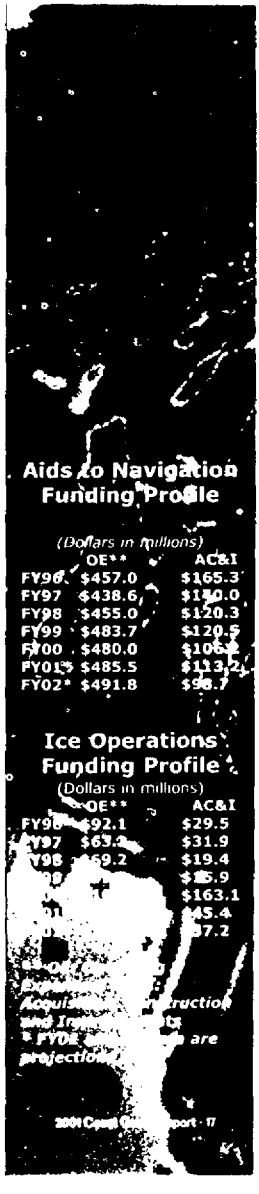
The United States is also responsible for the international ice patrol, including the provision of services and equipment and reporting on ice conditions in the North Atlantic and marginal seas. We are reimbursed for services by the 17 signatory nations using the service. The U.S. Coast Guard operates long-range HC-130H Hercules aircraft from Elizabeth City, North Carolina, deployed to Newfoundland on a rotational basis. The Canadian government cooperates with us in this endeavor.

In an era of globalization the United States is still an island nation, linked to the rest of the world by the movement of ships. With the importance of maritime mobility certain to grow, the U.S. Coast Guard must provide leadership in protecting our ports and navigation systems as part of the nation's critical infrastructure.

The U.S. Marine Transportation System facilitates America's global reach into foreign markets and the nation's engagement in world affairs. This includes protection of U.S. national interests through a national and international regulatory framework that governs trade and commerce. The Marine Transportation System shareholders are comprised of international and domestic passenger services, commercial and recreational fisheries, and recreational boating.

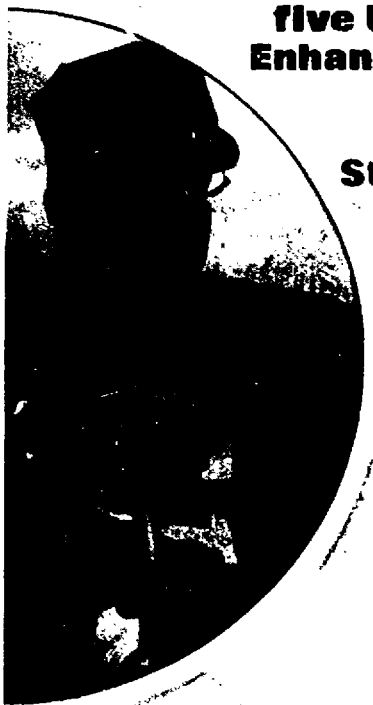
We will pursue our goal to facilitate maritime commerce and eliminate impediments to the movement of goods and people, while maximizing recreational enjoyment of the water. This will be accomplished primarily through control of aids-to-navigation, waterways management, boating safety and icebreaking programs. By improving our MTS efforts, VTS resource upgrades, and staffing mix, the Nation's maritime mobility priorities will be met more successfully.

There are more than 300 seaports and 3,700 marine terminals in the United States, 150 of which handle about 95 percent of all marine cargo tonnage. More than 90 percent of the U.S. population is served by domestic shipping, which moves nearly one-quarter of the nation's freight (by ton-mile) for less than two percent of the total freight bill. In peacetime, more than 95 percent of U.S. trade (measured by tonnage) is carried in ships. Water-borne cargo contributes more than $742 billion to the U.S. gross domestic product and creates more than 13 million jobs for Americans. In wartime, as documented during the 1991-92 Persian Gulf War, ships move about 95 percent of everything carried to and from conflict areas. The U.S. Coast Guard needs to pursue waterways research into the technology needed to manage increasing port traffic. Finally the development, of standards for providing more effective vessel traffic safety is critical as we automate traffic and waterway management systems to improve mobility on U.S. waterways.



National Defense

Defend the nation as one of the five U.S. Armed Services. Enhance regional stability in support of the National Security Strategy, utilizing our unique and relevant maritime capabilities.



Throughout its military and defense operations, the United States Coast Guard remains a full partner with the Navy and the other Armed Services in support of America's national security and military strategies. Because of the special multi-mission capabilities of U.S. Coast Guard cutters and their crews, our units play critical roles in peacetime forward presence, humanitarian support, peacekeeping and enforcement, crisis response, and combat operations. These cross the spectrum of U.S. global engagement, including smaller-scale contingencies as well as major theater wars.

The US Coast Guard – as one of the five armed services – provides an essential and unique element of our national defense, and plays a key role in ensuring our homeland security. We also guard against impediments to America's Marine Transportation System that could threaten our economic security.

Beyond U.S. coastal waters, our role as an instrument of national policy and maritime security is becoming even more important. We are relied upon to maintain a high state of readiness to function as a specialized service within the Navy in times of war. In peacetime, we have command responsibilities for the U.S. Maritime Defense Zones. Indeed, in every major conflict in which the United States has been engaged, the U.S. Coast Guard has served with the Navy and Marines.

The U.S. Coast Guard performs a vital, complementary role that is increasingly relied upon by service chiefs and the war-fighting commanders. In 1995, an agreement between the Secretaries of Defense and Transportation assigned four major national defense missions to the U.S. Coast Guard in support of United States regional Commanders-in-Chief (CinCs). These missions—Maritime Interception Operations, Military Environmental Response Operations, Port Operations/Security and Defense (POSD), and Peacetime Engagement—require Deepwater assets to execute essential military tasks in support of joint and combined forces in peacetime, crisis, and war. In recent years, the United States CinCs have requested and been provided U.S. Coast Guard cutters to conduct Maritime Intercept Operations, Peacetime Engagement, and other supporting warfare Tasks. Since 1995, we have deployed our cutters to the Baltic, Mediterranean, Persian Gulf and Black seas as a complement to the more routine forward-presence operations of Navy ships.

U.S. Coast Guard involvement in routine peacetime engagement reaches out to all elements of other countries' maritime interests. The striking element in these linkages is the similarity between the Coast Guard and many foreign government navies and maritime forces. This has resulted in the recognition that we are the "right force" to reach the majority of these navies. Inasmuch as some 70 percent of the world's navies are essentially coast guards, our continued and enhanced peacetime international engagement will continue to generate great benefits to the United States.

A central focus of U.S. national security strategy is to promote democracy abroad, to build trust and friendship among former adversaries, and to promote economic prosperity at home and overseas. International dangers that threaten U.S. interests at home are felt by America's friends overseas. The U.S. Coast Guard's involvement in the elimination of regional security threats, the promotion of regional cooperation, and the protection of maritime interests are key elements in America's policy of global engagement and active and acceptable presence. For interested neighbors abroad, we drafted a MODEL MARITIME SERVICE CODE as a legislative "template" to help foreign government maritime forces provide enhanced security and safety, protect the mariner as well as the environment, and allow a maritime state to exercise the maritime rights and obligations recognized under international law.

To provide these important national defense capabilities for operations across the U.S. global strategies and policies spectrum, we are continuing our Integrated Deepwater System (IDS) Program. The IDS will be the development of an integrated system of surface, air, command and control, intelligence, and logistics systems to carry out the defense operation mandates in the deepwater area of responsibility.

The U.S. Coast Guard has the following performance goals to indicate our progress at achieving our strategic goals. Our performance report begins on the following page.

Maritime Safety

- **Search and Rescue** Save all mariners in distress and property in peril
- **Maritime Workers Fatalities** Eliminate crew member fatalities
- **Passenger Vessel Fatalities** Eliminate passenger vessel fatalities
- **Recreational Boating Fatalities** Eliminate recreational boating fatalities

Maritime Security

- **Drug Interdiction** Reduce the flow of illegal drugs
- **Undocumented Migrant Interdiction** Eliminate the flow of undocumented migrants entering the U.S. via maritime routes
- **Foreign Fishing Vessel Incursions** Eliminate illegal encroachment of the 200 mile U.S. Exclusive Economic Zone by foreign fishing vessels

Protection of Natural Resources

- **Oil Spills** Eliminate oil discharged into the water
- **Marine Debris** Eliminate plastics and garbage discharged into the water
- **Living Marine Resources** Improve the health of fish stocks and other living marine resources

Maritime Mobility

- **Navigation Aids** Maximize vessel mobility in ports and waterways
- **Vessel Traffic** Eliminate vessel collisions, allisions, and groundings
- **Domestic Icebreaking** Maintain maritime navigation in icebound areas
- **Polar Operations** Provide icebreaking capability needed to support national interests in the polar regions

National Defense

- **Military Operations** Provide core competencies when requested by the Department of Defense or the Department of State
- **Military Readiness** Achieve and sustain complete military readiness for U.S. Coast Guard units as required by the Department of Defense

About our performance measures

Since the publication of our FY00 performance plan we have continued to revise our performance goals and improve our data. Two important improvements are reflected in this report:

Better measures: The measures for six goals (search and rescue, recreational boating fatalities, passenger vessel fatalities, living marine resources, vessel traffic and military readiness) have been revised since our FY00 Performance Plan was published to provide more useful and accurate information upon which to base management decisions. The new measures are more comprehensive and outcome oriented to provide better information about our performance. The results for discontinued goals can be found in the Coast Guard's FY00 Performance Report and FY02 Performance Plan. This document contains our latest measures and goals.

New data systems: In addition, we are improving our data systems to provide more accurate data. Five of our measures (search and rescue, maritime workers fatalities, passenger vessel fatalities, oil spills and vessel traffic) take advantage of our new data systems. However, when new and improved information systems were brought online, changes in query methodologies modified results and affected trend lines. Two of our measures (maritime worker fatalities and oil spills) were affected, but in both cases we have calculated a new target that is proportional to the original target. For example, if the original target represented a 10 percent reduction, the new target does as well.

More detailed discussion of adjustments to data and performance measures can be found in both the Coast Guard's and the Department of Transportation's performance report and plans.

Search and Rescue

The number of recreational and commercial waterway users continues to increase as more people move to coastal areas and global trade grows. Operating in a remote, unforgiving environment, many mariners lose their lives, many more are injured, and billions of dollars of property are at risk. The United States Coast Guard is the sole U.S. federal agency with the expertise, assets, and around the clock, on-call readiness to conduct search and rescue missions in all areas of the maritime environment. Since the 18th century, mariners have depended on us to provide rescue services in their time of need. In FY00, we responded to 40,068 calls for assistance and saved 3,365 lives.

While our ability to save the lives of mariners who are able to report their distress remains relatively constant, we are concerned about the drop in percentage of all mariners saved.

This year we missed our goal of saving 85 percent of all mariners in distress. Only 82.7 percent were saved: the lowest result we have seen since 1993. However, we were able to rescue 93.4 percent of mariners reported in imminent danger. An additional 297 people were recorded as "unaccounted for" in FY00. Our old data system did not capture this statistic, and although we have always known some number of lives were not accounted for, we have not known the magnitude.

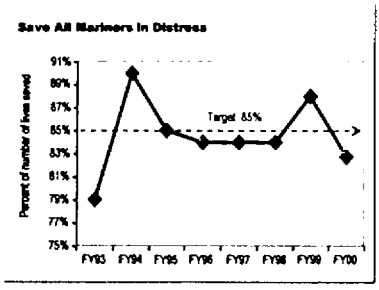
Historically the majority of search and rescue cases involve recreational boats, commercial fishing vessels, and "people only" situations (swimmer, diver, etc.). These cases also make up the majority of lives lost. While there will always be some number of lives the U.S. Coast Guard will not be able to save due to the severity, location, or circumstances of the distress, there are improvements that can be made. The National Distress and Response System (NDRS), our maritime emergency radio network, will be modernized (to be completed in 2005) to eliminate the 65 existing communications gaps, and add direction finding and immediate recorded voice playback and enhancement capability. NDRS' direction finding capability will reduce the amount of time expended on hoaxes and false alarms—25 percent of all SAR time.

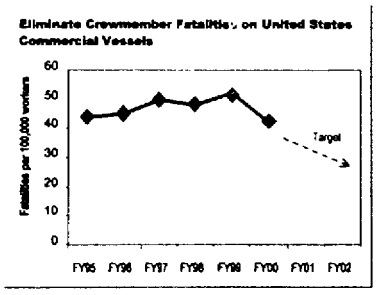
Maritime Worker Fatalities

Working in the marine environment is dangerous. Although the number of fatalities is relatively small, maritime workers have one of the highest fatality rates in the transportation field. The commercial fishing industry is purported to be one of the most hazardous in the Nation; on average (1992-1999), 78 crewmembers die per year. Loss of life has profound impacts on family, friends and communities; moreover, negative economic forces generated as a result of these tragedies ripple well beyond the maritime community.

Approximately one-half of all maritime worker fatalities occurs on commercial fishing vessels. Deaths in this industry involve falls overboard, entanglement, capsizings, etc. Casualty data indicate that the death rate among fishermen has reached a plateau or begun a slight upward climb, while the population of fishing vessels remains steady. However, the National Marine Fisheries Service believes that the industry is still over-capitalized and putting excessive pressure on fish stocks. Due to dwindling fish stocks, fishermen experience increased economic pressure and competition resulting in reduced profit opportunities. These economic pressures combined with fisheries management decisions encourage risk taking, deferred maintenance of vessels, and deferred purchase/upkeep of required safety gear.

While the Commercial Fishing Industry Vessel





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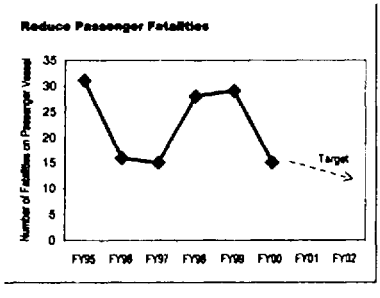
Safety Act of 1988 has helped reduce fishing vessel fatalities 20 percent from pre-Act levels, dwindling fisheries stocks, more competition, and regulated limited time fishing seasons have increased risk-taking by fishermen and made fishing related deaths an ongoing problem. Compounding this is the fact that fishing vessels have few required safety standards. The variable nature of this industry makes it difficult to develop universal fishing safety regulations - vessels vary greatly in size and operate in diverse locations and climates.

Hazards to personnel have also been endemic to the tug and barge industry. Crewmembers working to attach a barge to a tug, or to free a grounded vessel are at risk of being crushed in an accident, or falling overboard - the single greatest cause of fatalities in this industry.

Passenger Vessel Safety

Each year over 207 million passengers are carried aboard cruise ships, ferries, charter fishing boats, sightseeing boats, gaming vessels and other commercial passenger vessels in the United States. In 1999, 5.85 million North American vacationers alone traveled on cruise lines—and that number is expected to grow to 6.37 million for 2000. There are approximately 6,200 domestic passenger vessels and 130 foreign flag passenger vessels operating from U.S. ports. Collectively, these vessels provide one of the safest forms of transportation. The potential for disaster, however, does exist. This was highlighted by the May 1999 capsizing of the amphibious passenger vessel Miss Majestic on Lake Hamilton, Arkansas which resulted in the deaths of 13 of the 21 passengers.

Based on preliminary data estimates, there were 15 fatalities on passenger vessels in FY00. Compared to other modes of transportation, the safety record of passenger vessels operating from U.S. ports, including both domestic and foreign vessels, is outstanding. In the last 16 years, there have been no passenger deaths due to a vessel casualty on foreign flag cruise ships. For the domestic fleet, the safety record, while still relatively excellent, varies from year to year with no clear trend emerging. Of the estimated 6,200 vessels in the domestic passenger vessel fleet, only nine vessels in FY00 were involved in casualties resulting in a passenger death. These fatalities resulted from falls, asphyxiation, being struck by objects, and other randomly occurring accidents.



As newer vessels are put into greater use with higher passenger capacities and speeds, the risk for a major catastrophe involving a passenger vessel increases, as does the potential for loss of life. The use of high speed, high capacity ferries in Puget Sound, San Francisco, Southern California, and the Northeast has grown. Also, unique winged craft are being developed. In sum, future passenger industry growth will increase congestion and maritime casualty risk on coastal and inland waterways.

Finally, as most cruise ships are foreign flagged, the U.S. Coast Guard is limited to port state enforcement. Flag state regulators and classification societies make up the other oversight sources. Our Prevention Through People initiative and International Safety Management Code implementation target these concerns.

Recreational Boating Fatalities

Recreational boating is a popular activity in America—there are about 78 million recreational boaters in the United States. During the last decade, approximately 800 Americans have died each year from boating accidents, usually from drowning. However, recreational boating fatalities declined to 742 in calendar year 2000--the lowest number of fatalities the U.S. Coast Guard has reported to date. High gas prices and colder, wetter weather during the boating season are believed to have reduced the overall level of boating activity this year and contributed to the decline in fatalities.

While the recent trend in boating fatalities has been mixed, fatalities have declined dramatically since the early 1960s and 1970s. Today, there are fewer than half the number of recreational boating fatalities as there were in the early 1970s. At the same time, the number of recreational boats has more than doubled. This long-term reduction in

The Coast Guard Auxiliary: A Multi-Mission Force-Multiplier

"We could not deliver the level of service the American public expects of the Coast Guard without the generous gift of time and talent given every day by members of the Coast Guard Auxiliary," said Admiral Loy, commenting on the 61st Anniversary of the Auxiliary. The Auxiliary provides almost $1 billion in service to the American public and to the Federal Government at a fraction of the cost. A voluntary, civilian, non-military organization, the Auxiliary was established in 1939. Auxiliarists operate on their own time and for the most part, at their own expense. The minimal federal funding support received by members only partially pays for training, fuel and subsistence used in the performance of officially sanctioned operations.

Members are experienced boaters, amateur radio operators, and licensed aircraft pilots using their own vessels, aircraft and communications stations or providing skills the Coast Guard can use to enhance customer service in operations centers, administrative offices, on the water and in the air. Specifically, Auxiliarists offer a wide variety of boating safety courses, they assist in search and rescue, environmental protection, patrol marine events, verify private aids to navigation, conduct vessel safety checks, and the list of services continues. In sum, Auxiliarists are an absolutely essential force-multiplier that the Coast Guard relies upon as an integrated resource to do good things for America.

An Average Day in the Coast Guard Auxiliary

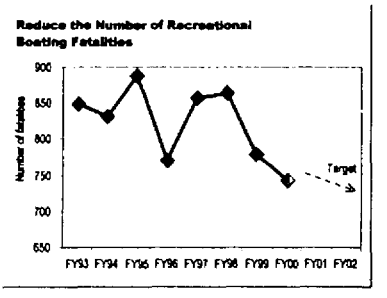
Completes 63 Safety Patrols
Completes 6 Regatta Patrols
Performs 10 Assists
Assists 28 People
Saves 1 Life
Saves $210,032 in Property
Participates in 202 Operations Support Missions
Participates in 50 Administrative Support Missions
Completes 13 Recruiting Support Missions
Educates 475 People
Performs 299 Vessel Safety Checks
Attends 69 Public Affairs Functions

Please contact: 1-800-368-5647 for additional information.

fatalities is due to life jacket use, cooperative boating-safety education and enforcement efforts with state governments, as well as safer boats and equipment manufactured in accordance with U.S. Coast Guard standards.

Still, too many fatalities occur each year—mostly due to accidents involving operator controllable factors. For instance, more than half of all recreational boating fatalities are the result of capsizing or falls overboard—and the percent of victims who drown remains high. Moreover, the majority of these drowning victims were not wearing life jackets.

Accident prevention is the best way to reduce fatalities - but when accidents do occur, boaters have a vastly improved chance of surviving if they wear a life jacket.



Drug Interdiction

The U.S. Coast Guard's FY00 drug seizure rate fell, despite the fact that we set a new non-commercial maritime seizure record for cocaine. Final FY00 seizure and cocaine shipment data show a seizure rate of approximately 10.6 percent, as compared to the target of 13 percent.

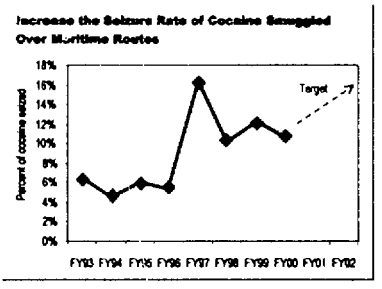
Drugs are interdicted in a challenging and ever changing environment. The international drug syndicates operating throughout our hemisphere are resourceful, adaptable, and extremely powerful. At the same time, socioeconomic conditions, here and abroad, influence the supply and demand for illegal narcotics.

In FY00, the U.S. Coast Guard seized approximately 132,480 pounds of cocaine, which set a new non-commercial maritime seizure record. We also seized over 50,000 pounds of marijuana. These results are attributed to higher patrol concentrations in the Eastern Pacific Ocean, improved intelligence sharing with other law enforcement agencies, increased cooperation with Central and South American countries, and use of Coast Guard boarding teams on Navy ships. A growing threat in smuggling has been the shipment of cocaine to the U.S. through the Eastern Pacific. This year, we shifted our limited resources to address the burgeoning go-fast threat in the Eastern Pacific. Interdictions in this region accounted for over 80 percent of all drugs seized by the Coast Guard.

Furthermore, we continue to take aggressive steps toward stopping go-fast vessels—a major problem—with Operation Frontier Shield, in which U.S. Coast Guard cutters sailed with specially equipped use of force helicopters and high-speed interdiction boats. These units carry high-tech equipment designed to safely stop fleeing go-fasts. Operation Frontier Shield was employed in two limited-scope deployments in FY00. In six possible opportunities to intercept go-fasts, Frontier Shield forces successfully interdicted all six vessels, seized over 2,600 pounds of cocaine, nearly 12,000 pounds of marijuana, and detained 18 suspects.

In FY00, Operation Frontier Shield continued to deter smuggling into Puerto Rico and disrupt traditional smuggling routes into the United States. The U.S. Coast Guard also continued Operations Gulf Shield and Border Shield off the coasts of the Gulf of Mexico and California, respectively. These smaller-scale operations served to anchor the maritime flanks of the Southwest Border with Mexico as federal, state and local agency interdiction efforts ashore were increased.

Well-funded smuggling organizations operate over huge areas of ocean, and quickly change tactics to find an advantage. While we achieved record cocaine seizures for two years in a row, the tempo of operations in previous fiscal years (FY97-99) was extraordinary and purchased at the expense of deferred asset maintenance and curtailed support activities. The Coast Guard has reduced operations and truncated maintenance and support activities to meet the rising costs of personnel, energy and aging assets. These actions will impact FY01 operations, and we will be challenged to meet our FY02 supply reduction goal (18.7 percent).



Undocumented Migrant Interdiction

Undocumented immigration poses a serious threat to America's economic and social well being, and challenges the integrity of our borders as a sovereign nation. Thousands of people try to enter this country illegally every year via maritime routes, many via smuggling operations. An untold number perish when overloaded, unseaworthy vessels capsize. The U.S. Coast Guard must maintain an effective presence in migrant departure, transit and arrival zones. The U.S. Coast Guard must curtail illegal immigration on more than 144,000 square miles of ocean in the Caribbean alone, in addition to responding to intelligence on voyages along the East and West coasts and throughout United States territories in the Pacific.

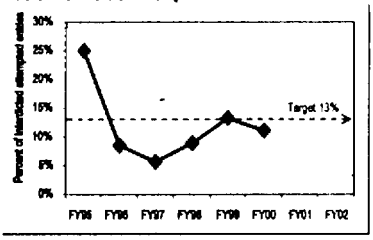
We met our goal in FY00, holding attempts at illegal immigration by sea to 11 percent of potential entry attempts. However, we met our FY00 target this year largely because migrant flow from China shifted away from Guam in response to our 1999 interdiction efforts. Last year we reported that a large number of Chinese migrants were targeting Guam. This year, in response to U.S. Coast Guard interdiction efforts in FY99 and FY00, Chinese migrants are now targeting Mexico and Central America, for eventual passage across the United States land border.

There was also a reduced flow of Cuban migrants attempting to reach the United States by maritime means in FY00. This is partially the result of improved efficiency in granting immigrant visas by the U.S. Interest Section in Havana, more Cubans taking illegal flights to the United States from third countries, and an increased number travelling to Mexico (by air) and crossing the land border illegally. However, U.S. laws and policies continue to challenge interdiction efforts: a combination of United States laws and policies make returning a Cuban migrant who lands ashore in the U.S. difficult, thereby providing a strong incentive for Cuban migrants to make the attempt, and keeping the demand for Coast Guard interdiction efforts high. In FY00 over 50% of the known flow of Cuban migrants reached United States soil.

In addition, professional human smuggling remains problematic. In recent years, smugglers have carved out a lucrative business for themselves, and most migrants attempting to illegally enter the United States employ their services. For example, Chinese migrants pay smugglers up to $40,000 per person for undocumented passage to the United States and Cuban migrants pay up to $8,000 per person.

In addition, there are numerous forces—largely outside the U.S. Coast Guard's control—that motivate migrants. These include immigration policy decisions, political and economic situations in the source country, and the economic pull that the United States has upon people from the developing world.

Limit the Flow of Undocumented Migrants to No More Than 13% of Attempted Entries



Foreign Fishing Vessel Incursions

The U.S. Exclusive Economic Zone (EEZ) was established by the 1976 Magnuson-Stevens Fishery Conservation and Management Act. This Act claims for the U.S. the maximum EEZ allowed by international law, extending 200 miles from U.S. shores. Our EEZ is the largest in the world, covering 3.36 million square miles of ocean and 95,000 miles of coastline. It is a major source of renewable resources—providing a livelihood for U.S. commercial fishermen and numerous related enterprises, a valuable source of protein, and recreational opportunities for millions of people. Within the EEZ, United States citizens have primary rights to harvest fish stocks; foreign fishing is significantly limited and restricted since 1991. The U.S. Coast Guard is the only agency with the maritime authority and infrastructure to project federal law enforcement presence over this huge area. As such, we are the primary federal at-sea enforcement agency, and are responsible for ensuring foreigners do not illegally harvest U.S. fish stocks.

We appear to have met our goal of less than 202 incursions—only 170 were detected this year. Unfortunately, however, the lower number of detected incursions can also be attributed to decreased surveillance availability, particularly from aircraft. Because of flaws in the detected incursions measure, we are currently developing an interdiction rate measure that better reflects our resource capabilities and international cooperation efforts.

After a FY99 record high of 428 detected incursions, we see positive results from our efforts to improve interdiction effectiveness. We appear to have met our goal this year largely due to our improved coordination with Mexican, Russian, and Canadian authorities to increase prosecution rate and decrease the number of incursions along our EEZ borders.

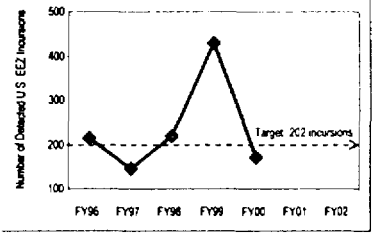
Following last year's spike in incursions in the Bering Sea, we worked closely with the Russian Federal Border Guard to improve cooperation. The result was more successful prosecutions in FY00 and correspondingly fewer interdictions as the fishing fleet came to realize it would be prosecuted if caught.

We also stepped up our efforts in the Gulf of Mexico, where most illegal incursions have occurred. There, small Mexican boats (lanchas) operate in the U.S. EEZ, and rapidly flee to the Mexican territorial seas when sighted. The U.S. Coast Guard worked closely with Mexican enforcement officials to prosecute those violators that we were able to interdict. We also employed deployable pursuit boats, and as we began to interdict more of the lanchas (15 percent of detected incursions this year, as opposed to five percent last year), we began to see the number of incursions in this region decline.

In addition, during the summer of 2000 we signed a Law Enforcement Memorandum of Understanding (MOU) with Canada to allow U.S. Coast Guard vessels and aircraft to operate in Canadian waters to identify violators. Previously, Canadian commercial fishers set their gear in United States waters, but fled the area when our vessels approached. Now we may enter Canadian waters and airspace to identify violators, and forward evidence to Canadian authorities for prosecution. From this improved coordination with Canada as well as a successful prosecution of a violator in May 2000, incursions in Lake Erie have also declined.

Surveillance availability of patrol aircraft is decreasing most clearly in the Western Pacific, where eight non-contiguous EEZs around various United States island territories pose a daunting enforcement challenge. In this region, we detected 32 incursions in FY00, compared to 44 in FY99. However, we had no successful interdictions either year, and little reason to believe the actual number of incursions decreased.

Reduce Illegal Incursions of the United States' Exclusive Economic Zone



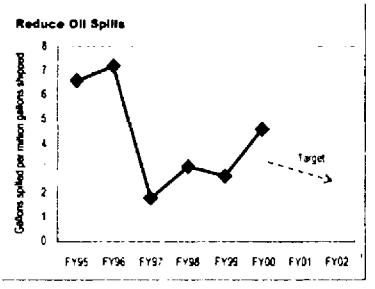
Maritime Oil Spills

Over 90 percent of the oil spilled into United States waters results from only a few large spills. Tank ships and barges are the leading sources of spills, with most resulting from equipment malfunction or stemming from human error. With more than 85 percent of the U.S. population living near the coasts, oceangoing trade perhaps tripling during the next two decades, offshore drilling and platforms venturing farther offshore, and larger cargo and tank ships plying the oceans, the task of preventing oil spills will become even more challenging. Oil spills can devastate ecosystems and can incur enormous response costs.

Preliminary data indicates that we missed our target for reducing the amount of oil spilled to 4.1 gallons per million gallons shipped. The estimated volume of oil spilled per million gallons shipped in FY00 is 4.6 gallons. Of the total volume of oil spilled in FY00, 61 percent was spilled from facilities and 39 percent from vessels. Three large spills contributed to over 94 percent (537,510 gallons) of the total volume spilled from facilities. Two of these spills were from waterfront facilities and were the result of a storage tank rupture at a refinery and a pipeline leak within a waterfront facility.

Two large spills contributed to over 36 percent (130,100 gallons) of the total volume spilled from vessels. One of these spills resulted when a tank worker overfilled a tank-barge discharging over 70,000 gallons of oil into the Houston Ship Channel. The other large spill was caused when a large recreational yacht sank off the coast of Puerto Rico after a Coast Guard helicopter rescued the crew.

The data reinforce the continued trend of a small number of spills contributing to the largest percentage of volume spilled. Tank barges and waterfront facilities are the major sources of oil spills accounting for over 65 percent of the volume spilled and 56 percent of the major (over 10,000 gallons) spill incidents.



The Coast Guard faces the daunting task of patrolling and protecting great expanses of ocean under the sovereign jurisdiction of the United States – and is patrolling even greater high seas areas in support of an increasing number of international fishery regimes. In the Northwest Atlantic, U.S. Coast Guard Deepwater fisheries enforcement patrols contribute greatly to the steady recovery of groundfish stocks, while sustained at-sea law enforcement presence in the Bering Sea has resulted in increased deterrence and apprehension of illegal foreign fishing in the U.S. EEZ.

"It's not just an ocean–it's one of the richest fishing grounds in the world, and therefore of great importance..." – Captain John V. O'Shea, Director of fisheries enforcement policy for the 17th district (Alaska).

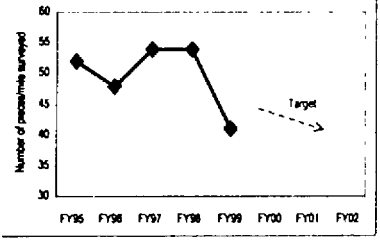
Marine Debris

Marine debris degrades our oceans, beaches, coral reefs, wildlife and coastal communities. One of the most harmful effects of marine debris is its lethal impact on birds and marine animals. Even in remote areas, nearly untouched by human hands, dangers lurk below the waves. Discarded fishing lines, derelict nets and other marine debris kill endangered species like the Hawaiian monk seals by entangling them until they drown or starve to death. Debris has killed countless birds, seals, sea turtles, and other marine creatures. Nets also entangle and kill coral, the living base of reefs that provide homes for numerous fish and invertebrates. Finally, discarded nets continue to fish, resulting in economic losses to the fishing industry as well as needlessly killing marine life. Marine debris is also a nuisance to mariners, fouling propellers and clogging cooling water intakes.

Marine debris items have been declining over the past few years. We met our target of 55 items of debris per mile cleaned for 1999 - there were 41 items per mile. (Data for 2000 will not be available until mid 2001.) Key sources of marine debris are trash items and galley waste from fishing vessels, cruise ships, and cargo ships; and fishing net fragments discarded or lost from fishing vessels. Recreational fishing and boating also generates trash such as plastic bags and cups, in addition to tremendous amounts of monofilament fishing line.

The U.S. Coast Guard promotes educational initiatives such as the Sea Partners program, which is primarily staffed at the field level with U.S. Coast Guard Reservists. The program seeks to educate maritime users about the detrimental effects of maritime pollution, and the laws prohibiting discharge of plastic into the water. Sea Partners also promotes the use of appropriate port disposal facilities in lieu of dumping debris overboard at sea. In addition to education, the U.S. Coast Guard assists in developing and enforcing the International Convention for the Prevention of Pollution from Ships commonly referred to as the MARPOL Treaty. Finally, the U.S. Coast Guard intends to maintain core prevention and response programs with adjustments as needed based on available data.

Reduce the Amount of Vessel Generated Marine Debris (Plastic and Garbage)

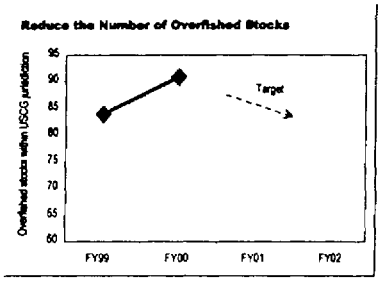


Living Marine Resources

Commercial and recreational fisheries contribute about $50 billion annually to the United States economy. Responsible management of ocean resources is critical as the world's population continues to grow, increasing demand on food sources. The U.S. Coast Guard is the only agency with the maritime authority and infrastructure to project federal law enforcement presence over this huge area.

In FY99 we adopted a new goal that aligns our measurement with the Sustainable Fisheries Act (SFA). Under SFA, the National Marine Fisheries Service (NMFS) works toward fisheries sustainability, and reports on the number of fish stocks "over-fished" or "approaching over-fished" status. Preliminary data indicate that there was a nine-percent increase in over-fished species under U.S. Coast Guard jurisdiction, which was very close to the eight percent goal. It is important to remember that this increase is a result of a stricter definition of over-fishing in the 1996 Sustainable Fisheries Act, and not necessarily a sudden decline in the biomass of stocks. NMFS continues to assess fish stocks under the new definition, and as such it is possible that a few more species may be added to the over-fished list in FY01.

Maintaining fish stocks within our EEZ is a complex management challenge. There are many factors that influence the viability of fish stocks, but we influence only one of these factors through at-sea enforcement of management plan regulations. The economic



health of the fishing industry, especially as more strict fishing limits are imposed, may create pressure to fish beyond those limits. Environmental factors may separately affect the health of the fish stocks either positively or negatively. Also, errors in scientific estimates may affect both the fisheries management plans and the measure of success.

The U.S. Coast Guard aims to help achieve the fisheries goals by enforcing NMFS regulations and those specified in regional fisheries management plans. In developing fisheries management strategies (with input from the U.S. Coast Guard), NMFS has identified enforcement of regulations as critical in maintaining the viability of fisheries and improving the health of over-fished stocks. The Coast Guard monitors these regulation compliance rates. This strategy is critical in reaching the outcome - healthy fish stocks. The U.S. Coast Guard is also working with NMFS to implement a Vessel Monitoring System (VMS). VMS will not replace patrols; it cannot detect illegal nets or undersize catch, but it is an effective monitor of vessels near closed fishing areas.

Aquatic Nuisance Species Threaten Our Environment

Every day, large quantities of ballast water from all over the world are discharged into United States waters. Along with this water are plants, animals, bacteria, and pathogens. These organisms range in size from microscopic to large plants and free-swimming fish. These organisms have the potential to become aquatic nuisance species (ANS). ANS may displace native species, degrade native habitats, spread disease, and disrupt human social and economic activities that depend on water resources. Any ship carrying ballast water is a potential invasion source. In recent years there has been increased international concern for the threats to human health, aquaculture, and coastal environments from aquatic nuisance species and diseases.

Zebra mussels are one of our now all too-familiar ANS. First discovered in Lake St. Clair near Detroit, Michigan in 1988, they are small, fingernail-sized mussels native to the Caspian Sea region of Asia. Tolerant of a wide range of environmental conditions, zebra mussels filter plankton from the surrounding water. They clog water systems of power plants and water treatment facilities, as well as irrigation systems. Zebra mussels have severely reduced and in some cases, eliminated native mussel species.

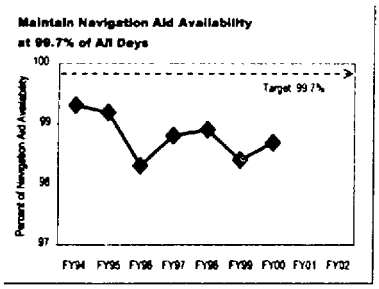
The United States Coast Guard is responding to these concerns through a comprehensive national ballast water management program. This program: (1) promotes ballast water management for operators of all vessels in waters of the U.S., (2) provides voluntary ballast water management guidelines for all vessels entering U.S. waters from outside of the EEZ, and (3) requires the reporting of ballast water management data by all vessels entering U.S. waters from outside of the EEZ. The U.S. Coast Guard encourages program participation from vessel operators. A mandatory reporting requirement was established to monitor participation with the program and assess ballast water delivery patterns. The information gathered from these reports will influence future action.

Aids to Navigation

We fell short of our goal to maintain the national system availability at 99.7 percent this year. The actual system availability was 98.7 percent. An aid is considered "not available" when some key function—light, whistle or horn—is not working, or when the aid's physical location is not correct. In FY00, the U.S. Coast Guard maintained approximately 50,000 aids to navigation serving the U.S. and its territories.

Analysis shows that while on West Coast waterways we almost reached our target of 99.7 percent, on Gulf Coast and Southeast waterways we fell the furthest short of the desired level of service. Storms, vandalism, and equipment failures all reduce availability. But the leading cause of reduced system performance is the destruction of the aid itself, most often from ship and barge collisions with buoys and structures. This is particularly acute in the Gulf Coast, where a growing number of destroyed aids are being temporarily marked while the U.S. Coast Guard works to address the backlog of repairs. About a third of the system's degradation is traceable to temporary markers awaiting permanent repair. Failure of equipment is another leading cause of discrepancies. To address this, the U.S. Coast Guard is pursuing more reliable mooring and lighting technologies. Specifically, in 2000 we began testing Light Emitting Diode (LED) lights to potentially improve aid reliability and lower maintenance costs.

The U.S. Coast Guard also maintains Radio Aids to Navigation, consisting of Long Range Navigation (Loran-C), Global Positioning System (GPS) and Differential Global Positioning System (DGPS). The U.S. Coast Guard provides Loran-C and DGPS services; the Department of Defense (DoD) provides GPS service. The purpose of these systems is to provide continuous, accurate, all-weather positioning capability to navigators of both vessels and aircraft, in order to prevent disasters, collisions, and wrecks.



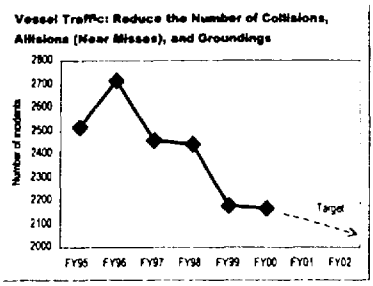
Loran-C uses a system of 24 U.S. land-based radio transmitters. The system allows mariners, aviators, and terrestrial users operating Loran-C receivers to determine their position to an accuracy of approximately one-quarter nautical mile. The system serves the coastal waters and the entire inland area of the 48 states, the Great Lakes, the Gulf of Alaska, and the Aleutian Islands.

DGPS augments the DoD-provided Global Positioning System (GPS) using a system of Coast Guard-operated land-based radiobeacons. This augmentation improves the accuracy of GPS and, more critically, provides an integrity warning to users of any detected faults in the GPS service. DGPS allows mariners and terrestrial users equipped with GPS and DGPS receivers to determine their position to an accuracy better than ten meters, and typically better than three meters depending on distance from the DGPS station and quality of the user's receiver. (The U.S. Coast Guard is partners with the U.S. Army Corps of Engineers (USACE) in operating 20 of these sites, mostly on Western Rivers.) The system serves the coastal and inland waters, Great Lakes, and Western Rivers as well as 55 percent of the U.S landmass and about 65 percent of its population.

Vessel Traffic

In today's global economy, our country's foreign trade is of great importance for economic vitality. Excluding Mexico and Canada, 95 percent of our foreign trade and 25 percent of our domestic trade travels by ship or barge—more than two billion tons of freight with $1 trillion annually move through U.S. ports and waterways. As trade increases, larger volumes of commercial and recreational vessel traffic maximizes port and waterway capacity. Navigational accidents will have more of an impact on freight movements and increase risk of environmental damage.

Mobility efforts aim to ensure that our nation's waterways are capable, accessible, available, and reliable at meeting the nation's maritime commerce and recreational needs. Current



numbers indicate that we will meet the target. There were 1,177 events among freight and tank ships over 500 gross tons, mostly caused by human error, and 2,164 events among all commercial vessels. However, collisions, allisions and groundings are strongly affected by human error on the part of those piloting the ships. Faster, larger, deeper draft vessels will pose a greater risk of navigational accidents.

United States Coast Guard efforts are key to facilitating the movement of commerce within our ports and waterways. As such, the U.S. Coast Guard has the role of coordinating the prevention of and response to these major waterway incidents. These efforts preserve America's waterways as freeways of commerce and recreation and provide every American safe and efficient access.

Commercial vessels make thousands of port calls in the United States each year. At the same time, Americans operate about 20 million recreational craft. Both commercial and recreat onal traffic and competition for access to United States waterways will increase dramatically in the years ahead. The potential for disaster and increased demand on Coast Guard maritime safety and search and rescue capabilities, from inland waters to the high seas, will grow as well.

Our Marine Transportation System

The Marine Transportation System, or MTS, is much more than the waterways and ports through which nearly all of America's foreign and one-quarter of its domestic trade moves every day. It is also the intermodal links to rail, truck, and pipeline services that support U. S. economic and military security. In particular, the marine infrastructure facilitates America's global outreach into overseas markets and the Nation's engagement in world affairs, including protection of U.S. national security interests. The MTS includes, as well, the national and international regulatory framework that governs trade and commerce. In short it is the intricate and in some instances delicate web of relationships and systems that link the farmer in Iowa to customers in Europe, the Far East, and other U. S. trading partners throughout the world.

The MTS has many users and beneficiaries, often with competing interests; moreover, our MTS infrastructure is aging and fragmented. It is stressed, and that stress continues to escalate steadily as waterborne trade increases, higher volumes of oil, bulk commodities, nuclear waste and hazardous materials are shipped. Pressure is also on the MTS as growing numbers of people use recreational boats and enjoy cruises on larger and larger ships that are heading for ever-more remote areas where America's environment may be in further jeopardy.

The Coast Guard is at the forefront of developing ways to meet the challenges that face our MTS. The Coast Guard is:

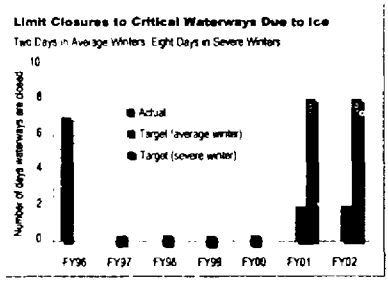
- Striving to improve the safety and education of all system users in order to prevent deaths, injuries, damage to the vessels and property
- Working to protect valuable ecosystems and natural habitats as improvements to the MTS are implemented
- Employing advanced computer and communications technology (DGPS, VTS) to increase the productivity of the MTS
- Ensuring that the MTS is secure from threats due to terrorists, smuggling, theft and other criminal acts
- Partnering with the public, maritime community, and other federal, state, and local entities to ensure that the MTS remains America's gateway to the global marketplace.

Domestic Icebreaking

The Coast Guard is the only U.S. agency with icebreaking responsibilities. The U.S. Coast Guard provides a heavy icebreaking capability to facilitate year-round maritime commerce. Shipping in the Great Lakes and Northeast during winter months often provides the most cost-effective transportation of raw materials and goods for many industries, particularly those that ship bulk cargoes and home heating oil. Approximately 15 million tons of materials (ore, coal, steel, etc.) are shipped during the winter on the Great Lakes alone. If the Lakes freeze over, marine traffic stops. Studies indicate that U.S. Coast Guard icebreaking services have an estimated annual outcome value of $49 to $78 million to industry alone. In addition to the direct benefits, the Great Lakes iron, ore, steel and freight transportation industries constitute a considerable economic force within the United States, employing 485,000 to 525,000 people, drawing an estimated annual payroll in excess of $6.7 billion. Winter closures increase transportation costs substantially, if trains were to replace shipping as the primary means of commercial transport in the region, fuel consumption would increase by 14 million gallons annually, generating an additional 4,321 tons of harmful emissions.

We met our goal for limiting closures of critical waterways to two days in an average winter and eight days in a severe winter. There were no closures in FY00. The winter of 1999 – 2000 was slightly warmer than average. Many of the vessels assisted in FY00 carried petroleum products for home heating and power generation. Without icebreaking support, many communities in the Northeast would experience calamitous oil shortages during the coldest days of a harsh winter.

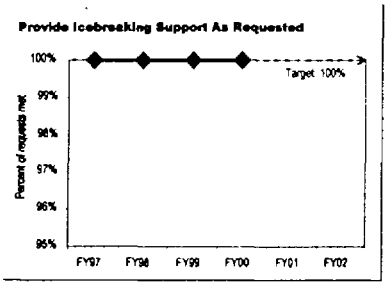
United States Coast Guard domestic icebreaking operations continue to be an integral and vital component of the Marine Transportation System for all commercially navigable waterways in the Northeast and throughout the Great Lakes and St. Lawrence Seaway. Without a robust icebreaking capability, maritime commerce would essentially cease to move during the winter.



Polar Operations

The United States Coast Guard is the sole U.S. operator of heavy icebreakers. We conduct polar operations to facilitate the movement of critical goods and personnel in support of scientific and national security activity in the polar regions. Scientists in the Antarctic only have four months of summer in which to work – an inability to resupply science operations by ship every year would essentially shut down U.S. Antarctic research activities at McMurdo. The U.S. Coast Guard is also responsible for assuring that supplies and logistics are delivered to Thule Air Force Base in Greenland. This facility is one of three missile detection and tracking stations monitoring the skies of northern Europe. Without this service, these bases could not perform vital functions.

The U.S. Coast Guard must maintain sufficient icebreaking capability to ensure that these missions can be reliably executed—there is no backup asset to finish the task in the remote polar frontiers, or render assistance if the primary asset breaks down or is beset in the ice. In addition to logistics, polar icebreakers promote a U.S. presence in the polar regions, serve as floating scientific laboratories to support National Science Foundation research, and support State Department treaty compliance inspections.



We met our goal to provide icebreaking capability as requested by the National Science Foundation, Defense Department and State Department 100 percent of the time. We provided science and logistics support to the National Science Foundation in both the Arctic and Antarctic. We also assisted U.S. Fish and Wildlife Service projects focused on Arctic science.

While the U.S. Coast Guard has continued to meet support request 100 percent of the time, in the past it has not been able to provide needed scientific research capabilities. However this year the U.S. Coast Guard acquired the *USCGC Healy*, to provide a platform from which scientists can conduct research projects in the harsh landscape of the Arctic and Antarctic – in addition to providing multi-mission capability.

Over a six-month voyage, the crew of the *CGC Healy* tested and evaluated the capabilities of the U.S. Coast Guard's newest polar icebreaker. The three phased trials program, consisting of warm water sea trials, icebreaking trials, and science systems trials, was successfully completed. The *CGC Healy* is scheduled for its initial unrestricted science cruise in May 2001—an Eastern Arctic deployment—during which it will be working extensively with the German heavy icebreaker *Polar Stern*. The impressive success of Healy's science trials program, which was staffed by scientists and technicians with national stature, has generated excitement in the Arctic science community.

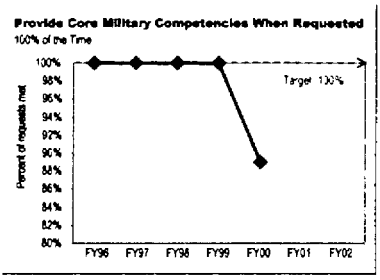
Military Operations

The United States Coast Guard is a unique instrument of national security and fills a variety of roles to meet the panorama of national security issues that we face. U.S. Coast Guard active duty and reserve components provide complimentary capabilities supporting other military services: maritime interception operations, environmental defense operations, peacetime engagement, and deployed port security and defense operations. These U.S. Coast Guard capabilities were demonstrated during Operation Uphold Democracy in Haiti where U.S. Coast Guard aircraft, cutters, and port security units played a vital role. More than 40 of the world's 70 naval forces are, in essence, "coast guards." We are the best U.S. liaison to assist these forces in developing into strong, stable organizations that help maintain democratic governments throughout the world.

We did not meet our goal for providing our core military competencies when requested by the Department of Defense or Department of State 100 percent of the time. Only 89 percent of requests were met in 2000. Requests for scheduled employment of U.S. Coast Guard resources in support of the Defense and State Department requirements are normally negotiated in advance based upon projected resource availability. However, programmed U.S. Coast Guard support does not fully satisfy Defense Department aspirations. The U.S. Coast Guard met 370 of 415 days requested to support CinC initiatives.

Frontline protection against many current and emerging threats to our national and maritime security begins at sea. In 2001 and beyond, the U.S. Coast Guard will continue to maintain capability to meet Department of Defense and the Department of State operational needs. However, obsolete, aging, and maintenance intensive deepwater assets that lack interoperability strain the U.S. Coast Guard's ability to meet these demands. The ability of the U.S. Coast Guard to modernize its operational assets and leverage rapidly improving technology is critical to meeting today's high tech maritime and national security challenges.

With the Deepwater acquisition project, the U.S. Coast Guard is developing an integrated system of surface, air, command and control assets; surveillance; and logistics systems to carry out operational mandates in the deepwater area of responsibility. This initiative will provide more effective capability in place of assets that are beyond or are rapidly approaching the end of their service lives to ensure the U.S. Coast Guard—as one of the five Armed Services—can provide its essential and unique contributions to the Nation's maritime needs.



Military Readiness

The United States Coast Guard did not meet its target for providing the required number of "combat ready" units to fill the CinC's operational requirements 100 percent of the time. Our units were ready only 51 percent of the time. Our measure of military readiness is continuing to undergo refinement to more accurately reflect the spectrum of support provided by U.S. Coast Guard forces in meeting CinC operational requirements.

We were able to meet CinC requirements for patrol boats 100 percent of the time, with additional patrol boats available for immediate reconstitution and/or backfill.

High endurance cutters (HECs) were available to meet CinC requirements only 53 percent of the time during FY00. The major reasons our cutters were not considered immediately ready were personnel and training shortfalls, followed closely by equipment casualties.

Although the minimum standard for Port Security Units (PSUs) has not been achieved, there has been substantial progress toward attaining the minimum overall readiness rating for individual units. All major equipment has been provided, and efforts are underway to resolve persistent personnel vacancies and supply shortfalls. Training and exercise deficiencies are being eliminated.

Though Port Security Units made incremental improvements, they did not meet our service objective of having all six units "combat ready" year-round. Two units were combat ready at the same time. A third unit was nearly ready. The remaining three units made substantial baseline training and exercise progress required to attain the minimum required readiness levels.

Several Port Security Units were able to enhance skills and unit proficiency through participation in the following operations and exercises: Foal Eagle, Bright Star, Linked Seas, the International Naval Review, and the current Middle East deployment.

Budget in Brief

[redacted]	FY00 Actual[4]	FY01 Enacted	FY02 President's Budget
Operating Expenses (OE) [1]	2,852,813	3,184,978	3,382,838
Acquisition, Construction and Improvements (AC&I) [2]	999,099	414,087	659,323
Environmental Compliance and Restoration (EC&R)	16,924	16,663	16,927
Alteration of Bridges (AB)	14,943	15,466	15,466
Retired Pay	730,327	778,000	875,346
Reserve Training	71,952	80,198	83,194
Research, Development Test & Evaluation (RDT&E)[3]	18,993	21,273	21,722
Oil Spill Recovery	61,815	61,200	61,200
Boating Safety Account	64,000	64,000	64,000
Gift Fund	214	80	80
Total	**4,831,080**	**4,635,945**	**5,181,096**

[1] Includes from DOD: $300M in FY00, $340M in FY01 and FY02. Includes $25M in FY00, FY01 and FY02 from the Oil Spill Liability Trust Fund. FY00 includes $3.5M reduction for Year 2000 Conversion Rescission, $1.5M reduction for TASC, $25K Clinger Cohen Transfer, $301K ONDCP HIDTA transfer and $77M from the FY01 Military Construction appropriation pursuant to P.L. 106-246.

[2] Includes $20M in FY00, FY01 and FY02 from the Oil Spill Liability Trust Fund. FY00 includes $623M from the FY01 Military Construction appropriation. $11.4 reduction pursuant to P.L. 106-246.

[3] Includes $3.5M in 2000, and $3.4M in 2001 and 2002 from the Oil Spill Liability Trust Fund.

[4] FY 2001 includes a government wide rescission of $7.022 million for Operating Expenses, $913 thousand for Acquisition, Construction, and Improvements, $37 thousand for Environmental Compliance and Restoration, $34 thousand for Alteration of Bridges, $177 thousand for Reserve Training, and $47 thousand for Research, Development, Test and Evaluation pursuant to P.L. 106-554.

Operating Expenses

This appropriation funds the continued operation and maintenance of a wide range of vessels, aircraft, shore units and aids to navigation. The request funds Coast Guard missions, including search and rescue, drug interdiction, illegal migrant interdiction, and marine safety and environmental protection. The Operating Expenses appropriation also provides for military and civilian salaries.

FY01 Enacted (dollars are in the thousands)	3,184,978
FY01 Base	2,941,039
Programmatic Reductions	
Termination of One-time Costs	- 8,550
Annualization of FY01 Management Savings	- 5,731
Management and Technology Efficiencies	
Scheduled Decommissioning of Four Seagoing Buoy Tenders	- 3,946
Local Notice to Mariners (LNM) Automation Savings	- 265
Administrative and Support Personnel Reductions	- 3,086
Surface Asset Reallocation	-14,982
Aviation Asset Reallocation	-42,779
Marine Safety Efficiencies	-656
Operational Capability Sustainment	-28,185
Subtotal Program Reductions	**-108,200**

Built-in Changes	
Personnel Entitlements	
FY02 Pay Raise (Military 4.6% Civilian 3.6%)	63,266
Escalating Health Care Costs	32,960
Civilian Workforce Mandatory Expenses	500
Out-Year Costs for Previously Obligated Enlistment and Retention Bonuses	5,600
Increasing Contract Costs	24,414
Annualizations	
Annualization of FY01 Part-year Funding (New Initiatives/Enhancements)	26,424
Annualization of FY01 Pay Raise (3.7%)	15,931
Annualization of FY01 National Defense Authorization Act Entitlements (Non-Medical)	47,000
Operational Adjustment	
Increasing Cost of Readiness Capability Sustainment	1,454
Increasing Fuel and Energy Costs	45,750
GSA Rent Increase	3,000
National Telecommunications and Information Administration (NTIA) Fees	195
Subtotal Built-in Changes	**266,494**
Operate New Facilities	
Shore Facility Construction Follow-on	1,646
Commission and Operate Three Seagoing Buoy Tenders	9,808
49-Foot Stern Loading Buoy Boat (BUSL) Follow-on	346
Defense Message Service Follow-on	400
47-Foot Motor Life Boat (MLB) Follow-on	4,955
USCGC Healy Aviation Detachment Support Follow-on	3,854
Ports and Waterways Safety Systems (PAWSS) Installation Follow-on	245
Surface Search Radar SPS-73 System Follow-on	870
Configuration Management System Project Follow-on	578
Commercial Satellite Communications (SATCOM) Follow-on	1,029
Military Satellite Communications (MILSATCOM) Follow-on	225
Global Maritime Distress and Safety System (GMDSS) Digital Selective Calling (DSC) Alert Processing System Follow-on	87
Commission and Operate Ten Coastal Patrol Boats	3,377
Self Locating Datum Marker Buoy (SLDMB) Follow-on	774
Digital Voice Logger Follow-on	500
Local Notice to Mariners Automation Follow-on	925
Search and Rescue Capabilities Enhancement Follow-on	80
Differential Global Positioning System (DGPS) Follow-on	295
Human Resources Information System Follow-on	1,173
Subtotal Operate New Facilities	**31,167**

New/Enhanced Initiatives	
Safety Enhancements	
Marine Transportation System Personnel and Information Management Tools	845
Search and Rescue System Enhancements	5,541
Passenger Vessel Safety	649
Personnel Support Initiatives	
Funeral Honors Duty	50
Transit and Vanpool Benefits Increases	750
Improve Oil and Hazardous Material (Hazmat) Spill Response Capability	564
Subtotal New Initiatives	8,399
Total FY02 OE Changes	**197,860**
Total FY02 OE Request	**3,382,838**

Acquisition, Construction and Improvements

The FY02 AC&I appropriation of $659,323,000 funds procurement of capital assets which enable the U.S. Coast Guard to effectively and efficiently accomplish missions as determined by sound public policy. Maintaining an effective level of necessary services to the public increasingly requires capital assets that are more capable and efficient than the assets they replace.

In the Vessel category of the account, the U.S. Coast Guard's goal is to buy multi-mission platforms that use advanced technology to reduce life-cycle operating costs. As shown below, the U.S. Coast Guard is using some ships that are more than 50 years old. The FY02 request will continue the Deepwater Capability Replacement Project by awarding a contract to begin building the selected Deepwater system.

In the Aircraft category, our goal is to ensure safety in the performance of U.S. Coast Guard missions, upgrade existing systems and extend the service life of aircraft currently in inventory.

In the Other Equipment mission support category, the U.S. Coast Guard invests in numerous communication, management information and decision support systems for increased efficiencies, personnel reductions and Operating and Maintenance savings while providing needed operational capabilities.

In the Shore Facilities support category, the U.S. Coast Guard invests in modern structures that are more energy-efficient, comply with regulatory codes and minimize follow-on maintenance requirements.

FY02 Request (dollars are in the thousands)

Vessels	
Survey And Design — Cutters and Boats	500
Seagoing Buoy Tender (WLB) Replacement	70,000
Polar Class Reliability Improvement Project (RIP)	4,490
Subtotal — Vessels	74,990
Deepwater Project	
Deepwater Capability Replacement Project	338,000
Aircraft	
Aviation Parts Sustainment	27,000
C-130J Provisioning and Training Support Analyses	500
Subtotal - Aircraft	27,500

Other Equipment	
Ports and Waterways Safety Systems (PAWSS)	12,500
Marine Information for Safety and Law Enforcement (MISLE)	7,450
National Distress and Response System Modernization (NDRSM)	42 000
Defense Message System (DMS) Implementation	2,000
Commercial Satellite Communications (SATCOM) Upgrade	1,500
Global Maritime Distress and Safety System (GMDSS)	2,200
Search and Rescue Capabilities Enhancement Project	1,320
Thirteenth District Microwave Modernization Project	800
Hawaii Rainbow Communications System Modernization	3,100
High Frequency (HF) Recapitalization and Modernization	2 500
Readiness Management System (RMS)	1 675
DOD C41 Interoperability	1 530
Command Center Readiness and Infrastructure Recapitalization Project	727
P-250 Pump Replacement	2 046
Configuration Management Phase II	6 023
Self-Contained Breathing Apparatus (SCBA) Replacement	1,000
Minor Information Technology Projects	2,000
Subtotal – Other Equipment	**90,371**
Shore Facilities/Aids to Navigation	
Survey and Design - Shore Operational and Support Projects	7,000
Minor AC&I Shore Construction Projects	7,162
Consolidate Elizabeth City Aviation and Station Facilities – Phase I	6,300
Coast Guard Housing—various locations	11,000
Engineering Logistics Center - Warehouse Consolidation	12,600
Rebuild Group-Marine Safety Office Long Island Sound	4,900
Replace Coast Guard Station Port Huron – Phase II	3,100
Construct New Station Brunswick	3,600
Replace ISC Boston Building No 8 Utilities	1,600
Waterways Aids to Navigation Infrastructure	6,000
Subtotal – Shore	**63,262**
Personnel and Related Support Costs	
AC&I Core Competencies and Capabilities	700
AC&I Personnel Costs	64,500
Subtotal – Personnel	**65,200**
Total FY02 Request	**659,323**

Other Appropriations

Funding Profile (Dollars in millions)	Reserve Training ❶	Environmental Compliance And Restoration ❷	Research, Development, Test, and Evaluation* ❸	Alteration of Bridges** ❹	Boat Safety ❺			Retired Pay ❻	Oil Spill Recovery ❼
FY96	$62.0	$21.0	$18.0	$16.0	$20.0	$10.0	$30.0	$579.5	$51.6
FY97	$65.4	$21.9	$19.0	$15.0	$35.0	$10.0	$45.0	$616.8	$57.0
FY98	$67.0	$21.0	$19.0	$17.0	$35.0	$20.0	$55.0	$653.2	$59.3
FY99*	$74.0	$21.0	$17.0	$17.6	$0	$64	$64	$684.0	$65.8
FY00	$71.9	$16.9	$18.9	$14.9	$0	$64	$64	$730.3	$61.8
FY01	$80.2	$16.7	$21.3	$15.5	$0	$64	$64	$778.0	$64.2
FY02	$83.2	$16.9	$21.7	$15.5	$0	$64	$64	$876.4	$67.2

*In FY99, the U.S. Coast Guard received $5 million supplemental RDT&E funding.
**Funding for this account will be derived from the Federal Highway Administration account. FY99 includes $2.8 M transferred from DOD.

❶ Reserve Training

The U.S. Coast Guard Reserve Forces provide qualified personnel for response to conflict, national emergency, or natural and man-made disasters. Reservists maintain their readiness through realistic coordinated mobilization exercises, formal military training and duty alongside regular Coast Guard members during routine and emergency operations. The requested level of $83 million provides resources to fully train, support and sustain a Selected Reserve force of 8,000 members. The U.S. Coast Guard is one of the five armed forces and is a full partner on the Joint National Security Team. The U.S. Coast Guard's commitment in this area is demonstrated by the employment of Port Security Units (PSUs) in response to Department of Defense requirements. PSUs are a mix of active duty and reserves that protect mission essential cargoes in vital loadout/destination ports. This wartime or national security mission is a natural extension of the port safety function that the U.S. Coast Guard performs daily in peacetime. The U.S. Coast Guard Reserve also provides a cost-effective surge capacity for responses to human and natural disasters (e.g., hurricanes, flooding, earthquakes, and immigration). Only the U.S. Coast Guard can simultaneously fill such maritime safety, maritime law enforcement and marine environmental protection roles. These unique capabilities are products of the U.S. Coast Guard's mission diversity, which the Reserves supplement as surge capacity for Coast Guard operations.

❷ Environmental Compliance and Restoration

The U.S. Coast Guard Environmental Compliance and Restoration account provides resources to carry out environmental compliance and restoration responsibilities resulting from the operation of former and current Coast Guard facilities. This program focuses on specific restoration projects, driven by the level of hazard posed to the environment and tempered by the demands of federal, state and local environmental regulatory agencies. Continuing compliance initiatives include meeting the more stringent emission requirements of the Clean Air Act Amendments of 1990, developing hazardous waste minimization strategies, pollution preventing shore facility improvement projects, performing proactive compliance audits to preclude regulatory action and prototyping of more environmentally friendly equipment.

❸ Research, Development, Test & Evaluation

The overall goal of the Research, Development, Test and Evaluation program is to employ new technologies in improving the performance of all Coast Guard missions while improving productivity. The investments in RDT&E result in: reductions in the number of lives lost at sea; improvements in efficiency of maritime commerce that translate directly into national economic gains; reduction in the destruction of the environment by oil and chemical spills; improvements in our enforcement of laws and treaties and direct savings to the taxpayer in the costs required to operate the U.S. Coast Guard.

4

This appropriation provides the Federal Government's share of the costs for altering or removing bridges determined to be obstructions to navigation. Alteration of obstructive highway bridges is eligible for funding from the Federal-Aid Highways program. The Coast Guard will continue to make the determinations as to whether any bridge presents an unreasonable obstruction to navigation, and to administer the program.

Generally, bridges to be altered were built with what are now insufficient vertical and/or horizontal clearances for free navigation on navigable waters of the United States. Currently, under the Truman-Hobbs Act of 1940, as amended, the U.S. Coast Guard shares the cost of altering railroad and publicly owned highway bridges which obstruct the free movement of marine traffic. In addition, the U.S. Coast Guard exercises administrative control over the construction, maintenance and operation of bridges across navigable waters in the United States.

5

Boating Safety funds provide $59 million for grants to States and national nonprofit public service organizations to develop and carry out recreational boating safety programs, and $5 million for Coast Guard coordination of the National Recreational Boating Safety Program, established by the Federal Boat Safety Act of 1971, as amended.

6

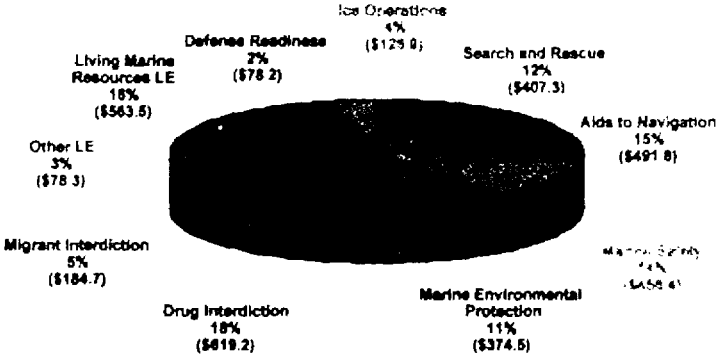
This appropriation provides funding to pay retired military personnel of the U.S. Coast Guard, Coast Guard Reserve and members of the former Lighthouse Service. It also makes payments to their survivors pursuant to the Retired Serviceman's Family Protection Plan and the Survivor Benefits Plan, payments for career status bonuses under the National Defense Authorization Act. Since 1983, the medical care of retirees and dependents—formerly financed by the Department of Health and Human Services under the Dependent's Medical Care Act—has been funded under this account.

7

The Oil Spill Liability Trust Fund provides a source of funds for removal costs and damages, including assessment of damaged natural resources, paying claims and for federal expenses necessary to administer the Fund. In accordance with the provisions of the Oil Pollution Act of 1990, the fund may finance annually up to $50 million of emergency resources and all valid claims from injured parties resulting from oil spills. The $61.2 million request consists of $50 million for emergency response costs, $10 million for payment of claims and $1.2 million for the Oil Spill Recovery Institute.

Operating Expenses Budget by Major Programs - FY02

(Dollars in Millions)



Below is a summary statement—comparable to financial reports issued by private and nonprofit sector organizations—to show the United States Coast Guard's financial position.

U.S. Department of Transportation

BUDGET ESTIMATES

FISCAL YEAR 2002

UNITED STATES COAST GUARD

SUBMITTED FOR USE OF
THE COMMITTEES ON APPROPRIATIONS

U. S. COAST GUARD
CONGRESSIONAL STAGE (C-STAGE) BUDGET
JUSTIFICATION

FY 2002 BUDGET REQUEST GENERAL STATEMENT

The Coast Guard's Fiscal Year (FY) 2002 budget proposes budget authority of $5.2 billion. This budget provides for the continuation of high value service to the American public as well as advancing Administration objectives. Support of this request will allow the Coast Guard to continue delivering basic, essential services expected by the American public, to execute specific presidential initiatives, and to address pressing capital investment needs.

The Coast Guard continues to aggressively implement the Government Performance and Results Act (GPRA). The performance plan included with this budget refines our FY 2001 plan and is closely aligned with and supports the Department of Transportation Strategic Plan. Examination of the performance outcomes reveals that the Coast Guard provides a tremendous return on investment for the nation. Our search and rescue mission, only a portion of our safety-related activities, typically results in the saving of more than 4,000 lives and over $1.0 billion in property annually. In protecting natural resources, the Coast Guard not only combats environmental damage due to maritime transportation accidents, but also enforces fisheries regulations to protect this valuable national resource. National mobility and commerce are enhanced through Coast Guard aids to navigation and ice operations. As a military armed service with law enforcement responsibilities, the Coast Guard is a unique instrument of national security with substantial peacetime responsibilities in Homeland Security. The Coast Guard protects America's ports and waterways against terrorism and the introduction of weapons of mass destruction. In addition, the Coast Guard actively protects our expansive maritime borders against other asymmetric and transnational threats such as the flow of illegal drugs, aliens and contraband. The focus on performance and outcomes highlights how much value the Coast Guard provides. This budget will provide for the continuation of these basic services with carefully targeted enhancements such as the President's commitment to stop the flow of illegal drugs into America.

People remain our greatest asset and this budget addresses many of the issues required to maintain a dedicated workforce. This budget includes funding for the President's announced pay raise for 2002 (military 4.6%; civilian 3.6%), annualization of the 2001 pay increase, costs associated with increasing health care, and annualization of FY 2001 National Defense Authorization Act mandatory personnel entitlements. These initiatives begin to address the Administration's commitment to people and help in the increasingly difficult recruiting and retention environment faced by all of the armed forces. This budget also provides vital capital investment consistent with the President's goal to fully fund the authorizations of the Western Hemisphere Drug Elimination Act. First enacted in 1998, this Act authorized funding for Coast Guard cutters, patrol vessels and air support for counter-drug efforts. In the FY 2002 budget, $243.0 million in additional funding is provided under this initiative for the acquisition, construction and improvement of cutters, planes and equipment to enhance Coast Guard drug interdiction

efforts and to replace the Coast Guard's aging fleet of cutters and aircraft. Coast Guard men and women risk their lives every day and must be provided the equipment and facilities needed to safely perform their jobs – this budget provides many of these essential tools.

Operating Expenses (OE)

The $3.4 billion request for OE will fund the continued operation and maintenance of a wide range of multi-mission ships, boats, aircraft and shore units. This level is a 6 percent increase over the President's FY 2001 enacted budget. This OE request includes $24.9 million from the Oil Spill Liability Trust Fund and $340.2 million chargeable to Function 054.

In the Programmatic Reductions category, this request includes $108.2 million of savings provided from the termination of one-time costs, annualization of FY 2001 management savings and numerous management and technology efficiencies.

In the Built-In Changes category, this request includes $132.3 million for pay raises and mandatory entitlements. A total of $107.8 million for inflationary cost increases associated with fuel and energy, health care expenses, property rent, contracts, and readiness capability sustainment is included in this request. Also, this request includes $26.4 million to annualize those new initiatives and enhancements begun in FY 2001.

In the Operate New Facilities category, $31.2 million is requested to operate new facilities that were brought on line as a result of investments made in FY 2001 and previous years. Facilities such as newly commissioned seagoing buoy tenders, 47-foot motor lifeboats, 49-foot stern loading buoy boats, and further refined Vessel Traffic Services in Sault Ste. Marie, Michigan and Berwick Bay, Louisiana will improve maritime safety and mobility on the nation's waterways. The commissioning of ten coastal patrol boats will improve our maritime law enforcement capabilities. Other projects involving commercial and military satellite communications, sensor enhancements, and the defense message service will facilitate the more effective and efficient delivery of all Coast Guard missions.

In the New / Enhanced Initiatives category, funding has been included to continue improving performance in the Coast Guard's mission areas of Search and Rescue and Maritime Safety. Approximately $5.5 million has been requested to address the recommendations from the National Transportation Safety Board's report concerning the tragic loss of lives on the sailing vessel MORNING DEW which were the subject of a Congressional hearing (November 3, 1999). This request includes $2.1 million to address critical maritime safety and environmental issues including the recommendations contained in the September 1999 Marine Transportation System Report to Congress, inspections of passenger vessels (i.e. cruise ships) and contingency planning to prevent major environmental damage from oil / hazardous material Spills of National Significance. Also, $0.8 million has been requested for personnel support initiatives.

Acquisition, Construction and Improvements (AC&I)

The FY 2002 AC&I request is critical to shaping the future of the Coast Guard. This request sustains operational capability, implements Presidential initiatives and continues to provide the taxpayer with a highly efficient Coast Guard. We must be able to recapitalize and modernize our assets to effectively and efficiently meet the challenges we see in the 21st century.

The $659.3 million request assumes $20.0 million from the Oil Spill Liability Trust Fund. This request specifically includes $243.0 million in support of the President's goal to fully fund the authorizations of the Western Hemisphere Drug Elimination Act and the Integrated Deepwater System Project.

In the Vessels category, $70.0 million is requested for the continuing Seagoing Buoy Tender Replacement Project. In addition, $5.0 million is requested for the Polar Class Icebreaker Reliability Improvement Project and survey and design for cutters and small boats, which supports future year cutter and boat renovation and acquisition programs.

In the Deepwater Capability Replacement Project category, $338.0 million is requested to recapitalize and modernize the Coast Guard's deepwater capability. In the Report of the Interagency Task Force on U.S. Coast Guard Roles and Missions (December 1999), the task force validated that the Coast Guard's Integrated Deepwater System Project represented a sound approach and that the recapitalization of the Coast Guard's deepwater capability is a near term national priority.

Of the $27.5 million requested in the Aviation category, $27.0 million will purchase aircraft spare parts and $0.5 million is for provisioning and training associated with the HC-130J acquisition project.

In the Other Equipment category, $12.0 million is requested to address various command, control and communications projects such as the recapitalization of the Coast Guard's high frequency communications system. In addition, $61.1 million is requested to support initiatives that will result in enhanced maritime safety as well as safety for Coast Guard personnel (National Distress and Response System Modernization Project, Ports and Waterways Safety System, Global Maritime Distress Safety System, Search and Rescue Capabilities Enhancement Project, P-250 Pump Replacement and Self-Contained Breathing Apparatus Replacement). Also, $17.2 million is requested for advancements in information technology (Configuration Management – Phase II, Marine Information for Safety and Law Enforcement (MISLE), Readiness Management System, and support for minor information technology projects).

In the Shore and Aids to Navigation category, $63.3 million is requested to support Coast Guard housing, facility improvements, and aids to navigation projects. Finally, $65.2 million is requested for personnel and core acquisition costs associated with these capital improvement projects.

Reserve Training (RT)

This budget requests $83.2 million to fully train, support, and sustain a Coast Guard Selected Reserve Force of 8,000 members. The Reserve is an integral part of Team Coast Guard and beyond an augmentation force, provides daily support of all Coast Guard missions. Today's Coast Guard depends on Reserve personnel for day-to-day activities in addition to the qualified military surge capacity a trained Reserve Force provides.

The Coast Guard Reserve fills critical national security and national defense roles in direct support of Department of Defense theater commanders. The Coast Guard Reserve provides the nation's only deployable port security capability. Additionally, the Coast Guard Reserve's unique capabilities supplement Service missions as a cost-effective surge capacity for Coast Guard operations including quick response to natural or man-made disasters such as floods, hurricane relief, major pollution cleanup efforts, and rapid response to major catastrophes.

Research, Development, Test and Evaluation (RDT&E)

The Coast Guard requests $21.7 million for RDT&E. The Coast Guard continues to leverage a productive R&D program that exploits technology to improve productivity and enhance effectiveness of mission performance. The Coast Guard has revised its program, project or activity (PPA) areas to more effectively align investment areas with the Coast Guard's overall strategic plan and performance goals. Funds will provide for research, development, testing and evaluation of technologies and processes to directly improve service delivery outcomes that benefit the American public. For example, the Research and Development Center is teaming with other government agencies to develop fuel cell propulsion technology that will meet operational needs in an environmentally sensitive manner. The continued development of advanced sensor technology and contraband detection methods are improving the effectiveness and efficiency with which the Coast Guard's interdiction responsibilities are being conducted. Ballast water management and aquatic nuisance species neutralization research is pursuing a cost-effective solution to counter the extensive environmental damage that is affecting U.S. waterways. Lastly, the development of search planning tools, risk management decision tools and the study of human fatigue and fire safety measures will contribute to increased safety among commercial and recreational mariners.

Alteration of Bridges

This budget requests $15.5 million for necessary expenses of alteration or removal of obstructive railroad bridges.

Environmental Compliance and Restoration (EC&R)

This budget provides $16.9 million to carry out the Coast Guard's environmental compliance and restoration responsibilities. These responsibilities include environmental cleanup and restoration of contaminated current and former Coast Guard facilities, and proactive measures to bring Coast Guard facilities, vessels, and aircraft into compliance with federal and state environmental regulations. Failure to meet restoration or compliance responsibilities could subject the Coast Guard to fines, penalties, or shutdown of operational assets by environmental regulators. Major cleanup projects are required to continue at Kodiak, Alaska and Elizabeth City, North Carolina in FY 2002 to comply with Federal and state requirements. Funds requested for these major projects will allow the Coast Guard to meet legally mandated milestones. The requested funding level will also keep the Coast Guard's aids to navigation (ATON) battery recovery program on track, consistent with the ten-year closure goal established in the Coast Guard's 1995 National Plan for ATON Battery Recovery and Disposal. Compliance efforts include ongoing unit assessments that allow Commanding Officers to detect and correct discrepancies before they become problematic, meeting provisions of the Clean Air Act, pollution prevention actions, and waste minimization initiatives which decrease the amount of hazardous materials that must be handled and discarded.

Boat Safety

The Coast Guard requests $64.0 million for FY 2002, consistent with the Transportation Equity Act (TEA21) that provides $59.0 million from the Aquatic Resources Trust Fund for permanent budget authority grants to state recreational boating safety (RBS) programs and $5.0 million for Coast Guard coordination of the national boating safety program. A substantial component of this program will involve regulation and compliance monitoring of safety standards involving recreational boating equipment.

Retired Pay

The Coast Guard requests $876.4 million for Retired Pay. This appropriation provides funding to pay retired military personnel of the Coast Guard, Coast Guard Reserve and members of the former Lighthouse Service. It makes payments to their survivors pursuant to the Retired Serviceman's Family Protection Plan and the Survivors Benefits Plan. Additionally, this includes payments for career status bonuses under the National Defense Authorization Act for FY 2000. This appropriation also provides funding to cover medical care costs for retired military personnel and their dependents.

United States Coast Guard

Fiscal Year 2000 Performance Report

and

Fiscal Year 2002 Performance Plan

United States Coast Guard

Fiscal Year 2002 Performance Plan

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FY 2002 COAST GUARD ANNUAL PERFORMANCE PLAN

The Coast Guard exists to produce a wide range of public goods related to our national maritime interests. Those interests are embodied in the strategic goals and articulated in the 1999 Coast Guard Strategic Plan. In addition, from among the elements in the Strategic Plan, the Commandant identified his personal priorities for the next two years in the Commandant's Direction.

The Commandant's Direction guides the Coast Guard in managing its operations and resources. The two areas of emphasis and their associated imperatives identify the Commandant's personal priorities for the next two years. It describes what mangers will emphasize to ensure the Coast Guard remains on track with the long-term elements of the Strategic Plan as well as the vision outlined in Coast Guard 2020.

Restoring Our Readiness

- Restore the Workforce
- Restore Adequate Logistics and Support Systems
- Balance Workload to Match Resources
- Build a Readiness Management System

Shaping Our Future

- Implement the Future Force 21 Strategy
- Execute the Integrated Deepwater System Project
- Invest in Information Systems and Technology
- Lead the Marine Transportation System Initiative

The Coast Guard Annual Performance Plan (referred to hereafter as the Plan) is part of a larger planning architecture that includes the 1999 Coast Guard Strategic Plan which guides Coast Guard allocation and management of resources to achieve the most effective results in the most efficient manner. The Plan serves as a translator between the annual budget request and the performance outcomes that the Coast Guard aims to achieve in a particular fiscal year; in this case, FY 2002. Over the past few years, the Plan highlighted the linkage between budget resources, the mission activites funded by those resources, and the outcomes those activities produce. In FY 2002, the Coast Guard's Plan also includes management initiatives that enhance the administration and operation of the agency, including financial accountability and improvements in financial systems and processes.

The Plan is published as part of the budget submission to Congress each year. The Plan communicates corporate-level performance information through the entire organization. Though not all-inclusive of the FY 2002 strategies and initiatives required to achieve 2002 targets, the Plan should be used in the field as guidance in developing and executing the specific strategies and activities that produce outcomes in the maritime environment. The plan also communicates performance information to our external stakeholders—citizens, the Administration, Congress, other government agencies—for their use in making budget decisions and formulating public policy. In sum, the Plan is a strategic document, a budget document, and a communication tool.

The Plan is structured around the Coast Guard's strategic goals. The five strategic goals are: Maritime Safety, Maritime Security, Protection of Natural Resources, Maritime Mobility, and National Defense. The strategic goals are outcome goals; they are externally focused, and describe the results customers expect the Coast Guard to achieve (i.e. fewer deaths in the manne environment). Coast Guard mission areas such as defense operations, maritime law enforcement, port safety and security, environmental response, etc., describe the full range of activities that the Coast Guard undertakes daily to achieve our strategic goals. For example, a search and rescue case is the activity directed at maintaining safety on the water—an outcome described by the Maritime Safety strategic goal. All organizational effort and resources—both operational and logistical—are ultimately focused on producing strategic goals.

Strategic Goals

The Coast Guard has established five strategic "outcome" goals to describe the outcomes the Coast Guard seeks to achieve or influence over the long term.

Maritime Safety.....Eliminate deaths, injuries, and property damage associated with maritime transportation, fishing, and recreational boating.

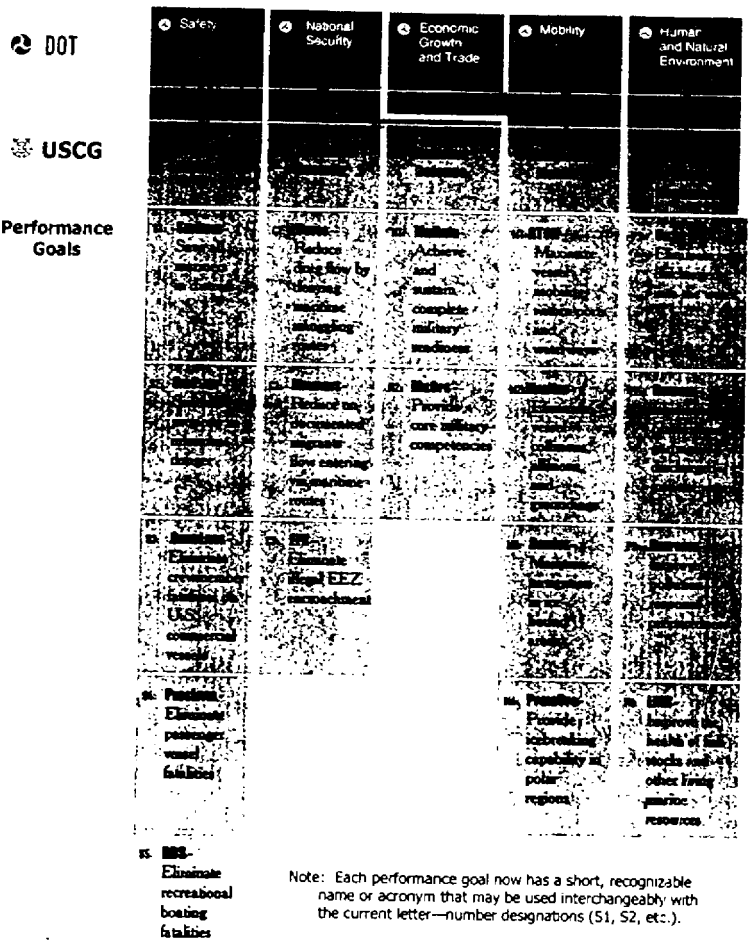
Maritime Security.....Protect our maritime borders from all intrusions by halting the flow of illegal drugs, aliens, and contraband into this country through maritime routes; preventing illegal incursions of our Exclusive Economic Zone; and suppressing violations of federal law in the maritime region.

Protection of Natural Resources....Eliminate environmental damage and natural resource degradation associated with all maritime activities, including transportation, commercial fishing, and recreational boating.

Maritime Mobility.....Facilitate maritime commerce and eliminate interruptions and impediments to the economical movement of goods and people, while maximizing recreational access to and enjoyment of the water.

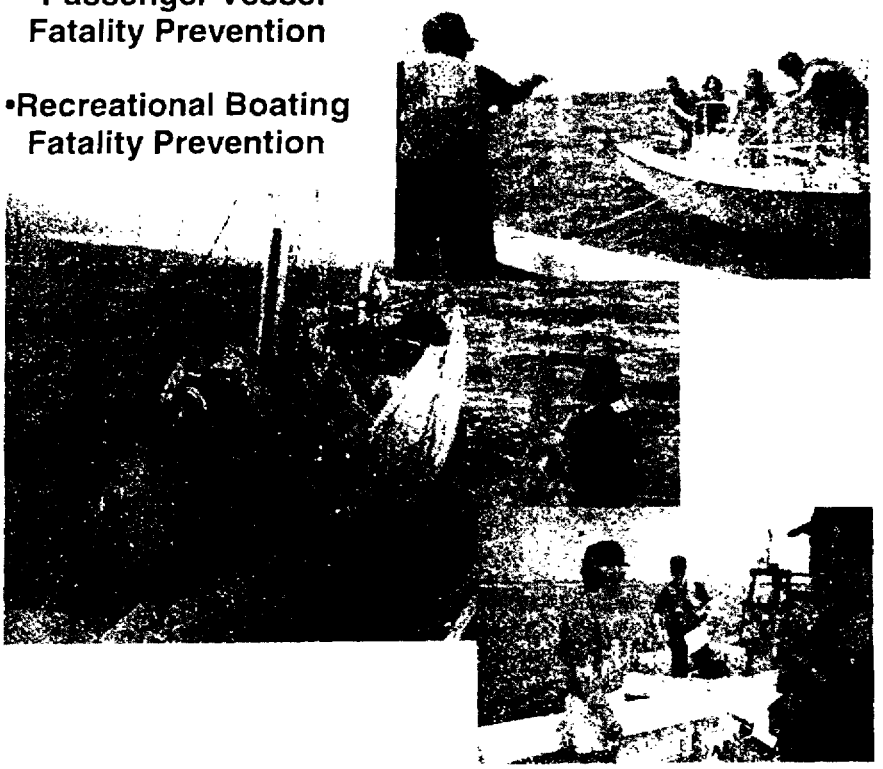
National Defense.....Defend the nation as one of the five U.S. Armed Services. Enhance regional stability in support of the National Security Strategy, utilizing our unique and relevant maritime capabilities

Summary of Coast Guard Performance Goals



Maritime Safety

- Search and Rescue
- Maritime Worker Fatality Prevention
- Passenger Vessel Fatality Prevention
- Recreational Boating Fatality Prevention



MARINER RESCUE: The number of recreational and commercial marine users continues to increase as more Americans move to coastal areas and global trade grows. Operating in a remote, unforgiving environment, many mariners lose their lives, many more are injured, and billions of dollars of property are at risk. The U. S. Coast Guard is the sole government agency that has the expertise, assets, and around the clock, on-call readiness to conduct search and rescue missions in all areas of the maritime environment. Annually, the Coast Guard responds to approximately 40,000 calls for assistance; since the 1700's, mariners have depended on the Coast Guard to provide rescue services in time of need.

Performance Measure: Percent of all mariners in imminent danger who are rescued.

Target:	1999	2000	2001	2002
	N/A	N/A	85%	85%
Actual:	87.5%	82.7%		

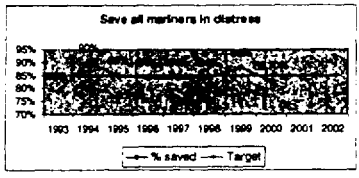
Performance Measure: Percent of property reported in imminent danger saved.

Target:	1999	2000*	2001	2002
	N/A	80%	80%	80%
Actual:	80%	63%		

* Due to upgrades to our database, results were reported using a different methodology for 2000 than 1999.

Discontinued Performance Measure: Percent of mariners reported in imminent danger who are rescued.

Target:	1999	2000
	93%	93%
Actual:	95%	93.4%



Note on Data: Due to changes in data queries, the percent of property saved is reported differently for 2000 than 1999. Our new database also allows us to report the number of missing persons. In this first year of data, more cases than expected were found where bodies were not recovered. Before adding this number into our data analysis, we will track and report it separately to assure that this represents a data trend and not an aberration.

External Factors: Several factors compound the difficulty of successful response: untimely notification to the Coast Guard of distress, incorrect reporting of the distress site location, severe weather conditions at the distress site, distance to scene, etc.

2000 Results: In 2000, the Coast Guard responded to 40,068 calls for assistance and saved 3,365 lives. While our ability to save the lives of mariners able to report their distress remains relatively constant, we are concerned about the drop in the percent of all mariners saved. This year we missed our goal of saving 85% of all mariners in distress. Only 82.7% were saved: the lowest result we have seen since 1993. An additional 297 people were lost at sea in 2000 and recorded as unaccounted for. Our old data system did not capture this statistic, and although we have always known some number of lives were not accounted for, we have not known its magnitude. When added to the lives lost in our "save all mariners in distress" measure, these additional cases drop our result to 77.1%. However, we were able to rescue 93.4% of mariners reported in imminent danger.

Historically the majority of search and rescue (SAR) cases involve recreational boats, commercial fishing vessels, and "people only" (swimmer, diver, etc.). These cases also make up the majority of lives lost. While there will always be some number of lives the Coast Guard will not be able to save due to the severity, location, or circumstances of the distress, there are improvements that can be made. The National Distress and Response System, our maritime emergency radio network, will be modernized (to be completed in 2005) to eliminate the 65 existing communications gaps, and add direction finding and immediate recorded voice playback and enhancement capability. NDRS's direction finding capability will reduce the amount of time expended on

hoaxes and false alarms – 25 percent of all SAR time.

FY 2001 Performance Plan Evaluation: Saving lives is the top priority of the Coast Guard. Our goal is within reach.

Strategies and Initiatives to Achieve 2002 Target: The Coast Guard aims to save as many lives and as much property as possible by operating fleets of cutters and aircraft, and rescue stations; using search sensors and search planning tools and tactics; and requiring mariners to use survival gear, distress notification, alerting, and locating equipment.

- Enhance Commercial Fishing Vessel Safety initiatives.
- Provide 24-hour watches at regional Rescue Coordination Centers, and manage the worldwide Automated Mutual-Assistance Vessel Rescue System – which provides position and communications information on vessels that are available to assist others at sea.
- Improve requirements for vessels to carry distress location equipment and survival gear.
- Differential Global Positioning System Follow-On (OE $295K). Operate the Global Maritime Distress and Safety System, MF & HF Digital Selective Calling Alert Processing System (OE $87K), (AC&I $2.2M), recapitalize Command Centers (AC&I $727K), and Modernize command and control communication capabilities in Districts 13 and 14 (AC&I $3.9M).
- Operate and maintain Coastal Patrol Boats and 47FT Boats (OE $8.3M), and enhance SAR capabilities through the Command and Control SAR Computer System (OE $80K).
- Commercial Satellite Communications (AC&I $1.5) (OE $1M). Self Locating Data Marker Buoy Operations (OE $774K).
- Provision and provide training support for the C-130J aircraft (AC&I $500K).
- Aviation Parts Sustainment ($27M)
- Manage waterway safety, security and environmental protection through the Ports and Waterways Safety System (PAWSS) and Marine Information for Safety and Law Enforcement (MISLE). (AC&I $20M).
- Implement the Readiness Management System (AC&I $1.7M)

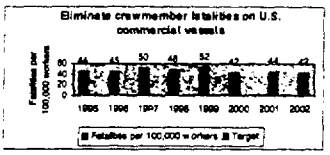
Other Federal Programs with Common Outcomes: The US Navy and Air Force have search and rescue capability, primarily for their own vessels and aircraft. The National Search and Rescue Manual establishes responsibilities and cooperative efforts between organizations that have search and rescue capabilities. The Air Force is the lead agency for land-based search and rescue; the Coast Guard is the lead for maritime search and rescue. Each assists the other depending on resources available for a particular search effort. Information is shared through formal search and rescue schools, and at search and rescue conferences and forum held worldwide. The Air National Guard als provides search and rescue capability.

MARITIME WORKER FATALITIES: Working in the marine environment is dangerous. Although the number of fatalities is relatively small, maritime workers have one of the highest fatality rates in the transportation field. The commercial fishing industry is purported to be one of the most hazardous in the Nation; on average (1992-1999), 78 crewmembers die per year. Loss of life has profound impacts on family, friends and communities; moreover, negative economic forces generated as a result of these tragedies ripple well beyond the maritime community.

Performance measure: Fatalities per 100,000 workers aboard commercial vessels.

Target:	1999	2000	2001	2002
	48	46	44	42
Actual:	52	42*		

* Preliminary data



Note on Data: The Coast Guard brought a new and improved IT system for its marine safety programs online in FY 2000, and as a result, revised the queries used to obtain data for this indicator. This revised indicator provides a more accurate and repeatable depiction of crewmember fatalities over time. The original FY 2002 target for fatalities was 30, which converts to 42 using the new methodology. This represents the same proportional reduction in crewmember fatalities that our programs were aiming for in the original target.

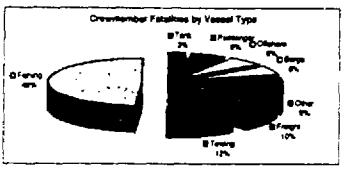
Crewmember fatality rate includes reportable marine casualties resulting in the death or disappearance of a crewmember or employee aboard U.S. vessels. Crewmembers include the following role types: deck crew and officers, engine crew and officers, employees, stewards, medical personnel, tankermen, etc.

We do not measure deaths or disappearances from foreign vessels, any platforms or facilities. We do not include instances when a death or disappearance is determined to be from natural causes or the result of an intentional act (e.g. suicide, heart attack, altercation, etc.).

External Factors: In the fishing industry, dwindling fish stocks and human error plays a significant role in worker fatalities; poor material condition of vessels or equipment plays a lesser role. The majority of deaths are attributable to personnel accidents vice vessel casualties (collisions, allisions, and groundings). Approximately one-half of all maritime worker fatalities occur on commercial fishing vessels. Deaths in this industry involve falls overboard, entanglement, capsizings, etc.

While the Commercial Fishing Industry Vessel Safety Act of 1988 has helped reduce fishing vessel fatalities 20 percent from pre-Act levels, dwindling fisheries stocks, more competition, and regulated limited-time fishing seasons have increased risk-taking by fishermen and made fishing-related deaths an ongoing problem. Compounding this is the fact that fishing vessels have few required safety standards. The variable nature of this industry makes it difficult to develop universal fishing safety regulations – vessels vary greatly in size and operate in diverse locations and climates.

Hazards to personnel have also been endemic to the tug and barge industry. Crewmembers working to attach a barge to a tug, or to free a grounded vessel are at risk of being crushed in an accident, or falling overboard – the single greatest cause of fatalities in this industry.



2000 Results: Although preliminary results indicate that maritime worker fatalities dropped in 2000, the casualty data indicate that the death rate among fishermen has reached a plateau or begun a slight upward climb while the population of fishing vessels is in steady state. However, the National Marine Fisheries Service believes that the industry is still over-capitalized and putting excessive pressure on fish stocks. Due to dwindling fish stocks, fishermen experience increased economic

pressure and competition resulting in reduced profit opportunities. These economic pressures combined with fisheries management decisions encourage risk taking, deferred maintenance of vessels, and deferred purchase/upkeep of required safety gear.

FY 2001 Performance Plan Evaluation: The most serious deficiency in casualty statistics is the lack of firm population data to serve as the denominator for death rates. Available estimates for fishermen equate to 160-180 fatalities/100,000 workers, making fishermen well above set goals. In short, the measure needs to be refined. For 2001, we may not meet the goal due to potential for the upward climb as noted in the 2000 results.

Strategies and Initiatives to Achieve 2002 Goal: The Commercial Fishing Vessel Safety Program (CFVS) is the Coast Guard's effort to improve safety in the fishing industry by helping fishermen comply with the regulations issued pursuant to the Commercial Fishing Vessel Safety Act of 1988. The CFVS program seeks to enhance safety through education, public awareness, voluntary dockside examination of vessels, and regulatory enforcement at sea. The Coast Guard's Marine Safety and Environmental Protection office convened the Commercial Fishing Vessel Task Force to review the state of CFVS program due to a rash of losses in January 1999.

The Task Force generated 59 recommendations, developing a CFVS Action Plan that continues to underpin ongoing activities. Among these recommendations is the need for regulations mandating inspections of fishing vessels and licensing requirements to reduce fishing vessel worker fatalities.

Within the other industry sectors, there has been a general reduction in the fatality rate due in part to the collaborative Prevention Through People (PTP) initiative efforts with industry groups. PTP initiatives promote awareness of safety risks and work to reduce the sizable role human error plays in fatalities. The partnership with American Waterways Operators has resulted in a decline in towboat worker deaths.

Related Coast Guard activities include:

- Legislative Change Proposals for mandatory examination of fishing vessels and crew training.
- Optimize prevention programs for all existing vessels. Adjust areas of focus pursuant to casualty analysis.
- Work with the International Maritime Organization to improve worldwide safety standards.
- Provide resources to support the Differential Global Positioning System (OE $295K) and Commercial Satellite Communications (AC&I $1.5M) (OE $1M).
- Operate and maintain Coastal Patrol Boats (OE $ 3M). 47FT Boat Follow-On (OE $4.955M).
- Provision and provide training support for the C-130J aircraft (AC&I $500K).
- Manage waterway safety, security and environmental protection through the Ports and Waterways Safety System (PAWSS) and Marine Information for Safety and Law Enforcement (MISLE). (AC&I $20M).
- Replace P-250 dewatering pumps aboard cutters (AC&I $2M).
- Recapitalize and replace high frequency (HF) capability (AC&I $2.5M). and recapitalize Command Centers (AC&I $727K). Modernize command and control communication capabilities in Districts 13 and 14 (AC&I $3.9M).
- Implement the Readiness Management System (AC&I $1.7M).

Other Federal Programs with Common Outcomes: Marine Casualty Investigation responsibilities are shared by the USCG and the National Transportation Safety Board (NTSB); both use investigation results to develop better safety strategies. USCG and the Occupational Safety and Health Administration (OSHA) have an agreement regarding the boundaries of each agency's authority for prescribing and enforcing standards or regulations affecting the occupational safety and health of seamen and passengers aboard vessels inspected and certificated by the Coast Guard.

PASSENGER VESSEL SAFETY: Each year over 207 million passengers are carried aboard cruise ships, ferries, charter fishing boats, sightseeing boats, gaming vessels and other commercial passenger vessels in the U.S. 5.85 million North American vacationers alone traveled on cruise lines in 1999 – and that number is expected to grow to 6.37 million in 2000. There are approximately 6,200 domestic passenger vessels and 130 foreign flag passenger vessels operating from U.S. ports. Collectively, these vessels provide one of the safest forms of transportation. But the capsizing of the amphibious passenger vessel MISS MAJESTIC in May 1999 on Lake Hamilton, Arkansas resulting in the deaths of 13 of the 21 passengers, highlights the potential for disaster that exists.

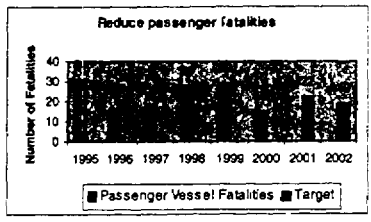
Performance measure: Number of fatalities aboard passenger vessels.

Target:	1999	2000	2001	2002
	—	23	22	19
Actual:	29	15*		

Discontinued Performance Measure: Number of high-risk passenger vessel casualties per 1,000 vessels.

Target:	1999	2000	2001	2002
Original:	N/A	47	46	—
Revised:	N/A	53	52	—
Actual:	45	41*		

*Preliminary data



Note on Revised Data: The new DOT strategic plan replaces the passenger vessel casualties measure (a measure of passenger vessel accidents) with a new measure of passenger fatalities. The new measure focuses on a specific outcome (passenger fatalities) that is more readily understandable and meaningful to both program managers and the public.

The original measure of "high risk passenger vessel casualties" was found to be inadvertently misleading because there was too much confusion as to what the data actually represented. The original measure focused on events (fire, explosion, flooding, allision, collision, capsizing, grounding or sinking) that increase the risk of a major loss of life on passenger vessels. However, because the public often associates death with the term "casualty," it was often assumed that there were a large number of people dying on passenger vessels, when in fact, this is not true. The Coast Guard is actively engaged in improving performance measures, and will substitute better ones as appropriate.

External Factors: As newer vessels are put into use with much higher passenger capacities and speeds, the risk for a major catastrophe involving a passenger vessel increases, as does the potential for loss of life. There has been growth in the use of high speed, high capacity ferries in Puget Sound, San Francisco, Southern California, and the Northeast. Also, unique winged craft are being developed. In sum, future passenger industry growth will increase congestion and maritime casualty risk on coastal and inland waterways.

In addition, as most cruise ships are foreign flagged, the Coast Guard is limited to port state enforcement; flag state regulators and classification societies make up the other oversight sources. The Coast Guard's *Prevention Through People* initiative and implementation of International Safety Management Code target these concerns.

Finally, passenger vessels transport people who are often unfamiliar with the vessel's safety practices as well as ways to exercise caution aboard a ship in order to avoid a life-threatening situation.

2000 Results: Based on preliminary data estimates, there were 15 fatalities on passenger vessels in FY 2000. Compared to other modes of transportation, the safety record of passenger vessels operating from US ports, including both domestic and foreign vessels, is outstanding. In FY 2000, there was approximately one death on a passenger vessel every 24 days compared to approximately one death every day on commercial aircraft. There have been no passenger deaths on foreign flag cruise ships due to a vessel casualty in the last 16 years. For the domestic fleet, the safety record, while still relatively excellent, varies from year to year with no clear trend emerging. Of the estimated 6,200 vessels in the domestic passenger

vessel fleet; only 9 vessels were involved in casualties that resulted in the death of a passenger in FY 2000. The fatalities were the result of falls, asphyxiation, being struck by objects and other randomly occurring accidents.

FY 2001 Performance Plan Evaluation: For FY 2001, the goal for reducing fatalities aboard passenger vessels appears realistic.

Strategies and Initiatives to Achieve 2002 Target: The Coast Guard's approach to passenger vessel safety improvement and risk reduction focuses on maximizing core prevention programs while seeking innovative means of preventing and responding to a major passenger vessel casualty. Some specific Coast Guard activities include:

- Partner with the Passenger Vessel Association to identify and mitigate risks through an initiative known as Prevention Though People (PTP). The Coast Guard also works with the International Maritime Organization to improve the level of safety standards on a worldwide basis.
- Establish Outlines of Cooperation with Classification Societies. These organizations regulate the industry and reduce the risk of accidents.
- Optimize core prevention programs for existing foreign and domestic vessels with adjustments to areas of focus pursuant to available lagging and leading indicators and on-going marine casualty analysis. Concurrently assess the implications of future vessel and industry growth on prevention and response capabilities.
- Establish the International Maritime Information System (IMISS) to collect voluntary information about "near-miss" maritime accidents.
- Create quality incentive programs for near term improvement in prevention and response while the need for new standards is being studied.
- Execute plans to respond to a major passenger vessel marine accident now and in the future.
- Establish the International Maritime Information System (IMISS) to collect voluntary information about "near-miss" accidents.
- Create quality incentive programs for near term improvement in prevention and response while the need for new standards is studied.
- Work with the International Maritime Organization to improve worldwide safety standards.
- Expand the use of risk-based decision making to increase the efficiency of services provided, and improve the effectiveness of safety activities in stopping accidents.
- Provide resources to support the Differential Global Positioning System (OE $295K).
- Operate and maintain Coastal Patrol Boats (OE $ 3.4M). 47FT Boat Follow-On (OE $4.995M).
- Provision and provide training support for the C-130J aircraft (AC&I $500K).
- Manage waterway safety, security and environmental protection through the Ports and Waterways Safety System (PAWSS) and Marine Information for Safety and Law Enforcement (MISLE). (AC&I $20M).
- Recapitalize and replace high frequency (HF) capability (AC&I $2.5M). and recapitalize Command Centers (AC&I $727K). Modernize command and control communication capabilities in Districts 13 and 14 (AC&I $3.9M).
- Implement the Readiness Management System (AC&I $1.7M).

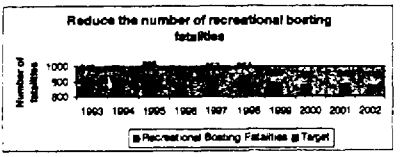
Other Federal Programs with Common Outcomes: Marine Casualty Investigation responsibilities are shared by the USCG and the National Transportation Safety Board (NTSB). Occupational Safety and Health Administration (OSHA) and the USCG have an agreement regarding the boundaries of each agency's authority for prescribing and enforcing standards or regulations affecting the occupational safety and health of seamen and passengers aboard vessels inspected and certificated by the Coast Guard.

RECREATIONAL BOATING FATALITIES: During the last decade, approximately 800 Americans died each year from boating accidents, usually from drowning. Recreational boating is a popular activity in America, and the popularity of personal watercraft (PWC) continues to be strong. There are about 78 million recreational boaters in the U.S. – and most operators involved in accidents have had no boating safety training. The Coast Guard works with states to reduce boating fatalities.

Performance measure: Number of recreational boating fatalities. (Calendar Year)

	1999	2000	2001	2002
Target:	763	763	749	742
Actual:	778	742*		

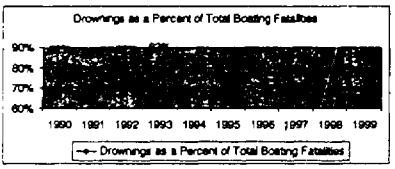
*Preliminary Estimate



External Factors: A growing US population and a growing US economy leads to growth in the number of recreational boats. Success of our efforts is, in part, dependent on the effectiveness of many individual state-run education and enforcement programs. Also, boater behavior is often difficult to influence – for example, boaters tend to decline to wear life jackets, ignoring the risks associated with the nature of their boating activity.

2000 Results: Recreational boating fatalities declined to 742 in 2000 -- the lowest number of fatalities the Coast Guard has reported to date. High gas prices and colder, wetter weather during the boating season are believed to have reduced the overall level of boating activity this year, contributing to the decline in fatalities.

While the recent trend in boating fatalities has been mixed, fatalities have declined dramatically since the early 1960s and 70s. Today, there are fewer than half the number of recreational boating fatalities as there were in the early 1970s. At the same time, the number of recreational boats has more than doubled. This long-term reduction in fatalities is due to cooperative boating safety education and enforcement efforts, safer boats and equipment manufactured in accordance with Coast Guard standards, and life jacket use. Still, too many fatalities occur each year – mostly as a result of accidents involving operator controllable factors.



More than half of all recreational boating fatalities are the result of capsizings or falls overboard -- and the percent of victims who drown remains high. The majority of these drowning victims were not wearing life jackets.

Accident prevention is the best way to reduce fatalities – but when accidents do occur, boaters have a vastly improved chance of surviving if they are wearing a life jacket.

FY 2001 Performance Plan Evaluation: The 2001 target is 749 fatalities or less. While the drop in the number of fatalities between 1999 and 2000 appears to be influenced by external factors, the 2001 target is within reach. We will continue to assist state boating safety programs; conduct safety education campaigns; and encourage boater education programs that incorporate National Association of State Boating Law Administrators National Boating Education Standards with the primary focus on improving boater skills and behavior to reduce accidents. We will continue a research effort to improve lifejacket comfort and wearability, thus promoting greater usage.

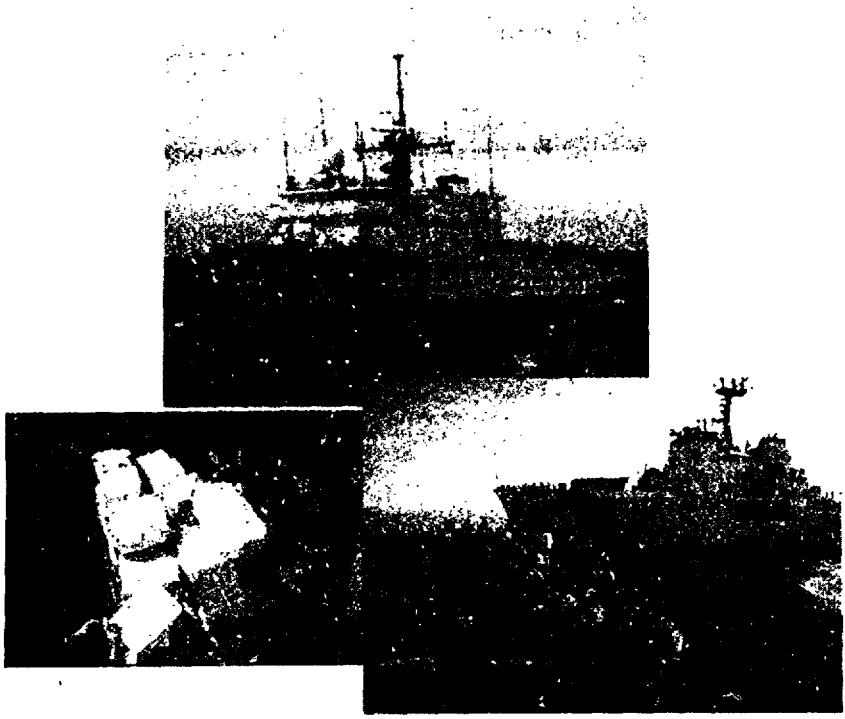
Strategies and Initiatives to Achieve 2002 Goal: The Coast Guard aims to reduce boating fatalities by: developing and enforcing compliance with safety standards for recreational boats and equipment; promoting the wearing of personal flotation devices (PFD); improving boater behavior, skills, and knowledge; intensifying enforcement of boating under the influence statutes; and conducting Coast Guard Auxiliary Vessel Safety Checks and boating education courses to promote safe operation and use of safety equipment.

- The Boating Safety Grants program will provide funds to states to support education, outreach, and law enforcement.
- The Coast Guard Auxiliary will continue to cooperate with the U.S. Power Squadrons and the States, and provide boats and aircraft to assist with maritime SAR.
- The Coast Guard Recreational Boating Safety program will continue to develop safety regulations in cooperation with manufacturers and standards organizations, investigate consumer complaints of non-compliance with standards, and monitor manufacturers' equipment recalls.
- The national boating safety study being commissioned by the Coast Guard will provide valid and reliable information on boating practices, safety, and exposure. This information will enable safety officials to assess boating risk, implement appropriate safety intervention strategies, and measure the effectiveness of program activities in reducing the risk and negative outcomes associated with the use of recreational boats. Data collection will commence in the Fall of 2001.
- Differential Global Positioning System Follow-On (OE $295K). Operate the Global Maritime Distress and Safety System, MF & HF Digital Selective Calling Alert Processing System (OE $87K), (AC&I $2.2M), HF recapitalization and modernization (AC&I $2.2M), Command Centers (AC&I $727K), and Modernize command and control communication capabilities in Districts 13 and 14 (AC&I $3.9M).
- Surface Search Radar System Support (OE $870K). Replace P-250 dewatering pumps aboard cutters (AC&I $2M).
- Operate and maintain Coastal Patrol Boats and 47FT Boats (OE $8.3M), and enhance SAR capabilities (OE $80K).
- Commercial Satellite Communications Channels (AC&I $1.5M), (OE $1M). Self-Locating Data Marker Buoy Operations (OE $774K).
- Provision and provide training support for the C-130J aircraft (AC&I $500K).
- Manage waterway safety, security and environmental protection through the Ports and Waterways Safety System (PAWSS) and Marine Information for Safety and Law Enforcement (MISLE). (AC&I $20M).
- Implement the Readiness Management System (AC&I $1.7M)
- Ensure DOD Command, Control, Comms and Intel interoperability (AC&I $1.5M), and Military Satellite Comms (OE $225K).

Other Federal Programs with Common Outcomes: The CG maintains ongoing, active working relationships with state boating safety offices to optimize use and distribution of matching formula grants and discretionary grants to nonprofit public service organizations; it also maintains interagency agreements with EPA, DOC, DOI, USACOE, FERC, BIA, and other federal agencies to address boating safety issue on waterways over which these agencies have authority. For example, we are working with the Department of the Interior to investigate and resolve a problem of carbon monoxide poisoning on houseboats. The U.S. Army Corps of Engineers and the National Park Service manage many recreational lakes that are used by boaters, and cooperate with the Coast Guard and states in managing safe boating programs.

Maritime Security

- **Drug Interdiction**
- **Illegal Migrants**
- **Foreign Fishing Vessel Incursions**



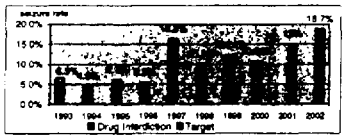
DRUG INTERDICTION: As the only military service with law enforcement authority, the U. S. Coast Guard apprehends smugglers attempting to import illegal drugs into the U.S. In 1999, a $10 million investment in new Coast Guard capabilities, employing armed helicopters and high-speed small boats to stop smugglers, yielded a return of $120 million in seized drugs. Coast Guard boarding teams deal with the challenge of enforcing increasingly complex laws against much more sophisticated criminals. Despite foiling so many attempts to smuggle drugs into the country, drug-induced deaths continue. In addition to the Coast Guard's efforts to halt the destructive influence of drug consumption, trafficking must be obstructed so as to stem related criminal acts.

Performance measure: Seizure rate for cocaine that is shipped through the transit zone.

Target:	1999	2000	2001	2002
	12.5%	13%	15%	18.7%
Actual:	12.2%	10.6%		

Discontinued performance measure: Reduce the smuggler success rate (cocaine entering U.S. via noncommercial maritime flow as a percentage of the potential undeterred flow bound via noncommercial maritime).

Target:	1999	2000
	55%	50%
Actual:	57%	66%



External Factors: Drug interdiction operates in a challenging and ever changing environment. The international drug syndicates operating throughout our hemisphere are resourceful, adaptable, and extremely powerful. At the same time, socioeconomic conditions, here and abroad, influence the supply and demand for illegal narcotics.

2000 Results: The Coast Guard's drug seizure rate fell this year, despite the fact that the Coast Guard set a new non-commercial maritime seizure record for cocaine. Final seizure and cocaine shipment data for FY 2000 show a seizure rate of approximately 10.6%, as compared to the target of 13%.

Drug interdiction operations take place in a challenging and ever changing environment. The international drug syndicates operating throughout our hemisphere are resourceful, adaptable, and extremely powerful. At the same time, socioeconomic conditions, here and abroad, influence the supply and demand for illegal narcotics.

In FY 2000, the Coast Guard set a new non-commercial maritime seizure record of approximately 132,480 pounds of cocaine. The Service also seized over 50,000 pounds of marijuana. The results are attributed to a higher concentration of patrols in the Eastern Pacific Ocean, improved intelligence sharing with other law enforcement agencies and cooperation with Central and South American countries, and use of Law Enforcement Detachments (LEDETs). A growing threat in smuggling has been the shipment of cocaine to the U.S. through the eastern Pacific. This year, the Coast Guard applied a shift in our limited resources to address the burgeoning go-fast threat in the eastern Pacific. Interdictions in this region accounted for over 80 percent of all drugs seized by the Coast Guard.

We also continue to take aggressive steps toward stopping go-fast vessels - a major problem - with Operation New Frontier, in which Coast Guard cutters sailed with specially equipped "use of force" helicopters and high-speed interdiction boats. These units carry high-tech equipment designed to safely stop fleeing go-fasts. Operation NEW FRONTIER was employed in two limited-scope deployments in 2000. In six possible opportunities for go-fast intercept, NEW FRONTIER forces successfully interdicted all six vessels, seized over 2,600 pounds of cocaine, nearly 12,000 pounds of marijuana, and detained 18 suspects.

Operation FRONTIER SHIELD, institutionalized in 1999, continued to deter smuggling into Puerto Rico and disrupt traditional smuggling routes into the United States in 2000. The Coast Guard also continued Operations GULF SHIELD and BORDER SHIELD off the coasts of the Gulf of Mexico and California respectively. These

smaller-scale operations served to anchor the maritime flanks of the Southwest Border with Mexico as federal, state and local agency interdiction efforts ashore were increased.

FY 2001 Performance Plan Evaluation: The seizure rate target for FY 2001 is raised to 15%. The Coast Guard is working to upgrade support systems, improve intelligence and expand "use of force" helicopter and "over-the-horizon" boat operations. Well-funded smuggling organizations operate over huge areas of ocean, and quickly change tactics to find an advantage. While we achieved record cocaine seizures for two years in a row, the tempo of operations in previous years (1997-1999) was extraordinary and purchased at the expense of deferred asset maintenance and curtailed support activities. The Coast Guard has reduced operations and truncated maintenance and support activities to meet the rising costs of personnel, energy and aging assets. These actions will impact FY 2001 operations, reducing the Coast Guard's ability to sustain drug interdiction operations such as the 19,884 lb cocaine seizure from the FOREVER MY FRIEND. As a result, we do not anticipate meeting our target.

Strategies and Initiatives to Achieve 2002 Target: Reducing the supply of drugs entering the U.S. is a vital element of the National Drug Control Strategy. Despite eliminating multiple aircraft and some front line law enforcement cutters, the Coast Guard will develop sequential, regional pulse operations to deny maritime smuggling routes, targeting high threat areas.

- Partner with the ONDCP and Customs Service to validate the Rockwell Deterrence Study, which may help better measure the deterrent effect of interdiction activity.
- The Integrated Deepwater System (AC&I $338M) develops a system of surface, air, command and control, intelligence, and logistics systems to carry out deepwater missions, such as maritime law enforcement. Deepwater is essential to maintaining an effective drug interdiction presence in the Caribbean and Eastern Pacific where there is limited resupply and refueling opportunities.
- Operate and maintain Coastal Patrol Boats (OE $3.4M), 47FT Boat Follow-ON (OE $4.9M), Surface Search Radar SPS-73 System Support (OE $870K), and Commercial Satellite Communications Channels (OE $1M) (AC&I $1.5M).
- Provision and provide training support for the C-130J aircraft (AC&I $500K).
- Modernize command and control communication capabilities in Districts 13 and 14 (AC&I $3.9M). Recapitalize and replace high frequency (HF) capability (AC&I $2.5M).
- Implement the Readiness Management System (AC&I $1.7M). Ensure DOD Command, Control, Communications and Intelligence interoperability (AC&I $1.5M). Military Satellite Comms (OE $225K).

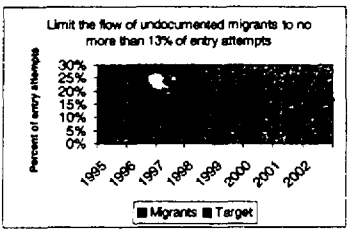
Other Federal Programs with Common Outcomes: The ONDCP coordinates overall U.S. drug policy, and sets national objectives and goals in the National Drug Control Strategy. The Coast Guard participates in the multi-agency efforts to set these goals. Enforcement efforts regularly require coordination between the Coast Guard and Department of State (DOS), National Security Council, Department of Justice, Department of Commerce, Department of Defense (DOD), and Treasury. Coast Guard interdiction activities directly contribute to the national goals of "Shielding America's air, land and sea frontiers from the drug threat" and "Breaking the foreign and domestic drug sources of supply." The Commandant of the Coast Guard serves as the U.S. Interdiction Coordinator, coordinating international interdiction efforts with DOD, Customs, and other agencies. While the Coast Guard is lead federal agency for maritime drug interdiction, lead agency responsibility for air interdiction is shared with Customs. DOS provides international, diplomatic liaison with other countries and supports DOT efforts in bilateral agreements to counter drug smuggling.

UNDOCUMENTED MIGRANT INTERDICTION: Illegal immigration poses a serious threat to America's economic and social well-being, and challenges the integrity of our borders as a sovereign nation. Thousands of people try to enter this country illegally every year via maritime routes, many via smuggling operations. An untold number perish when overloaded, unseaworthy vessels capsize. The U. S. Coast Guard must maintain an effective presence in migrant departure, transit and arrival zones. The Coast Guard must patrol more than 144,000 square miles of ocean in the Caribbean alone, in addition to responding to intelligence on voyages along the east and west coasts and throughout U. S. territories in the Pacific in its efforts to curtail illegal immigration.

Performance measure: Success rate for undocumented migrants attempting to enter the U.S. over maritime routes.

	1999	2000	2001	2002
Target:	13%	13%	13%	13%*
Actual:	13.3%	11%		

*Limit the flow of undocumented migrants to no more than 13% of entry attempts.



External Factors: Socioeconomic and political conditions in both the U.S. and migrant source countries drive migrant entry attempts. Outcomes are also influenced by the active criminal intent of those who profit from moving illegal migrants. Year-to-year measures of success can take unexpected turns based on changing criminal tactics.

2000 Results: We met our goal in FY 2000, holding attempts at illegal immigration by sea to 11% of potential entry attempts. However, we met our target this year largely because migrant flow from China shifted away from the US in response to 1999 Coast Guard interdiction efforts in Guam. Last year we reported that a large number of Chinese migrants were targeting Guam. This year, in response to Coast Guard interdiction efforts in 1999 and 2000, Chinese migrants are once again targeting Mexico and Central America, for eventual passage across the land border of the U.S.

There was also a reduced flow of Cuban migrants attempting to reach the U.S. by maritime means in 2000. This is partially the result of an improvement in efficiency in granting immigrant visas by the U.S. Interest Section in Havana, an increased number of Cubans taking illegal flights to the U.S. from third countries, and an increased number travelling to Mexico (by air) and crossing the land border illegally. However, U.S. laws and policies continue to challenge interdiction efforts: a combination of U.S. laws and policies make returning a Cuban migrant who lands ashore in the U.S. difficult – thereby providing a strong incentive for Cuban migrants to make the attempt, and keeping the demand for Coast Guard interdiction efforts high. In FY 2000 over 50% of the known flow of Cuban migrants reached U.S. soil.

In addition, professional smuggling remains an ongoing problem. In recent years, smugglers have carved out a lucrative business for themselves, and the majority of the migrants attempting to illegally enter the U.S. employ their services. Chinese migrants pay smugglers $35,000-40,000 each for passage to the U.S.; Cuban migrants pay $3,000-8,000. Organized crime structures within the U.S. provide a further support mechanism, and allow migrants to make a small down payment for travel, with the remaining being paid off while working in the U.S.

In addition, there are numerous forces that motivate migrants and are largely outside the control of the Coast Guard. These include immigration policy decisions, political and economic situations in the source country, and the economic imbalance of the U.S. and the developing world.

FY 2001 Performance Plan Evaluation: We are continuing to attack the problem in FY 2001 through increased intelligence, more interagency

coordination, and better sensors. We are also increasing coordination efforts with the U.S. Border Patrol Anti-smuggling Unit and the U.S. Attorney's in Miami. The Coast Guard is working with the Department of State on potential interdiction bilateral agreements. While we have made gains since 1999, smuggling of migrants still persists. In addition, the Coast Guard has reduced operations and truncated maintenance and support activities to meet the rising costs of personnel, energy and aging assets. These actions will impact FY 2001 operations. As a result, continuing to meet the goal of holding undocumented migrants to 13 percent may be difficult.

Strategies and Initiatives to Achieve 2002 Target: The Coast Guard will operate along maritime routes to deter attempts by undocumented migrants, and to detect and stop those who try to enter the U.S. illegally. We will also establish agreements with source countries to reduce migrant flow. For example, aircraft overflight authority granted by the Dominican Republic in 1996, and the resultant deterrent effect, contributed significantly to the decrease in illegal Dominican migrants. We will use intelligence to target our presence in the maritime environment to provide both deterrence and an effective enforcement capability.

- The Integrated Deepwater System (AC&I $338M) develops a system of surface, air, command and control, intelligence, and logistics systems to carry out deepwater missions, such as maritime law enforcement. The system is essential to keeping assets with long endurance capabilities and extensive command and control capabilities on station during times of increased migration attempts and mass migration events.
- Develop agreements with source countries to coordinate interdiction efforts and to work out strategies for preventing potential illegal migrants from making the attempt.
- Coast Guard liaison officers and mobile training teams will assist migrant source zone countries in improving democratic institutions and effective law enforcement against migrant smugglers.
- Operate and maintain Coastal Patrol Boats (OE $3.3M), 47FT Boat Follow-On (OE $4.9M), Surface Search Radar SPS-73 System Support (OE $870K), and Commercial Satellite Communications Channels (AC&I $1.5M), (OE $1M).
- Provision and provide training support for the C-130J aircraft (AC&I $500K).
- Modernize command and control communication capabilities in Districts 13 and 14 (AC&I $3.9M). Recapitalize and replace high frequency (HF) capability (AC&I $2.5M).
- Implement the Readiness Management System (AC&I $1.7M). Ensure DOD Command, Control, Communications and Intelligence interoperability (AC&I $1.5M). Military Satellite Comms (OE $225K).

Other Federal Programs with Common Outcomes: The U.S. Border Patrol enforces the stateside immigration laws, while the Coast Guard has the lead at sea. The INS cooperates with the Coast Guard on the disposition of undocumented migrants who are detained. The Coast Guard regularly meets and coordinates with the State Department, INS, and the Border Patrol on immigration issues and potential international agreements. The Coast Guard shares intelligence information with the other agencies regarding specific illegal migration trends and forecast. Discussions on common goal setting have begun, but common goal targets have not been established.

FOREIGN FISHING VESSEL INCURSIONS: The U.S. Exclusive Economic Zone (EEZ) was established by the 1976 Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). This Act claims the maximum EEZ allowed by international law, extending 200 miles from U.S. shores. The U.S. EEZ is the largest in the world, covering 3.36 million square miles of ocean and 95,000 miles of coastline. The U.S. Coast Guard is the only agency with the maritime authority and infrastructure to project federal law enforcement presence over this huge area. The EEZ is a major source of renewable resources - providing a livelihood for U.S. commercial fishermen and numerous related enterprises, a valuable source of protein, and recreational opportunities for millions of people. Within the EEZ, U.S. citizens have primary harvesting rights to fish stocks; foreign fishing is significantly limited and has been restricted since 1991. As the primary agency responsible for at-sea enforcement of the MSFCMA, it is the Coast Guard's responsibility to ensure foreign fishermen do not harvest U.S. fish stocks illegally.

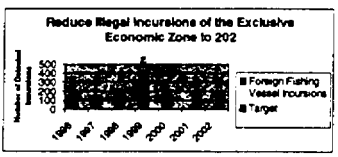
Performance Measure: Number of incursions into the U.S. Exclusive Economic Zone

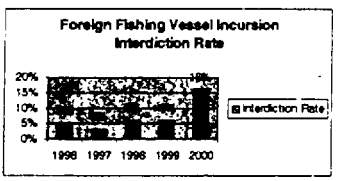
Target:	1999	2000	2001	2002
	N/A	N/A	N/A	202
Actual:	428	170		

Performance Measure: Interdiction rate for foreign fishing vessels that are detected violating the U.S. Exclusive Economic Zone (EEZ)

Target:	1999	2000	2001	2002
	N/A	N/A	N/A	TBD*
Actual:	6%	16%		

* The Coast Guard has insufficient data to set a target for this measure. We anticipate having enough information to set a target when FY 2001 data are available.





External Factors: Annual EEZ incursion numbers vary greatly due to a number of factors outside USCG control. For example, a change in foreign fisheries management measures may result in a greater incentive for fishermen to illegally fish in U.S. waters. Furthermore, oceanic and climatic shifts can cause significant fluctuation in the migratory patterns of important fish stocks that cross EEZ borders. Illegal fishing activities sometimes increase as commercial fisherman follow their intended catch.

FY 2000 Results: We appear to have met our goal of less than 202 incursions – only 170 were detected this year. Unfortunately, however, the lower number of detected incursions can also be attributed to decreased surveillance availability, particularly from aircraft. Because of flaws in the detected incursions measure, we are currently developing an interdiction rate measure that better reflects our resource capabilities and international cooperation efforts.

After a record high in the number of detected incursions in 1999 (428), we are seeing results in our efforts to improve interdiction effectiveness. We appear to have met our goal this year largely due to our improved coordination with Mexican, Russian and Canadian authorities to increase prosecution rates and decrease the number of incursions along our EEZ borders.

Following the spike in incursions in the Bering Sea last year, we worked closely with the Russian Federal Border Guard to improve cooperation. The result was more successful prosecutions in 2000 -- and correspondingly fewer interdictions as the fishing fleet came to realize they would be prosecuted if they were caught.

We also stepped up our efforts in the Gulf of Mexico, where the largest number of illegal incursions has always occurred. There, small Mexican lanchas operate in the U.S. EEZ, and

rapidly flee to the Mexican territorial seas when sighted. The Coast Guard worked closely with Mexican enforcement officials to prosecute those violators that we were able to interdict. We also employed fast "Guardian" Coast Guard boats, and as we began to interdict more of the lanchas (15% of detected incursions this year, as opposed to 5% last year), we began to see a decline in the number of incursions in this region.

In addition, during the summer of 2000 we signed a Law Enforcement Memorandum of Understanding (MOU) with Canada to allow Coast Guard vessels and aircraft to operate in Canadian waters to identify violators. Previously, Canadian commercial fishermen set their gear in U.S. waters, but fled the area when Coast Guard vessels approached. Now Coast Guard units may enter Canadian waters and airspace to identify violators, and forward evidence to Canadian authorities for prosecution. As a result of improved coordination with our Canadian partners as well as a successful prosecution of a violator this past May, incursions in Lake Erie are also on the decline.

Decreased surveillance availability of patrol aircraft is occurring most clearly in the Western Pacific where eight non-contiguous EEZs around various U.S. island territories pose a daunting enforcement challenge. In this region, we detected 32 incursions in FY 2000, compared to 47 in FY 1999. However, we had no successful interdictions either year, and little reason to believe the actual number of incursions decreased.

FY 2001 Performance Plan Evaluation: While our achievements have been mixed, the tempo of operations in previous years was high and purchased at the expense of deferred asset maintenance and curtailed support activities. The Coast Guard has reduced operations and truncated maintenance and support activities to meet the rising costs of personnel, energy and aging assets. These actions will impact FY 2001 operations. As a result, meeting the 2001 goal will be challenging.

Strategies and Initiatives to Achieve 2002 Target: In each major threat area, ongoing initiatives should improve performance by increasing cooperation with foreign governments involved and improving the capabilities of CG units to detect and prosecute violations.

- The Integrated Deepwater System (AC&I $338M) develops a system of surface, air, command and control, intelligence, and logistics systems to carry out deepwater missions, such as maritime law enforcement.
- Continue to work closely with Russian, Canadian and Mexican authorities to stop illegal incursions.
- Partner with the DOD to improve Coast Guard capability to detect violations. Pursue multiple ongoing projects to ensure we can successfully stop and board vessels detected in the U.S. EEZ using non-lethal force.
- Improve interoperability with Western Pacific Island nations.
- Operate and maintain Coastal Patrol Boats (OE $3.3M), 47FT Boat Follow-On (OE $4.9M), Surface Search Radar SPS-73 System Support (OE $870K), and Commercial Satellite Communications Channels (AC&I $1.5M), (OE $1M).
- Provision and provide training support for the C-130J aircraft (AC&I $500K).
- Modernize command and control communication capabilities in Districts 13 and 14 (AC&I $3.9M). Recapitalize and replace high frequency (HF) capability (AC&I $2.5M).
- Implement the Readiness Management System (AC&I $1.7M). Ensure DOD Command, Control, Communications and Intelligence Interoperability (AC&I $1.5M). Military Satellite Comms (OE $225K).

Other Federal Programs with Common Outcomes: The Coast Guard provides at-sea fisheries enforcement, while NMFS leads shoreside. Numerous international fisheries agreements and Presidential Executive Orders are soon to enter into force, requiring coordination with DOS, DOJ, NOAA, and NMFS. Conservation of U.S. fisheries resources and protected marine resources is a collaborative effort involving the Coast Guard, NOAA, NMFS, Regional Fishery Management Councils and Marine Mammal recovery teams. The Oceans Act of 2000 requires all federal agencies with maritime responsibilities to work together.

Protection of Natural Resources

- Oil Spill Prevention
- Plastics and Garbage
- Pollution Response Preparedness
- Living Marine Resources

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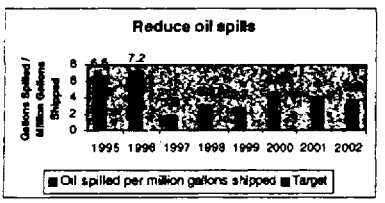
MARITIME OIL SPILLS: With more than 85 percent of the U.S. population living near the coasts, oceangoing trade perhaps tripling during the next two decades, offshore drilling and platforms venturing farther offshore, and larger cargo and tank ships plying the oceans, the task of preventing oil spills will become even more challenging. Oil spills can devastate ecosystems and can incur enormous response costs. The *New Carissa* typifies the threat posed by cargo ships. The vessel carried 359,000 gallons of molasses-like bunker oil as engine fuel and 37,000 gallons of diesel fuel for running generators. An estimated 70,000 gallons of oil spilled from the *New Carissa* in February 1999 when the ship foundered off the coast of Oregon, costing more than $10 million to clean impacted shoreline.

Performance measure: Gallons spilled per million gallons shipped by maritime sources.

Target:	1999	2000	2001	2002
Original	4.83	4.83	4.62	3.40
Revised		4.1	4.0	3.6
Actual:				
Original	2.87			
Revised	2.7	4.6		



Note on Revised Data: The Coast Guard brought a new and improved information system for its marine safety programs online in FY 2000, revising the process used to obtain data for this indicator. The revised indicator provides a more accurate and repeatable depiction of oil spills over time. The original FY 2000 target for oil spills was 4.83 gallons per million gallons shipped – which converts to 4.1 using the new methodology. This represents the same proportional reduction in oil spills that our programs were aiming for in the original target: a 20% reduction over the next five years from the average of the past five years. A five year average is used to determine targets because of the variation that can occur in the volume of oil spills from year to year.

External Factors: Over 90% of the oil spilled into U.S. waters results from only a few large spills. Tank ships and barges are the leading sources of spills, and most spills result from equipment malfunction or stem from human error.

2000 Results: Preliminary data indicates that we missed our target for reducing the amount of oil spilled to 4.1 gallons per million gallons shipped. The estimated volume of oil spilled per million gallons shipped in FY 2000 is 4.6 gallons. Of the total volume of oil spilled in FY 2000, 61% was spilled from facilities and 39% from vessels. Three large spills contributed to over 94% (537,510 gallons) of the total volume spilled from facilities. Two of these spills were from waterfront facilities and were the result of a storage tank rupture at a refinery and a pipeline leak within a waterfront facility.

Two large spills contributed to over 36% (130,100 gallons) of the total volume spilled from vessels. One of these spills resulted when a tankerman overfilled a tankbarge discharging over 70,000 gallons of oil into the Houston Ship Channel. The other large spill was caused when a large recreational yacht sank off the coast of Puerto Rico after a Coast Guard helicopter rescued the crew.

The data reinforces the continued trend of a small number of spills contributing to the largest percentage of volume spilled. Tank barges and waterfront facilities are the major sources of oil spills accounting for over 65% of the volume spilled and 56% of the major (over 10,000 gallons) spill incidents. An effort that began in 1994 to establish procedures to coordinate responses to maritime pollution incidents between the United States and Mexico culminated in the adoption of the MEXUS Plan in February 2000.

FY 2001 Performance Plan Evaluation: The goal for FY 2001 remains realistic. Therefore, the Service will continue key prevention activities such as port state control efforts aimed at eliminating substandard ships from operating in U.S. waters.

Strategies and Initiatives to Achieve 2002 Target: The Coast Guard's Marine Environmental Protection programs aim for both prevention and response. In FY 2000, the Service implemented the first application of the Marine Safety Network, Mission Analysis and Planning. Now, the Coast

Guard can better analyze the root cause of oil spills and a variety of other marine accidents. The Service also maintains vessel traffic and aids to navigation systems to reduce the risk of accidents that may result in a pollution incident. Some of the Coast Guard's specific activities include:

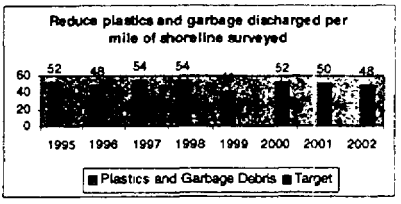
- Lead broad assessment of potential risk of spills from bunker oil, pipelines, offshore operations and hazardous materials, and modify prevention and response programs accordingly.
- Create voluntary near term incentives for pollution prevention while studying the need for new mandatory measures.
- Lead interagency effort including cruise lines focused on cruise ship pollution prevention.
- The Coast Guard inspects and certifies U.S. ships carrying oil, and examines foreign ships for compliance with international treaty requirements. The Service will continue to lead the U.S. delegation to the International Maritime Organization, Marine Environmental Protection Committee, improving international standards in ship design and operations.
- Through regulation, establish a numbering system for barges to allow identification of their owners and help prevent abandonment of barges that become pollution hazards.
- Implement an aggressive pollution exercise program as part of a National Contingency Plan preparedness strategy for dealing with a spill of national significance (SON).
- Commercial Satellite Communications Channels (AC&I $1.5M), (OE $1M). Self-Locating Datum Marker Buoy Operations (OE $ 774K).
- Operate and maintain Coastal Patrol Boats (OE $3.377M), and 47FT boats (OE $4.9M). Ports and Waterways Safety System Follow-On (OE $245K) and DGPS Follow-On (OE $295K).
- Provision and provide training support for the C-130J aircraft (AC&I $500K).
- Implement the Readiness Management System (AC&I $1.7M).

Other Federal Programs with Common Outcomes: The Coast Guard is the lead agency for oil pollution prevention and response in the coastal maritime zone, while EPA is the lead for inland waters; each agency may take immediate action as first federal on-scene coordinator. During oil and gas exploration and development, the Coast Guard partners with the Minerals Management Service in environmental protection on the Outer Continental Shelf. The National Transportation Safety Board investigates some marine casualties that result in oil spills for safety purposes in coordination with Coast Guard investigations. The Coast Guard participates in a multi-agency workgroup to establish common or complementary goals for clean water. The Coast Guard also coordinates the inspection of waterfront facilities with the DOT's Research and Special Projects Administration.

MARINE DEBRIS: Marine debris degrades our oceans, beaches, coral reefs, wildlife and coastal communities. One of the most harmful effects of marine debris is its lethal impact on birds and marine animals. Even in remote areas, nearly untouched by human hands, dangers lurk below the waves. Discarded fishing lines, derelict nets and other marine debris kill endangered species like the Hawaiian monk seals by entangling them until they drown or starve to death. Debris has killed countless birds, seals, sea turtles, and other marine creatures. Nets also entangle and kill coral, the living base of reefs that provide homes for numerous fish and invertebrates. Finally, discarded nets continue to fish, resulting in economic losses to the fishing industry as well as needlessly killing marine life. Marine debris is also a nuisance to mariners, fouling propellers and clogging cooling water intakes.

Performance Measure: By 2005, reduce the amount of vessel-generated plastic and garbage to no more than 46 pieces per mile of shoreline.

Goals:	1999	2000	2001	2002
	55	52	50	48
Actual:	41			



Note on Data: The data reflects the number of vessel-generated marine debris items collected during the Center for Marine Conservation's annual beach surveys.

External Factors: Key sources of marine debris are trash items and galley waste from fishing vessels, cruise ships, and cargo ships; and fishing net fragments discarded or lost from fishing vessels. Recreational fishing and boating also generates trash such as plastic bags and cups, in addition to tremendous amounts of monofilament fishing line.

2000 Results: Data for calendar year 2000 is unavailable within the timeframe of this report; therefore, 1999 results are presented due to the lag time in reporting. The target of 55 items of debris per mile cleaned in 1999 was met at 41 items.

FY 2001 Performance Plan Evaluation: The goal for FY 2001 is achievable. The Service will continue key educational prevention activities and partnerships aimed at eliminating marine debris.

Strategies and Initiatives to Achieve 2002 Target: The Coast Guard promotes educational initiatives such as the Sea Partners program, which is primarily staffed at the field level with Coast Guard Reservists. The program seeks to educate maritime users about the detrimental effects of maritime pollution, and the laws prohibiting discharge of plastic into the water. Sea Partners also promotes the use of appropriate port disposal facilities in lieu of dumping debris overboard at sea. In addition to education, the Coast Guard assists in developing and enforcing the International Convention for the Prevention of Pollution from Ships commonly referred to as the MARPOL Treaty. Finally, the Coast Guard intends to maintain core prevention and response programs with adjustments as needed based on available data.

Other Federal Programs with Common Outcomes: The Coast Guard works with the Environmental Protection Agency (EPA) to enforce pollution regulations and keep beaches and other coastal areas free of contaminating debris. The Coast Guard, EPA, National Marine Fisheries Service, National Park Service, and the Center for Marine Conservation also coordinate in monitoring and measuring marine debris amounts in efforts such as EPA's National Marine Debris Monitoring Program. Also, the Coast Guard receives significant funding from the Department of Defense for the Sea Partners program.

Although not federal programs, the Coast Guard builds on the works of private groups such as the Center for Marine Conservation that seek to educate mariners on marine debris regulations, and the harmful effects of debris.

POLLUTION RESPONSE PREPAREDNESS: Pollution response preparedness is vital in maintaining a healthy environment and uninterrupted waterbourne transportation and trade. A robust system of equipment, planning, and training has evolved within the National Response System and industry in a complex public/private partnership. Responsible preparedness management ensures that resource needs are identified, optimized within resource constraints, and steps are taken to plan for worst case scenarios.

Performance Measure: Percent of response preparedness ratings that meet prescribed standards.

Target:	1999	2000	2001	2002
	N/A	N/A	N/A	TBD*

By 2005, improve pollution response preparedness by developing and meeting Coast Guard program standards.

External Factors: A quick response to pollution-causing incidents, coupled with the ability to choose the appropriate spill mitigation strategy, and get the appropriate equipment on scene is key to minimizing environmental damage. Incident location, extent of vessel or facility damage or mechanical problem, type of petroleum product spilled, on scene weather, sea conditions, and length of time oil has been in the water all play a role in how successful mitigation efforts will be. Each pollution incident is different – the Coast Guard must maintain the readiness to formulate and implement the best response that minimizes the impact of the contaminants.

Strategies and Initiatives: The Coast Guard's Marine Environmental Protection programs seek improvements to preparedness initiatives through the new preparedness assessment as well as through leading broad appraisal of potential risk of spills from bunker oil, pipelines, offshore operations and hazardous materials. The Coast Guard modifies prevention and response programs accordingly.

In FY 2000, the Coast Guard distributed "Pollution Response Preparedness Assessment Instructions for Prototype Testing" to appropriate field units. This is the first field test of the draft Preparedness Assessment tool under development since May of 1999. The prototype test and feedback response sheet is due to be returned to Coast Guard program managers by June 16, 2001.

The assessment is intended to assist Federal On-Scene Coordinators (FOSCs) to balance risk and capabilities. Measuring pollution response preparedness is a goal in the Coast Guard Strategic Plan and the G-M FY2001-2005 Business Plan. Measuring pollution response preparedness supports the Coast Guard's endeavors to measure readiness; it also measures the service that the agency provides to the public.

The Coast Guard seeks to maintain a high level of response preparedness. It staffs the National Response Center which serves as the sole national point of contact for reporting all oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the U.S. The center gathers and distributes spill data for FOSCs and serves as the communications and operations center for spill responses.

The Coast Guard also operates three National Strike Teams that must maintain a 24 hour-a-day readiness for major incident response. Smaller response teams are located at Marine Safety Offices around the country.

Finally, research and development projects play a large role in improving pollution response, including the development of predictive models for response equipment, and evaluation of in-situ burning as a response tool.

Other Federal Programs with Common Outcomes: USCG and the Environmental Protection Agency (EPA) have agreed to share responsibility for the mitigation of damage to the public health and welfare caused by the discharge of oil or hazardous substances into the waters of the United States. The Coast Guard is the lead agency for oil pollution prevention and response in the coastal maritime zone, while EPA is the lead for inland waters; each agency may take immediate action as first FOSC. USCG and the U.S Fish and Wildlife Service have an Interagency Agreement to specify the conditions and procedures under which the U.S. Fish and Wildlife Service provides USCG FOSCs with technical expertise and services in support of efforts to control and clean up oil and hazardous chemical discharges. The Coast Guard maintains agreements with a variety of federal entities to coordinate spill response. Through the National Response Team (NRT) and Regional Response Teams (RRTs), the Coast Guard works with sixteen federal departments and agencies and

many state and local governments. The Environmental Protection Agency chairs the NRT; the Coast Guard serves as Vice Chair. Each of the 13 RRTs is co-chaired by EPA and the Coast Guard.

FISHERIES PROTECTION: The U. S. Exclusive Economic Zone (EEZ) is the largest in the world, covering 3.36 million square miles of ocean and 95,000 miles of coastline. The EEZ is a major source of renewable wealth – providing a livelihood for commercial fishermen, a vast supply of food, and recreation. Commercial and recreational fisheries contribute about $50 billion annually to the U.S. economy. Responsible management of ocean resources is critical as the world's population continues to grow, demanding increasing food sources. The Coast Guard is the only agency with the maritime authority and infrastructure to project federal law enforcement presence over this huge area.

Performance measure: Percent change in number of species that are designated as overfished (Includes all areas where Coast Guard has enforcement responsibility in fisheries management plans).

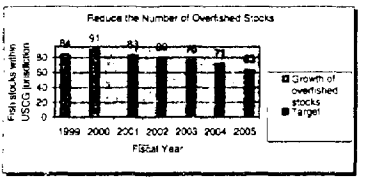
Target:	**1999**	**2000**	**2001**	**2002**
	--	8%	-1%	-5%
Actual:	N/A	9%*		

*Goal was not included in the FY 2000 Performance Plan.

*Preliminary results based upon draft NMFS report.

External Factors: Maintaining fish stocks is a complex management challenge. There are many factors that influence the viability of fish stocks, but we influence only one of these factors through at-sea enforcement of management plan regulations. The economic health of the fishing industry, especially as more strict fishing limits are imposed, may create pressure to fish beyond those limits. Environmental factors may separately affect the health of the fish stocks either positively or negatively. Also, errors in scientific estimates may affect both the fisheries management plans and the measure of success.

2000 Results: In 1999 we adopted a new goal



that aligns our measurement with the Sustainable Fisheries Act (SFA). Under SFA, the National Marine Fisheries Service (NMFS) works toward fisheries sustainability, and reports on the number of fish stocks "over-fished" or "approaching over-fished" status.

Preliminary data indicate that there was a nine-percent increase in over-fished species under Coast Guard jurisdiction, which was very close to the eight percent goal. It is important to remember that this increase is a result of a stricter definition of overfishing in the 1996 Sustainable Fisheries Act, and not necessarily a sudden decline in the biomass of stocks. NMFS continues to assess fish stocks under the new definition, and as such it is possible that a few more species may be added to the overfished list in 2001.

NMFS' draft 2000 Report to Congress lists 107 fish stocks as overfished, either due to low biomass (92 stocks), overfishing despite the biomass level (72 stocks), or both (57 stocks). This represents an increase of nine overfished stocks over last year. The Coast Guard has enforcement responsibility for 91 of these 107 stocks, an increase of seven overfished stocks over last year's number of 84.

Maintaining fish stocks within our EEZ is a complex management challenge. There are many factors that influence the viability of fish stocks, but we influence only one of these factors through at-sea enforcement of management plan regulations. The economic health of the fishing industry, especially as more strict fishing limits are imposed, may create pressure to fish beyond those limits. Environmental factors may separately affect the health of the fish stocks either positively or negatively. Also, errors in scientific estimates may affect both the fisheries management plans and the measure of success.

FY 2001 Performance Plan Evaluation: Meeting the FY 2001 goal will require a 10 percentage point drop in the percent change of overfished fish stocks. However, achieving this outcome will be dependent upon a number of factors, including Coast Guard enforcement of fisheries management plans. Given recent results coupled with reductions in operational

tempo, it will be extremely difficult to meet the FY 2001 goal.

Strategies and Initiatives to Achieve 2002 Target: The Coast Guard aims to help achieve the fisheries goals by enforcing NMFS regulations and those specified in regional fisheries management plans. In developing fisheries management strategies (with input from the Coast Guard), NMFS has identified enforcement of regulations as critical in maintaining the viability of fisheries and improving the health of over-fished stocks. The Coast Guard monitors these regulation compliance rates. This strategy is critical in reaching the outcome - healthy fish stocks. The Coast Guard is also working with NMFS to implement a Vessel Monitoring System (VMS). VMS will not replace patrols; it cannot detect illegal nets or undersize catch, but it is an effective monitor of closed areas.

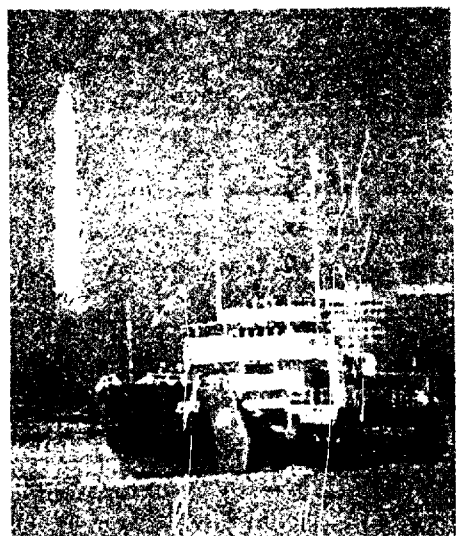
In FY 2002, the Coast Guard will address the large expansion of closed fishing areas and the long-term decline of U.S. fisheries.

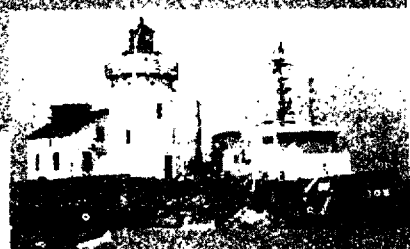
- Monitor high threat areas, intercepting suspects that are detected, and stop violations in progress.
- Enforce regulatory measures regarding ballast water management and examine alternatives.
- Support the Ocean Guardian strategic fisheries plan, with added protection for the U.S. Western Pacific EEZ.
- The Integrated Deepwater System (AC&I $338M) develops a system of surface, air, command and control, intelligence, and logistics systems to carry out deepwater missions, such as maritime law enforcement. Deepwater is essential to maintaining an effective fisheries program.
- Operate and maintain Coastal Patrol Boats (OE $3.2M), 47FT Boat Follow-On (OE $4.9M), Surface Search Radar SPS-73 System Support (OE $870K), and Commercial Satellite Communications Channels (AC&I $1.5M), (OE $1M).
- Provision and provide training support for the C-130J aircraft (AC&I $500K).
- Modernize command and control communication capabilities in Districts 13 and 14 (AC&I $3.9M). Recapitalize and replace high frequency (HF) capability (AC&I $2.5M).
- Implement the Readiness Management System (AC&I $1.7M). Ensure DOD Command, Control, Communications and Intelligence Interoperability (AC&I $1.5M). Military Satellite Comms (OE $225K).

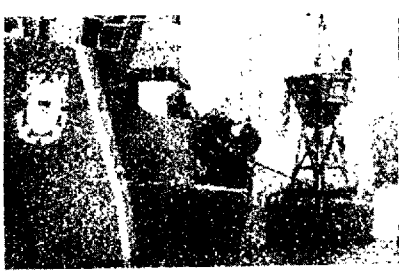
Other Federal Programs with Common Outcomes: The NMFS and Coast Guard aim to achieve the goals of the Sustainable Fisheries Act of 1996. NMFS conducts stock health assessments, oversees regional fisheries management planning efforts to sustain that health, and conducts shoreside enforcement. The Coast Guard provides at-sea enforcement. Numerous international fisheries agreements and Presidential Executive Orders pend that require coordination with DOS, DOJ, NOAA, and NMFS. Conservation of U.S. fisheries and protected marine resources is a team effort, involving the NOAA, Regional Fishery Management Councils and Marine Mammal recovery teams. The Oceans Act of 2000 requires all federal agencies with maritime responsibilities to work together.

Maritime Mobility

- Aids to Navigation
- Vessel Traffic
- Domestic Icebreaking
- Polar Operations



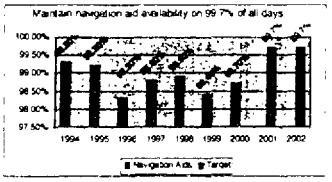




AIDS TO NAVIGATION:. Short Range Aids to Navigation are buoys, beacons, lights, lighthouses, ranges, sound signals (fog horns, bells, etc), and radar-reflecting devices that mark navigable channels and hazards. These aids assist mariners and boaters in determining their position and safe course, warn them of dangers and obstructions, and promote safe and economic movement of vessel traffic. Aids are placed in waterways in patterns proven to best reduce vessel risk, and in close consultation with local mariners. Products from the evolution of radio navigation and electronic charts are unquestionably providing mariners with the means to further reduce risks associated with marine transportation. Those technologies are promising, but they do not replace the need for traditional aids to navigation to define the useable corridors through hazardous waters. The short-range aids to navigation system will remain a vital component of the U.S. maritime transportation system in the foreseeable future.

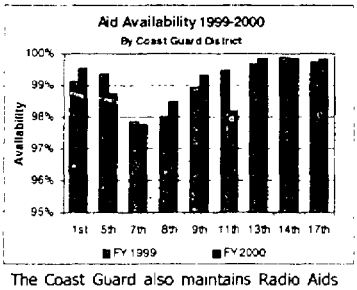
Performance measure: Percentage of total operating days that marine aids to navigation are available for use on U.S. navigable waters.

	1999	2000	2001	2002
Target:	99.7%	99.7%	99.7%	99.7%
Actual:	98.4%	98.7%		



2000 Results: We fell short of our goal to maintain the national system availability at 99.7% this year. The actual system availability was 98.7%. An aid is considered "not available" when some key function – its light, whistle or horn – is not working, or when the aid's physical location is not correct. In FY 2000, the Coast Guard maintained approximately 50,000 aids to navigation serving the U.S. and its territories.

Analysis shows that while West Coast waterways almost reached our target of 99.7%, Gulf Coast and Southeast waterways fell the furthest short of the desired level of service. Storms, vandalism, and equipment failures all reduce availability. But the leading cause of reduced system performance is the destruction of the aid itself, most often from ship and barge collisions with buoys and structures. This is particularly acute in the Gulf Coast, where a growing number of destroyed aids are being temporarily marked while the Coast Guard works to address the backlog of repairs. About a third of the system's degradation is traceable to temporary markers awaiting permanent repair. Failure of equipment is another leading cause of discrepancies. To address this, the Coast Guard is pursuing more reliable mooring and lighting technologies. Specifically, in 2000 we began testing Light Emitting Diode (LED) lights to potentially improve aid reliability and lower maintenance costs.



The Coast Guard also maintains Radio Aids to Navigation, consisting of Long Range Navigation (Loran-C), Global Positioning System (GPS) and Differential Global Positioning System (DGPS). The Coast Guard provides Loran-C and DGPS services; the Department of Defense (DoD) provides GPS service. The purpose of these systems is to provide continuous, accurate, all-weather positioning capability to navigators of both vessels and aircraft, in order to prevent disasters, collisions, and wrecks.

Loran-C uses a system of 24 U.S. land-based radio transmitters. The system allows mariners, aviators, and terrestrial users operating Loran-C receivers to determine their position to an accuracy of approximately one-quarter nautical mile. The system serves the coastal waters and the entire inland area of the 48 states, the Great Lakes, the Gulf of Alaska, and the Aleutian Islands.

DGPS augments the DoD-provided Global Positioning System (GPS) using a system of Coast Guard-operated land-based radiobeacons. This augmentation improves the accuracy of GPS and, more critically, provides an integrity warning to users of any detected faults in the GPS service. DGPS allows mariners and terrestrial users equipped with GPS and DGPS receivers to determine their position to an accuracy better than ten meters, and typically better than three meters depending on distance from the DGPS station and quality of the user's receiver. (The U.S. Coast Guard partners with the U.S. Army Corps of Engineers (USACE) in operating 20 of these sites, mostly on Western Rivers.) The system serves the coastal and inland waters, Great Lakes, and Western Rivers as well as 55% of the U.S landmass and about 65% of its population.

DGPS availability this year was 98.86% which falls short of the required 99.7%. The primary reason for DGPS' failure to meet the availability requirement was DGPS transmitter site equipment failures due to heavy weather, lightning strikes, communications outages, and electronics equipment casualties. In addition to equipment failures, availability suffered due to our inability to access and repair sites in remote locations during severe weather. Not surprisingly, the Alaska sites fared the worst (96.84%) due to the harsh climate and technicians' difficulty in reaching them during periods of inclement weather. The Coast Guard is working to improve DGPS performance through equipment upgrades, antenna modernization, and more strategic support philosophies (e.g. pre-staging critical components and moving sites away from exposed environments).

FY 2001 Performance Plan Evaluation: The Coast Guard remains consistently below its target to maintain the national system aid availability at 99.7%. The Coast Guard has reduced operations and truncated maintenance and support activities to meet the rising costs of personnel, energy and aging assets. These actions will impact FY 2001 operations. As a result, meeting our target in FY 2001 will be challenging.

Strategies and Initiatives to Achieve 2002 Target: Coast Guard actions to achieve 2002 target include:

- Differential Global Positioning System (DGPS) Follow-On (OE $295K), and Ports and Waterways Safety System Installation Follow-On (OE $245K)
- Local Notice to Mariners Automation Follow-On (OE $925K)
- Commission Three Seagoing Buoy Tenders (OE $9.8M)
- 49FT Boat Follow-On (OE $346K).
- Manage waterway safety, security and environmental protection through the Ports and Waterways Safety System (PAWSS) and Marine Information for Safety and Law Enforcement (MISLE). (AC&I $20M).
- Modernize command and control communication capabilities in Districts 13 and 14 (AC&I $3.9M). Recapitalize and replace high frequency (HF) capability (AC&I $2.5M), and recapitalize Command Centers (AC&I $727K).

Other Federal Programs with Common Outcomes: The Army Corps and NOAA provide navigation charts of U.S. ports and waterways.

MARITIME NAVIGATION: In today's global economy, our country's foreign trade is of great importance for economic vitality. Excluding Mexico and Canada, 95% of our foreign trade and 25% of our domestic trade travels by ship or barge -- more than two billion tons of freight worth $1 trillion annually move through U.S. ports and waterways. As trade increases, larger volumes of commercial and recreational vessel traffic squeezes ports and waterway capacity, and navigational accidents will have more of an impact on freight movements and increase risk of environmental damage. We seek safe and efficient traffic on our nation's waterways.

Performance measure: Total number of commercial vessel collisions, allisions, and groundings.

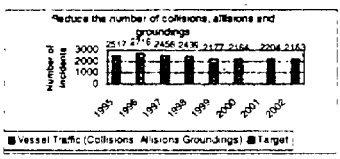
Target:	1999	2000	2001	2002
	N/A	N/A	2,204	2,163
Actual:	2,177	2,164#		

Preliminary data

Discontinued Performance Measure: Total number of navigational accidents -- maritime collisions, allisions and groundings – for freight and tank ships over 500 gross tons.

Target:	1999	2000
	N/A	1,224
Actual:	917	1,177#

Preliminary data



Note on Revised Data: The Coast Guard records all reported collisions, allisions and groundings of commercial vessels. Collisions involving more than one vessel are counted more than once. Recreational vessels and public vessels are not included in this measure. For 2001, the scope of this measure was expanded to include all commercial vessels instead of only freight and tank ships greater than 500 gross tons.

External Factors: Mobility efforts aim to ensure that our nation's waterways are capable, accessible, available, and reliable at meeting the nation's maritime commerce and recreational needs. However, collisions, allisions and groundings are strongly affected by human error on the part of those piloting the ships. Faster, larger, deeper draft vessels will pose a greater risk of navigational accidents.

2000 Results: Current numbers indicate that we will meet the target. There were 1,177 events among freight and tank ships over 500 gross tons, mostly caused by human error, and 2,164 events among all commercial vessels.

Coast Guard efforts are key to facilitating the movement of commerce within our ports and waterways. As such, the Coast Guard has the role of coordinating the prevention of and responding to these major waterway incidents. These efforts preserve America's waterways as freeways of commerce and recreation and provide every American safe and efficient access.

Commercial vessels make thousands of port calls in the United States each year. At the same time, Americans operate about 20 million recreational craft. With both commercial and recreational traffic and competition for access to U.S. waterways to increase dramatically in the years ahead, the potential for disaster and increased demand on Coast Guard maritime safety and search and rescue capabilities, from inland waters to the high seas, will grow as well.

FY 2001 Performance Plan Evaluation: The new measure more fully assesses disruptions to mobility in U.S. waterways. Based upon our results in 2000, the target should be met.

Strategies and Initiatives to Achieve 2002 Target: The Coast Guard operates and maintains a national aids to navigation (ATON) system and provides Ports and Waterways Safety Systems (PAWSS) in select ports. The Coast Guard also develops national and international standards for

vessel navigation, manning, and crew qualifications, and enforces these standards.

Reducing human error will be the major focus of the Service. The Coast Guard will also manage higher risk waterways using Vessel Traffic Services (VTS). New technology will be used to improve navigation. Coast Guard actions to achieve 2002 target include:

Some specific activities include:

- Operate and maintain a fleet of buoy tenders, construction tenders, icebreaking vessels, and a system of aids to navigation.
- Revise navigation equipment carriage requirements to accommodate newly available technology. Participate in development of technical and performance standards for emerging navigation technologies.
- Continue to oversee the alteration or removal of bridges determined to be unreasonable obstructions. Funding is from the Federal-Aid Highway Discretionary Bridge Program.
- Research into the technology needed to manage increasing traffic in major ports.
- Provide resources to support the DGPS and begin to upgrade/refurbish the equipment at the end of its 8-10 year lifecycle. DGPS is a critical component of the nation's radio navigation system and greatly enhances the safety of navigation along the coasts, in harbors and rivers. It has also become the exclusive mechanism for setting the majority of the aids to navigation for which the Coast Guard is responsible
- Differential Global Positioning System (DGPS) Follow-On (OE $295K), Ports and Waterways Safety System Installation Follow-On (OE $245K), and Local Notice to Mariners Automation Follow-On (OE $925K).
- Commission Three Seagoing Buoy Tenders (OE $9.8M), 49FT Boat Follow-On (OE $346K).
- Commercial Satellite Communications Channels (AC&I $1.5M), (OE $1M).
- Manage waterway safety, security and environmental protection through the Ports and Waterways Safety System (PAWSS) and Marine Information for Safety and Law Enforcement (MISLE). (AC&I $20M).
- Recapitalize and replace high frequency (HF) capability (AC&I $2.5M). Modernize command and control communication capabilities in Districts 13 and 14 (AC&I $3.9M).

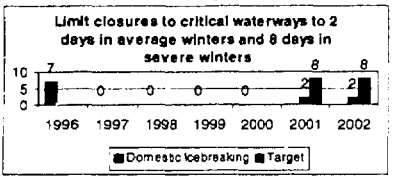
Other Federal Programs with Common Outcomes: The Coast Guard investigates marine accidents, and works with the National Transportation Safety Board (NTSB) to investigate major maritime accidents to use the lessons learned in improving waterway safety. The Army Corps of Engineers dredges channels to maintain charted depth and width; and both the Corps and the Department of Commerce (NOAA) provide navigation charts of U.S. ports and waterways. NOAA provides weather information to ships, and real-time environmental information on weather, tides, and currents to ships maneuvering in the nation's waterways.

DOMESTIC ICEBREAKING: Providing a heavy icebreaking capability to facilitate year-round maritime commerce is of national significance. Shipping in the Great Lakes and Northeast during winter months often provides the most cost-effective transportation of raw materials and goods for many industries, particularly those that ship bulk cargoes and home heating oil. Approximately 15 million tons of materials (ore, coal, steel, etc.) are shipped during the winter on the Great Lakes alone. If the Lakes freeze over, marine traffic stops. Winter closures increase transportation costs substantially; if trains were to replace shipping as the primary means of commercial transport in the region, fuel consumption would increase by 14 million gallons annually, generating an additional 4,321 tons of harmful emissions. Studies indicate that Coast Guard icebreaking services have an estimated annual outcome value of $49 to $78 million to industry alone. In addition to the direct benefits, the Great Lakes iron, ore, steel and freight transportation industries constitute a considerable economic force within the United States, employing 485,000 to 525,000 people, drawing an estimated annual payroll in excess of $6.7 billion.

Performance measure: Days critical waterways are closed due to ice.

Target:	1999	2000	2001	2002
	2#	2-8#	2-8#	2-8#
Actual:	0	0		

#2 days in an average winter, 8 days in a severe winter.



External Factors: Our current performance measure is limited to closures on the Great Lakes, there is no measure for domestic icebreaking in the Northeastern United States. Icebreaking performance is affected by ice thickness, which is linked to the severity of the winter weather. Some sources of traffic delay (e.g., canal lock closures) must be addressed by other government agencies such as the Army Corps of Engineers and the St. Lawrence Seaway Authority of Canada.

2000 Results: We met our goal for limiting closures of critical waterways to 2 days in an average winter and 8 days in a severe winter. There were no closures in FY 2000. The winter of 1999 – 2000 was slightly warmer than average. Great Lakes icebreaking assistance started on 22 December 1999 and was terminated on 31 March 2000. A total of 110 vessels were assisted, requiring a total of 1,763 ship operation hours. In the First District, the icebreaking season spanned from 15 December 1999 to 20 March 2000. A total of 357 vessels were assisted, many of which carried petroleum products for home heating and power generation. Without icebreaking support, many communities in the Northeast would experience calamitous oil shortages during the coldest days of a harsh winter.

Coast Guard aviation supported the Great Lakes domestic icebreaking mission with 137 HH-65 helicopter sorties from Air Stations Traverse City and Detroit, accumulating 250 flight hours. Air Station Corpus Christi also supported this mission with HU-25 Falcons providing 24 hours of flight time for ice reconnaissance patrols.

Coast Guard domestic icebreaking operations continue to be an integral and vital component of the marine transportation system for all commercially navigable waterways in the Northeast and throughout the Great Lakes and St. Lawrence Seaway. Without a robust icebreaking capability, maritime commerce would essentially cease to move during the winter.

FY 2001 Performance Plan Evaluation: The FY 2001 goal target of limiting closures of designated critical waterways to 2 days (average winter) and 8 days (severe winters) is realistic in light of past performance and long-term weather trends. The current winter of 2001 has been colder than average and may challenge icebreaking efforts.

Strategies and Initiatives to Achieve 2002 Target: The Coast Guard aims to limit days of waterways closure due to ice by breaking the ice so that ships can pass, using Coast Guard ships with strengthened hulls for operating in ice.

- Operate and maintain the heavy icebreaker MACKINAW and icebreaking tugs on the Lakes to keep waterways open.
- Conduct icebreaking escorts of commercial vessels, establish and maintain tracks through

the ice, monitor traffic routing and ice conditions, and free vessels beset in ice.

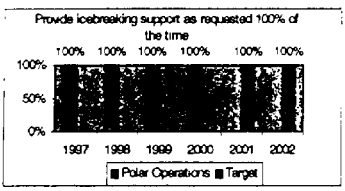
- Manage waterway safety, security and environmental protection through the Ports and Waterways Safety System (PAWSS) and Marine Information for Safety and Law Enforcement (MISLE). (AC&I $20M).
- Provision and provide training support for the C-130J aircraft (AC&I $500K)

Other Federal Programs with Common Outcomes: The Coast Guard is the only agency with U.S. icebreaking responsibilities. The Canadian Coast Guard is the only other organization with significant icebreaking capability on the Great Lakes. The Coast Guard coordinates with the Army Corps of Engineers on general navigation and mobility issues in the Great Lakes, with the common objective of keeping winter shipping as efficient as possible.

Polar Operations: The Coast Guard conducts polar operations to facilitate the movement of critical goods and personnel in support of scientific and national security activity in the polar regions. Our icebreakers provide logistics support and clear tracks for other vessels resupplying U.S facilities in the polar regions. Without this service, these bases could not perform vital functions. The Coast Guard must maintain sufficient icebreaking capability to ensure that these missions can be reliably executed -- there is no backup asset to finish the task in the remote polar frontiers, or render assistance if the primary asset breaks down or is beset in the ice. In addition to logistics, polar icebreakers promote a U.S. presence in the polar regions, serve as floating scientific laboratories to support National Science Foundation research, and support State Department treaty compliance inspections. The Coast Guard is the sole U.S. operator of heavy icebreakers.

Performance measure: Provide icebreaking support as requested by the National Science Foundation, Department of Defense or State 100% of the time.

Goal:	1999	2000	2001	2002
	100%	100%	100%	100%
Actual:	**100%**	**100%**		



External Factors: Ice blockage reduces mobility, and delays or precludes navigation to the polar region bases. Icebreaking performance is affected by ice thickness, currents, winds, and other factors linked to the severity of winter weather patterns. Polar science research is limited by the availability of assets that can transport people and equipment through ice and serve as laboratory platforms.

2000 Results: We met our goal to provide icebreaking capability as requested by the National Science Foundation, Defense Department and State Department 100% of the time. We provided science and logistics support to the National Science Foundation in both the Arctic and Antarctic. We also assisted U.S. Fish and Wildlife Service projects focused on Arctic science.

The Coast Guard conducts polar operations to facilitate the movement of critical goods and personnel in support of science and national security activity in the polar regions. Our icebreakers provide logistics support and clear tracks for other vessels resupplying US facilities in the polar regions. Without this service, these bases could not perform their vital functions. Scientists in the Antarctic only have 4 months of summer in which to work – an inability to resupply science operations by ship every year would essentially shut down U.S. Antarctic research activities at McMurdo. The Coast Guard is also responsible for assuring that supplies and logistics are delivered to Thule Air Force Base in Greenland. This facility is one of three missile detection and tracking stations monitoring the skies of northern Europe.

While the Coast Guard has continued to meet support request 100% of the time, in the past it has not been able to provide needed scientific research capabilities. However this year the Coast Guard acquired the HEALY, to provide a platform from which scientists can conduct research projects in the harsh landscape of the Arctic and Antarctic, in addition to providing multi-mission capability.

Over a six-month voyage, the crew of the USCGC HEALY tested and evaluated the capabilities of the Coast Guard's newest polar icebreaker. The three phased trials program, consisting of warm water sea trials, icebreaking trials, and science systems trials, were successfully completed. The HEALY is scheduled for it's initial unrestricted science cruise in May of 2001 – an eastern Arctic deployment – during which it will be working extensively with the German heavy icebreaker POLAR STERN. The impressive success of HEALY's science trials program, which was staffed by scientists and technicians with national stature, has generated excitement in the Arctic science community and

future cruises are expected to be fully subscribed.

FY 2001 Performance Plan Evaluation: The Coast Guard expects to meet the FY 2001 target.

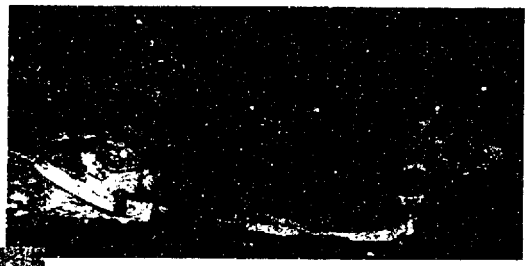
Strategies and Initiatives to Achieve 2002 Target:

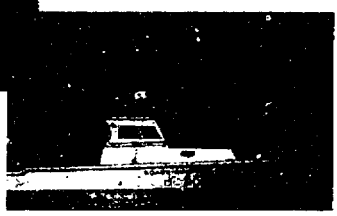
- Cutter HEALY Aviation Support (OE $3.9M).
- Commercial Satellite Communications Channels (AC&I $1.5M), (OE $1M), and support and maintenance of Military Satellite Communications (OE $225K).
- Implement the Readiness Management System (AC&I $1.7M)

Other Federal Programs with Common Outcomes: The Department of Defense and Department of State provide requirements for security and diplomatic functions. The National Science Foundation provides scientific research requirements for icebreaking services.

National Defense

- Military Readiness
- Military Operations





MILITARY READINESS: The U.S. Coast Guard – as one of the five armed services – provides an essential and unique element of our national security. Today, its defense functions are targeted to the Service's unique capabilities in Maritime Interception Operations, Military Environmental Response Operations, Port Operations, Security and Defense, and Peacetime Engagement.

Performance measure: **Percentage of days that the designated number of critical defense assets (high endurance cutters, patrol boats, and port security units needed to support Defense Department operational plans) maintain a Combat Readiness rating of 2 or better.**

Target:	1999	2000	2001	2002
	--	100%	100%	100%
Actual:	4%			

Revised Reporting Methodology:

Target:	1999	2000	2001	2002
	--	100%	100%	100%
Actual:	N/A	51%		

Note on Revised Reporting Methodology: The Navy and Coast Guard agreed on a revised readiness reporting scheme, whereby artificially low peacetime readiness ratings for Coast Guard units can be factored out. Coast Guard units, except for Port Security Units, are not staffed in peacetime with a full wartime personnel allowance, and that has now been accounted for in the readiness reporting system. In event of a national security contingency when these units change to Combatant Command (CinC) operational control, members of the Coast Guard Reserve augment ships' crews.

The Coast Guard's measure of military readiness will continue to undergo refinement to more accurately reflect the spectrum of support provided by Coast Guard forces in meeting CinC operational requirements.

External Factors: High, multi-missioned operations tempo contributes to increased equipment failures and slippage of long-term maintenance. Maintenance and logistics systems are increasingly challenged to provide the support necessary to maintain readiness standards.

2000 Results: The Coast Guard did not meet its target for providing the required number of 'combat ready' units, using SORTS criteria, to fill the CinC's operational requirements 100% of the time. Our units were ready only 51% of the time. Our measure of military readiness is continuing to undergo refinement to more accurately reflect the spectrum of support provided by Coast Guard forces in meeting CinC operational requirements.

We were able to meet CinC requirements for patrol boats 100% of the time, with additional patrol boats available for immediate reconstitution and/or backfill.

High endurance cutters were available to meet CinC requirements only 53% of the time during FY 2000. The major reasons our cutters were not considered immediately ready were personnel and training shortfalls, followed closely by equipment casualties.

Although the minimum standard for Port Security Units has not been achieved, there has been substantial progress toward attaining the minimum overall readiness rating for individual units. All major equipment has been provided, and efforts are underway to resolve persistent personnel vacancies and supply shortfalls. Training and exercise deficiencies are being eliminated.

Though Port Security Units made incremental improvements, they did not meet our aggressive service objective of having all six units 'combat ready' year round. Two units were C-2 at the same time and a third unit was almost so. The remaining three units made substantial baseline training and exercise progress required to attain the minimum required readiness levels.

Several Port Security Units were able to enhance skills and unit proficiency through participation in the following operations and exercises: Foal Eagle, Bright Star, Linked Seas, the International Naval Review, and the current Middle East deployment.

2001 Performance Plan Evaluation: The Coast Guard has reduced operations and truncated maintenance and support activities to meet the rising costs of personnel, energy and aging assets. These actions will impact FY 2001 operations. As a result, we do not expect to meet our FY 2001 target. We are working toward a durable policy solution for personnel costs driven by Defense Authorization Acts and unbudgeted extraordinary expenses, such as sharply rising fuel costs, and unanticipated surge operations.

Strategies and Initiatives to Achieve 2002 Target: To achieve the stated level of readiness,

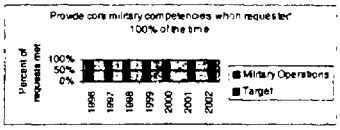
the Coast Guard will take several steps to improve the long- term resource sustainability in order to meet essential military obligations:

- Refine operational requirements and update the annexes to the MOA between the Secretaries of Defense and Transportation.
- Validate resource requirements to conduct agreed to operations, identify gaps and initiate actions to bring capabilities in line with requirements.
- Study active duty and reserve component personnel requirements for designated defense assets.
- Continue to participate in DOD military training and readiness exercises, conduct shipboard refresher training, and regularly evaluate defense resources for readiness status to improve proficiency.
- The Integrated Deepwater System (AC&I $338M) will replace the Coast Guard's legacy assets as they reach the end of their service lives and develop a system of surface, air, command and control, intelligence, and logistics systems to carry out deepwater missions.
- Continue with Differential Global Positioning System Follow-On (OE $295K). Operate the Global Maritime Distress and Safety System, MF & HF Digital Selective Calling Alert Processing System (OE $87K), (AC&I $2.2M), and Modernize command and control communication capabilities in Districts 13 and 14 (AC&I $3.9M).
- Operate and maintain Coastal Patrol Boats and 47FT Boats (OE $8.3M).
- Support Commercial Satellite Communications Channels (AC&I $1.5M), (OE $1M). Self-Locating Data Marker Buoy Operations (OE $774K).
- Provision and provide training support for the C-130J aircraft (AC&I $500K)
- Complete multiple information technology projects (AC&I $2M), (OE $578K).
- Defense Message System and Follow On (AC&I $2M) (OE $400K)
- Manage waterway safety, security and environmental protection through the Ports and Waterways Safety System (PAWSS) and Marine Information for Safety and Law Enforcement (MISLE). (AC&I $20M).
- Implement the Readiness Management System (AC&I $1.7M), and Human Resources Info System (OE $1.2M)
- Ensure DOD Command, Control, Communications and Intel interoperability (AC&I $1.5M), and Military Satellite Communications (OE $225K).
- Develop Surface Search Radar System Support (OE $870K). Replace Self Contained Breathing Apparatus (SCBA) used to conduct emergency/shipboard firefighting operations (AC&I $1M), and replace P-250 dewatering pumps aboard cutters (AC&I $2M).

Other Federal Programs with Common Outcomes: The Department of Defense coordinates the assigned roles of each service in national defense, and develops readiness-rating systems. The Coast Guard transfers to the Department of the Navy in time of war, or in national emergencies as directed by the President. The Coast Guard routinely participates in military exercises that enhance the joint readiness of the armed forces. The Coast Guard also works with the DOD to set readiness criteria, and develop systems for tracking readiness. An Inter-Departmental agreement outlines missions in support of DOD that the Coast Guard will provide; the missions are listed in the opening paragraph. Jointly developed operational plans establish the number of Coast Guard units factored into Combatant Command Contingency Plans.

Military Operations: The Coast Guard is a unique instrument of national security and fills a variety of roles to meet the panorama of national security issues that we face. Coast Guard active duty and reserve components provide complimentary capabilities supporting other military services: maritime interception operations, environmental defense operations, peacetime engagement, and deployed port security and defense operations. These Coast Guard capabilities were demonstrated during Operation Uphold Democracy in Haiti where Coast Guard aircraft, cutters, and port security units played a vital role. More than 40 of the world's 70 naval forces are, in essence, "coast guards." We are the best U.S. liaison to assist these forces in developing into strong, stable organizations that help maintain democratic governments throughout the world.

Performance measure: Provide core competencies as requested or currently planned by Department of Defense or State 100% of the time.				
Target:	1999 100%	2000 100%	2001 100%	2002 100%
Actual:	100%	89%		



2000 Results: We did not meet our goal for providing our core military competencies when requested by the Department of Defense or Department of State 100% of the time. Only 89% of requests were met in 2000.

Requests for scheduled employment of Coast Guard resources in support of the Defense and State Department requirements are normally negotiated in advance based upon projected resource availability. However, programmed Coast Guard support does not fully satisfy Defense Department aspirations. The Coast Guard met 370 days of 415 days requested to support CinC initiatives.

Frontline protection against many current and emerging threats to our national and maritime security begins at sea. In 2001 and beyond, the Coast Guard will continue to maintain capability to meet Department of Defense and the Department of State operational needs. However, aging and maintenance intensive Deepwater assets that often lack interoperability strain the Coast Guard's ability to meet these demands.

With the Deepwater acquisition project, the Coast Guard is developing an integrated system of surface, air, command and control assets; surveillance; and logistics systems to carry out operational mandates in the deepwater area of responsibility. This initiative will provide more effective capability in place of assets that are beyond or are rapidly approaching the end of their service lives to ensure the Coast Guard - as one of the five Armed Services - can provide its essential and unique contributions to the nation's maritime needs.

FY 2001 Performance Plan Evaluation: The Coast Guard has reduced operations and truncated maintenance and support activities to meet the rising costs of personnel, energy and aging assets. These actions will impact FY 2001 operations. As a result, meeting the 2001 goal will be challenging.

Strategies and Initiatives to Achieve 2002 Target: The Coast Guard will take several steps to improve the long term sustainability of its resources to meet its military obligations, including:

- The Integrated Deepwater System (AC&I $338M) will replace the Coast Guard's legacy assets as they reach the end of their service lives and develop a system of surface, air, command and control, intelligence, and logistics systems to carry out deepwater missions.
- Differential Global Positioning System Follow-On (OE $295K). Operate the

Global Maritime Distress and Safety System, MF & HF Digital Selective Calling Alert Processing System (OE $87K), (AC&I $2.2M), and Modernize command and control communication capabilities in Districts 13 and 14 (AC&I $3.9M).

- Operate and maintain Coastal Patrol Boats and 47FT Boats (OE $4.85M), and enhance SAR capabilities (OE $80K).
- Commercial Satellite Communications Channels (AC&I $1 5M), (OE $1M). Self-Locating Data Marker Buoy Operations (OE $774K).
- Provision and provide training support for the C-130J aircraft (AC&I $500K).
- Defense Message System and Follow On (AC&I $2M) (OE $400K)
- Implement the Readiness Management System (AC&I $1.7M)
- Ensure DOD Command, Control, Communications and Intel interoperability (AC&I $1.5M), (OE $400K), and Military Satellite Communications (OE $225K).
- Surface Search Radar System Support (OE $870K). Replace Self Contained Breathing Apparatus (SCBA) used to conduct emergency/shipboard firefighting operations (AC&I $1M), and replace P-250 dewatering pumps aboard cutters (AC&I $2M).

Other Federal Programs with Common Outcomes: The Department of Defense coordinates the assigned roles of each service. The Coast Guard may operate under the Secretary of the Navy in times of war.

Resources to Support Goals

While many of the resources in our budget submission are requested to implement specific strategies and ultimately achieve specific performance outcomes (most of those are noted within applicable goal sections), some resources requested in this budget are used to support logistical functions that impact almost all our strategies and activities, and thus contribute to all the strategic and performance goals.

Operating Expenses:

- Operations and Support Increases ($8.3M)
- GSA Rent Base Increase ($3M)
- National Telecommunications & Information Administration (NTIA) Fees ($195K)
- Escalating Health Care Costs ($33M)
- Civilian Workforce Restoration & Mandatory Expenses ($500K)
- Outyear Costs for Previously Obligated Enlistment And Retention Bonuses ($5.6M)
- Annualization of FY 2001 NDAA Items ($47M)
- FY 2002 Pay Raise ($63M)
- Increasing Contract Costs ($24.4M)
- Annualization of FY 2001 Part Year Funding (New Initiatives/Enhancements) ($26.4M)
- Annualization of FY 2001 Pay Raise (3.7%) ($15.9M)
- Escalating Fuel and Energy Costs ($46M)
- Civilian Workforce Mandatory Expenses ($500K)
- Digital Voice Logger Replacement Project Support ($500K)
- Shore Facility Construction Follow-On ($1.6M)
- Fund Increase of Transit and Vanpool Benefits ($750K)
- Funeral Honors Duty ($50K)
- Search and Rescue System Enhancements ($5.75M)
- MTS Personnel and Information Management Tools ($837K)
- Passenger Vessel Safety ($1.2M)
- Spills of National Significance (SONS) Preparedness ($1M)

AC&I:

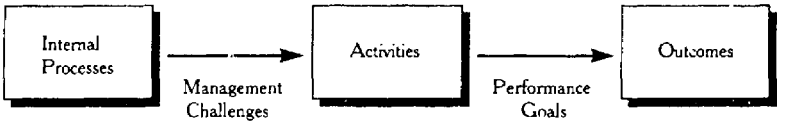
- READINESS MANAGEMENT SYSTEM (RMS) (AC&I $1.7 M)
- Information Technology Projects (AC&I $2M)
- C-130H and C-130J Resisting Requirements—Phase 1 ($500K)
- Replace ISC Boston Building 8 Utilities ($1.6M)
- Consolidate Elizabeth City Aviation and Station Facility—Phase 1 ($6.3M)
- Consolidate Engineering Logistics Center ($12.6)
- Modernize Group Marine Safety Office Long Island ($4.9M)
- Replace Station Brunswick ($3.6M)
- Replace Station Port Huron – Phase II ($3.1M)

Reserve Training:

- RESERVE TRAINING (RT $3.5 MILLION)

Management Challenges

The FY 2002 Coast Guard Performance Plan describes the expected performance outcomes based on a particular level of funding. Our performance and results are the focus of this document. Coast Guard Outcomes are what we aim for, every day. But how we achieve results is enormously important. The public entrusts us to improve maritime safety and performance, as well as to manage our resources and programs wisely. In order to achieve our citizens' and our own high expectations, we have to meet internal management challenges. We must address and overcome our management challenges as we work towards meeting specific performance goals. Establishing the appropriate strategy to guide activities while managing effectively can be summed up as doing the RIGHT THINGS RIGHT. The Coast Guard is committed to providing outcomes the public expects in the most judicious manner possible.



The Coast Guard is planning what is potentially the largest acquisition project in its history. This effort, the Deepwater Capability Replacement Project, involves replacing or modernizing the Coast Guard's 92 ships and 209 aircraft. The estimated cost could total $10 billion over 20 years. In 1998, the GAO recommended that the Service more thoroughly address the project's justification and affordability. The Coast Guard addressed many of the concerns and continues to tackle challenges including affordability and adequacy of management concerns. These challenges must be addressed both before and after the agency awards a contract in January 2002. The Coast Guard will not complete the planning process until July 2001. The GAO notes that asking for funds prior to completing the planning process raises uncertainties about what the overall acquisition strategy will be and how the funds will be used.

The Coast Guard intends to award a contract to one system integrator for a period of 20 years. Because of the uniqueness of this approach, the large dollars involved, and the importance of this approach in *shaping the future of the Coast Guard*, the agency's planned contracting strategy requires a carefully thought-out and well-documented acquisition plan. GAO is currently reviewing issues related to the Deepwater Project, including the Coast Guard's proposed contracting strategy. As part of the review, GAO shared preliminary findings with the Service, expressing concerns about the lack of documentation and detailed analyses of the risks associated with various contracting alternatives. Coast Guard managers are examining their contracting strategy in more detail and are documenting their plans.

Reconciling capital investment priorities and budget targets. Specifically, establishing capital investment priorities and continue working with the Office of Management and Budget to reconcile their respective capital funding proposals and budget targets.

Justifying the FY 2002 Budget Request for the National Distress and Response System Modernization Project. The major task for the Coast Guard is to present a specific system modernization plan that details what assets need to be acquired or modernized, how it will be done, what it will cost, and when funding will be needed. In sum, the Coast Guard's priority is to establish a realistic budget and schedule estimates for the National Distress System Project.

Improving operational performance goals. As the Coast Guard uses its performance measures to manage for results, the measures are revised as necessary to more accurately portray the activities that are conducted to achieve particular outcomes. In some cases, new information technology has come on line, allowing for better data and revision of measures.

Improving operational performance goals, continued. The measure, "Pollution Response," was revised to reflect the better management measure of "Pollution Response Preparedness" in the FY 2002 Plan. Measuring preparedness is a goal in the Coast Guard Strategic Plan and the G-M FY 2001-2005 Business Plan. Pollution Response Preparedness represents an important component to the Coast Guard's Federal On-Scene Coordinators' (FOSCs) long expressed interest in answering the question, "Are we ready?" Measuring pollution response preparedness, using a formal assessment framework, was just recently disseminated to field offices for testing and validation.

Developing and implementing logistics performance goals. The Coast Guard's Strategic Plan identified three logistic goals: Human Resources, Systems, and Information. Logistics encompasses all the activities associated with developing, acquiring, sustaining, and eventually retiring the components of capability: people, systems, and information. The fundamental purpose of logistics is to put the right capability in the right place at the right time and at the right cost. The Coast Guard's task is to develop logistics performance goals and measures because logistics is the foundation of performance. Alone, the operational performance goals and measures fail to convey the critical role of the Coast Guard's logistics system.

Incorporating financial management performance measures and goals. As a result of OMB Memorandum dated February 15, 2001, the Coast Guard is publishing draft measures and goals for financial management in the FY 2002 Plan. The Coast Guard will continue to develop and enhance the measures as experience identifies areas for improvement.

Strengthening computer security. The Coast Guard will continue efforts to manage unauthorized access or attacks by outsiders, enhance security over insiders, including employees, contractors, and grantees.

Improving the timeliness of rulemakings. The Coast Guard is pursuing completion of two rules, "Permits for the Transportation of Municipal and Commercial Wastes," and "Discharge-Removal Equipment for Vessels Carrying Oil," that are past deadline.

Maintaining and Improving the Service's planning and budgeting process. A factor that will impact the Coast Guard's ability to achieve its goals is developing better linkages among and between logistics/support elements and operational outcomes. The Coast Guard is taking steps to integrate more of its planning processes by bringing all operations, systems, human resources, civil rights, legal, contracting, and information program managers together to develop plans and make resource allocation decisions. Connectivity between resource planning and allocation will instill deliberate, strategy-driven resource allocation decisions supported by plans that clearly define and integrate operational and support goals, strategies and measures.

Verifying and validating data quality and developing performance measures. The Coast Guard is working closely with DOT's Bureau of Transportation Statistics (BTS) to address data quality issues. In addition, with BTS' assistance, programs are also improving measurement and target setting.

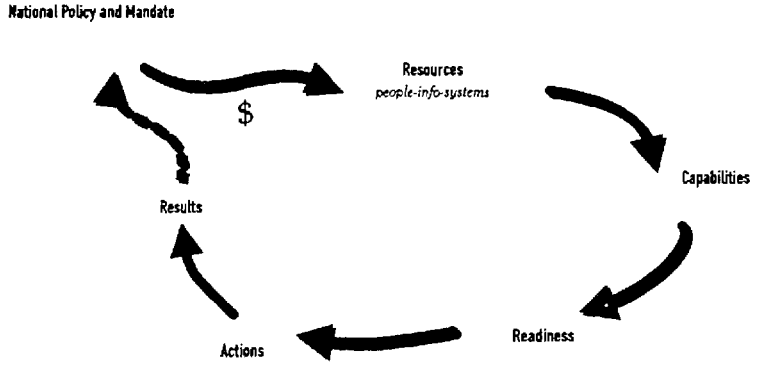
Stewardship

The Coast Guard is committed to being a responsible steward of taxpayer resources. To show this commitment, we have established initiatives to improve our performance in three broad areas: Managing for Results, Financial Management, and Procurement Management.

Managing for Results:

The Coast Guard has a variety of initiatives underway to continue our transition to a performance-based organization and to continuously improve our management systems and processes. As a result of this performance-based management philosophy and our specific efforts to date, the Coast Guard was awarded an "A" grade as "Best in Government" in the category of "Managing for Results" by the Pew Charitable Trust's "Government Performance Project" in March of 2000.

All of our major management initiatives are based on a simple, but comprehensive "Resources to Results" management model which explains how the Coast Guard translates appropriated dollars into outcomes for the public.



CG Planning System: We have implemented a comprehensive planning system (the Family of Plans) which supports the communication of vital information for decision-making between the Coast Guard's operational and logistics programs, at Headquarters and in the field. The planning system includes comprehensive assessments of strengths, weaknesses, threats and opportunities by the Area Commanders (the Regional Strategic Assessments), and performance-based business plans by major Headquarters directorates. Overarching direction is provided by the Coast Guard Strategic Plan, which aligns to the Strategic Goals in the DOT Strategic Plan.

Logistics Doctrine: Logistics encompasses all the activities associated with acquiring, sustaining and retiring the components of capability: people, information, and systems. We have developed and are beginning to implement a doctrine for integrated logistics management to provide the most efficient and effective support to our units. The doctrine focuses on putting the right capability in the right place, at the right time, at the optimum cost. It calls for more thorough identification of standards and requirements, and improved collaboration between operations and logistics programs.

Readiness Management System (RMS): Readiness is the ability of Coast Guard people, assets and systems to execute mission requirements in accordance with standards. Maintaining required levels of readiness is the key to the Coast Guard's success in providing service to the public on both a daily basis, and in response to the numerous natural and man-made disasters which require rapid and professional Coast Guard response. The RMS will improve the way the Coast Guard measures, monitors, and manages readiness. In FY 2002, the Readiness Task Force will continue to work on and deploy readiness measures and standards for an expanding list of Coast Guard units to enable better management of our resources.

Future Force 21 (FF21): Increasing demands for new skills, specialization, and a more agile workforce system requires the Coast Guard to rethink some of the basic premises of its Human Resources system. FF21 is a long-term, comprehensive, evolutionary workforce reinvention plan that challenges our current set of HR management policies and practices. Operationally, FF21 is about maintaining and/or adjusting our legacy HR systems while simultaneously creating new HR systems. The goal of FF21 is to more effectively and efficiently provide a workforce that can meet both the current and future work requirements of the Coast Guard.

Shore Facilities Capital Asset Management (SFCAM): As part of the Coast Guard Logistics Doctrine, the Coast Guard has developed and is beginning to implement an improved system to manage the service's shore infrastructure. SFCAM is founded on a life cycle and stewardship management approach to facility resources that includes planning, investing, using, and divesting. SFCAM is devoted to managing shore facility capital assets in the most effective and efficient manner possible, by having the right facilities in the right place at the right time at the optimum cost.

Innovations and IT/e-CG Initiative: The Coast Guard is in the initial deployment stages of a service-wide initiative to become fundamentally innovative, nimble and technologically empowered in its approach to business processes and solutions. The initiative seeks to use IT to help members get work done faster and less expensively and to help external customers access Coast Guard services and information conveniently over the web. The initiative also seeks to foster greater innovation, collaboration and informed and reasoned risk-taking throughout the service.

Financial Management and Procurement Management: Sound fiscal management is a critical component of managing performance. The Coast Guard is developing measures and goals for financial management. These goals will be included in our FY 2003 Plan.

Data Details

This Performance Plan reports on outcomes related to the public good we aim to achieve. However, the Coast Guard uses a number of measures, balanced across inputs, activities, outputs and outcomes to monitor and adjust performance.

Search and Rescue – Lives saved

Data is obtained from the Search and Rescue Management Information System (SARMIS). Program managers review SARMIS entries several times a year in order to validate data entered by field units that conduct the cases. This review includes a regression analysis to compare current data with historical data and analysis to identify aberrations. Prior to the introduction of the next generation data system in October 2000, data entry was limited to closed cases, after the recovery of a body. The new data system now allows missing bodies to be tracked. In this first year of data, more cases than expected were found where bodies were not recovered. Before adding this number into our data analysis, we will track this number to assure that this represents a data trend and not an unusual aberration. Errors may be introduced in SARMIS through data entry, but are likely rare for lives/property saved data elements.

Maritime Worker Fatalities

Data is obtained from the Coast Guard Marine Safety Information System. Data is verified by field offices, and checked during processing into the analysis database. Program managers also check a sample of MSIS data against incident case records. The investigation, retrieval, analysis and reporting processes result in under-reporting for the most recent year, with the most significant effects over the most recent 5 months. Estimates are often used to compensate for this known data-lag. In addition, it is probable that some fatalities are not reported to the Coast Guard. This number is probably extremely low. Duplicate fatality entries are sometimes entered into MSIS, and some fatalities are mistakenly omitted or coded incorrectly. Verification procedures strive to correct these errors, but it is probable that a small number are not corrected. Worker population data is collected by other agencies through sampling and survey techniques that are subject to coverage and response rate errors. Collection methodology revisions also affect a year-to-year comparison of population estimates. Current year population estimates are not always available, so a 5-year weighted average is used. The Bureau of Labor Statistics indicates that substantial estimating error exists, particularly in the fishing industry population. Using worker population as a normalizing factor is a surrogate for quantifying risk. There may be conceptually better normalizing factors, but worker population appears to be the best factor currently available. During FY 2001, the Marine Safety Information System (MSIS) will be replaced by the Marine Information System for Safety and Law Enforcement (MISLE). While the new system will be a significant improvement, it is expected to cause serious difficulties in making performance comparisons. One factor is that many business processes were re-designed in conjunction with system development. Another factor is that data quality under MISLE is expected to be superior to that of MSIS. While this represents improvement, it may cause near-term problems in making meaningful comparisons of data between the two systems.

Data obtained from the Coast Guard Marine Safety Information System (MSIS). Field offices verify data. MSIS data is also checked during processing into the analysis database. Program managers also check a sample of MSIS data against incident case records. This measure captures the death or disappearance of a passenger aboard any U.S. vessel (regardless of type or location) or aboard a foreign flag vessel in U.S. waters. The measure excludes the death/disappearance of all 'non-passengers' as well as all cases where the cause of death/disappearance was classified from diving, natural causes (e.g. heart attack) or the result of an intentional act (e.g. suicide, altercation). Recreational vessels are not allowed to carry 'passengers' and are therefore excluded. The investigation, retrieval, analysis and reporting processes result in under-reporting for the most recent year, with the most significant effects over the most recent 5 months. Estimates are often used to compensate for this known data-lag. The Coast Guard initiates about 40-50 civil penalty cases for failure to report marine casualties, although many of these are for minor casualties. In addition, some passenger fatalities may not be reported to the Coast Guard. This number is unknown. Some passenger injuries may ultimately prove fatal and lead to death; some missing passengers may be found. These numbers may not be updated to reflect the changes in status. The number is believed to be small. Duplicate casualty entries are sometimes entered into MSIS, and some casualties are mistakenly omitted or coded incorrectly.

	Verification procedures strive to correct these errors, but it is probable that a small number are not corrected. The data retrieval & reporting processes do not allow automated distinction between all death types (e.g. natural versus accidental). As a result some natural deaths or suicides may be inadvertently included. During FY 2001, the Marine Safety Information System (MSIS) will be replaced by the Marine Information System for Safety and Law Enforcement (MISLE). While the new system will be a significant improvement, it is expected to cause serious difficulties in making performance comparisons. One factor is that many business processes were re-designed in conjunction with system development. Another factor is that data quality under MISLE is expected to be superior to that of MSIS. While this represents improvement, it may cause near-term problems in making meaningful comparisons of data between the two systems.
[illegible] Fatalities	Data obtained from the Boating Accident Report Database (BARD), and is validated by program managers and state boating officials. At the end of the calendar year, the Coast Guard compiles state fatality data and sends a report to each state for confirmation. State and Coast Guard officials reconcile any data discrepancies. The Coast Guard initiated and funded an analysis of BARD data conducted by the Boat Owners Association of the United States Foundation for Boating Safety. Overall, findings noted that the best estimate indicates total fatalities are under-reported by at least 6%. Revised data and goal include this 6% discrepancy. Data are not adjusted for increases or decreases in the number or use of boats, which tend to limit data use in making comparisons over time. The number and use of recreational boats has increased over the past two decades, while the raw number of fatalities has generally decreased. The Coast Guard intends to normalize fatality data in the future by developing a denominator of exposure so that the level of risk in recreational boating can be compared from year to year without being skewed by the increase or decrease in the number of boats or boat use.
Oil Spills	Data on oil spilled is obtained from the Coast Guard Marine Safety Information System (MSIS). Data on waterborne shipments of oil obtained from Army Corps of Engineers "Waterborne Commerce Statistics." Oil spills of 1 million gallons or more are excluded from data. These spills are extremely rare (less than .1% of spills) and would have an inordinate influence on statistical trends. Only spills from regulated vessels and facilities are counted. Field offices verify MSIS data. Data is also checked during processing into the analysis database. Program managers also validate a sample of MSIS data against incident case records. The major sources of uncertainty in this measure are the estimation error (as a result of the data-lag), estimation error (actual amount of oil spilled may vary from the amount estimated) and response error (as a result of spills not being reported to or discovered by the Coast Guard). During FY 2001, the Marine Safety Information System (MSIS) will be replaced by the Marine Information System for Safety and Law Enforcement (MISLE). While the new system will be a significant improvement, it is expected to cause serious difficulties in making performance comparisons. One factor is that many business processes were re-designed in conjunction with system development. Another factor is that data quality under MISLE is expected to be superior to that of MSIS. While this represents improvement, it may cause near-term problems in making meaningful comparisons of data between the two systems
[illegible] and Garbage Debris	Data obtained from the Center for Marine Conservation, "National Coastal Cleanup Results." A National Marine Fisheries Service study corroborated CMC data trends.
Domestic Fisheries	Data provided by NMFS through each of the Regional Fisheries Management Councils' staffs for the changes in the number of listed species that improve in status from year to year. The Coast Guard does not independently verify or validate the data. The Coast Guard continues to monitor NMFS statistics to assess if these measures are the proper ones to evaluate Coast Guard performance relating to this goal.
[illegible] Aids	Interim measure - outcome measure to be developed. Aid availability is a measure of the maintenance of established aids to navigation. It measures program effort, reliability of equipment, and personnel performance. This measure tends to overstate the discrepancy

time of the aids to navigation system; a single aid outage usually does not degrade a waterway's entire aid system and vessels are still able to transit normally. Complete system outages are rare, and usually result from severe weather incidents such as hurricanes. While aid availability is not a true outcome measure, it does bear on the level of mobility through navigable waterways. Future measures may center more directly on movement of commerce, or accident prevention.

Vessel Traffic

Data obtained from the Coast Guard Marine Safety Information System. Sources of reports are most often vessel masters, operators, owners, insurance companies, legal representatives, and other mariners. Collisions, Allisions, and Groundings are reported to the Coast Guard as required by federal regulations. This measure is designed to gauge how well the Coast Guard prevents incidents detrimental to the efficient movement of vessels in ports and waterways. The target for collisions, allisions and groundings was originally based on data sorted according to the primary nature of the accident first reported to the Coast Guard. The Coast Guard has revised its analytical procedures to count for instances where collisions, allisions and groundings, not initially reported as the primary nature, but later confirmed to be a significant component in a chain of events, are included in the measure. For example, an incident initially reported as a pollution event, and subsequently confirmed to have been the result of a collision, allision, or grounding, would not have been counted under the old methodology, but is reported under the new methodology. This new methodology provides a more accurate picture of vessel traffic. New targets have been adjusted to reflect the same proportional reduction as our original target: 20% over 5 years. In FY 2002, the Coast Guard intends to eliminate the 500 Gross Tons limitation described in "Scope". Instead, we will measure collisions, allisions, and groundings on all Commercial Vessels (regardless of tonnage) within U.S. waters.

The major sources of uncertainty in this measure are the estimation error (as a result of the data-lag) the response error (as a result of parties failing to report casualties to the Coast Guard), and recording error (based on differences in the training and judgement of Coast Guard investigators in recording the accident).

During FY 2001, the Marine Safety Information System (MSIS) will be replaced by the Marine Information System for Safety and Law Enforcement (MISLE). While the new system will be a significant improvement, it is expected to cause serious difficulties in making performance comparisons. One factor is that many business processes were re-designed in conjunction with system development. Another factor is that data quality under MISLE is expected to be superior to that of MSIS. While this represents improvement, it may cause near-term problems in making meaningful comparisons of data between the two systems.

Domestic Icebreaking

This is a new goal and measure added to reflect the Coast Guard's contribution to Mobility from domestic ice breaking. Seven waterways have been identified as critical to Great Lakes icebreaking based on historical ice conditions, volume of traffic, and potential for flooding. FY96 data indicates a total of 7 days of closure for these waterways (FY96 was a severe winter). Data for FY96 reflects initial measurement methodology; further data capture refinements will be developed. FY97 and FY 98 data indicate no closures (FY97 was a mild winter, FY98 extremely mild). Winter conditions are defined by a severity index (-6.2 or milder defines average severity; more than -6.2 defines severe). Data obtained from the Coast Guard and the Army Corps of Engineers. District offices validate data. Program managers also review the data while compiling the End of Season (EOS) summary report.

Polar Operations

This is a new goal and measure added to reflect the Coast Guard's contribution to Mobility from polar ice breaking. Coast Guard activities ensure the mobility needed to achieve the scientific research and logistics replenishment desired by other agencies. The index, which is being developed, will measure how well Coast Guard activities meet these needs. Index factors will likely include percentage of missions met, serviced agency satisfaction, research opportunities provided, and logistics delivered.

Seizure rate is one of two measures used to manage Coast Guard activity. It indicates the amount of cocaine seized by the Coast Guard over noncommercial maritime routes expressed as a percentage of the amount shipped to the U.S. via noncommercial maritime routes as determined by ONDCP analysis. This measure is part of the National Drug Control Strategy. Smuggler success rate captures both the full impact of deterrence that law enforcement activity has on smuggler behavior, and the amount of illegal drugs that are seized as a result of interdiction activity. The smuggler success rate is the amount of cocaine entering the U.S. via non-commercial vessels, expressed as a percentage of all the cocaine that would be transported if the Coast Guard were not present to deter or seize it. Cocaine flow is used in the measures because it is the standard agreed to by the Interagency Community and ONDCP. In dealing with the supply and demand of cocaine, the Coast Guard seeks to impact the supply/demand proportion that is shipped via noncommercial maritime routes. The supply of cocaine (the amount shipped) is obtained from the "Interagency Assessment of Cocaine Movement" (IACM) published semiannually by ONDCP. The proportional demand level of cocaine is calculated by taking ONDCP's official demand figure of 300 metric tons, and multiplying it by the proportion of the total cocaine flow that is shipped via noncommercial maritime routes. Based on data in the 13th edition IACM, an increase to a 18.7% seizure rate and a reduction to a 38% smuggler success rate begins to impact the supply of cocaine transported by noncommercial maritime routes to a proportional level below the national demand level.

Data obtained from Coast Guard and Immigration and Naturalization Service. The success rate is an indicator of the number of migrants entering the U.S. by maritime routes compared against the number of migrants that would attempt to enter with no interdiction presence. Political climates, historical flows, and the latest trends figure into calculations. The potential flows are validated against other flow estimates where available; they are usually found to be more conservative than the other sources. While this measure captures the Coast Guard's success in interdicting migrants, it also reflects the significant deterrent effect that Coast Guard operations have on potential migrants. The numbers of illegal migrants entering the U.S., and the numbers of potential migrants, are derived numbers subject to estimating error. Because of the speculative nature of the information used, and the secretive nature of illegal migration, particularly where professional smuggling organizations are involved, the estimated potential flow of migrants may contain significant error. The measure only tracks four migrant groups at this time. A small number of migrants (approximately 10%) from various source countries are not included because formal flow estimates of migrants leaving these countries are not available. Using the number of potential migrants in the denominator helps address the deterrence value of Coast Guard operations, but could lead to confusion of this measure with a simple interdiction rate.

Data obtained from the Coast Guard Planning and Assessment System and validated by program managers. FY97 data affected by reclassification of many Mexican fishing vessels that were previously identified as illegal fishermen and are now classified as drug carriers.

Data obtained from the Status of Readiness and Training System (SORTS) maintained by the Department of Defense. Only high and medium endurance cutters, patrol boats, and Port Security Units that are designated as necessary for defense plans are included. The specific units required are classified. Units self assess and report readiness using specified standards. SORTS uses a multi-facto matrix to calculate the readiness status. Although specific criteria are outlined for each factor, some judgement is required in applying criteria. Different units and personnel may apply criteria slightly differently. Unit readiness is periodically validated through inspections, assistance visits, and in some cases training and assessment at Navy facilities. These assessments are conducted by external, field level commands (such as Coast Guard areas, districts, and groups.)

Data obtained from Coast Guard sources.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESOURCE SUMMARY -FINANCING - BUDGET AUTHORITY
(dollars in thousands)

ADMINISTRATION	2000 ACTUAL	2001 ENACTED	2002 REQUEST
Operating Expenses:			
General Fund	2,456,000	2,819,783	3,017,643
DoD Function 054 chargeable	300,000	340,250	340,250
OSLTF Share of expenses	25,000	24,945	24,945
Year 2000 Conversion Rescission P.L. 106-246	-3,500	.....	.....
Transportation Administration Service Center (TASC) P.L. 106-69	-1,963	.....	.....
Clinger Cohen Transfer	-25	.....	.....
ONDCP - HIDTA Transfer P.L. 106-58	301	.....	.....
Military Construction Appropriation Act, P.L. 106-246	77,000	.....	.....
Total, OE[1]	**2,852,813**	**3,183,978**	**3,382,838**
Acquisition, Construction & Improvements:			
General Fund	367,499	394,131	639,367
OSLTF Share of expenses	20,000	19,956	19,956
Military Construction Appropriation Act, P.L. 106-246	623,000	.....	.....
Budget Authority Rescission pursuant to P.L. 106-246	-2,200	.....	.....
Unobligated Balance Rescission pursuant to P.L. 106-246	-9,200	.....	.....
Total, AC&I[1]	**999,099**	**414,087**	**659,323**
Environmental Compliance & Restoration[1]	16,924	16,663	16,927
Alteration of Bridges[1]	14,943	15,466	15,466
Retired Pay (Mandatory)	730,327	778,000	876,346
Reserve Training[1]	71,952	80,198	83,194
Research, Development, Test & Evaluation:			
General Fund	15,493	17,781	18,230
OSLTF Share of expenses	3,500	3,492	3,492
Total, RDT&E[1]	**18,993**	**21,273**	**21,722**
Trust Fund Share of Expenses "non-add"[1]	-48,500	-48,393	-48,393

[1] FY 2001 includes a government-wide rescission of $7.022 million for Operating Expenses, $913 thousand for Acquisition, Construction, Improvements, $37 thousand for Environmental, Compliance and Restoration; $34 thousand for Alteration of Bridges; $177 thousand for Reserve Training; and $47 thousand for Research, Development, Test and Evaluation pursuant to P.L. 106-554.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESOURCE SUMMARY -FINANCING - BUDGET AUTHORITY
(dollars in thousands)

ADMINISTRATION	2000 ACTUAL	2001 ENACTED	2002 REQUEST
Oil Spill Recovery, Coast Guard, (OSLTF) (Mandatory):			
Emergency Fund (OSLTF)	50,000	50,000	50,000
Payment of Claims/Oil Spill Recovery. Inst. (OSLTF)	10,833	10,000	10,000
Oil Spill Recovery Institute (Accrued Interest)	982	1,200	1,200
Total, OSLTF	61,815	61,200	61,200
Boat Safety (Mandatory)	64,000	64,000	64,000
Gift Fund	214	80	80
TOTAL COAST GUARD BUDGET AUTHORITY (BA)	4,831,080	4,635,945	5,181,096
Mandatory BA	856,356	903,280	1,001,626
Discretionary BA	3,974,724	3,732,665	4,179,470
Proprietary Receipts:			
Marine Safety User Fees (69-2421)	19,275	20,901	20,966
Miscellaneous Recoveries & Refunds, not otherwise classified (69-3099)	799	500	500
Tonnage Duty Fees (69-0311)	70,360	71,000	73,000
TOTAL PROPRIETARY RECEIPTS	90,434	92,401	94,466

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESOURCE SUMMARY-FINANCING-DIRECT OBLIGATIONS
(in thousands of dollars)

APPROPRIATION TITLE	2000 ACTUAL	2001 ENACTED	2002 REQUEST
Operating Expenses:			
General Fund	2,713,884	2,820,283	3,017,643
DoD Function	300,000	340,250	340,250
OSLTF Share of expenses	25,000	24,945	24,945
Total, OE[1]	3,038,884	3,185,478	3,382,838
Acquisition, Construction & Improvements:			
General Fund	462,177	725,044	625,186
OSLTF Share of expenses	20,000	19,956	19,956
Total, AC&I[1]	482,177	745,000	645,142
Environmental Compliance & Restoration[1]	16,971	16,663	20,509
Alteration of Bridges[1]	16,355	15,466	41,087
Retired Pay (Mandatory)	721,234	778,000	876,346
Reserve Training[1]	71,826	80,198	83,194
Research, Development, Test & Evaluation[1]**:**			
General Fund	15,781	19,222	18,230
OSLTF Share of expenses	3,500	3,492	3,492
Total, RDT&E[1]	19,281	22,714	21,722
Trust Fund Share of Expenses "non-add"[1]	-48,500	-48,393	-48,393
Oil Spill Recovery, Coast Guard, (OSLTF) (Mandatory):			
Emergency Fund (OSLTF)	56,603	50,000	50,000
Payment of Claims/Oil Spill Recovery, Inst (OSLTF)	11,815	11,200	11,200
Total, OSLTF	68,418	61,200	61,200
Boat Safety (Mandatory)	337	....	....
Boat Safety (Mandatory)	60,578	76,484	64,000
Total, BS	60,915	76,484	64,000
Other Funds	243	80	80
TOTAL incl	4,496,304	4,981,283	5,196,118

[1] FY 2001 includes a government-wide rescission of $7.022 million for Operating Expenses; $913 thousand for Acquisition, Construction, Improvements, $37 thousand for Environmental, Compliance and Restoration; $34 thousand for Alteration of Bridges; $177 thousand for Reserve Training, and $47 thousand for Research, Development, Test and Evaluation pursuant to P.L. 106-554.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESOURCE SUMMARY - FINANCING - OUTLAYS
(dollars in thousands)

ADMINISTRATION	2000 ACTUAL	2001 ENACTED [3]	2002 REQUEST
Operating Expenses:			
General Fund	2,712,019	2,584,159	2,902,935
DoD Function 054 transfer	300,000	332,200	337,030
OSLTF Share of expenses	25,000	24,945	24,945
Subtotal	3,037,019	2,941,304	3,264,910
Acquisition, Construction & Improvements:			
General Fund	463,918	660,000	602,022
OSLTF Share of expenses	20,000	19,956	19,956
Subtotal	483,918	679,956	621,978
Environmental Compliance & Restoration	17,350	13,395	11,000
Alteration of Bridges	5,338	49,325	31,000
Retired Pay	713,423	761,219	861,300
Reserve Training	72,786	77,928	82,805
Research, Development, Test & Evaluation:			
General Fund	15,565	19,286	18,634
OSLTF Share of expenses	3,500	3,492	3,492
Subtotal	19,065	22,778	22,126
Trust Fund Share of Expenses "non-add"	-48,500	-48,393	-48,393
Oil Spill Recovery, Coast Guard, (OSLTF) (Mandatory):			
Emergency Fund (OSLTF)	54,306	50,000	50,000
Payment of Claims/Oil Spill Recovery. Inst.(OSLTF)	13,656	11,200	11,200
Subtotal	67,962	61,200	61,200
Boat Safety (Grants) (ARTF):	9,483	830	81
Boat Safety (Mandatory)	42,315	60,713	63,145
Subtotal	51,798	61,543	63,226
Other Funds:			
Coast Guard Supply Fund	-1,251	.....	.....
Coast Guard Yard Fund	-5,860	.....	.....
Coast Guard General Gift Fund	330	80	80
Misc. Trust Revolving Funds	175	.....	.....
TOTAL, COAST GUARD OUTLAY:	4,462,053	4,668,728	5,019,625
Mandatory	824,205	883,212	985,725
Discretionary	3,637,848	3,785,516	4,033,900

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESOURCE SUMMARY - STAFFING
FULL-TIME EQUIVALENT EMPLOYMENT (FTE)

DIRECT FUNDED BY APPROPRIATION	2000 ACTUAL	2001 ESTIMATE	2002 REQUEST
Operating Expenses:			
Civilian	4,571	4,694	4,686
Military	34,761	34,971	34,118
Acquisition, Construction & Improvements:			
Civilian	263	284	293
Military	366	366	417
Environmental Compliance & Restoration:			
Civilian	49	52	52
Military	2	2	2
Reserve Training:			
Civilian	82	87	87
Military	394	406	406
Research, Development, Test & Evaluation:			
Civilian	70	74	74
Military	31	31	31
Subtotal, Direct Funded:			
Civilian	**5,035**	**5,191**	**5,192**
Military	**35,554**	**35,776**	**34,974**
REIMBURSEMENTS/ALLOCATIONS/OTHER			
Reimbursables:			
Civilian	208	236	237
Military	141	136	136
Allocations/Other:			
Yard Fund:			
Civilian	572	572	572
Military	21	22	22
Subtotal, Reimbursements/Allocations/Other:			
Civilian	**780**	**808**	**809**
Military	**162**	**158**	**158**
TOTAL, Full Time Equivalent:			
Civilian	5,815	5,999	6,001
Military	35,716	35,934	35,132

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DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESOURCE SUMMARY - STAFFING
POSITION/BILLETS (FTP - POS)

DIRECT FUNDED BY APPROPRIATION	2000 ACTUAL	2001 ESTIMATE	2002 REQUEST
Operating Expenses:			
Civilian	4,870	4,959	4,966
Military	35,157	35,207	34,433
Acquisition, Construction & Improvements:			
Civilian	317	338	366
Military	387	387	452
Environmental Compliance & Restoration:			
Civilian	53	53	53
Military	2	2	2
Reserve Training:			
Civilian	91	91	91
Military	403	415	415
Research, Development, Test & Evaluation:			
Civilian	76	76	76
Military	31	31	31
Subtotal, Direct Funded:			
Civilian	**5,407**	**5,517**	**5,552**
Military	**35,980**	**36,042**	**35,333**
REIMBURSEMENTS/ALLOCATIONS/OTHER			
Reimbursables:			
Civilian	249	251	251
Military	141	146	146
Allocations/Other:			
Yard Fund:			
Civilian	612	612	612
Military	22	22	22
Subtotal, Reimbursements/Allocations/Other:			
Civilian	**861**	**863**	**863**
Military	**163**	**168**	**168**
TOTAL POSITIONS:			
Civilian	6,268	6,380	6,415
Military	36,143	36,210	35,501

OPERATING EXPENSES

For necessary expenses for the operation and maintenance of the Coast Guard, not otherwise provided for; purchase of not to exceed five passenger motor vehicles for replacement only; payments pursuant to section 156 of Public Law 97-377, as amended (42 U.S.C. 402 note), and section 229(b) of the Social Security Act (42 U.S.C. 429(b)); and recreation and welfare, [$3,192,000,000] *$3,382,838,000*, of which [$341,000,000] *$340,250,000* shall be available for defense-related activities; and of which [$25,000,000] *$24,945,000* shall be derived from the Oil Spill Liability Trust Fund: *Provided*, That none of the funds appropriated in this or any other Act shall be available for pay for administrative expenses in connection with shipping commissioners in the United States: *Provided further*, That none of the funds provided in this Act shall be available for expenses incurred for yacht documentation under 46 U.S.C. 12109, except to the extent fees are collected from yacht owners and credited to this appropriation[: *Provided further*, That none of the funds in this Act shall be available for the Coast Guard to plan, finalize, or implement any regulation that would promulgate new maritime user fees not specifically authorized by law after the date of the enactment of this Act.] *(Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101(a) of P.L. 106-346.)*

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
OPERATING EXPENSES
Program and Financing (in thousands of dollars)

Identification code: 69-0201-0-1-999		2000 actual	2001 estimate	2002 estimate
0001	Search and Rescue	454,921	387,673	407,315
0002	Aids to navigation	484,094	485,467	491,818
0003	Marine safety	399,005	433,544	456,484
0004	Marine environmental protection	332,454	358,366	374,564
0005	Enforcement of laws and treaties	1,213,426	1,379,631	1,445,490
0006	Ice operations	109,400	65,302	128,905
0007	Defense readiness	45,583	75,496	78,262
00 91	Total direct program	3,038,884	3,185,478	3,382,838
01.01	Reimbursable program	86,142	103,955	104,955
1000	Total new obligations	3,125,026	3,289,433	3,487,793
	Budgetary resources available for obligation			
2140	Unobligated balance carried forward, start of year	186,533	500	
2200	New budget authority (gross)	2,939,555	3,288,933	3,487,793
2210	Resources available from recoveries of prior year obligations			
2390	Total budgetary resources available for obligation	3,126,088	3,289,433	3,487,793
2395	Total new obligations	-3,125,026	-3,289,433	-3,487,793
2398	Unobligated balance expiring or withdrawn	-561		
2440	Unobligated balance carried forward, end of year	500		
	New budget authority (gross), detail: Discretionary.			
4000	Appropriation (definite)	2,756,055	3,167,000	3,357,893
4015	Appropriation (emergency)	77,000		
4075	Appropriation rescinded P.L. 106-246	-3,500		
4077	Appropriation rescinded P.L. 106-554		-6,967	
4100	Transferred to other accounts	-25		
4079	Reduction pursuant to P.L. 106-69	-1,963		
4200	Transferred from other accounts	301		
4300	Appropriation (total discretionary)	2,827,868	3,160,033	3,357,893
	Discretionary spending authority from offsetting collections.			
6800	Offsetting collections (cash)	102,780	128,900	129,900
6810	Change in uncollected customer payments from Federal sources	-108,258		
6815	Ajustments to uncollected customer apyments from Federal sources	117,164		
6890	Spending authority from offsetting collections (total discretionary)	111,687	128,900	129,900
7000	Total new budget authority (gross)	2,939,555	3,288,933	3,487,793
	Change in unpaid obligations:			
7240	Unpaid obligations, start of year	776,595	659,372	903,590
7295	Uncollected customer payments from Federal sources, start of year	-205,311	-97,053	-97,053
7299	Obligated balance, start of year	571,284	562,319	806,537
7310	Total new obligations	3,125,026	3,289,433	3,487,793
7320	Total outlays (gross)	-3,114,800	-3,045,215	-3,369,865
7340	Adjustments in expired accounts (net)	-127,449		
7400	Change in uncollected customer payments from Federal sources	108,258		

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
OPERATING EXPENSES
Program and Financing (in thousands of dollars)

Identification code: 069-0241-0-1-999		2000 actual	2001 estimate	2002 estimate
7440	Unpaid obligations, end of year	659,372	903,590	1,021,518
7495	Uncollected customer payments from Federal sources, end of year	-97,053	-97,053	-97,053
7499	Obligated balance, end of year	562,319	806,537	924,465
	Outlays (gross), detail:			
8690	Outlays from new discretionary authority	2,365,074	2,656,926	2,816,214
8693	Outlays from discretionary balances	749,726	388,289	553,651
8700	Total outlays (gross)	3,114,800	3,045,215	3,369,865
	Offsets:			
	Against gross budget authority and outlays			
	Offsetting collections (cash) from:			
8800	Department of Defense	22,114	32,000	32,000
8800	Other Federal Sources	70,857	90,000	90,000
8840	Non-Federal Sources	9,809	6,900	6,900
8890	Total, offsetting collections (cash)	102,780	128,900	129,900
	Against gross budget authority only:			
8895	Change in uncollected customer payments from Federal sources	-108,258	.....	.....
8896	Adjustment in uncollected customer payments from Federal sources	117,164	.....	.....
	Net budget authority and outlays:			
8900	Budget authority	2,827,868	3,160,033	3,357,893
9000	Outlays	3,012,020	2,916,315	3,239,965

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
OPERATING EXPENSES
Offsetting Collections (in thousands of dollars)

Identification code: 69-8201-0-1-999		2000 actual	2001 estimate	2002 estimate
88.00	**FEDERAL FUNDS:**			
	DoD: (mostly Navy) includes personnel costs, medical/dental services, parts and maintenance and maintenance of aircraft radar, sonar and weapons	22,114	32,000	32,000
	Total OC 88.00 Department of Defense	22,114	32,000	32,000
	DoT: includes cost for CG TSC Telenet Costs, National Response Center, DAFIS, NASSIF/TRANS Medical unit, Security Policy & Planning, OMEGA Project, FAA liaison, etc	8,357	11,000	11,000
	EPA includes personnel costs, CERCLA, environmental mgmt, pollution mitigation, etc	3,386	4,000	4,000
	Other miscellaneous agencies include NSF, NOAA DOS, OSIA, CUSTOMS, FEMA, Interior, Panama Canal Commission etc , includes icebreaker fuel/ maintenance, security assistance, Customs Forfeiture Fund, migrant interdiction, etc	34,114	50,000	51,000
	TRUST FUNDS:			
	Oil Spill Liability Trust Fund (OSLTF)	25,000	25,000	25,000
	Total OC 88.00 Other Federal Sources	70,857	90,000	91,000
88.40	**NON-FEDERAL SOURCES:**			
	Travel Overseas Vessel inspections & Exam Teams (CONUS)	564	2,000	2,000
	Yacht Documentation	4,798	4,000	4,000
	MSP User Fee Admin Costs	4,447	900	900
	Total OC 88.40	9,809	6,900	6,900
	Total OC 88.90 OC (cash)	102,780	128,900	129,900
	Total OC 88.95 Change in receivables & unpaid, unfilled orders	-108,257		
	Total OC 88.96 Adjustment to receivables and unpaid, unfilled	117,219		
	Adjusted Grand total offsetting collections	111,742	128,900	129,900

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
OPERATING EXPENSES
Program and Performance

To carry out its unique duties as a peacetime operating agency and one of the military services, the Coast Guard employs multipurpose vessels, aircraft, and shore units, strategically located along the coasts and inland waterways of the United States and in selected areas overseas. The 2002 request provides for the safety of the public, and the Coast Guard's work force, with a continued emphasis on critical national security and law enforcement missions.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
OPERATING EXPENSES
Object Classification (in thousands of dollars)

Identification code: 69-0201-0-1-999		2000 actual	2001 estimate	2002 estimate
	Direct obligations:			
	Personnel compensation:			
11.1	Full-time permanent	209,234	231,599	246,175
11.3	Other than full-time permanent	7,282	8,060	8,568
11.5	Other personnel compensation	7,322	8,104	8,615
11.7	Military personnel	1,182,844	1,241,727	1,337,706
11.8	Special personal services payments	21,464	22,211	23,207
11.9	Total personnel compensation	1,428,146	1,511,701	1,624,271
12.1	Civilian personnel benefits	53,214	58,902	62,609
12.2	Military personnel benefits	124,151	119,096	129,339
13.0	Benefits for former personnel	11,928	16,530	17,259
21.0	Travel and transportation of persons	91,318	95,124	99,756
22.0	Transportation of things	54,303	56,567	59,321
23.1	Rental payments to GSA	32,372	34,320	35,554
23.2	Rental payments to others	68,827	71,696	75,187
23.3	Communications, utilities, and miscellaneous charges	102,146	106,404	111,584
24.0	Printing and reproduction	5,323	5,545	5,815
25.1	Advisory and assistance services	8,715	9,078	9,520
25.2	Other services	163,099	169,898	178,169
25.3	Purchases of goods and services from Government accounts	2,700	2,813	2,949
25.4	Operation and maintenance of facilities	164,781	171,650	180,007
25.6	Medical care	127,448	132,761	139,224
25.7	Operation and maintenance of equipment	135,589	141,241	148,117
25.8	Subsistence and support of persons	11,229	9,651	8,651
26.0	Supplies and materials	395,417	411,900	431,953
31.0	Equipment	52,292	54,472	57,124
32.0	Land and structures	4,161	4,334	4,545
42.0	Insurance claims and indemnities	1725	1,795	1,884
99.0	Subtotal, Direct obligations	3,038,884	3,185,478	3,382,838
	Reimbursable obligations	86,142	103,955	104,955
99.9	Total obligations	3,125,026	3,289,433	3,487,793

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
OPERATING EXPENSES
Personnel Summary

Identification code: 69-0201-0-1-999		2000 estimate	2001 estimate	2002 estimate
	Direct:			
	Total compensable workyears			
1001	Full-time equivalent employment civilian	4,571	4,702	4,694
1101	Full-time equivalent employment military	34,761	35,196	34,118
	Reimbursable:			
	Total compensable workyears			
2001	Full-time equivalent employment civilian	208	237	237
2101	Full-time equivalent employment military	141	136	136

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
OPERATING EXPENSES
Program Digest (in thousands of dollars)

Program by activities:	2000 actual	2001 estimate	2002 estimate
1. Search and rescue	427,189	387,532	407,315
2. Aids to navigation	454,407	485,539	491,818
3. Marine safety	374,582	433,344	456,484
4. Marine environmental protection	312,127	358,268	374,564
5. Enforcement of laws and treaties	1,139,132	1,379,497	1,445,490
6. Ice operations	102,565	65,321	128,905
7. Defense readiness	42,811	75,477	78,262
Total appropriation or estimate:	**2,852,813**	**3,184,978**	**3,382,838**
FTE:			
(Military)	34,761	35,196	34,118
(Civilian)	4,571	4,702	4,694
Total	**39,332**	**39,898**	**38,812**

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
OPERATING EXPENSES
Program, Project and Activity (PPA) Index

Program, Project and Activities Category	2000 Level	2001 Estimate	2002 required changes	2002 request level
I. Personnel Resources				
A. Military pay & allowances (AFC-01)	1,290,651	1,442,782	111,936	1,554,718
B. Civilian pay & benefits (AFC-08)	207,261	246,933	19,293	266,226
C. Military Health Care (AFC-57)	146,600	172,621	37,232	209,853
D. Perm. change of station (AFC-20)	66,100	70,745	7,383	78,128
E. Training & Education (AFC-30 & AFC-56)	74,556	77,267	2,849	80,116
F. Recruiting (AFC-30)	5,585	13,153		13,153
G. FECA/UCX (AFC-30)	11,091	3,442		3,442
Subtotal	1,801,845	2,026,944	178,693	2,205,637
II. Operating Funds and Unit level Maintenance				
A. Atlantic Command	122,390	109,200	-724	108,476
B. Pacific Command	130,550	130,421	-1,892	128,529
C. District Budget Model				
1. 1st District	40,847	34,186	16	34,202
2. 7th District	51,165	49,511	-4,357	45,154
3. 8th District	31,366	28,257	231	28,488
4. 9th District	19,800	17,790	-174	17,616
5. 13th District	13,538	13,580	145	13,725
6. 14th District	9,781	11,019	122	11,141
7. 17th District	19,973	20,264	-368	19,896
D. Headquarters Offices	133,229	243,689	32,158	275,847
E. HQ-Managed Units	56,578	54,014	15,855	69,869
F. Other Activities	-27,324	6,208		6,208
Subtotal	601,896	718,138	41,012	759,150
III. Intermediate and Depot Level Maintenance				
A. Aircraft Maintenance	147,016	173,947	-32,241	141,706
B. Electronic Maintenance	36,422	40,460	3,262	43,722
C. Ocean Engineering and Shore Facilities Maintenance	93,354	108,883	3,684	112,567
D. Vessel Maintenance	100,468	116,606	3,450	120,056
Subtotal	377,259	439,896	-21,845	418,051
Total	2,781,000	3,184,978	197,860	3,382,838
Year 2000 Conversion Rescission P.L. 106-246	-3,500			
Transportation Administration Service Center (TASC) P.L. 106-69	-1,963			
Clinger Cohen Transfer	-25			
ONDCP - HIDTA Transfer P.L. 106-58	301			
Emergency Supplemental - FY01 Military Construction P.L. 106-246	77,000			
Total OE	2,852,813	3,184,978	197,860	3,382,838

[1] FY 2001 includes a government-wide rescission of $7.022 million for Operating Expenses.

PPA I - PERSONNEL RESOURCES:

A. Military Pay and Allowances:

Provides funding for expenses related to compensation for active duty military personnel. This category includes pay, allowances, employer's share of FICA, Social Security credits, and other expenses associated with compensating military personnel. Annual funding supports over 35,000 military full-time equivalents (FTE).

MILITARY FULL-TIME EQUIVALENT ESTIMATES
ALL APPROPRIATIONS

Pay Grade	2000 actual	2001 estimate	2002 estimate
O-10	1	1	1
O-09	4	4	4
O-08	14	13	15
O-07	12	13	14
O-06	318	310	311
O-05	718	707	712
O-04	1,065	1,076	1,073
O-03	1,945	1,873	1,740
O-02	894	942	970
O-01	545	606	667
ADSW-AC*	50	50	50
Subtotal	**5,566**	**5,595**	**5,557**

Pay Grade	2000 actual	2001 estimate	2002 estimate
W-4	313	266	291
W-3	467	529	372
W-2	633	585	733
ADSW-AC*	11	11	11
Subtotal	**1,424**	**1,391**	**1,407**

Pay Grade	2000 actual	2001 estimate	2002 estimate
E-10	1	1	1
E-09	268	269	276
E-08	543	537	538
E-07	2,707	2,704	2,706
E-06	5,308	5,286	5,305
E-05	5,802	5,926	6,060
E-04	5,952	5,980	5,667
E-03	3,515	3,843	3,428
E-02	2,915	2,803	2,527
E-01	573	449	502
ADSW-AC*	114	114	114
Subtotal	**27,698**	**27,912**	**27,124**

*ADSW-AC = Active duty for Special Work in Support of the Active Component

I. A. Military Pay and Allowances: (cont)

MILITARY FULL-TIME EQUIVALENT ESTIMATES
ALL APPROPRIATIONS

Pay Grade	2000 actual	2001 estimate	2002 estimate
PHS	162	166	166
CADET	791	817	825
OCS	52	53	53
Subtotal	1,005	1,036	1,044

MILITARY FULL-TIME EQUIVALENT ESTIMATES
SUMMARY BY CATEGORY

Pay Grade	2000 actual	2001 estimate	2002 estimate
Commissioned Officer	5,557	5,595	5,557
Chief Warrant Officer	1,424	1,391	1,407
Enlisted Personnel	27,698	27,912	27,124
Other Personnel	1,005	1,036	1,044
Total Personnel	**35,684**	**35,934**	**35,132**

COAST GUARD ATTRITION RATES
VARIOUS PERSONNEL CATEGORIES

Fiscal Year	Civilian	Military	Enlisted	Officer Aviator	Officer Non-Aviator
1993	7.4%	9.4%	10.6%	4.1%	5.7%
1994	6.0%	11.8%	13.3%	5.9%	7.0%
1995	8.4%	11.5%	13.0%	5.1%	7.0%
1996	12.4%	14.3%	16.1%	7.1%	9.9%
1997	6.3%	13.5%	14.3%	8.4%	9.7%
1998	6.5%	12.5%	13.4%	7.0%	9.2%
1999	6.6%	13.4%	14.5%	7.1%	9.1%
2000	8.0%	14.9%	16.1%	9.3%	8.8%
2001 (est)	8.3%	15.8%	17.0%	8.0%	10.5%

ACTIVE DUTY OFFICER / ENLISTED RATIOS – FY 2000
WITHIN ALL MILITARY SERVICES

Service	Including CWOs	Without CWOs
Army	1 : 5.2	1 : 6.2
Navy	1 : 5.9	1 : 6.1
Marine Corps	1 : 8.7	1 : 9.7
Air Force	See Note	1 : 4.1
Coast Guard	1 : 4.0	1 : 5.0

Note: The Air Force does not employ Chief Warrant Officers (CWOs).

I. A. Military Pay and Allowances: (cont)

REPRESENTATION OF WOMEN AND MINORITIES
COAST GUARD -- FY 1995 TO FY 2000

FY	PERCENTAGE OF WOMEN			PERCENTAGE OF MINORITIES		
	COMM OFF	WARRANT OFF	ENLISTED	COMM OFF	WARRANT OFF	ENLISTED
95	8.8	1.5	9.3	9.4	6.7	18.7
96	9.6	1.8	9.6	10.4	7.7	18.9
97	10.5	2.4	9.8	11.4	9.2	19.3
98	11.1	2.6	10.1	11.9	10.1	19.3
99	11.8	3.6	10.1	12.7	10.8	18.7
00	12.7	4.2	10.0	13.2	12.5	18.0

REPRESENTATION OF WOMEN AND MINORITIES
WITHIN ALL MILITARY SERVICES – FY 2000

Women by Service	Officer	CWO	Enlisted
Coast Guard	12.6%	4.1%	10.0%
Army	15.3%	6.9%	15.5%
Navy	15.0%	4.6%	13.6%
Air Force	17.1%	N/A	19.3%
Marine Corps	5.1%	6.2%	6.1%

Minority by Service	Officer	CWO	Enlisted
Coast Guard	13.0%	12.3%	18.1%
Army	21.0%	25.5%	44.8%
Navy	16.8%	23.3%	39.4%
Air Force	11.7%	N/A	27.2%
Marine Corps	14.7%	24.7%	33.7%

GENERAL DETAIL LEVELS
WITHIN THE COAST GUARD – FY 1995-2001

FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY2001
15.6%	14.7%	14.6%	14.5%	14.5%	14.5%	14.5%

Note: Comparisons to other Armed Services has not been included as statistics for the Department of Defense Individual Accounts (DOD counterpart to the Coast Guard General Detail) are no longer published within the annual Defense Manpower Requirement Report

I. A. **Military Pay and Allowances**: (cont)

COAST GUARD
SPECIAL, INCENTIVE AND RETENTION PAYS ($)

Category:	FY 99	FY 00	FY 01 (est)	FY 02 (est)
Responsibility pay	137,657	139,255	140,000	140,000
Diving pay	48,894	61,405	62,000	62,000
Hostile fire/imminent danger pay	663,455	403,122	405,000	405,000
Career sea pay (1)	13,310,966	13,312,331	13,750,000	22,950,000
Hardship duty pay – location	104,167	100,234	105,000	105,000
Aviation career incentive pay	6,908,342	7,282,238	7,500,000	7,500,000
Hazardous duty incentive pay	5,423,097	5,266,993	5,500,000	5,500,000
Special duty assignment pay	2,418,537	2,629,020	2,705,000	2,900,000
Selective reenlistment bonuses	7,324,015	8,629,341	8,800,000	14,800,000
Aviation career continuation pay (2)		476,000	700,000	1,300,000
Targeted enlistment bonuses	2,903,299	6,020,698	5,446,528	6,944,000
Applicant college fund (3)			150,000	100,000
Total	**$39,242,429**	**$44,320,637**	**$45,263,528**	**$62,706,000**

Notes:
(1) No later than October 1, 2001, Career Sea Pay rates will be adjusted as authorized within the National Defense Authorization Act of Fiscal Year 2001, to better compensate personnel assigned to afloat units.
(2) Implemented in FY2000 to promote retention of fixed-wing aircraft commanders
(3) Alternative incentive to enlistment bonus to attract recruits with plans for post-military education.

ENLISTED PERSONNEL
CLOTHING MAINTENANCE ALLOWANCE ($)

FY97	6,785,897
FY98	6,423,440
FY99	6,065,735
FY00	6,543,146
FY01 (est)	7,200,000
FY02 (est)	7,500,000

Note: Clothing Maintenance Allowance is an entitlement paid to enlisted members to ensure that members can maintain or replace required uniform items.

I. A. **Military Pay and Allowances:** (cont)

COAST GUARD BILLETS
ASSIGNED TO FOREIGN COUNTRIES

Country	Pay Grades	Function
Australia	O3	Royal Australian Navy (RAN) Exchange
Bahamas	O3, O4, O3, three O2s, CPO, PO1, & two PO2s	Drug Interdiction Coast Guard Liaison Officer (O4)
Bahrain	O6, O5	Maritime Liaison Commander, Middle East Forces
Barbados	O5	Security Assistance – CHUSMLO
Canada	Two O3s	Royal Canadian Air Force Exchange
Colombia	O5, CPO O4	Coast Guard Attache
Costa Rica	O5	Security Assistance
Cuba	CPO, PO2, PO3, SA O4	Aviation Detachment – Guantanamo Bay Drug Interdiction Specialist, US Interests Section, Havana
Curacao	O5	International Maritime Organization (IMO) Liaison
Dominican Republic	O4 O4	Security Assistance Coast Guard Liaison Officer
Germany	O5 O4	Commander in Chief, European Command Staff Security Assistance
Haiti	O5 O4	Coast Guard Liaison Officer Security Assistance – CHUSMLO
Jamaica	O4, PO1	Coast Guard Attache
Japan	O6 O4, O3, O2, CWO & two PO1s	Far East Liaison Activities Far East & Marine Inspection Office
Korea	O5	CG Liaison Officer Harbor Defense
Mexico	O6, O4	Coast Guard Attache
Nicaragua	O4	Coast Guard Attache
Netherlands	O6, O5, two O4s, five O3s, O2 & four CWOs, two PO1s, PO3	Activities Europe & Marine Inspection Office
Panama	O6 O5 O3	Panama Canal Authority Coast Guard Liaison Officer Assistant Coast Guard Attache
Peru	O4	Embassy Liaison – Maritime Advisor (NAS)
Singapore	O4, O2, two CWOs	Marine Inspection
Sweden	O4	Instructor, World Maritime University, Malmo
Trinidad & Tobago	O4	Security Assistance – CHUSMLO
United Kingdom	Two O3s	Royal Navy Air Force Exchange
Venezuela	O5	Coast Guard Attache

I. A. Military Pay and Allowances: (cont)

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	**1,442,782**
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
ANNUALIZATION OF FY 2001 MANAGEMENT SAVINGS	-3,298
SCHEDULED DECOMMISSIONING OF FOUR SEAGOING BUOY TENDERS	-3,525
LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	-56
ADMINISTRATIVE AND SUPPORT PERSONNEL REDUCTIONS	-1,415
SURFACE ASSET REALLOCATION	-6,489
AVIATION ASSET REALLOCATION	-11,167
MARINE SAFETY EFFICIENCIES	-546
II. BUILT-IN CHANGES	
FY 2002 PAY RAISE (MILITARY 4.6%, CIVILIAN 3.6%)	47,703
OUT-YEAR COSTS FOR PREVIOUSLY OBLIGATED ENLISTMENT AND RETENTION BONUSES	5,600
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW INITIATIVES / ENHANCEMENTS)	14,265
ANNUALIZATION OF FY 2001 PAY RAISE (3.7%)	12,788
ANNUALIZATION OF FY 2001 NATIONAL DEFENSE AUTHORIZATION ACT ENTITLEMENTS (NON-MEDICAL)	47,000
III. OPERATE NEW FACILITIES	
COMMISSION AND OPERATE THREE SEAGOING BUOY TENDERS	3,882
47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	2,726
USCGC HEALY AVIATION DETACHMENT SUPPORT FOLLOW-ON	637
CONFIGURATION MANAGEMENT SYSTEM PROJECT FOLLOW-ON	155
COMMERCIAL SATELLITE COMMUNICATIONS (SATCOM) FOLLOW-ON	30
COMMISSION AND OPERATE TEN COASTAL PATROL BOATS	1,317
DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) FOLLOW-ON	70
IV. NEW/ENHANCED/RESTORATION INITIATIVES	
SEARCH AND RESCUE SYSTEM ENHANCEMENTS	2,130
PASSENGER VESSEL SAFETY	129
TOTAL	111,936
FY 2002 OE REQUEST LEVEL	**1,554,718**

I. B. Civilian Pay and Benefits:

Provides funding for expenses related to compensation and entitlements for federal civilian employees. The workforce is composed of General Schedule (GS) personnel, Administrative Law Judges (ALJ), Senior Executive Service (SES) personnel, and personnel whose salaries are administratively determined (e.g. Coast Guard Academy civilian faculty members). This category also includes "non-ceiling employees" (e.g. cooperative education students, student aids, summer aids, and federal junior fellows).

COAST GUARD
SENIOR EXECUTIVE POSITIONS

ES-04	Director of Finance and Procurement
ES-04	Director of Standards
ES-04	Deputy Director of Personnel Management
ES-04	Deputy Chief Counsel
ES-04	Assistant Commandant for Civil Rights
ES-04	Director, International Affairs & Foreign Policy Advisor to the Commandant
ES-04	Director, Waterways Management Studies and Program Development
ES-04	Deputy Chief Information Officer
ES-02	Director, National Pollution Funds Center
ES-01	Deputy Assistant Commandant for Acquisition

Funding for the following positions is not included in this category:

- Funding for Wage Grade positions is provided in the respective Area, District or MLC sub-PPA within PPA II. These personnel are employed in industrial operations, with fluctuation in employment levels subject to workload and the availability of alternative services in the private sector.
- Funding for Wage Grade and General Schedule positions at the Aircraft Repair & Supply Center (AR&SC) is provided in the Aircraft Maintenance category under PPA III, Depot-Level Maintenance.
- The following table lists the PPAs and associated estimated funding for FY 2001 for those employee groups whose pay and benefits are *not included* in Personnel Compensation, Benefits, and Related Costs (PPA I).

PPA Category	Description	FY 2002 ($000)
II	Operating Funds & Unit Level Maintenance Maintenance & Logistics Commands District Offices	35,840
III	Depot Level Maintenance and Repair Aeronautical Maintenance (AR&SC)	23,894
Total		**59,734**

I. B. Civilian Pay and Benefits: (cont)

The following table lists the actual and projected conversion of Coast Guard military billets into Coast Guard civilian positions. Billets and positions are frequently reviewed by cognizant programs to determine if assigned work is being completed by the appropriate component of the Coast Guard workforce (e.g. civilian employee, officer, enlisted, active duty military, reserve military, or civilian contractor). Fiscal Year 2001 estimate represents an extrapolation of current trends.

MILITARY BILLET TO CIVILIAN POSITION CONVERSIONS

FY97	9
FY98	129
FY99	75
FY00	62
FY01 (est)	91

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	**246,933**
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	-57
ADMINISTRATIVE AND SUPPORT PERSONNEL REDUCTIONS	-1,395
AVIATION ASSET REALLOCATION	-83
II. BUILT-IN CHANGES	
FY 2002 PAY RAISE (MILITARY 4.6%, CIVILIAN 3.6%)	14,581
CIVILIAN WORKFORCE MANDATORY EXPENSES	500
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW INITIATIVES / ENHANCEMENTS)	1,766
ANNUALIZATION OF FY 2001 PAY RAISE (3.7%)	2,879
III. OPERATE NEW FACILITIES	
PORTS AND WATERWAYS SAFETY SYSTEMS (PAWSS) INSTALLATION FOLLOW-ON	121
COMMERCIAL SATELLITE COMMUNICATIONS (SATCOM) FOLLOW-ON	49
IV. NEW/ENHANCED/RESTORATION INITIATIVES	
MARINE TRANSPORTATION SYSTEM PERSONNEL AND INFORMATION MANAGEMENT TOOLS	497
SEARCH AND RESCUE SYSTEM ENHANCEMENTS	52
PASSENGER VESSEL SAFETY	383
TOTAL	**19,293**
FY 2002 OE REQUEST LEVEL	**266,226**

I. C. Military Health Care:

Provides funding for authorized health care entitlements for active duty military members and their dependents. This category also includes funding for: medical, dental, and laboratory supplies, services and equipment to support Coast Guard-provided health services; wellness initiatives; the government's share of TRICARE and the Dependent Dental Program payments; and reimbursement to other military services, and public and private providers of health support for active duty military members and their dependents. Funds are also provided for payment of Public Health Service (PHS) personnel salaries, for those PHS officers assigned to the Coast Guard.

The Coast Guard has over 35,000 active duty military personnel, over 48,000 active duty dependents, and over 8,000 Selected Reservists. To serve these authorized personnel, the Coast Guard employs approximately 164 PHS doctors and other health professionals. Title 10 USC, Chapter 55, Section 1074 (a), entitles active duty personnel to medical and dental care in any facility of any uniformed service. Section 1067 of the same statute authorizes medical and dental care for dependents of active duty members.

Health care is delivered to active duty personnel and their dependents from five sources:

1. Coast Guard Clinics: The Coast Guard manages 32 outpatient clinics located at units that have an assigned PHS physician. These clinics provide pharmaceutical, laboratory, radiology, physical therapy and mental health services. In FY 2000, these clinics had over 284,683 outpatient visits as follows:

Coast Guard personnel and their dependents	255,866
DoD personnel	21,842
Other personnel	6,975
Total	**284,683**

2. Non-federal Health Care: Non-federal health care providers are civilian physicians, dentists and hospitals that are contracted by the Coast Guard to provide emergent and routine health care to active duty personnel. These providers are used only when it is determined to be more efficient than TRICARE Prime or Coast Guard clinics, especially in remote areas away from military facilities.

3. Uniformed Services Family Health Plan (USFHP): This is a legislated managed care plan, offered by Uniformed Services Treatment Facilities (USTFs). In 1981, ten PHS hospitals were redesignated as USTFs. In FY 1994, these USTFs implemented a managed care plan, known as the Uniformed Services Family Health Plan. In FY 2000 the plan was renamed to TRICARE Designated Provider. This plan provides benefits, similar to TRICARE Prime, to some active duty members, active duty dependents, and retirees under age 65. If they enroll in the plan, dependents cannot use TRICARE or any DoD MTF except in an emergency.

4. DoD Medical Treatment Facilities (MTFs): Inpatient and outpatient health care is available to active duty personnel and their dependents at DoD MTFs. A Memorandum of Agreement with the Army, Air Force and Navy requires reimbursement at the Federal Interagency rate.

I. C. Military Health Care: (cont)

5. DOD Managed Care Health Delivery System (TRICARE): Coast Guard participates in the DOD TRICARE program, which was fully implemented nationwide in FY 1998. TRICARE offers active duty dependents expanded options beyond CHAMPUS. There are three options under TRICARE: Standard, Extra, and Prime. TRICARE Standard (CHAMPUS) provides for care through a private doctor who is an authorized TRICARE provider. The beneficiary pays a cost-share and Coast Guard funds cover the majority of the cost. Under TRICARE Extra, beneficiaries select their doctor from a list of designated TRICARE providers, and therefore reduce their cost share and avoid filing claims. TRICARE Standard and TRICARE Extra deductibles and cost share requirements are similar to many civilian medical insurance programs. Finally, beneficiaries may chose to enroll in TRICARE Prime, usually receiving primary care at a military treatment facility or through a civilian provider. TRICARE Prime is administered similarly to private health maintenance organizations. Retirees under the age of 65 can also participate in TRICARE, with some stipulations. In all cases, government costs are limited due to defined benefits and established rates for treatment. TRICARE also administers the TRICARE Dental Plan, a cost-share insurance plan approved by Congress for all active duty dependents. Dependents pay a cost-share and the Coast Guard pays the remainder. The FY01 National Defense Authorization Act significantly improved TRICARE benefits and established the TRICARE Prime Remote system for family members.

AUTHORIZED SOURCES AND USERS
OF MEDICAL CARE

	Active Duty Members	Active Duty Dependents
Coast Guard Clinics	X	X
Non-federal Health Care	X	
DoD MTFs	X	X
TRICARE	X	X
USFHP	X	X

The following are the actual and projected total health care costs for active duty personnel and their dependents for FY's 1998 through 2002. These figures do not include retired pay health care costs. FY 1999 costs are still considered 'projected' as approximately five percent of the bills for care provided to active duty personnel and their dependents during FY 1999 have not yet been received.

PROJECTED HEALTH CARE COSTS ($000)
ALL APPROPRIATIONS

Fiscal Year	Total Cost	DOD	Non-DOD
1998	140,707	87,773	52,934
1999	151,800	102,400	49,400
2000	165,400	122,631	42,769
2001 (est)	185,324	145,887	39,437
2002 (est)	218,860	171,703	47,157

Note: Coast Guard health services are received primarily from DoD and private sources, both of which are beyond the immediate control of the Coast Guard

I. C. Military Health Care: (cont)

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	172,621
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
ANNUALIZATION OF FY 2001 MANAGEMENT SAVINGS	-387
SCHEDULED DECOMMISSIONING OF FOUR SEAGOING BUOY TENDERS	-433
LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	-7
ADMINISTRATIVE AND SUPPORT PERSONNEL REDUCTIONS	-73
SURFACE ASSET REALLOCATION	-361
AVIATION ASSET REALLOCATION	-545
MARINE SAFETY EFFICIENCIES	-39
II. BUILT-IN CHANGES	
FY 2002 PAY RAISE (MILITARY 4.6%, CIVILIAN 3.6%)	592
ESCALATING HEALTH CARE COSTS	32,960
INCREASING CONTRACT COSTS	2,787
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW INITIATIVES / ENHANCEMENTS)	1,489
ANNUALIZATION OF FY 2001 PAY RAISE (3.7%)	159
III. OPERATE NEW FACILITIES	
COMMISSION AND OPERATE THREE SEAGOING BUOY TENDERS	369
47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	270
USCGC HEALY AVIATION DETACHMENT SUPPORT FOLLOW-ON	65
CONFIGURATION MANAGEMENT SYSTEM PROJECT FOLLOW-ON	10
COMMERCIAL SATELLITE COMMUNICATIONS (SATCOM) FOLLOW-ON	2
COMMISSION AND OPERATE TEN COASTAL PATROL BOATS	127
DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) FOLLOW-ON	8
IV. NEW/ENHANCED/RESTORATION INITIATIVES	
SEARCH AND RESCUE SYSTEM ENHANCEMENTS	232
PASSENGER VESSEL SAFETY	7
TOTAL	37,232
FY 2002 OE REQUEST LEVEL	209,853

I. D. Permanent Change of Station (PCS) & Related Travel & Transportation:

Provides funding for all travel and transportation of household goods, and other authorized entitlements incident to Permanent Change of Station (PCS) assignments for Coast Guard personnel and their dependents. This activity includes such PCS-related items as personnel travel costs and allowances, transportation and storage of household goods, and other authorized items. Approximately 50% of all PCS transfers are considered non-discretionary transfers. Non-discretionary PCS transfers involve members who are graduating from enlisted recruit or officer training, being promoted, completing required training, or retiring/separating from the service. The remaining 50% are actual duty station reassignments. Approximately half of the remaining duty station assignments are also considered "non-discretionary" because the are used to reassign Coast Guard members currently serving in arduous duty assignments such as isolated duty stations, cutters designated as unusually arduous sea duty, and command cadre positions.

PERSONNEL RELOCATION
PURPOSE OF FUNDED RELOCATION ORDERS
ALL APPROPRIATIONS

TYPE	1998 actual	1999 actual	2000 actual	2001 est	2002 est
PCS reassignments	9,944	8,907	9,072	9,000	9,000
Accessions (1)	3,236	3,187	4,055	3,540	4,670
Separations	2,544	2,692	2,898	3,750	3,050
Retirements	1,448	1,192	918	1,280	1,150
Training (A-school)	1,614	1,931	1,977	1,520	2,100
Student Dependent Travel	56	52	64	60	60
Early Return of Dependents	40	38	41	40	40
Return of Remains	8	9	12	10	10
Consecutive Overseas Travel	4	11	12	30	30
Total (2)	**18,894**	**18,019**	**19,049**	**19,230**	**20,110**

*Notes

(1) This accession number does not agree with the recruiting data in section I F for two reasons 1) This table includes officer and enlisted accessions, but the recruiting data is enlisted only, and 2) This table shows the number of orders issued Orders are only issued upon graduation from recruit or officer training. The number given in recruiting data is higher as it is the number of personnel at entry (not all of them graduate).

(2) The Total Number of Travel Orders includes only "cost" orders In addition to the "cost" orders listed, the Coast Guard also issues "no cost" orders (e g., for PCS transfers not requiring a change in geographic location)

I. D. **Permanent Change of Station (PCS) & Related Travel & Transportation:** (cont)

PERSONNEL RELOCATION COST DATA
ALL APPROPRIATIONS

FISCAL YEAR	TOTAL COST ($000) (Note 1)	TOTAL NUMBER OF TVL ORDERS (Note 2)	AVERAGE COST FOR ALL MOVES ($) (Note 3)	NUMBER OF PCS REASSIGN-MENTS	PERSONNEL ROTATION RATE (Note 4)
1993	$62,635	15,671	$4,124	12,350	29.6
1994	64,055	17,696	3,620	10,658	25.0
1995	64,280	17,872	3,597	9,408	25.0
1996 (Note 5)	75,310	19,453	3,871	10,293	30.1
1997	67,250	18,168	3,702	9,761	29.0
1998	66,964	18,894	3,544	9,944	29.0
1999	72,773	18,019	4,039	8,907	26.0
2000	74,500	19,049	3,911	9,072	25.8
2001 (est)	75,388	19,230	3,920	9,000	25.7
2002 (est)	83,440	20,110	4,149	9,000	26.3

Notes:
(1) The Total Cost is revised annually as the PCS account for each fiscal year continues to incur expenditures for a period of five years.
(2) The Total Number of Travel Orders includes only "cost" orders. In addition to the "cost" orders listed, the Coast Guard also issues "no cost" orders (e.g., for PCS transfers not requiring a change in geographic location).
(3) The Average Cost for all Moves includes all categories of moves: accessions, separations, training, permanent change of station (PCS) orders, and the minor categories of funded moves. It is revised annually as the Total Cost is revised.
(4) The Personnel Rotation Rate is the number of PCS reassignments divided by the number of personnel in the Coast Guard (not including OCS or cadets) at the end of the fiscal year.
(5) Fiscal Year 1996 costs and moves reflect the effects of streamlining and realignment.

I. D. Permanent Change of Station (PCS) & Related Travel & Transportation: (cont)

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	70,745
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
ANNUALIZATION OF FY 2001 MANAGEMENT SAVINGS	-689
SCHEDULED DECOMMISSIONING OF FOUR SEAGOING BUOY	531
LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	15
ADMINISTRATIVE AND SUPPORT PERSONNEL REDUCTIONS	160
SURFACE ASSET REALLOCATION	705
AVIATION ASSET REALLOCATION	1,208
MARINE SAFETY EFFICIENCIES	66
II. BUILT-IN CHANGES	
FY 2002 PAY RAISE (MILITARY 4.6%, CIVILIAN 3.6%)	390
INCREASING CONTRACT COSTS	907
ANNUALIZATION OF FY 2001 PAY RAISE (3.7%)	105
III. OPERATE NEW FACILITIES	
COMMISSION AND OPERATE THREE SEAGOING BUOY TENDERS	807
47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	842
USCGC HEALY AVIATION DETACHMENT SUPPORT FOLLOW-ON	407
CONFIGURATION MANAGEMENT SYSTEM PROJECT FOLLOW-ON	20
COMMERCIAL SATELLITE COMMUNICATIONS (SATCOM) FOLLOW-ON	16
COMMISSION AND OPERATE TEN COASTAL PATROL BOATS	270
DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) FOLLOW-ON	61
IV. NEW/ENHANCED/RESTORATION INITIATIVES	
SEARCH AND RESCUE SYSTEM ENHANCEMENTS	1,488
PASSENGER VESSEL SAFETY	74
TOTAL	7,383
FY 2002 OE REQUEST LEVEL	78,128

I. E. Training and Education:

Provides funding for the Coast Guard's professional training and education programs, and operation and maintenance of the five Coast Guard Training Centers and the Coast Guard Academy.

I. E. **Training and Education**: (cont)

Professional Training/Education:
Provides funding for tuition, travel and per diem for formal training and education performed as temporary assigned duty (TAD) for military and civilian personnel. "Formal training and education" is defined as structured, curriculum-based instruction and applied exercises for the attainment and retention of skills and knowledge required to accomplish specific job tasks. This training and education is usually conducted by dedicated resident staffs at facilities with classrooms, but may also include exportable training or correspondence courses, which follow a formal schedule with supporting lesson plans requiring interaction or evaluation of the students or participants. The following are the major areas of funding provided in this section:

- Recruit travel and per diem
- Basic Enlisted "A" School travel, per diem, and contract fees for commercial "A" schools
- Basic Flight Training reimbursement to the U.S. Navy
- Chief Warrant Officer Indoctrination travel and per diem
- Chief Petty Officer Academy travel and per diem
- Leadership Development Center student tuition, travel, and per diem
- Servicewide Advanced Enlisted "C" School tuition, travel, and per diem
- Servicewide Advanced Officer, Enlisted, Civilian, Reserve, and Auxiliary Specialty tuition, travel, and per diem
- Undergraduate, Postgraduate, Senior Service School tuition
- Tuition Assistance and DANTES programs
- Pre-Commissioning Training for new cutters

Training Centers:
Provides funding for the operation and maintenance of Coast Guard training centers located at Petaluma, CA, Yorktown, VA, Mobile, AL, Cape May, NJ and Elizabeth City, NC. These five training centers provide approximately 3,000 student-years of training in support of Coast Guard missions. A student year is equivalent to two students going through 26 weeks of schooling. Funding is included for unit level maintenance and repairs of buildings, piers, grounds and housing; food service contracts; boat supplies; vehicles; specialized electronic equipment; training equipment and supplies used during courses of instruction; housekeeping supplies and equipment; spare parts; energy, fuel and utilities; federal Wage Grade salaries; and other materials and supplies consumed in the course of operations and everyday business.

Training Centers provide basic ("A" school) and advanced ("C" school) training for Coast Guard enlisted ratings, as well as servicewide specialized training for officers, enlisted, civilians, reserve, and auxiliary. Students graduating from "A" schools are sent to the field with the necessary skills to function as apprentices. Students who complete "C" schools and specialty training are returned to the field with specialized skills in equipment repair, boating safety, marine safety, maritime law enforcement, and other focused skill areas.

I. E. **Training and Education:** (cont)

Training Center Petaluma, California:

Training Center Petaluma, California provides basic, advanced and specialty training to approximately 4,400 students per year in over 40 courses of instruction.

- **Basic Enlisted "A" Schools, By Ratings**
    - Electronics Technician (ET)
    - Storekeeper (SK)
    - Food Service Specialist (FS)
    - Health Services Technician (HS)
    - Health Services Technician (Dental)
    - Yeoman (YN)
    - Telephone Technician (TT)
    - Telecommunications Specialist (TC)
- **Advanced Enlisted "C" Schools**
    - Command, Control & Communications
        - Standard Workstation
        - Radar Systems Maintenance
        - Communication Station Communication Center Operator
    - Health and Safety Schools
        - Emergency Medical Technician (EMT) Certification
        - Environmental health
        - Unit Safety Coordinator
    - Leadership and Instructor Schools
        - Instructor Development
        - Course Designer

I. E. **Training and Education**: (cont)

Training Center, Yorktown, Virginia:

Training Center Yorktown provides basic and specialty training to over 6,700 students per year (military & civilian) in over 125 courses of instruction.

- **Basic Enlisted "A" Schools, By Ratings**
    - Boatswain's Mate (BM)
    - Damage Controlman (DC)
    - Electrician's Mate (EM)
    - Fire Control Technician (FT)
    - Gunner's Mate (GM)
    - Machinery Technician (MK)
    - Marine Science Technician (MST)
    - Quartermaster (QM)
    - Radarman (RD)
- **Servicewide Specialized Training for Enlisted or Officers**
    - National Aids to Navigation (ATON) Schools
        - Automated Lighthouse Technician
        - Buoy Deck Supervisor
        - Minor Aid Maintenance Servicing Technician
        - ATON Officer Basic
        - ATON Officer Advanced
    - Defense Operations Schools
        - Fire Control System MK-92 MOD-1 Operation and Maintenance
        - MK38 25MM Machine Gun Operation and Maintenance
        - Super Rapid Blooming Off broad Chaff (SRBOC) System Maintenance
        - MK75 76MM Weapon System Operation and Maintenance
        - Small Arms Instructor
    - Marine Safety Schools
        - Safety & Occupational Health Coordinators
        - Marine Safety Petty Officer
        - Reserve Marine Safety Officer
        - Marine Safety Investigating Officer
        - Container Inspection
        - Commercial Fishing Vessel Examiner
        - Explosive Handling Supervisor

I. E. **Training and Education**: (cont)

Training Center, Yorktown, Virginia: (cont)

- National Maritime Law Enforcement (MLE) Schools
  - MLE Boarding Team Member
  - MLE Boarding Officer
  - MLE Instructor

- Naval Engineering Schools
  - Naval Engineering Administration
  - Refrigeration & Air Conditioning
  - Hydraulic Systems & Equipment
  - Advanced Analog Electronics
  - Advanced Digital Electronics
  - Gyro Compass System
  - Steel/Aluminum Welding
  - Small Cutter Damage Control

- National Search and Rescue (SAR) Schools
  - Coxswain Class "C" School
  - Maritime SAR Planning
  - Boat Crewmember for 41' Utility Boat
  - Small Boat Engineer for 41' Utility Boat
  - Prospective Commanding Officer/XO Ashore
  - Maritime SAR Planning (International)

- Procurement Schools
  - Contract Quality Assurance
  - Statement of Work Preparation
  - Centralized Shipboard Supply
  - Simplified Acquisition
  - Performance Based Service Contracting

- Leadership & Instructor Schools
  - Instructor Development Course
  - Course Designer
  - Mentoring (Military & Civilian)
  - Career Enrichment

- Intelligence Program
  - Introduction to Coast Guard Intelligence
  - Senior Officers Intelligence
  - Command Intelligence Officer

- Contingency Preparedness Schools
  - Contingency Preparedness Deliberate Planner, Port Level
  - Contingency Preparedness Command & Staff
  - Contingency Preparedness Command & Control

I. E. **Training and Education:** (cont)

Aviation Technical Training Center Elizabeth City, North Carolina:

Aviation Technical Training Center (ATTC) Elizabeth City, NC provides enlisted aviation training to over 750 students per year in 36 courses of instruction.

- **Basic Enlisted "A" Schools, By Ratings**
  - Aviation Maintenance Technician (AMT)
  - Aviation Electronics Technician (AVT)
  - Aviation Survival Technician (AST)

- **Advanced Enlisted "C" Schools**
  - Aircraft Composite Material Repair
  - Aircraft Corrosion Control and Maintenance
  - Aircraft Maintenance Officer
  - Aircraft Structures for Managers
  - Aircraft Fuel Systems
  - Air Traffic Controlman
  - Miniature Component Repair
  - Shipboard Aircraft Firefighting
  - Specialized Training Specific to Types of Aircraft

- **Servicewide Specialized Training for Enlisted or Officer**
  - Aircraft Accident Investigation
  - Aircraft Accident Prevention
  - Aviation Safety Program Management
  - Crew Resource Management

Aviation Training Center Mobile, Alabama:

Aviation Training Center (ATC) Mobile, AL provides standardized pilot training for Coast Guard aircraft including the HU-25 Guardian, HH-60 Jayhawk, and HH-65 Dolphin aircraft. For each aircraft type, three different courses are offered: 1) initial and re-qualification courses, 2) upgrade courses, and 3) proficiency courses. Proficiency training in simulators is required annually for all pilots.

- **Servicewide Specialized Training for Officers or Enlisted**
  - HU-25 Qualification, Upgrade, and Proficiency Certification
  - HH-65 Qualification, Upgrade, and Proficiency Certification
  - HH-60 Qualification, Upgrade, and Proficiency Certification
  - Advanced Rescue Swimmer Training
  - Instructor Training and Certification
  - Shipboard Helicopter Qualification and Proficiency Courses

I. E. Training and Education: (cont)

Recruit Training Center Cape May, New Jersey:

Training Center Cape May, NJ has provided basic recruit training to an average of 5,000 new recruits (both active duty and Reserve) and approximately 70 recruiters each year.

- **Basic Enlisted Training**
  - Active Duty Recruit Basic Training
  - Reserve Enlisted Basic Indoctrination
  - Maritime Academy Training Program
- **Servicewide Specialized Training for Enlisted or Officers**
  - Boot Camp Company Commander Indoctrination
  - Recruiter Training
  - Instructor Development
  - Recruiter Refresher Training

Coast Guard Academy, New London, Connecticut:

The Coast Guard Academy, located in New London, CT, is the accession point for all Coast Guard officers. The Coast Guard Academy's average enrollment is 950 officer trainees and they graduate approximately 350 officers each year from the four-year Cadet Program and Officer Candidate Schools. During the next year, there will be an estimated 2,400 students attending Leadership Development Center (LDC) courses at the Coast Guard Academy and an additional 1,250 students completing non-resident LDC courses.

The LDC is the Coast Guard's center of excellence for integrating leadership and professional development training into all levels of the organization. The LDC supports the development of Coast Guard personnel by providing focused training at specific points along each individual's career. The LDC's schools include: Officer Candidate School, Leadership and Quality Institute, Command and Operations School, Officer in Charge/Executive Petty Officer School, and the Chief Petty Officer Academy.

LDC Service-wide Specialized Training for Enlisted or Officers:

- Leadership and Quality Institute Courses:
  - Leadership and Management School
  - Class "A" School Leadership Program
  - Facilitator Training
  - Quality Performance Consultant Training
  - Commandant's Quality Award Examiner Training
- Officer Programs:
  - Officer Candidate School
  - Direct Commission Officer Indoctrination
  - Public Health Service Officer Indoctrination
  - Reserve Officer Candidate Indoctrination
  - Minority Officer Recruitment Effort

I. E. Training and Education: (cont)

- Command and Operations School Courses:
  - Prospective Commanding Officer/Executive Officer School
  - Prospective Operations Officer School
  - Cutter Operations—Team Coordination Training
  - International Maritime Officer Course
- Chief Petty Officer Academy
- Officer-in-Charge/Executive Petty Officer School
- Group Operations—Team Coordination Training
- Chief Warrant Officer Indoctrination Course
- Civilian Orientation Program

Funding supports the operation and maintenance of the Coast Guard Academy including: all phases of officer accession training and education; support and operation of all LDC schools; personnel support; food service and security contracts; housing maintenance; and federal Wage Grade employee salaries. Also included are maintenance and repairs of buildings, piers, grounds and housing; boat supplies; vehicles; supplies and equipment for housekeeping, safety, and administration; energy, fuel and utilities; spare parts; and other materials consumed in the course of operations and everyday business.

COAST GUARD ACADEMY
ANNUAL OPERATING COSTS

FISCAL YEAR	DIRECT ANNUAL MISSION COST ($000)	TOTAL ANNUAL OPERATING COST ($000)
1999	44,732	60,079
2000	46,074	61,881
2001 (est)	47,917	64,356
2002 (est)	48,995	65,804

Note: *Total annual operating costs* represent the total appropriated cost to run the various Academy missions (e g. vessels homeported at the Academy, Leadership Development Center, personnel reporting unit, procurement functions, medical clinic, Coast Guard Band, etc.). *Direct annual mission costs* represent that portion of the total directly allocated to support the four-year Academy cadet education and training mission. It is computed according to a formula prescribed by the General Accounting Office and applied in a relatively consistent manner among the Service Academies.

MILITARY SERVICE ACADEMY
COST PER GRADUATE – FY 1995 - 1999

Service	1995	1996	1997	1998	1999
Air Force	$282,880	$293,953	$300,116	$303,252	$312,349
Army	$276,817	$289,600	$306,942	$310,410	$319,722
Coast Guard	$218,500	$222,200	$235,300	$250,300	$258,100
Navy	$217,898	$230,800	$231,235	$243,275	$250,573

Note: The "cost per graduate" is calculated on a standard formula prescribed by GAO. FY00 Cost per Graduate for the Military Service Academies is not yet available.

I. E. Training and Education: (cont)

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	77,267
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
ANNUALIZATION OF FY 2001 MANAGEMENT SAVINGS	-51
SCHEDULED DECOMMISSIONING OF FOUR SEAGOING BUOY TENDERS	-70
LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	-1
ADMINISTRATIVE AND SUPPORT PERSONNEL REDUCTIONS	-18
SURFACE ASSET REALLOCATION	-49
AVIATION ASSET REALLOCATION	-386
MARINE SAFETY EFFICIENCIES	-5
II. BUILT-IN CHANGES	
INCREASING CONTRACT COSTS	481
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW INITIATIVES / ENHANCEMENTS)	238
III. OPERATE NEW FACILITIES	
COMMISSION AND OPERATE THREE SEAGOING BUOY TENDERS	389
47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	134
USCGC HEALY AVIATION DETACHMENT SUPPORT FOLLOW-ON	1,383
PORTS AND WATERWAYS SAFETY SYSTEMS (PAWSS) INSTALLATION FOLLOW-ON	1
CONFIGURATION MANAGEMENT SYSTEM PROJECT FOLLOW-ON	5
COMMERCIAL SATELLITE COMMUNICATIONS (SATCOM) FOLLOW-ON	2
COMMISSION AND OPERATE TEN COASTAL PATROL BOATS	67
DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) FOLLOW-ON	9
IV. NEW/ENHANCED/RESTORATION INITIATIVES	
MARINE TRANSPORTATION SYSTEM PERSONNEL AND INFORMATION MANAGEMENT TOOLS	2
SEARCH AND RESCUE SYSTEM ENHANCEMENTS	707
PASSENGER VESSEL SAFETY	11
TOTAL	2,849
FY 2002 OE REQUEST LEVEL	80,116

I. F. Recruiting:

Provides funding for expenses related to Officer, Enlisted, and Reserve recruiting efforts by the Coast Guard Recruiting Center. This category includes advertising, printing, filming, marketing, direct mailing, and administrative support for local recruiting offices. The Coast Guard faces increasing challenges in its efforts to recruit the desired workforce. Private industry and DoD services utilize aggressive, well-funded, and targeted efforts to recruit the best personnel from the same pool of military eligible candidates. Also, the decline in the propensity of young people to join the military creates additional challenges.

ENLISTED PERSONNEL RECRUITING DATA

FISCAL YEAR	ENLISTED LOSSES	REGULAR RECRUITS	RESERVE RECRUITS	TOTAL RECRUITS
1994	4,070	2,373	37	2,410
1995	3,776	3,700	287	3,987
1996	4,571	3,299	229	3,528
1997	3,881	3,697	303	4,000
1998	3,618	3,962	548	4,510
1999	3,964	4,159	900	5,059
2000	4,432	4,721	684	5,405
2001 (est)	4,550	3,450	700	4,250
2002 (est)	4,400	4,700	700	5,400

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	**13,153**
	Total
NO CHANGES	
TOTAL	- 0 -
FY 2002 OE REQUEST LEVEL	**13,153**

I. G. Federal Employee Compensation and Unemployment Compensation (FEC/UCX):

Federal Employee Compensation (FEC):

Provides funding for workers compensation benefits to Coast Guard civilian employees for disability due to personal injury or disease sustained while in the performance of duty. FEC also provides for the payment of benefits to dependents if a work-related injury or disease causes an employee's death. FEC is a direct bill paid by the Coast Guard to the Department of Labor. The bill is received two years in arrears.

Unemployment Compensation (UCX/UCFE):

UCX provides funding for the Coast Guard to reimburse the Department of Labor for unemployment benefits paid by the states to former, eligible Coast Guard military service members. UCFE provides funding to DOT to reimburse the Department of Labor for unemployment benefits paid by states to former eligible Coast Guard civilian personnel.

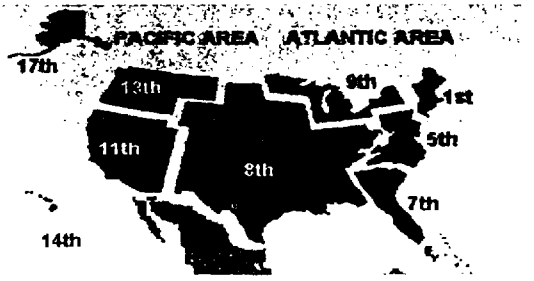
PPA II OPERATING FUNDS AND UNIT LEVEL MAINTENANCE

II. (A & B) Atlantic and Pacific Area Commands:

The Coast Guard is divided geographically into two areas: Atlantic Area and Pacific Area. Each Commander is responsible for overall mission performance within the respective Area and serves as the intermediate echelon of operational command between the Commandant and the District Commanders. Major Cutters that frequently operate across District boundaries are Area assets (medium endurance cutters and larger). Maintenance and Logistics Commands (MLC) are centralized support organizations structured to realize economies of scale and relieve operational units of many routine support functions. This allows lean field units to focus on providing services to the public. The MLC's are subordinate to the Areas.

The next echelon of command beneath the Area is the District, which is largely a geographic division. Within the Districts there are combinations of units that fall under Groups and Activities which accomplish the Coast Guard's missions.

This PPA provides funding to units, facilities and activities that are under the direct operational and administrative control of the Coast Guard's Atlantic Area or Pacific Area Commanders. These include the 5th (Atlantic) and 11th Districts (Pacific), Maintenance Logistics Commands (MLC's), Integrated Support Commands (ISC's), Polar Icebreakers, High and Medium Endurance Cutters (WHEC's/WMEC's), Communication Stations, and Area Offices as applicable, for supplies, materials, and services to support maintenance and repairs performed at the unit level. Typical requirements include: maintenance of the cutters' hulls, mechanical systems, electrical equipment, and small boats; supplies and materials utilized for unit "housekeeping" and administration; procurement of spare parts; fuel and energy; personnel support; and other materials consumed in the course of operations and everyday business.



Coast Guard Geographical Organization Map

PPA II OPERATING FUNDS AND UNIT LEVEL MAINTENANCE

II. (A & B) Atlantic and Pacific Area Commands:

Area Offices:

Funding is provided to Area offices for the command and control functions performed by the Atlantic and Pacific Area Commanders. Funding is also provided for the 5th Coast Guard District office which was merged with Atlantic Area, and the 11th Coast Guard District office which was merged with Pacific Area, as part of the Coast Guard's 1996 National Streamlining Plan. This PPA category also includes centrally managed and funded operations and support activities performed by Area units and Districts, such as Search and Rescue, Enforcement of Laws and Treaties, Marine Environmental Protection, Marine Safety, Operational Training, and Military Readiness.

- Commander, Atlantic Area/5th Coast Guard District: Portsmouth, VA
- Commander, Pacific Area/11th Coast Guard District: Alameda, CA

Maintenance and Logistics Commands (MLC's):

Each Area Command has a subordinate Maintenance and Logistics Command (MLC), which provides a wide array of support services directly to individual units. The MLC's consult freely and frequently with District staffs and Headquarters support program managers. MLC's exercise administrative control over support units, including Facilities Design and Construction Centers (FDCC's) and Integrated Support Commands (ISC's).

Funding is provided to Maintenance and Logistics Commands for oversight and administration of field support programs in the Atlantic and Pacific Areas. This subcategory includes safety; industrial health; personnel management; Equal Employment Opportunity; legal; contracting; financial management; civil, naval and electronics engineering technical support for all Coast Guard units; travel; property leases; office supplies/equipment; Integrated Support Command functions which maintain existing infrastructure and piers; utilities services for Area cutters; security contracts; housing maintenance; and federal wage grade employee salaries.

- Commander, Maintenance and Logistics Command, Atlantic: Portsmouth, VA
- Commander, Maintenance and Logistics Command, Pacific: Alameda, CA

Integrated Support Commands:

Twelve Integrated Support Commands (ISC's) were created from existing Support Centers and bases in 1996 as part of the Coast Guard's National Streamlining Plan to consolidate the wide array of local support services required by operational commanders in meeting mission demands. The location of the ISC's were selected to bring existing shore support facilities in line with operational unit locations. The consolidation of support services provides "one-stop shopping" for operational commanders.
Integrated Support Commands have two distinct parts of their service delivery: (1) personnel and financial support; and (2) platform support. *Personnel and financial support* combines functions such as personnel support units, work-life programs, housing programs, food services, purchasing, warehousing, and related activities. *Platform support* provides maintenance to boats, cutters, and the shore plant within a given geographic location.

II. (A & B) **Atlantic and Pacific Area Commands:** (cont)
Integrated Support Commands, Atlantic

- ISC Boston
- ISC Portsmouth
- ISC Miami
- ISC New Orleans
- ISC Cleveland
- ISC St Louis

Integrated Support Commands, Pacific

- ISC San Pedro
- ISC Alameda
- ISC Seattle
- ISC Honolulu
- ISC Ketchikan
- ISC Kodiak

Area Cutters:

Atlantic and Pacific Area PPA's provide funding for the Coast Guard's Polar Icebreakers (WAGB), High Endurance Cutters (WHEC), and Medium Endurance Cutters (WMEC) as depicted in the following tables:

Department of Transportation
U.S. Coast Guard
Area Cutter Summary

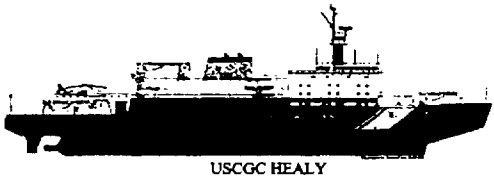
TYPE/LENGTH (ft)	NUMBER IN CLASS	OFF/WO/ENL	CREW
WHEC 378	12	14/04/143	161
WMEC 270	13	11/02/85	98
WMEC 230 STORIS	1	9/1/68	78
WMEC 213 ACUSHNET	1	08/01/66	75
WMEC 210	16	11/01/63	75 1/
WAGB 399	2	11/04/119	134
WAGB 420 HEALY	1	7/03/57	67
WMEC 282 ALEX HALEY 2/	1	8/1/90	99

1/ Total Crew reflects an average for enlisted billets due to a variance in shore-side maintenance support. Actual enlisted crew sizes vary from 60 to 65.

2/ Former USS Edenton

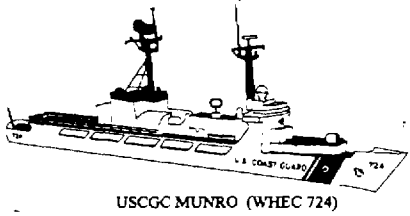
II. (A & B) Atlantic and Pacific Area Commands: (cont)

Polar Icebreakers: The Polar Icebreakers (WAGB) consists of two 399-foot polar icebreakers, USCGC POLAR STAR and USCGC POLAR SEA, and one 420-foot polar icebreaker, USCGC HEALY. The Coast Guard Polar Icebreakers are funded from the Pacific Area Command PPA. The two 399-foot icebreakers operate in the Arctic region and the Healy operates in the Antarctic. Their primary duties are National Defense, Marine Scientific Research Support, Icebreaking Operations, and Search and Rescue.



USCGC HEALY

High Endurance Cutters (WHEC): The High Endurance Cutter (WHEC) class consists of 12 cutters which are 378-feet in length with a crew complement of 161 personnel. Their primary missions include Law Enforcement, Defense Operations, and Search and Rescue.



USCGC MUNRO (WHEC 724)

Medium Endurance Cutters (WMEC): The Medium Endurance Cutters (WMEC) are a class of cutters whose lengths vary between 210-282 feet. Their primary missions are Law Enforcement, Defense Operations, and Search and Rescue. Crew complements range from 75-99 personnel.

USCGC SENECA (WMEC 906)

II. (A & B) Atlantic and Pacific Area Commands: (cont)

Communications Stations (COMMSTAs):

Coast Guard Communications Stations operate a long range communication network that provide communication capability between Coast Guard ships and aircraft, other government agencies, commercial shipping, the commercial fishing industry, and the recreational boating public. Communications on the network includes distress, safety, marine information (i.e., Notice to Mariners), weather, command and control of Coast Guard operations, and support of all Coast Guard missions. The communication network uses a combination of leased and dedicated communications circuits, computers, radios, and antennas.

The Communications System 2000 (COMMSYS 2000) AC&I investment project, which was completed in fiscal year 1999, has reduced the Coast Guard's communications network from eight fully staffed stations to two Communications Area Master Stations (CAMS) in Point Reyes, CA; and Chesapeake, VA and one Communications Station in Kodiak, AK while maintaining the same level of customer service and operational capability. Four of the original eight communications stations (Guam, Miami, Boston, and Honolulu) have already been converted to remote operation.

II. A. Atlantic Area Command

Atlantic Area Major Subordinate Units:

- 1st District - Boston, Massachusetts
- 5th District - Portsmouth, Virginia (merged with Atlantic Area under Streamlining)
- 7th District - Miami, Florida
- 8th District - New Orleans, Louisiana
- 9th District - Cleveland, Ohio
- Maintenance and Logistics Command, Atlantic - Norfolk, Virginia
- High Endurance Cutters (2)
- Medium Endurance Cutters (26)
- Communications Stations (1)

II. A. Atlantic Area Command: (cont)

Atlantic Area Command PPA Funding Breakdown

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	109,200
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	-21
SURFACE ASSET REALLOCATION	-926
AVIATION ASSET REALLOCATION	-606
II. BUILT-IN CHANGES	
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW INITIATIVES / ENHANCEMENTS)	482
III. OPERATE NEW FACILITIES	
SHORE FACILITY CONSTRUCTION FOLLOW-ON	26
49-FOOT STERN LOADING BUOY BOAT (BUSL) FOLLOW-ON	22
47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	76
COMMISSION AND OPERATE TEN COASTAL PATROL BOATS	109
DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) FOLLOW-ON	51
IV. NEW/ENHANCED/RESTORATION INITIATIVES	
MARINE TRANSPORTATION SYSTEM PERSONNEL AND INFORMATION MANAGEMENT TOOLS	7
SEARCH AND RESCUE SYSTEM ENHANCEMENTS	55
PASSENGER VESSEL SAFETY	1
TOTAL	-724
FY 2002 OE REQUEST LEVEL	108,476

II. A Atlantic Area Command: (cont)

Major Shore Commands:

- Area Offices, including the 5th Coast Guard District Office
- Maintenance and Logistics Command Atlantic (MLCLANT):
- Integrated Support Commands (ISC), Atlantic

ISC Boston	ISC Portsmouth
ISC Miami	ISC New Orleans
ISC Cleveland	ISC St Louis

High Endurance Cutters (WHEC's):

The following WHEC's operate under the Atlantic Command:

378' WHEC	Years in Service	Homeport	Operational Days		
			1997	1998	1999
716 DALLAS	34	Charleston, SC	157 U	209 U	186
721 GALLATIN	33	Charleston, SC	84 U	201	163

Key: U - unscheduled maintenance
The cutter employment standard for these ships is 185 "days away from homeport" including operational and maintenance days away from homeport. Only operational days are depicted in the table

Medium Endurance Cutters (WMEC's):

The following WMEC's operate under the Atlantic Command:

270' WMEC	Years in Service	Homeport	Operational Days		
			1997	1998	1999
901 BEAR	18	Portsmouth, VA	179 U	193	174
902 TAMPA	17	Portsmouth, VA	185	187 S	180
903 HARRIET LANE	17	Portsmouth, VA	191 S	193	181
904 NORTHLAND	17	Portsmouth, VA	187	185	188
905 SPENCER	15	Boston, MA	186	176 U	148
906 SENECA	14	Boston, MA	176	183 U	189
907 ESCANABA	14	Boston, MA	178 S	176 S	150
908 TAHOMA	13	New Bedford, MA	173 U	193	161
909 CAMPBELL	13	New Bedford, MA	187	183 S	185
910 THETIS	12	Key West, FL	185	181 S	179
911 FORWARD	11	Portsmouth, VA	184	176 U	165
912 LEGARE	11	Portsmouth, VA	205	175 S	185
913 MOHAWK	10	Key West, FL	160 S	188	168

Key: S - scheduled maintenance, U - unscheduled maintenance
The cutter employment standard for these ships is 185 "days away from homeport" including operational and maintenance days away from homeport. Only operational days are depicted in the table

II. A **Atlantic Area Command:** (cont)

210' WMEC	Years in Service	Homeport	Operational Days		
			1997	1998	1999
615 RELIANCE	37	Kittery, ME	180	187 U	130
616 DILIGENCE	37	Wilmington, NC	173	185 U	191
617 VIGILANT	37	Cape Canaveral, FL	150 S	184 S	187
619 CONFIDENCE	35	Cape Canaveral, FL	112 U	170	179
620 RESOLUTE	35	ST Petersburg, FL	145	187	169
621 VALIANT	34	Miami, FL	178	139 U	176
622 COURAGEOUS	33	Panama City, FL	136 U	197	172
624 DAUNTLESS	33	Galveston, TX	195	179 S	141
625 VENTUROUS	33	ST Petersburg, FL	188	166 S	150
626 DEPENDABLE	33	Cape May, NJ	5 S	169	184
627 VIGOROUS	32	Cape May, NJ	173	185	158
628 DURABLE	33	ST Petersburg, FL	166	141 S	124
629 DECISIVE	33	Pascagoula, MS	0 M	0 M	138

Key: M - ship in Major Maintenance Availability, S - scheduled maintenance, U - unscheduled maintenance
The cutter employment standard for these ships is 185 "days away from homeport" including operational and maintenance days away from homeport. Only operational days are depicted in the table.

295' WIX Training Center	Years in Service	Homeport
327 EAGLE	55	New London, CT

Communications Stations:

Includes funding for the operations and maintenance of Communications Area Master Station Atlantic (CAMSLANT) in Chesapeake, VA and remote transmitter sites in Boston, MA; Miami, FL and New Orleans, LA (scheduled for automation in 1999).

5th Coast Guard District

The 5th District collocated with Atlantic Area staffs includes the states of Delaware, Maryland, Virginia, North Carolina, eastern Pennsylvania, and southern New Jersey. The 5th District protects the world's largest natural harbor -- the Chesapeake Bay along with the Delaware Bay and related tributaries. The 5th District coordinates nearly 5,500 search and rescue cases annually, and services 6,900 federal aids to navigation and manages 2,200 private aids. The District includes one Activity, 6 Groups, 2 Air Stations, and 3 Marine Safety Offices.

Air Stations:

Air Station	Location	Aircraft Allowance	Billets (Off/Enl/Civ)
Elizabeth City	Elizabeth City, NC	HH-60J (3), HC-130H (5)	45/177/04
Atlantic City (Supports/AIRFAC Long Island)	Pomona, NJ	HH-65A (7)	35/96/05

II. A Atlantic Area Command: (cont)

Marine Safety Offices (MSOs):

Group/MSO Philadelphia, PA (Only MSO)

Authorized Strength:	
Total:	75
Officer:	24
Warrant Officer:	09
Enlisted:	37
Civilian:	05

MSO Hampton Roads, VA

Authorized Strength:	
Total:	84
Officer:	40
Warrant Officer:	08
Enlisted:	34
Civilian:	02

MSO Wilmington, NC

Authorized Strength:	
Total:	38
Officer:	09
Warrant Officer:	02
Enlisted:	25
Civilian:	02

Groups and Activities:

Group Cape Hatteras, NC

Total Units:	05
Cutters:	0
Boat Station:	04
Aids to Navigation Teams:	01
Total Billets:	136
Officer:	02
Warrant Officer:	03
Enlisted:	130
Civilian:	01

Group Eastern Shore, VA

Total Units	06
Cutters:	01
Boat Stations:	04
Aids to Navigation Teams	01
Total Billets:	113
Officer:	02
Warrant Officer:	02
Enlisted:	108
Civilian:	01

Activities Baltimore, MD

Total Units	08
Cutters:	01
Boat Stations:	06
Aids to Navigation Teams	01
Total Billets:	231
Officer:	19
Warrant Officer	08
Enlisted:	194
Civilians	10

Group Fort Macon, NC

Total Units.	09
Cutters:	04
Boat Stations	05
Aids to Navigation Teams	0
Total Billets.	214
Officer:	09
Warrant Officer	04
Enlisted:	200
Civilian:	01

Group Hampton Roads, VA

Total Units:	08
Cutters:	03
Boat Stations:	04
Aids to Navigation Teams	01
Total Billets	174
Officer:	04
Warrant Officer	02
Enlisted:	168
Civilian:	0

Group/MSO Philadelphia, PA (Only Group billets)

Total Units.	04
Cutters:	02
Boat Stations:	01
Aids to Navigation Teams	01
Total Billets:	83
Officer:	01
Warrant Officer	2
Enlisted:	80
Civilian	0

II. A **Atlantic Area Command:** (cont)

Groups and Activities: (cont)

Group/Air Station Atlantic City, NJ (Only Group billets)

Total Units:	13
Cutters:	03
Boat Stations	09
Aids to Navigation Teams	01
Total Billets:	246
Officer	03
Warrant Officer:	04
Enlisted:	238
Civilian	01

DISTRICT Cutters:

Vessel Type	Yrs in Service	Homeport
225' WLB Seagoing Buoy Tender		
204 ELM	2	Atlantic Beach, NC
175' WLM Coastal/Buoy Tender		
555 JAMES RANKIN	3	Baltimore, MD
557 FRANK DREW	2	Portsmouth, VA
560 WILLIAM TATE	2	Philadelphia, PA
160' WLIC Inland Construction Tender		
802 KENNEBEC	25	Portsmouth, VA
110' WPB Patrol Boat		
1309 AQUIDNECK	15	Atlantic Beach, NC
1344 BLOCK ISLAND	10	Atlantic Beach, NC
1345 STATEN ISLAND	10	Atlantic Beach, NC
100' WLIC Inland Construction Tender		
315 SMILAX	57	Atlantic Beach, NC

II. A **Atlantic Area Command:** (cont)

DISTRICT Cutters: (cont)

82' WPB Patrol Boat	Yrs in Service	Homeport
82333 PT HIGHLAND	39	Chincoteague, VA
82347 PT BONITA	35	Norfolk, VA
75' WLIC Inland Construction Tender		
75303 SLEDGE	39	Baltimore, MD
65' WLI Small Inland Buoy Tender		
65303 BLACKBERRY	55	Long Beach, NC
65' WYTL Small Harbor Tug		
65601 CAPSTAN	40	Philadelphia, PA
65602 CHOCK	40	Portsmouth, VA
65615 CLEAT	34	Philadelphia, PA
87' WPB Patrol Boat		
87303 MAKO	2	Cape May, NJ
87309 ALBACORE	2	Little Creek, VA
87314 FINBACK	1	Cape May, NJ
87325 BELUGA	1	Portsmouth, VA
87329 COCHITO	1	Little Creek, VA

II. B. Pacific Area Command:

Pacific Area Major Subordinate Units:

- 11th District - Alameda, California (merged with Pacific Area under Streamlining)
- 13th District - Seattle, Washington
- 14th District - Honolulu, Hawaii
- 17th District - Juneau, Alaska
- Maintenance and Logistics Command, Pacific - Alameda, California
- Polar Icebreakers (3)
- High Endurance Cutters (10)
- Medium Endurance Cutters (6)
- Communications Stations (2) CAMSPAC Point Reyes, CA & COMMSTA Kodiak, AK

Pacific Area Command PPA Funding Breakdown

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	130,421
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
ANNUALIZATION OF FY 2001 MANAGEMENT SAVINGS	-307
LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	-14
SURFACE ASSET REALLOCATION	-51
AVIATION ASSET REALLOCATION	-3,630
II. BUILT-IN CHANGES	
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW	1,465
III. OPERATE NEW FACILITIES	
SHORE FACILITY CONSTRUCTION FOLLOW-ON	132
47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	81
COMMISSION AND OPERATE TEN COASTAL PATROL BOATS	284
DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) FOLLOW-ON	94
IV. NEW/ENHANCED/RESTORATION INITIATIVES	
MARINE TRANSPORTATION SYSTEM PERSONNEL AND	7
SEARCH AND RESCUE SYSTEM ENHANCEMENTS	46
PASSENGER VESSEL SAFETY	1
TOTAL	-1,892
FY 2002 OE REQUEST LEVEL	128,529

II. B. Pacific Area Command: (cont)

Major Shore Commands in Pacific Area:

- Area Offices, including the 11th Coast Guard District Office
- Maintenance and Logistics Command Pacific (MLCLANT):
- Integrated Support Commands (ISC), Pacific:

ISC San Pedro	ISC Alameda
ISC Seattle	ISC Honolulu
ISC Ketchikan	ISC Kodiak

Icebreakers (WAGB):

WAGB	Years in Service	Homeport	Operational Days		
			1997	1998	1999
10 POLAR STAR	25	Seattle, WA	105 S	234 U	18
11 POLAR SEA	23	Seattle, WA	195	89 S	193
20 HEALY	New	Seattle, WA	N/A	N/A	N/A

Key: S - scheduled maintenance, U - unscheduled maintenance
The cutter employment standard for these ships is 185 "days away from homeport" including operational and maintenance days away from homeport. Only operational days are depicted in the table

High Endurance Cutters (WHECs):

The following WHECs operate under the Pacific Area Command:

WHEC	Years in Service	Homeport	Operational Days		
			1997	1998	1999
715 HAMILTON	34	San Diego, CA	134 U	186	186
717 MELLON	34	Seattle, WA	185 U	186 U	177
718 CHASE	33	San Diego, CA	186	170	185
719 BOUTWELL	33	Alameda, CA	185 U	197 S	174
720 SHERMAN	33	Alameda, CA	185	186 S	173
722 MORGENTHAU	32	Alameda, CA	186 U	168 U	184
723 RUSH	32	Honolulu, HI	186	186 S	183
724 MUNRO	30	Alameda, CA	185	185 U	184
725 JARVIS	30	Honolulu, HI	180 U	177 U	187
726 MIDGETT	29	Seattle, WA	188	181 U	168

Key: S - scheduled maintenance, U - unscheduled maintenance
The cutter employment standard for these ships is 185 "days away from homeport" including operational and maintenance days away from homeport. Only operational days are depicted in the table

II. B Pacific Area Command: (cont)

Medium Endurance Cutters (WMECs):

The following WMECs operate under the Pacific Area Command:

282' WMEC	Year in Service	Homeport	Operational Days		
			1997	1998	1999
39 ALEX HALEY	2	Kodiak, AK	N/A	N/A	N/A
230' WMEC					
38 STORIS	59	Kodiak, AK	131 S	184 U	179
213' WMEC					
167 ACUSHNET	58	Ketchikan, AK	185	146 S	156
210' WMEC					
618 ACTIVE	36	Port Angeles, WA	185	194 S	177
623 STEADFAST	33	Astoria, OR	138 S	167 S	159
630 ALERT	32	Astoria, OR	132 U	185 U	185

Key S - scheduled maintenance, U - unscheduled maintenance
The cutter employment standard for these ships is 185 "days away from homeport" including operational and maintenance days away from homeport. Only operational days are depicted in the table. (1) To be transferred to Ketchikan, AK summer 1998.

Communications Stations:

Includes funding for the operations and maintenance of Communications Area Master Station Pacific (CAMSPAC), in Point Reyes, CA; Communications Station Kodiak, AK; and remote transmitter sites in Honolulu, HI and Guam.

11th Coast Guard District

The 11th Coast Guard District collocated with Pacific Area staffs includes the states of California, Nevada, Utah, and Arizona. The 11th District coordinates nearly 4,500 search and rescue cases annually, and maintains 1,200 federal aids to navigation and manages 2,300 private aids. The District includes one Activity, 3 Groups, 5 Air Stations and 3 Marine Safety Offices.

Air Stations:

Air Station	Location	Aircraft Allowance	Billets (Off/Enl/Civ)
Humboldt Bay	McKinleyville, CA	HH-65A (3)	17/50/02
Los Angeles	Los Angeles, CA	HH-65A (3)	15/40/02
Sacramento	Sacramento, CA	HC-130H (4)	24/123/03
San Diego	San Diego, CA	HH-60J (3)	15/47/03
San Francisco	San Francisco, CA	HH-65A (4)	19/59/03

II. B Pacific Area Command: (cont)

11th Coast Guard District

Marine Safety Offices (MSOs):

MSO San Diego, CA
Authorized Strength:

Total:	25
Officer:	09
Warrant Officer:	06
Enlisted:	10
Civilian:	00

MSO San Francisco, CA
Authorized Strength:

Total:	99
Officer:	34
Warrant Officer:	10
Enlisted:	47
Civilian:	08

MSO Los Angeles/Long Beach, CA (Only MSO Billets)
Authorized Strength:

Total:	94
Officer:	32
Warrant Officer:	10
Enlisted:	45
Civilian:	07

Groups and Activities:

Activities San Diego, CA (Does not include Air Station or MSO billets)

Total Units:	05
Cutters:	03
Boat Stations	01
Aids to Navigation Teams:	01
Total Billets:	65
Officer:	06
Warrant Officer:	03
Enlisted:	52
Civilian:	04

Group/Air Station Humboldt Bay, CA (Only Group billets)

Total Units	04
Cutters:	01
Boat Stations:	02
Aids to Navigation Teams:	01
Total Billets:	99
Officer:	01
Warrant Officer:	02
Enlisted:	96
Civilian:	0

Group/MSO Los Angeles/Long Beach, CA (Only Group billets)

Total Units:	09
Cutters:	05
Boat Stations:	03
Aids to Navigation Teams:	01
Total Billets:	157
Officer:	06
Warrant Officer:	02
Enlisted:	149
Civilian:	0

Group San Francisco, CA

Total Units	11
Cutters:	03
Boat Stations	07
Aids to Navigation Teams:	01
Total Billets:	305
Officer:	08
Warrant Officer:	05
Enlisted:	291
Civilian	01

II. B **Pacific Area Command:** (cont)

Cutters:

Vessel Type	Yrs in Service	Homeport
225' WLB Seagoing Buoy Tender		
208 ASPEN	New	San Francisco, CA
110' WPB Patrol Boat		
1313 EDISTO	14	San Diego, CA
1330 TYBEE	12	San Diego, CA
1342 LONG ISLAND	10	San Diego, CA
82' WPB Patrol Boat		
82338 PT BRIDGE	39	Marina Del Ray, CA
82339 PT CHICO	39	Bodega Bay, CA
82358 PT STUART	34	Newport Beach, CA
82372 PT BROWER	31	San Francisco, CA
87' WPB Patrol Boat		
87301 BARRACUDA	3	Eureka, CA
87306 DORADO	2	Crescent City, CA
87312 HAWKSBILL	New	Monterey, CA
87317 BLACKFIN	New	Santa Barbara, CA
87326 BLACKTIP	New	Oxnard, CA

II. C. District Commands:

This category funds the units, facilities and activities that are under the direct operational and administrative control of Coast Guard District Commanders.

Atlantic Area and Pacific Area are divided geographically into Coast Guard Districts.

District Offices located within the Atlantic Area:

- 1st District - Boston, Massachusetts
- 5th District - Portsmouth, Virginia (also designated Commander, Atlantic Area)
- 7th District - Miami, Florida
- 8th District - New Orleans, Louisiana
- 9th District - Cleveland, Ohio

District Offices located within the Pacific Area:

- 11th District - Alameda, California (also designated Commander, Pacific Area)
- 13th District - Seattle, Washington
- 14th District - Honolulu, Hawaii
- 17th District - Juneau, Alaska

District Commanders exercise command and control of all units within the geographic area of the District. This PPA category includes centralized funding for command and control as well as support functions performed by Coast Guard District Commanders. Command and control functions include operational activities such as Search and Rescue, Enforcement of Laws and Treaties, Aids to Navigation, Military Readiness, Marine Safety and Environmental Protection. Support functions include procurement of operational equipment, nonrecurring cutter and boat maintenance not covered at the depot level; travel; printing; public affairs; personnel administration; legal assistance; Coast Guard Auxiliary support; district-wide housing maintenance; and Federal wage grade employee salaries. These centrally managed funds assist the Districts to realize economies of scale, standardization of equipment, and efficiencies in managing the District's operational units.

District Offices:

Funding is provided by District Offices to subordinate Activities, Groups, Air Stations, Marine Safety Offices, Long Range Electronic Navigation Aids Stations, Cutters (225' WLB class and smaller), and Vessel Traffic Services for operations and administration. The District Office-distributed funding includes unit level maintenance and repairs of cutters, aircraft, boats, buildings, piers, grounds, hangars and runways, vehicles, housing and barracks; communications equipment; Federal wage grade employee salaries; supplies and equipment for housekeeping, safety, administration, boats, cutters, aircraft, Aids to Navigation, Search and Rescue, Marine Environmental Protection, etc.; fuel, energy and utilities; spare parts; electronic repair parts; travel; contracts for security, janitorial and food service; personnel support; command and control functions; and other materials and supplies consumed in the course of operations and everyday business.

II. C. District Commands: (cont)

Activities:

Under the command of District Offices, three prototype Coast Guard Activities have been created to study improved delivery of services to the public. Activities combine Groups and Marine Safety Offices, and in some cases Vessel Traffic Services and Air Stations, into one unified command servicing a designated geographic area. The three prototype Activities have separate structures to allow a comparison of the different organizational types. The Activity prototypes are located in New York, Baltimore and San Diego.

Activities are intended to better coordinate the delivery of the broad spectrum of Coast Guard services to the public, improve internal Coast Guard communications, and eliminate duplication of effort in a given geographic area. In addition, streamlined District Offices require a more robust field command structure able to make decisions across a wide variety of Coast Guard programs. Some personnel efficiencies have been achieved, but this is not the primary objective for Activities.

Prototype Activity Locations:

New York (Fort Wadsworth/Staten Island)

- Group New York
- Group Sandy Hook
- Marine Inspection Office New York
- Vessel Traffic Service New York

Baltimore, Maryland

- Group Baltimore
- Marine Safety Office Baltimore

San Diego, California

- Group/Air Station San Diego
- Marine Safety Office San Diego

Groups:

Group commands serve under the operational control of the District Commander to conduct every mission and support responsibility of the Coast Guard, with Search and Rescue, Enforcement of Laws and Treaties, Aids to Navigation, and Port Safety receiving the most emphasis. There are 32 stand-alone Groups geographically aligned throughout the Coast Guard that provide command and control oversight for 188 boat units, 82 patrol boats, 53 other vessels, and 61 Aids to Navigation Teams (ANTs). Each Group serves as the collective interface/coordinator between the smaller units under its command and the larger independent units such as Marine Safety Offices (MSOs) and the District. As subordinate units of the Groups, small boat stations and patrol boats provide quick, short range response to accomplish all Coast Guard missions while ANTs establish and maintain coastal and inland aids to navigation (i.e. buoys, lighthouses and structures).

II. C. District Commands: (cont)

Combined Groups and Air Stations:

The Coast Guard has six Air Stations which are combined with Coast Guard Groups, and one Air Station is combined with an MSO into an Activity (San Diego). Although most Groups and Air Stations are separate District units, combined Group/Air Station units in some locations represent the most efficient organizational unit to coordinate operations in areas where the two entities are in close geographic proximity. Many of the operations in the combined Group/Air Station areas of responsibility readily lend themselves to use of aircraft in combination with surface platforms, thus the units receive coordinated operational control, provide a single external Coast Guard interface for the public, and combine administrative overhead under one command.

Combined Group/Air Stations

Atlantic City, NJ (Fifth District)	North Bend, OR (Thirteenth District)
Corpus Christi, Texas (Eighth District)	Astoria, OR (Thirteenth District)
Humboldt Bay, CA (Eleventh District)	Port Angeles, WA (Thirteenth District)

Air Stations:

The Coast Guard maintains 24 Air Stations (including seven that are combined with Groups or Activities as previously described); 6 Air Facilities; 1 Aviation Training Center; and 1 Helicopter Interdiction Tactical Squadron. The major missions conducted by Air Stations include: Search and Rescue; Law Enforcement; Marine Environmental Response; Ice Operations; and Defense Operations. The supplementary data section includes a complete listing of Coast Guard aircraft by type.

Marine Safety Offices (MSOs):

MSO's maintain a coordinated Federal port and vessel safety, security and environmental protection program. There are 47 Marine Safety Field Offices (42 MSOs, 3 Activities, and 2 Marine Inspection Offices (MIOs)) geographically aligned throughout the Coast Guard. Trained and experienced Coast Guard Marine inspectors and investigators inspect merchant vessels, as well as shoreside and off-shore facilities for compliance with U.S. and international standards established to enhance safety and protect the environment. The activities at MSO's are focused in large part to prevent marine casualties. However, when casualties do occur, MSO's direct a coordinated federal, state and local response. MSO's also conduct a field program for licensing and documentation of merchant marine personnel.

Marine Safety Offices (MSOs): 42
Activities: 3
Baltimore
New York
San Diego (includes an Air Station, Group, and MSO)
Marine Inspection Offices (MIOs): 2
(includes Activities Far East)

II. C. **District Commands:** (cont)

Long Range Electronic Navigation Aids Stations:

Long range electronic navigation aids promote safe and efficient passage of marine and air traffic by providing continuous, accurate, all-weather radio navigation service. Long range navigation aids include: LORAN-C (Long Range Navigation); and DGPS (Differential Global Positioning Systems). The Coast Guard operates and maintains the 57 site maritime DGPS system which achieved full operating capability in March 1999. This system provides extremely accurate positioning information to mariners in harbor entrance and approach areas in the continental U.S., Puerto Rico, Hawaii, and portions of Alaska and the U.S. western rivers. DGPS provides signal corrections to properly equipped GPS users via existing radio beacons which improves the accuracy and integrity of GPS for use by mariners in restricted waters. The Coast Guard also operates and maintains the Nationwide DGPS service for non-maritime areas. The system is currently being provided by the Coast Guard using reimbursable funding. In addition, the Coast Guard operates and maintains the 24 U.S. LORAN-C transmitting stations and jointly operates an additional five Canadian transmitting stations.

Vessel Traffic Service (VTS):

The Coast Guard addresses the national interest in protecting the environment and in providing safe and efficient ports and waterways by operating eight Vessel Traffic Services (VTS) systems to monitor, direct, and control as necessary, shipping traffic in the vicinity of heavily traveled waterways. The District Commands provide funding for supplies and minor unit level maintenance. The eight Coast Guard operated VTS's are located in the following areas:

- Berwick Bay, Louisiana
- Houston/Galveston, Texas
- Louisville, Kentucky
- New York, New York
- Puget Sound, Washington
- Prince William Sound, Alaska
- San Francisco, California
- Sault Saint Marie, Michigan

The Coast Guard also jointly operates a VTS with the Marine Exchange in Los Angeles/Long Beach. A new VTS in New Orleans is scheduled to be operational in the spring of 2000.

II. C. District Commands: (cont)

Cutters:

Cutters under the command of Districts and Groups range from 65 to 290 feet and include: patrol boats, buoy tenders, construction tenders, and ice breaking tugs. These various cutters support all Coast Guard mission areas. This category also includes CGC MACKINAW, an icebreaker that operates on the Great Lakes, and CGC GENTIAN, the Caribbean Support Tender.

DISTRICT CUTTER SUMMARY

TYPE/LENGTH (ft)	NUMBER IN CLASS	OFF/WO/ENL	TOTAL CREW
WAGB 290 MACKINAW	1	7/01/67	75
WLB 225 (INCONUS)	3	4/02/34	40
WLB 225 (OUTCONUS)	2	5/02/36	43
WPB 110	49	2/00/14 1/	16 2/
WPB 82	11	0/00/10 3/	10
WPB 87	30	1/00/9 3/4/	10
WTGB 140	6	2/01/14	17
WTGB/BARGE 240	2	2/01/24	27
WYTL 65	11	0/00/06	6
WLB 180 (INCONUS)	8	5/02/42 5/	49
WLB 180 (OUTCONUS-D14)	1	5/02/49	56
WLB 180 (OUTCONUS-D17)	4	6/02/50	58
WLM 175	14	0/01/17	18
WLM 133	1	0/01/23	24
WLI 100 (CONUS)	1	0/01/14	15
WLI 100 (OUTCONUS)	1	0/01/17	18
WLI 65	3	0/00/09	9
WLIC 100	1	0/01/15	16
WLIC 75	8	0/01/13	14
WLIC 160	4	0/01/14	15
WLR 75	12	0/00/13	13
WLR 65	6	0/00/13	13
WIX	1	3/02/29	34

1/ Four 110-foot WPBs have crews of 1 Warrant Officer and 15 enlisted billets.
2/ Total crew reflects the standard mix. OUTCONUS 110-foot WPBs may be augmented with one Electronics Technician (ET).
3/ Approximately one half of the 82-foot WPBs have a crew of 1 officer and 9 enlisted billets, the remaining 82-foot WPBs are crewed with 10 enlisted billets.
4/ Ten WPB 87's, all crew/compliment of 82' WPB applies.
5/ Includes CGC GENTIAN

II. C. 1. 1st Coast Guard District

The 1st Coast Guard District extends from Tom's River, NJ to the Canadian border and includes the states of Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, east and southern New York, and northeast New Jersey. The 1st District includes one Activity, six Groups, one Air Station and four Marine Safety Offices. District units respond to more than 6,000 search and rescue cases per year, maintains more than 5,700 federal aids to navigation and manage 3,700 private aids, and respond to more than 1,500 oil or chemical spills per year. In the winter months, District tugboats break ice in the northeast harbors and rivers to help keep shipping channels flowing freely.

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	**34,186**
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	-35
AVIATION ASSET REALLOCATION	-395
II. BUILT-IN CHANGES	
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW	12
III. OPERATE NEW FACILITIES	
SHORE FACILITY CONSTRUCTION FOLLOW-ON	58
49-FOOT STERN LOADING BUOY BOAT (BUSL) FOLLOW-ON	103
47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	142
COMMISSION AND OPERATE TEN COASTAL PATROL BOATS	81
IV. NEW/ENHANCED/RESTORATION INITIATIVES	
SEARCH AND RESCUE SYSTEM ENHANCEMENTS	49
PASSENGER VESSEL SAFETY	1
TOTAL	**16**
FY 2002 OE REQUEST LEVEL	**34,202**

II. C. 1. 1st Coast Guard District (cont)

Air Stations:

Air Station	Location	Aircraft Allowance	Billets (Off/Enl/Civ)
Cape Cod	Otis AFB, MA	HH-60J (4), HU-25A (4)	49/177/60

Marine Safety Offices (MSOs):

CG Activities/MIO Europe
Authorized Strength:
Total: 17
Officer: 10
Warrant Officer: 04
Enlisted: 03
Civilian: 00

MSO Boston, MA
Authorized Strength:
Total: 55
Officer: 13
Warrant Officer: 07
Enlisted: 25
Civilian: 10

MSO Portland, ME
Authorized Strength:
Total: 38
Officer: 12
Warrant Officer: 04
Enlisted: 21
Civilian: 01

MSO Providence, RI
Authorized Strength:
Total: 41
Officer: 11
Warrant Officer: 06
Enlisted: 22
Civilian: 02

Group/MSO Long Island Sound, NY (Only MSO)
Authorized Strength:
Total: 62
Officer: 07
Warrant Officer: 04
Enlisted: 51
Civilian: 00

CG Activities New York, NY (M billets only)
Authorized Strength:
Total: 306
Officer: 054
Warrant Officer: 024
Enlisted: 181
Civilian: 047

Groups and Activities:

Group Boston, MA
Total Units: 08
Cutters: 02
Boat Stations: 05
Aids to Navigation Teams: 01
Total Billets: 188
Officer: 05
Warrant Officer: 05
Enlisted: 178
Civilian: 0

Group Woods Hole, MA
Total Units 13
Cutters 03
Boat Stations: 09
Aids to Navigation Teams 02
Total Billets 329
Officer: 09
Warrant Officer: 06
Enlisted: 314
Civilian 05

Group Portland, ME
Total Units 07
Cutters: 03
Boat Stations: 03
Aids to Navigation Teams 01
Total Billets: 186
Officer: 07
Warrant Officer: 04
Enlisted: 170
Civilian 05

II. C. 1. 1st Coast Guard District (cont)

Marine Safety Offices (MSOs): (cont)

Group Moriches, NY	
Total Units	07
Cutters:	01
Boat Stations:	05
Aids to Navigation Teams	01
Total Billets:	199
Officer:	03
Warrant Officer:	04
Enlisted:	192
Civilian	0

Group Southwest Harbor, ME	
Total Units	09
Cutters:	04
Boat Stations	04
Aids to Navigation Teams	01
Total Billets.	190
Officer:	05
Warrant Officer:	04
Enlisted.	181
Civilian	0

Group/MSO Long Island Sound, NY (Both Group & MSO)	
Total Units	07
Cutters:	02
Boat Stations:	04
Aids to Navigation Team	01
Total Billets:	209
Officer:	13
Warrant Officer:	08
Enlisted	186
Civilian	02

Activities New York, NY (Incl. All activity NY billets)	
Total Units	14
Cutters:	07
Boat Stations	05
Aids to Navigation Teams	02
Total Billets	554
Officer:	65
Warrant Officer.	23
Enlisted:	413
Civilian	53

Cutters:

	Yrs in Service	Homeport
225' WLB Seagoing Buoy Tender		
201 JUNIPER	5	Newport, RI
202 WILLOW	4	Newport, RI
175' WLM Coastal Buoy Tender		
551 IDA LEWIS	5	Newport, RI
552 KATHERINE WALKER	4	Bayonne, NJ
553 ABBIE BURGESS	4	Rockland, ME
554 MARCUS HANNA	3	South Portland, ME
140' WTGB Icebreaker Tug		
107 PENOBSCOT BAY	16	Bayonne, NJ
108 THUNDER BAY	16	Rockland, ME
109 STURGEON BAY	14	Bayonne, NJ

II. C. 1. 1st Coast Guard District (cont)

Cutters:

	Yrs in Service	Homeport
110' WPB Patrol Boat		
1312 SANIBEL	14	Woods Hole, MA
1326 MONOMOY	12	Woods Hole, MA
1332 WRANGELL	12	South Portland, ME
1333 ADAK	12	Sandy Hook, NJ
1338 GRAND ISLE	10	Gloucester, MA
1340 JEFFERSON ISLAND	10	South Portland, ME
1343 BAINBRIDGE ISLAND	10	Sandy Hook, NJ
87' WPB Patrol Boat		
87302 HAMMERHEAD	3	Woods Hole, MA
87308 CHINOOK	2	New London, CT
87328 RIDLEY	New	Montauk, NY
65' WYTL Small Harbor Tug		
65604 TACKLE	39	Rockland, ME
65607 BRIDLE	38	Southwest Harbor, ME
65608 PENDANT	38	Boston, MA
65609 SHACKLE	38	South Portland, ME
65610 HAWSER	38	Bayonne, NJ
65611 LINE	38	Bayonne, NJ
65612 WIRE	38	Saugerties, NY
65614 BOLLARD	34	New Haven, CT

II. C. 2. 7th Coast Guard District

The 7th Coast Guard District includes the states of South Carolina, Georgia and Florida and extends into the Caribbean as far east as the Lessor Antilles Islands and as far south a South America. A majority of the Coast Guard's drug interdiction efforts occur in the 7th District. The 7th District includes 5 Groups, 4 Air Stations (including 1 Air Facility) and 1 Helicopter Interdiction Tactical Squadron, and 6 Marine Safety Offices. District units respond to nearly 7,500 search and rescue cases per year and maintain more than 6,700 federal aids to navigation and manage 7,100 private aids.

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	**49,511**
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
SCHEDULED DECOMMISSIONING OF FOUR SEAGOING BUOY	-111
LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	-41
AVIATION ASSET REALLOCATION	-4,994
II. BUILT-IN CHANGES	
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW INITIATIVES / ENHANCEMENTS)	92
III. OPERATE NEW FACILITIES	
SHORE FACILITY CONSTRUCTION FOLLOW-ON	189
COMMISSION AND OPERATE THREE SEAGOING BUOY TENDERS	286
49-FOOT STERN LOADING BUOY BOAT (BUSL) FOLLOW-ON	15
47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	103
COMMISSION AND OPERATE TEN COASTAL PATROL BOATS	94
IV. NEW/ENHANCED/RESTORATION INITIATIVES	
SEARCH AND RESCUE SYSTEM ENHANCEMENTS	6
PASSENGER VESSEL SAFETY	4
TOTAL	**-4,357**
FY 2002 OE REQUEST LEVEL	**45,154**

II. C. 2. 7th Coast Guard District (cont)

Air Stations:

Air Station	Location	Aircraft Allowance	Billets (Off/Enl/Civ)
Borinquen	Aguadilla, PR	HH-65A (4), HU-25A (4)	47/138/31
Clearwater	Clearwater, FL	HH-60J (12), HC-130H (7)	54/293/07
Miami	Opa Locka, FL	HH-65A (9), HH-25A (2) HU-25C (8), VC4A (1)	87/274/14
Savannah (AIRFAC Charleston)	Savannah, GA	HH-65A (5)	27/67/04
HITRON – 10	Jacksonville, FL	MH – 68 (8)	33/41/00

Marine Safety Offices (MSOs):

MSO Miami, FL
Authorized Strength:
Total: 75
Officer: 23
Warrant Officer: 09
Enlisted: 31
Civilian: 12

MSO Tampa, FL
Authorized Strength:
Total: 43
Officer: 14
Warrant Officer: 06
Enlisted: 22
Civilian: 01

MSO Jacksonville, FL
Authorized Strength:
Total: 39
Officer: 14
Warrant Officer: 07
Enlisted: 16
Civilian: 02

Groups and Activities

Group Mayport, FL (Not incl. Base Mayport)

Total Units 09
Cutters 03
Boat Stations: 04
Aids to Navigation Team 02
Total Billets: 190
Officer: 07
Warrant Officer 04
Enlisted: 179
Civilian 0

MSO Savannah, GA
Authorized Strength:
Total: 25
Officer: 07
Warrant Officer: 03
Enlisted: 13
Civilian: 02

MSO Charleston, SC
Authorized Strength:
Total: 34
Officer: 09
Warrant Officer: 03
Enlisted: 16
Civilian: 06

MSO San Juan, PR
Authorized Strength:
Total: 47
Officer: 14
Warrant Officer: 05
Enlisted: 26
Civilian: 02

II. C. 2. 7th Coast Guard District (cont)

Group Charleston, SC (Not incl. Base Charleston)

Total Units	09
Cutters:	03
Boat Stations:	03
Aids to Navigation Teams	03
Total Billets:	170
Officer:	06
Warrant Officer:	03
Enlisted:	161
Civilian	0

Group St. Petersburg,FL

Total Units:	11
Cutters:	06
Boat Stations:	05
Aids to Navigation Teams	01
Total Billets:	335
Officer:	11
Warrant Officer:	08
Enlisted:	312
Civilian:	04

Group Miami, FL

Total Units	16
Cutters:	10
Boat Stations	04
Aids to Navigation Teams	02
Total Billets:	367
Officer:	21
Warrant Officer:	06
Enlisted:	340
Civilian:	0

Group Key West, FL

Total Units	12
Cutters:	08
Boat Stations:	03
Aids to Navigation Teams	01
Total Billets:	299
Officer:	19
Warrant Officer:	05
Enlisted:	274
Civilian:	01

Greater Antilles Section, PR (Not incl. Base San Juan, AIRSTA Borinquen, nor MSO San Juan)

Total Units:	08
Cutters:	06
Boat Stations:	01
Aids to Navigation Teams	01
Total Billets:	192
Officer	29
Warrant Officer:	04
Enlisted:	152
Civilian:	07

II. C. 2. 7th Coast Guard District (cont)

Cutters:

Vessel Type	Yrs in Service	Homeport
180' WLB Seagoing Buoy Tender		
302 MADRONA	58	Charleston, SC
180' WIX Carribean Support Tender		
290 GENTIAN-CST	59	Miami, FL
175' WLM Coastal Buoy Tender		
556 JOSHUA APPLEBY	3	St Petersburg, FL
562 MARIA BRAY	1	Mayport, FL
160' WLIC Inland Construction Tender		
801 HUDSON	25	Miami Beach, FL
110' WPB Patrol Boat		
1301 FARALLON	15	Miami Beach, FL
1302 MANITOU	15	Miami Beach, FL
1303 MATAGORDA	15	Miami Beach, FL
1304 MAUI	15	Miami Beach, FL
1305 MONHEGAN	15	Key West, FL
1306 NUNIVAK	15	San Juan, PR
1307 OCRACOKE	15	San Juan, PR
1308 VASHON	15	San Juan, PR
1314 SAPELO	14	Key West, FL
1315 MATINICUS	14	San Juan, PR
1316 NANTUCKET	14	Key West, FL
1317 ATTU	13	San Juan, PR
1318 BARANOF	13	Miami Beach, FL
1319 CHANDELEUR	13	Miami Beach, FL
1320 CHINCOTEAGUE	13	Key West, FL
1321 CUSHING	13	San Juan, PR
1323 DRUMMOND	13	Port Canaveral, FL
1324 KEY LARGO	13	Key West, FL
1325 METOMPKIN	12	Key West, FL
1328 PADRE	12	Key West, FL
1329 SITKINAK	12	Key West, FL
1341 KODIAK ISLAND	10	St. Petersburg, FL
1347 PEA ISLAND	9	St. Petersburg, FL
1348 KNIGHT ISLAND	9	St. Petersburg, FL

II. C. 2. 7th Coast Guard District (cont)

Cutters:

Vessel Type	Yrs in Service	Homeport
87' WPB Patrol Boat		
87304 MARLIN	3	Ft. Meyers Beach, FL
87310 TARPON	2	Tybee Island, GA
87313 CORMORANT	2	Ft. Pierce, FL
87318 BLUEFIN	1	Ft. Pierce, FL
87319 YELLOWFIN	1	Charleston, SC
87322 KINGFISHER	1	Mayport, FL
82' WPB Patrol Boat		
82336 PT GLASS	39	Dania, FL
75' WLIC Inland Construction Tender		
75301 ANVIL	39	Charleston SC
75302 HAMMER	39	Mayport, FL
75305 VISE	39	St. Petersburg, FL

II. C. 3. 8th Coast Guard District

The 8th Coast Guard District extends from Wyoming to West Virginia, North Dakota to Louisiana and covers all or parts of 28 states in the mid-western U. S. The 8th District includes 7 Groups, 3 Air Stations, 1 Aviation Training Center, and 12 Marine Safety Offices. More than 700 million tons of cargo is transported annually on the 7,000 miles of inland waterways and western rivers of the 8th Coast Guard District, and District units and personnel ensure that these waterways remain safe and navigable. District units respond to more than 5,500 search and rescue cases per year and maintain more than 22,000 federal aids to navigation and manage over 29,000 private aids. The 8th District responds to nearly 6,000 pollution incidents annually.

II. C. 3. 8th Coast Guard District

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	28,257
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
SCHEDULED DECOMMISSIONING OF FOUR SEAGOING BUOY	-222
LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	-23
AVIATION ASSET REALLOCATION	-416
II. BUILT-IN CHANGES	
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW INITIATIVES / ENHANCEMENTS)	40
III. OPERATE NEW FACILITIES	
SHORE FACILITY CONSTRUCTION FOLLOW-ON	117
COMMISSION AND OPERATE THREE SEAGOING BUOY TENDERS	533
49-FOOT STERN LOADING BUOY BOAT (BUSL) FOLLOW-ON	15
47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	91
PORTS AND WATERWAYS SAFETY SYSTEMS (PAWSS) INSTALLATION FOLLOW-ON	24
COMMISSION AND OPERATE TEN COASTAL PATROL BOATS	68
IV. NEW/ENHANCED/RESTORATION INITIATIVES	
SEARCH AND RESCUE SYSTEM ENHANCEMENTS	3
PASSENGER VESSEL SAFETY	1
TOTAL	231
FY 2002 OE REQUEST LEVEL	28,488

Air Stations:

Air Station	Location	Aircraft Allowance	Billets (Off/Enl/Civ)
Corpus Christi	Corpus Christi, TX	HH-65A (3), HU-25B (3)	29/87/03
Houston	Houston, TX	HH-65A (4)	19/53/02
ATC Mobile (Note: ATC Mobile is a HQ Unit)	Mobile, AL	HH-65A (8), HU-25A (5), HH-60J (3)	98/276/27
New Orleans	New Orleans, LA	HH-65A (5)	28/76/02

Marine Safety Offices (MSOs):

MSO St Louis, MO
Authorized Strength:
Total: 44
Officer: 13
Warrant Officer: 08
Enlisted: 18
Civilian: 05

MSO Memphis, TN
Authorized Strength:
Total: 28
Officer: 08

II. C. 3. 8th Coast Guard District

Marine Safety Offices (MSOs): (cont)

Warrant Officer: 04
Enlisted: 11
Civilian: 05

MSO Paducah, KY
Authorized Strength:
Total: 24
Officer: 06
Warrant Officer: 04
Enlisted: 13
Civilian: 01

MSO Pittsburgh, PA
Authorized Strength:
Total: 16
Officer: 05
Warrant Officer: 03
Enlisted: 07
Civilian: 01

MSO Huntington, WV
Authorized Strength:
Total: 19
Officer: 05
Warrant Officer: 03
Enlisted: 10
Civilian: 01

MSO Louisville, KY
Authorized Strength:
Total: 26
Officer: 07
Warrant Officer: 04
Enlisted 14
Civilian 01

MSO Morgan City, LA
Authorized Strength:
Total: 94
Officer: 26
Warrant Officer: 16
Enlisted: 47
Civilian: 05

MSO Mobile, AL
Authorized Strength:
Total: 69
Officer: 24
Warrant Officer: 07
Enlisted: 34
Civilian: 04

MSO Corpus Christi, TX
Authorized Strength:
Total: 44
Officer: 11
Warrant Officer: 05
Enlisted: 27
Civilian: 01

MSO Port Arthur, TX
Authorized Strength:
Total: 87
Officer: 28
Warrant Officer: 11
Enlisted: 45
Civilian: 03

MSO Houston/Galveston, TX
Authorized Strength:
Total: 163
Officer: 38
Warrant Officer: 12
Enlisted: 102
Civilian: 11

MSO New Orleans, LA
Authorized Strength:
Total: 189
Officer: 53
Warrant Officer: 26
Enlisted: 76
Civilian: 34

II. C. 3. 8th Coast Guard District
Group and Activities

Group Mobile, AL (Not incl. Base Mobile)

Total Units	18
Cutters:	08
Boat Stations:	06
Aids to Nav Team	04
Total Billets:	315
Officer:	10
Warrant Officer:	05
Enlisted:	297
Civilian	03

Group New Orleans, LA

Total Units:	16
Cutters:	07
Boat Stations:	04
Aids to Nav Teams:	05
Total Billets:	289
Officer:	07
Warrant Officer:	06
Enlisted:	275
Civilian:	1

Group Galveston, TX (Not incl. Base Galveston)

Total Units:	10
Cutters:	05
Boat Stations:	03
Aids to Nav Teams:	02
Total Billets:	217
Officer:	09
Warrant Officer:	04
Enlisted:	201
Civilian:	03

Group/Air Station Corpus Christi, TX (Only Group billets)

Total Units	09
Cutters:	04
Boat Stations:	03
Aids to Nav Teams:	03
Total Billets:	249
Officer:	05
Warrant Officer:	05
Enlisted:	238
Civilian:	01

Group Lower Mississippi, TN

Total Units:	07
Cutters:	06
Boat Stations:	0
Aids to Nav Teams:	01
Total Billets:	126
Officer:	02
Warrant Officer:	02
Enlisted:	122
Civilian:	0

Group Upper Mississippi, IA

Total Units:	05
Cutters:	05
Boat Stations:	0
Aids to Nav Teams:	0
Total Billets:	97
Officer:	02
Warrant Officer:	02
Enlisted:	93
Civilian:	0

Group Ohio Valley, KY

Total Units:	06
Cutters:	06
Boat Stations:	0
Aids to Nav Teams:	0
Total Billets:	115
Officer:	02
Warrant Officer:	02
Enlisted:	111
Civilian:	0

II. C. 3. 8th Coast Guard District (cont)

Cutters:

Vessel Type	Yrs in Service	Homeport
180' WLB Seagoing Buoy Tender		
309 SWEETGUM	58	Mobile, AL
175' WLM Coastal Buoy Tender		
559 BARBARA MABRITY	2	Mobile, AL
561 HARRY CLAIBORNE	1	Galveston, TX
160' WLIC Inland Construction Tender		
800 PAMLICO	25	New Orleans, LA
803 SAGINAW	25	Mobile, AL
133' WLM Coastal Buoy Tender		
540 WHITE SUMAC	58	New Orleans, LA
110' WPB Patrol Boat		
1339 KEY BISCAYNE	10	Corpus Christi, TX
87' WPB Patrol Boat		
87305 STINGRAY	3	Mobile, AL
87311 COBIA	2	Mobile, AL
87320 MANTA	1	Freeport, TX
87321 COHO	1	Panama City, FL
87323 SEAHAWK	1	Carrabelle, FL
87324 STEELHEAD	1	Port Aransas, TX
87327 PELICAN	1	Abbeville, LA
87330 MANOWAR	1	Galveston, TX
82' WPB Patrol Boat		
82342 PT BAKER	38	Sabine Pass, TX
82352 PT SAL	35	Grand Isle, LA
82353 PT MONROE	35	Gulfport, MS
82366 PT LOBOS	34	Pensacola, FL
75' WLIC Inland Construction Tender		
75304 MALLET	39	Corpus Christi, TX
75306 CLAMP	37	Galveston, TX
75309 HATCHET	36	Galveston, TX
75310 AXE	36	Mobile, AL
75' WLR Small River Buoy Tender		
75307 WEDGE	37	Demopolis, AL
75401 GASCONADE	37	Omaha, NE
75402 MUSKINGUM	36	Sallisaw, OK
75403 WYACONDA	36	Dubuque, IA

II. C. 3. **8th Coast Guard District** (cont)

Vessel Type	Yrs in Service	Homeport
75404 CHIPPEWA	36	Owensboro, KY
75405 CHEYENNE	35	St. Louis, MO
75406 KICKAPOO	32	Vicksburg, MS
75407 KANAWHA	32	Pine Bluff, AR
75408 PATOKA	31	Greenville, MS
75409 CHENA	31	Hickman, KY
75500 KANKAKEE	31	Memphis, TN
75501 GREENBRIER	31	Natchez, MS
65' WLR Small River Buoy Tender		
65501 OUACHITA	41	Chattanooga, TN
65502 CIMMARRON	41	Paris Landing, TN
65503 OBION	39	Owensboro, KY
65504 SCIOTO	39	Keokuk, IA
65505 OSAGE	39	Sewickley, PA
65506 SANGAMON	39	Peoria, IL

II. C. 4. **9th Coast Guard District**

The 9th Coast Guard District covers the Great Lakes and surrounding states including Michigan; northern Minnesota, Indiana and Ohio; northeastern Wisconsin and Illinois; and western New York and Pennsylvania. Twenty six million American citizens rely on the lakes for their recreation and livelihoods. Economically, it is one of the most important areas in North America. While the boating season on the lakes has traditionally been thought to be short because of the harsh winters, 9th District units handle over 6,000 search and rescue cases annually. The District also plays a key role in facilitating commerce on the Great Lakes during the winter months employing five 140-foot icebreaking tugs, the 290-foot icebreaker MACKINAW, and three 180-foot buoy tenders. The District has 5 Groups, 2 Air Stations (including 2 Air Facilities), and 8 Marine Safety Offices. The 9th District maintains 2,600 federal aids to navigation and manages 3,000 private aids. The 9th District services an additional 1,700 federal aids during the winter season.

II. C. 4. **9th Coast Guard District** (cont)

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	**17,790**
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	-17
AVIATION ASSET REALLOCATION	-357
II. BUILT-IN CHANGES	
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW	2
III. OPERATE NEW FACILITIES	
SHORE FACILITY CONSTRUCTION FOLLOW-ON	12
49-FOOT STERN LOADING BUOY BOAT (BUSL) FOLLOW-ON	37
47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	91
PORTS AND WATERWAYS SAFETY SYSTEMS (PAWSS)	52
IV. NEW/ENHANCED/RESTORATION INITIATIVES	
SEARCH AND RESCUE SYSTEM ENHANCEMENTS	5
PASSENGER VESSEL SAFETY	1
TOTAL	**-174**
FY 2002 OE REQUEST LEVEL	**17,616**

Air Stations:

Air Station	Location	Aircraft Allowance	Billets (Off/Enl/Civ)
Detroit (AIRFAC Muskegon)	Mt. Clemens, MI	HH-65A (5)	28/73/02
Traverse City (AIRFAC Waukegan)	Traverse City, MI	HH-65A (5)	28/96/02

Marine Safety Offices (MSOs)

MSO Sault Ste Marie, MI
Authorized Strength:
Total: 10
Officer: 05
Warrant Officer: 01
Enlisted: 03
Civilian: 01

MSO Detroit, MI
Authorized Strength:
Total: 17
Officer: 05
Warrant Officer: 01
Enlisted: 10
Civilian: 01

MSO Chicago IL
Authorized Strength:
Total: 31
Officer: 08
Warrant Officer: 03
Enlisted: 19
Civilian: 01

MSO Toledo, OH
Authorized Strength:
Total: 30
Officer: 07
Warrant Officer: 04
Enlisted: 11
Civilian: 08

MSO Milwaukee, WI
Authorized Strength:
Total: 16
Officer: 05
Warrant Officer: 02
Enlisted: 08
Civilian: 01

II. C. 4. 9th Coast Guard District (cont)

Marine Safety Offices (MSOs) (cont)

		Total:	17	Enlisted:	09
MSO Cleveland, OH		Officer.	05	Civilian:	01
Authorized Strength:		Warrant Officer:	02		
MSO Buffalo, NY		***MSO Duluth, MN***			
Authorized Strength:		Authorized Strength:			
Total.	23	Total:	17		
Officer:	06	Officer:	04		
Warrant Officer:	03	Warrant Officer:	03		
Enlisted.	14	Enlisted:	09		
Civilian:	00	Civilian:	01		

Groups and Activities

Group Buffalo, NY		***Group Milwaukee, WI (Not incl. Base Milwaukee billets)***		***Group/MSO Sault Ste Marie, MI (Only Group billets?)***	
Total Units	11	Total Units	12	Total Units:	13
Cutters:	0	Cutters:	01	Cutters.	03
Boat Stations	10	Boat Stations:	09	Boat Stations:	09
Aids to Nav Teams	01	Aids to Nav Teams	02	Aids to Nav Teams	01
Total Billets:	179	Total Billets:	208	Total Billets:	244
Officer:	04	Officer:	07	Officer:	07
Warrant Officer:	03	Warrant Officer:	05	Warrant Officer:	08
Enlisted	172	Enlisted:	194	Enlisted:	223
Civilian:	0	Civilian:	2	Civilian:	06

Group Detroit, MI		***Group Grand Haven, MI***	
Total Units:	13	Total Units:	08
Cutters:	01	Cutters:	0
Boat Stations.	10	Boat Stations:	07
Aids to Nav Teams	02	Aids to Nav Teams	01
Total Billets:	331	Total Billets:	111
Officer:	10	Officer:	03
Warrant Officer:	07	Warrant Officer:	02
Enlisted:	314	Enlisted:	106
Civilian:	0	Civilian:	0

II. C. 4. **9th Coast Guard District** (cont)

Cutters:

Vessel Type	Yrs in Service	Homeport
290' WAGB Icebreaker		
83 MACKINAW	57	Cheboygan, MI
180' WLB Seagoing Buoy Tender		
392 BRAMBLE	57	Port Huron, MI
404 SUNDEW	57	Duluth, MN
406 ACACIA	57	Charlevoix, MI
140' WTGB Icebreaker Tug		
101 KATMAI BAY	23	Sault St Marie, MI
102 BRISTOL BAY	22	Detroit, MI
103 MOBILE BAY	22	Sturgeon Bay, WI
104 BISCAYNE BAY	22	St. Ignace, MI
105 NEAH BAY	22	Cleveland, OH
100' WLI Large Inland Buoy Tender		
642 BUCKTHORN	38	Sault St Marie, MI

II. C. 5. 13th Coast Guard District

The 13th Coast Guard District includes the states of Washington, Oregon, Montana and Idaho. The Pacific Northwest, rapidly becoming one of our Nation's economic hubs, has always challenged mariners with its isolated, storm-battered coastline and treacherous harbor entrances. In Puget Sound, WA the Vessel Traffic Service system guides more than a quarter million vessel movements through foul weather and heavy traffic annually. The 13th District responds to more than 3,000 search and rescue cases per year and maintains 1,900 federal aids to navigation and manages 800 private aids. The District has 5 Groups, 3 Air Stations (including1 Air Facility), and 2 Marine Safety Offices.

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	**13,580**
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	-15
SURFACE ASSET REALLOCATION	-422
II. BUILT-IN CHANGES	
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW INITIATIVES / ENHANCEMENTS)	146
III. OPERATE NEW FACILITIES	
SHORE FACILITY CONSTRUCTION FOLLOW-ON	180
47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	193
IV. NEW/ENHANCED/RESTORATION INITIATIVES	
SEARCH AND RESCUE SYSTEM ENHANCEMENTS	62
PASSENGER VESSEL SAFETY	1
TOTAL	**145**
FY 2002 OE REQUEST LEVEL	**13,725**

Air Stations:

Air Station	Location	Aircraft Allowance	Billets (Off/Enl/Civ)
Astoria	Warrenton, OR	HH-60J (3)	17/51/02
North Bend (AIRFAC Newport)	North Bend, OR	HH-65A (5)	28/60/02
Port Angeles	Port Angeles, WA	HH-65A (3)	19/52/02

II. C. 5. 13th Coast Guard District (cont)

Marine Safety Offices (MSOs):

MSO Portland, OR -
Authorized Strength:

Total:	85
Officer:	25
Warrant Officer:	06
Enlisted:	47
Civilian:	07

MSO Puget Sound, WA
Authorized Strength:

Total:	84
Officer:	31
Warrant Officer:	13
Enlisted:	25
Civilian:	15

Groups and Activities

Group/Air Station Astoria, OR (Only Group billets)

Total Units:	04
Cutters:	0
Boat Stations:	03
Aids to Navigation Teams	01
Total Billets:	199
Officer:	05
Warrant Officer:	03
Enlisted:	190
Civilian:	01

Group/Air Station Port Angeles, WA (Only Group billets)

Total Units	05
Cutters:	03
Boat Stations	02
Aids to Navigation Teams:	0
Total Billets:	123
Officer:	01
Warrant Officer:	03
Enlisted:	115
Civilian:	04

Group/MSO Portland, OR (Only Group billets)

Total Units:	03
Cutters:	01
Boat Stations:	01
Aids to Navigation Teams	01
Total Billets:	62
Officer:	0
Warrant Officer	03
Enlisted:	59
Civilian:	0

Group Seattle, WA

Total Units:	05
Cutters:	02
Boat Stations:	02
Aids to Navigation Teams	01
Total Billets:	119
Officer:	06
Warrant Officer	02
Enlisted:	111
Civilian:	0

Group/Air Station North Bend, OR (Only Group billets)

Total Units:	10
Cutters:	01
Boat Stations:	08
Aids to Navigation Teams	01
Total Billets:	282
Officer:	06
Warrant Officer:	05
Enlisted:	268
Civilian:	03

II. C. 5. 13th Coast Guard District (cont)
Cutters:

Vessel Type	Yrs in Service	Homeport
180' WLB Seagoing Buoy Tender		
277 COWSLIP	59	Astoria, OR
110' WPB Patrol Boat		
1322 CUTTYHUNK	13	Port Angeles, WA
1327 ORCAS	12	Coos Bay, OR
100' WLI Large Inland Buoy Tender		
313 BLUEBELL	56	Portland, OR
87' WPB Patrol Boat		
87307 OSPREY	2	Port Townsend, WA
82' WPB Patrol Boat		
82375 PT DORAN	31	Everett, WA
65' WLI Small Inland Buoy Tender		
65400 BAYBERRY	47	Seattle, WA

II. C. 6. 14th Coast Guard District

The 14th District is the largest geographic Coast Guard command covering 18 million square miles of land and sea from the Central Pacific to the Indian Ocean and includes the state of Hawaii. District and Pacific Area cutters and aircraft routinely patrol the Pacific Ocean to enforce the Magnuson Fisheries and Conservation Act, which establishes a controlling fishing area within 200 miles of U.S. shores including Guam, the Northern Mariana Islands, American Samoa and other U.S. Pacific territories. The District responds to over 800 search and rescue cases annually. The 14th District has 1 Group and 1 Air station. The 14th District maintains 400 federal aids to navigation and manages nearly 400 private aids.

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	**11,019**
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	-5
II. BUILT-IN CHANGES	
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW INITIATIVES / ENHANCEMENTS)	105
III. OPERATE NEW FACILITIES	
SHORE FACILITY CONSTRUCTION FOLLOW-ON	19
IV. NEW/ENHANCED/RESTORATION INITIATIVES	
SEARCH AND RESCUE SYSTEM ENHANCEMENTS	2
PASSENGER VESSEL SAFETY	1
TOTAL	**122**
FY 2002 OE REQUEST LEVEL	**11,141**

Air Stations:

Air Station	Location	Aircraft Allowance	Billets (Off/Enl/Civ)
Barbers Point	Barbers Pt, HI (Oahu)	HH-65A (4), HC-130H (4)	38/167/07

II. C. 6. 14th Coast Guard District (cont)

Marine Safety Offices (MSOs):

CG Activities Far East/MIO	
Authorized Strength:	
Total:	11
Officer:	06
Warrant Officer:	03
Enlisted:	02
Civilian:	00

MSO Honolulu, HI	
Authorized Strength:	
Total:	64
Officer:	23
Warrant Officer:	09
Enlisted:	29
Civilian:	03

MSO Guam	
Authorized Strength:	
Total:	15
Officer:	06
Warrant Officer:	02
Enlisted:	07
Civilian:	00

Groups and Activities

Group Honolulu, HI	
Total Units	07
Cutters:	04
Boat Stations:	02
Aids to Navigation Teams	01
Total Billets	117
Officer:	09
Warrant Officer	0
Enlisted:	107
Civilian	01

Marianas Section, Guam (Does not incl. MSO Guam)	
Total Units	01
Cutters:	01
Boat Stations:	0
Aids to Navigation Teams	0
Total Billets:	42
Officer.	02
Warrant Officer	0
Enlisted.	40
Civilian:	0

Cutters:

Vessel Type	Yrs in Service	Homeport
225' WLB Seagoing Buoy Tender		
203 KUKUI	4	Honolulu, HI
205 WALNUT	3	Honolulu, HI
180' WLB Seagoing Buoy Tender		
401 SASSAFRAS	57	Apra Harbor, Guam
110' WPB Patrol Boat		
1331 WASHINGTON	12	Honolulu, HI
1336 KISKA	11	Hilo, HI
1337 ASSATEAGUE	11	Honolulu, HI
1349 GALVESTON ISLAND	9	Apra Harbor, Guam
87' WPB Patrol Boat		
87316 KITTIWAKE	2	Nawiliwili, HI

II. C. 7. 17th Coast Guard District

The 17th Coast Guard District covers the entire state of Alaska and the surrounding maritime regions, with a coastline larger than the entire East Coast. Alaska's waterways and fishing industry are its lifelines making fisheries enforcement, environmental protection and marine safety major concerns. Coast Guard units and personnel play key roles in these areas. Due to the remote, isolated areas and frequent inclement weather encountered in Alaska, search and rescue and aids to navigation support are also vital Coast Guard missions in the 17th District. The 17th District coordinates more than 800 search and rescue cases annually and maintains 1,300 aids to navigation and manages 187 private aids. The 17th District has 2 Air Stations (including 1 Air Facility).

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	**20,264**
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
ANNUALIZATION OF FY 2001 MANAGEMENT SAVINGS	-324
MANAGEMENT AND TECHNOLOGY EFFICIENCIES	
SCHEDULED DECOMMISSIONING OF FOUR SEAGOING BUOY	-354
LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	-5
AVIATION ASSET REALLOCATION	-878
II. BUILT-IN CHANGES	
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW INITIATIVES / ENHANCEMENTS)	358
III. OPERATE NEW FACILITIES	
SHORE FACILITY CONSTRUCTION FOLLOW-ON	173
COMMISSION AND OPERATE THREE SEAGOING BUOY TENDERS	658
47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	3
IV. NEW/ENHANCED/RESTORATION INITIATIVES	
PASSENGER VESSEL SAFETY	1
TOTAL	-368
FY 2002 OE REQUEST LEVEL	**19,896**

Air Stations:

Air Station	Location	Aircraft Allowance	Billets (Off/Enl/Civ)
Kodiak (AIRFAC Cordova)	Kodiak, AK	HH-65A (5), HC-130H (6), HH-60J (4)	65/290/06
Sitka	Sitka, AK	HH-60J (3)	21/96/05

II. C. 7. 17th Coast Guard District (cont)

Cutters:

Vessel Type	Yrs in Service	Homeport
225' WLB Seagoing Buoy Tender		
206 SPAR	New	Kodiak, AK
207 MAPLE	New	Sitka, AK
180' WLB Seagoing Buoy Tender		
393 FIREBUSH	57	Kodiak, AK
402 SEDGE	57	Homer, AK
405 SWEETBRIER	57	Cordova, AK
175' Coastal Buoy Tender		
588 ANTHONY PETIT	2	Ketchikan, AK
110' WPB Patrol Boat		
1310 MUSTANG	15	Seward, AK
1311 NAUSHON	15	Ketchikan, AK
1334 LIBERTY	12	Auke Bay, AK
1335 ANACAPA	11	Petersburg, AK
1346 ROANOKE ISLAND	9	Homer, AK
65' WLI Small Inland Buoy Tender		
65401 ELDERBERRY	47	Petersburg, AK

II. D. Headquarters Directorates:

This PPA provides funding for service-wide policy development, information dissemination, central management, and oversight in all program areas. Headquarters retains these funds for various purposes, among them:

- Operational oversight and contract management for developmental field projects such as the Airborne Use of Force initiative
- Centralized bill paying and contract management (e.g. buoy procurements, lube oil analysis program, and claims)
- DOD interoperability (e.g. Naval In-Service Engineering (NISE) reimbursable agreement management, Defense Data Network line charges, Coast Guard interface with Transportation Operational Personal Property Standard System (TOPS), and joint DOD war planning exercises)
- Centralized program management (e.g. - Marine Safety technical support, vessel response plans, recreational vessel/boating safety enforcement and administration, Alien Migration Interdiction Operations (AMIO) support, Federal Employees Compensation, Automated Merchant Vessel Emergency Response (AMVER), and Chief Counsel legal program and policy)
- Programmatic studies, projects, and training (e.g. test and evaluation of pollution prevention equipment, aircraft performance evaluations, response exercise program, Oil Pollution Act of 1990 (OPA-90) projects, boat compliance testing, double hull study, service record automation project, environmental impact studies, and mission analysis.)
- Printing services for manuals, publications, and documents that are distributed service-wide (e.g. flight manuals, cutter training and qualification manuals, Coast Guard Auxiliary publications, navigation rules of the road, and Coast Guard directives)
- Centralized information resource systems management (e.g. Departmental Accounting and Financial Information System (DAFIS), Law Enforcement Information System (LEIS) II, CG-wide Strategic Information Resources Management Plan (SIRMP) initiatives, DOT mainframe computer usage, Personnel Management Information System (PMIS), real-time Automated Personnel ID system, Marine Safety Information System (MSIS), Headquarters computer center, and Standard Work Station III (SWS III) migration)
- Funds held by resource staffs for subsequent distribution to the field throughout the fiscal year (e.g. WPB Combined Allowances for Logistics Maintenance and Support (CALMS) shortfalls, WHEC/MEC communications and homeport changes, WAGB support, VTS maintenance and support, aircrew flight gear/survival suits, WLB lifeboat upgrades, and 406 EPIRBs for life rafts)
- Work-life program support (e.g. Employee Assistance Program, wellness program, health benefits advisory program, ombudsman program, transition benefits program, and career counseling)

II. D. **Headquarters Directorates:**

- Personnel administration (e.g. centralized military identification card processing, clothing distribution center, security clearance processing, inter-service agreements with DOD for relocation services, urinalysis program, and alcohol rehabilitation program)

These funds also include command and control functions (such as operating the National Response Center and the CG Headquarters Command Center); personnel management (including EEO program, CG personnel promotion/suitability/assignment boards); public affairs, contracts for building security and maintenance; and other materials and supplies consumed in the course of everyday business.

II. D. Headquarters Directorates:

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	**243,689**
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
TERMINATION OF ONE TIME COSTS	-8,550
ANNUALIZATION OF FY 2001 MANAGEMENT SAVINGS	-93
MANAGEMENT AND TECHNOLOGY EFFICIENCIES	
SCHEDULED DECOMMISSIONING OF FOUR SEAGOING BUOY	834
LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	-3
ADMINISTRATIVE AND SUPPORT PERSONNEL REDUCTIONS	-96
SURFACE ASSET REALLOCATION	-6,235
AVIATION ASSET REALLOCATION	-466
MARINE SAFETY EFFICIENCIES	-132
OPERATIONAL CAPABILITY SUSTAINMENT	-12,000
II. BUILT-IN CHANGES	
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW INITIATIVES / ENHANCEMENTS)	3,734
INCREASING FUEL AND ENERGY COSTS	45,750
GSA RENT INCREASE	3,000
NATIONAL TELECOMMUNICATIONS AND INFORMATION ACT FEES	195
III. OPERATE NEW FACILITIES	
COMMISSION AND OPERATE THREE SEAGOING BUOY TENDERS	1,651
47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	57
USCGC HEALY AVIATION DETACHMENT SUPPORT FOLLOW-ON	14
PORTS AND WATERWAYS SAFETY SYSTEMS (PAWSS)	2
CONFIGURATION MANAGEMENT SYSTEM PROJECT FOLLOW-ON	388
COMMERCIAL SATELLITE COMMUNICATIONS (SATCOM) FOLLOW-	1
COMMISSION AND OPERATE TEN COASTAL PATROL BOATS	27
SELF LOCATING DATUM MARKER BUOY (SLDMB) FOLLOW-ON	399
LOCAL NOTICE TO MARINERS AUTOMATION FOLLOW-ON	925
DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) FOLLOW-ON	2
HUMAN RESOURCES INFORMATION SYSTEM FOLLOW-ON	1,173
IV. NEW/ENHANCED/RESTORATION INITIATIVES	
MARINE TRANSPORTATION SYSTEM PERSONNEL AND	136
SEARCH AND RESCUE SYSTEM ENHANCEMENTS	50
PASSENGER VESSEL SAFETY	31
FUNERAL HONORS DUTY	50
TRANSIT AND VANPOOL BENEFITS INCREASES	750
IMPROVE OIL AND HAZMAT SPILL RESPONSE CAPABILITY	564
TOTAL	**32,158**
FY 2002 OE REQUEST LEVEL	**275,847**

II. D Headquarters Directorates: (cont)

Marine Safety and Environmental Protection Directorate (G-M):

The Marine Safety and Marine Environmental Protection programs support four of the five strategic goals of the Coast Guard: safety, protection of natural resources, mobility and maritime security. Principle responsibilities include:

- establishing federal policies and standards for the design, construction, equipment, manning, operations and maintenance of commercial vessels, and for the qualifications of their crew;.
- developing standards for handling hazardous materials onboard vessels & marine facilities;
- negotiating international maritime safety and environmental protection standards on behalf of the U.S.;
- assuring U.S. vessel compliance with domestic and international standards and compliance by all vessels and regulated facilities in U.S. ports and waters, through a combination of education, monitoring, and enforcement;
- controlling vessel and facility operations to correct or reduce significant safety, security, or environmental threats;
- coordinating national protocols for preparedness planning, training, and exercising;
- directing response activities to mitigate the effects of maritime casualties and pollution.

Operations Directorate (G-O):

The Office of Operations develops doctrine and policy; provides guidance; allocates resources; and coordinates with other countries, government agencies, and industry to employ Coast Guard forces and accomplish Coast Guard operational maritime missions. The Operations Directorate is the program manager for Coast Guard aircraft, cutters, and boats in support of the Coast Guard's five strategic goals.

Human Resources Directorate (G-W):

Human Resources Directorate to executes Human Resource programs to meet the people needs of the Coast Guard while meeting the needs of Coast Guard people. Meeting the people needs of the Coast Guard includes the execution of programs, which ensure the quality of Coast Guard people and integrate human resource support functions at minimal cost. Examples include workforce management support for the active duty, reserve, and civilian workforces, training and development program support, health and safety program support, inter-service agreements with DoD for common personnel and security support programs, diversity enhancement programs, and IRM support for Human Resource management information systems. G-W meets the needs of Coast Guard people by providing centrally managed quality of life support services, such as an employee assistance program, transition assistance programs, family support programs, and housing support programs.

II. D Headquarters Directorates: (cont)

Systems Directorate (G-S):

Systems Directorates and Offices use funding to execute policy and programmatic management of engineering, logistics, information and technology, and command, control, communications, and computers functions and systems in support of Coast Guard operations. The Engineering Directorate handles the aeronautical, civil, naval, and ocean engineering programs along with environmental compliance and restoration. The Logistics Directorate deals with logistics policy and design, implementation and oversight of logistics systems. The Information and Technology Directorate encompasses information systems architecture and planning, information management, and Coast Guard research and development. The Command, Control, Communications, and Computers Directorate manages the electronics engineering program and communications and computer systems. The Systems Resource Management Directorate oversees overall planning and fiscal efforts for the Systems Directorate. The Systems Directorate also manages the Federal Telephone System (FTS), Postal, and GSA rent central funds:

Headquarters Support Command (HSC) and other Headquarters Offices

Funding for the Headquarters Support Command provides consolidated support for Coast Guard Headquarters including: administrative, logistics, transportation, facilities, information services, and health services. Also funded in this category are the Assistant Commandant for Civil Rights, Acquisition, Legal, Chief of Staff, and the Office of the Commandant.

E. Headquarters Managed Units:

Funding is provided to Headquarters units, which provide specialized support and services Coast Guard-wide. This category includes applicable supplies, materials, and services for operations; maintenance and repairs performed at the unit level for grounds, buildings and equipment; supplies and materials utilized for unit "housekeeping" and administration; procurement of spare parts; security contracts; fuel and energy; federal Wage Grade employee salaries (for personnel working at the Engineering Logistics Center and OE funded personnel at the Yard); personnel support; and other materials consumed in the course of operations and everyday business.

E. **Headquarters Managed Units**: (cont)

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	**54,014**
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
HEADQUARTERS COMMANDS SUPPORT PERSONNEL REDUCTIONS	-249
II. BUILT-IN CHANGES	
INCREASING CONTRACT COSTS	12,856
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW	985
III. OPERATE NEW FACILITIES	
SHORE FACILITY CONSTRUCTION FOLLOW-ON	39
COMMISSION AND OPERATE THREE SEAGOING BUOY TENDERS	27
47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	103
COMMERCIAL SATELLITE COMMUNICATIONS (SATCOM) FOLLOW-	787
SELF LOCATING DATUM MARKER BUOY (SLDMB) FOLLOW-ON	375
SEARCH AND RESCUE CAPABILITIES ENHANCEMENT FOLLOW-ON	80
IV. NEW/ENHANCED/RESTORATION INITIATIVES	
MARINE TRANSPORTATION SYSTEM PERSONNEL AND	196
SEARCH AND RESCUE SYSTEM ENHANCEMENTS	654
PASSENGER VESSEL SAFETY	2
TOTAL	**15,855**
FY 2002 OE REQUEST LEVEL	**69,869**

II. E. Headquarters Managed Units: (cont)

Engineering Logistics Center (ELC):

The ELC, located in Baltimore, MD., is the focal point for management of vessel and electronics logistics: managing platform and equipment configuration; developing maintenance policy; setting vessel parts allowance standards; providing design and engineering support; managing and distributing approximately $190M of Coast Guard peculiar inventory that cannot be effectively sourced directly from commercial vendors and is not managed by Department of Defense logistics systems; and developing, managing and providing technical information and logistics information systems support. Funds within this account also pay salaries for federal wage grade personnel employed by the ELC.

Finance Center:

The Finance Center (FINCEN) located in Chesapeake, VA, is responsible for the payment of all government and commercial bills and maintaining all accounting records and submission of reports for all units within the Coast Guard except Inventory Control Points (ICPs). In fiscal year 1998, the FINCEN managed more than 4.7 million accounting transactions while also coordinating the payments and acting as auditor of the government-wide credit card program. Additionally, the FINCEN provides guidance for selecting and training individuals who have fund certification authority, unit level guidance for separation of financial duties, funds certification, account reconciliation, and Coast Guard-wide management of the Large Unit Financial System (LUFS) functions.

Human Resources Service And Information Center:

Provides funding for the operation and maintenance of the Human Resources Service and Information Center (HRS&IC) located in Topeka, Kansas. HRS&IC gathers, maintains, and manages personnel information on all active duty, reserve, and retired Coast Guard military personnel. The HRS&IC, formerly the Pay and Personnel Center (PPC), develops and provides personnel, financial, and accounting reports and information for Coast Guard managers and other government agencies. The HRS&IC also administers the Personnel Management Information System/Joint Uniform Military Pay System (PMIS/JUMPS), and provides payment and personnel support services to active duty, reserve, and retired personnel, as well as annuitants and the NOAA Officer Corps. The HRS&IC processes all Coast Guard travel claims, administers the evaluation program and the servicewide examinations for active duty and reserve enlisted personnel; processes reserve and active duty separations and retirements; administers the in-service and out-of-service debt collection program, processes allotments and garnishments, and receives and processes initial reports of all Coast Guard and NOAA personnel casualties.

II. E. Headquarters Managed Units: (cont)

Coast Guard Yard:

The Coast Guard Yard is the only shipbuilding and vessel repair facility operated by the Coast Guard. The Yard's industrial operations include the repair, modification, and construction of vessels; ordnance overhaul and maintenance; manufacturing of miscellaneous Coast Guard equipment; maintenance and repair of vessel components; and providing casualty response support to the fleet. Along with completing electronic work on cutters during Yard availabilities, the Yard electronic shop performs electronic equipment overhauls and develops prototypes in support of Coast Guard mission areas. The Yard has been certified by the Naval Sea Systems Command (NAVSEA) as a Limited Repair Facility (LRF) for Navy owned ordnance.

Current Yard projects include construction of 49-foot stern loading buoy boats (BUSL's), and conversion of USCGC ALEX HALEY, the former USS EDENTON to a Coast Guard medium endurance cutter. Industrial activities, averaging $50,000,000 annually, are funded through a revolving fund that is sustained through payments from Coast Guard appropriations (Operating Expenses (OE) and Acquisition, Construction, & Improvements (AC&I) and other government agency customers. Funds within this PPA sub-account are for Yard activities directly supporting Coast Guard operations that are appropriately OE funded. The Yard serves as host facility for the Engineering Logistics Center, Coast Guard Activities Baltimore and Station Curtis Bay. It is also homeport for Coast Guard Cutters SLEDGE and JAMES RANKIN.

National Strike Force:

The National Strike Force is comprised of three regional Strike Teams and the National Strike Force Coordination Center (NSFCC). Each Strike Team is comprised of highly trained personnel and fully-outfitted with a contingent of response and recovery equipment. The Coordination Center provides a centralized reporting point for spills of oil or hazardous substances and activates the rapid deployment of oil pollution response resources. The Coordination Center also coordinates the National Pollution Response Exercise program, enhancing the preparedness of a network of response capabilities in bulk-liquid maritime ports throughout the country. The National Strike Force is composed of the following:

- National Strike Force Coordination Center, Elizabeth City, NC
- Atlantic Strike Team, Fort Dix, NJ
- Gulf Strike Team, Mobile, AL
- Pacific Strike Team, Hamilton AFB, CA

II. E. Headquarters Managed Units: (cont)

The National Pollution Funds Center (NPFC) administers laws and regulations relating to oil pollution liability and compensation, including carrying out the responsibilities in Title I of the Oil Pollution Act of 1990 that have been delegated to the Coast Guard. The NPFC also acts in a fiduciary capacity under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) for provisions managed by the Coast Guard. The NPFC manages the Oil Spill Liability Trust Fund (OSLTF) to provide funds for response to oil spills in navigable waters of the U.S., adjoining shorelines, and the exclusive economic zone. The NPFC coordinates with the Environmental Protection Agency in matters pertaining to Coast Guard involvement with expenditures and recovery of funds from the Hazardous Substance Response Fund.

Command and Control Engineering Center (C2CEN):

The C2CEN located in Portsmouth, VA, is the Coast Guard's Center of Excellence for integrating Command, and Control (C2) engineering and support for all Coast Guard C2 systems ashore and afloat. Basic missions of the C2CEN are to provide engineering, systems management and training support for the following systems at a centralized facility:

- Command Display and Control (COMDAC) system.
- Optical Surveillance System (OSS)
- Shipboard Command & Control Systems onboard 210', 270' & 378' cutters
- Radar
- Vessel Traffic System (VTS) upgrade
- Differential Global Positioning System (DGPS)
- Short Range Aids to Navigation (SRAN)
- Land Based Support Facility for WLB/WLM Replacement
- Navigation Sensors

Air Station Washington:

Air Station Washington operates and maintains the Coast Guard's single Long Range Command and Control aircraft which provides necessary and required transportation for the Commandant of the Coast Guard and certain members of the Commandant's staff, the Secretary of Transportation and certain members of the Secretary's staff, and occasional Congressional delegations.

Operations Systems Center (OSC):

The Operations Systems Center (OSC) located in Martinsburg, WV, develops, supports, and maintains major operational information systems and data bases. The OSC provides services that are accessible to the Coast Guard 24-hours per day from around the world to support operational mission accomplishment and mission oversight analysis.

II.E. Headquarters Managed Units: (cont)

The Coast Guard's operational databases include:

- Automated Mutual Assistance Vessel Rescue (AMVER) system, which tracks participating merchant vessels so as to provide a guide to potential assistance in the vicinity when distress calls are received.
- Computer Aided Search Planning (CASP), this system leverages the world class search and rescue expertise of the Coast Guard to produce fast, accurate, and comprehensive search planning that incorporates weather, currents, and numerous other critical factors.
- Law Enforcement Information system (LEIS) II is a client-server data system with links to internal (Coast Guard) and external law enforcement (LE) databases. LEIS II provides tactical LE information to field units on a near real-time basis. It also provides the fundamental system for standardization and automation of the collection and retrieval of Coast Guard LE data.
- Joint Maritime Information Element support system (JMIE) is a group of government agencies who have a common interest in maritime issues. In order to improve their ability to exchange data and support their business programs, the JMIE has developed the JMIE Support System (JSS). The JSS is a centralized database of maritime information which analysts from the JMIE consortium agencies have access.
- Marine Safety Information System (MSIS), is a mission critical system which supports broad program management needs, field operations, and decision support requirements. Data is collected at the port level through on vessel and facility inspections and compliance, marine violations and casualties, and port activities.
- In fiscal year 1997, three more systems were transferred from the Transportation Computer Center (TCC) in Washington, DC to the OSC; Auxiliary Management Information System (AUXMIS), Search and Rescue Management Information System (SARMIS), and Automated Requisitioning Management System (ARMS). In combination, the information systems at OSC serve as the heart of Coast Guard's search and rescue, law enforcement, and marine safety missions.

Telecommunication and Information Systems Command (TISCOM):

TISCOM, located in Alexandria, VA, is the Coast Guard's Center of Excellence for operating, managing and providing technical support for Coast Guard telecommunication and computer networks. TISCOM manages Coast Guard-wide voice and message telecommunications including telephone, radio, and satellite systems, security, and configuration control.

The Coast Guard telecommunication and computer systems form an integrated network of voice and message communication capabilities to ensure reliable continuity of operations around the world.

II. E. Headquarters Managed Units: (cont)

Navigation Center (NAVCEN):

The Navigation Center (NAVCEN) is collocated with the Telecommunications Systems Command (TISCOM) in Alexandria, VA. The NAVCEN is responsible for gathering, processing, and disseminating timely status and general information about the Global Positioning System GPS, maritime Differential Global Positioning System DGPS, National Differential Global Positioning System NDGPS and LORAN-C systems to domestic as well as foreign users of the systems. The NAVCEN also exercises operational control of the U.S. LORAN-C system, the Maritime DGPS Service, and the Nationwide DGPS Service.

Intelligence Coordination Center (ICC):

The Coast Guard Intelligence Center is the Coast Guard's strategic intelligence center and serves as the focal point for interaction with the intelligence components of the Department of Defense, other law enforcement agencies, and the intelligence community. The ICC is co- located with the National Maritime Intelligence Center (with the Office of Naval Intelligence and the Marine Corps Intelligence Activity) in Suitland, MD. The ICC supports all Coast Guard missions and serves as the focal point for Coast Guard collection management as well as submitting Coast Guard requirements to the intelligence community.

LORAN-C Support Unit (LSU):

The LORAN-C Support Unit (LSU) located in Wildwood, NJ provides Coast Guard-wide support for LORAN-C marine electronic navigation systems. LORAN-C provides electronic navigation for commercial and privately-owned vessels and aircraft.

Coast Guard Institute:

Provides funding for the operation and maintenance of the Coast Guard Institute, located in Oklahoma City, OK. The Institute manages a variety of training and testing materials for Coast Guard personnel for purposes of advancement and nonresident training. The Institute manages the distribution, administration, and scoring of courses and examinations; as well as publishing advancement lists on the basis of scored examinations.

E. Headquarters Managed Units: (cont)

Research and Development Center:

The Coast Guard Research and Development (R&D) Center located in Groton, CT, conducts applied research to develop operational techniques, concepts, systems, equipment and materials in support of the operational missions and regulatory programs of the Coast Guard. The R&D Center assists Coast Guard operating programs to identify emerging technology that can be integrated into existing or new operational systems that will result in future Operating Expenses (OE) savings. The R&D Center also operates a remote Fire and Safety Test Detachment in Mobile, AL which is the only facility in the world that uses real vessel platforms for full-scale fire testing. The R&D Center is fully funded through the Research, Development, Test & Evaluation appropriation and receives no OE funds for its own support. However, the R&D Center is the OE Administrative Target Unit (ATU) for two tenant commands, the Marine Safety Lab, and the International Ice Patrol.

Coast Guard Personnel Command (CGPC):

The Coast Guard Personnel Command, located in Washington, DC, manages the entire Coast Guard military and civilian workforce. The CGPC oversees all Coast Guard accessions, assignments, advancements and promotions, and separations. The CGPC also conducts Physical Disability Evaluation Boards. The CGPC consists of an administrative staff, an officer personnel management division, an enlisted personnel management division, a reserve personnel management division, a civilian personnel management division, a recruiting center, and a records and correspondence section.

National Maritime Center (NMC):

The NMC located in Washington DC, is a Coast Guard Headquarters unit responsible for initiating and executing marine safety activities and services at the national and international levels. Established in August 1995, it consists of the Marine Safety Center, the National Vessel Documentation Center, the Marine Personnel Administration Division, the Container Inspection Training and Assist Team, and the Marine Safety Laboratory.

II. F. Other Activities:

This PPA provides funding for the Chief of Staff's Administrative Account.

Chief of Staff's Administrative Account

This account is the agency's central budgetary account. Funding in this account is for charges from canceled appropriations, developmental initiatives for which the recurring funding need is being reviewed, agency contingencies and natural or mission related emergencies below the scope of a supplemental appropriation, minor changes to program budgets arising since submission of the Congressional budget.

PPA III - DEPOT-LEVEL MAINTENANCE, SUPPORT AND REPAIR:

A. Aeronautical Maintenance:

Provides service-wide funding to support the major maintenance and repair of Coast Guard aircraft not appropriated in the Coast Guard Acquisition, Construction, and Improvements (AC&I) appropriation. This category includes materials, services and supplies necessary for depot-level repair, maintenance, modification and overhaul of aircraft and aircraft equipment including associated avionics and refrigerant systems; transportation of aircraft and aeronautical materials and equipment; and procurement of aircraft ground handling and support equipment.

Depot maintenance programs supported through this category include the periodic overhaul of the Coast Guard's 80 HH-65A, 35 HH-60J and 26 HU-25 aircraft. It also supports commercial depot maintenance for the fleet of 26 HC-130s, and the single VC-4 and VC-20 aircraft. The FY 2002 budget retires 13 HU-25s, 3 HC-130s and 5 HH-65As with appropriate savings. This category provides funding for the aviation parts inventory used to provide depot level logistical support to Coast Guard aviation. This support includes contracting, purchase, stocking, repair, issue and transportation of field stock, avionics and ground support equipment. A large portion of the depot level logistics budget supports repair and reconditioning of aircraft components, which includes repairs performed in-house and those contracted out to commercial sources. Currently, approximately 80 percent of all component repairs are outsourced to commercial vendors while the remainder are completed at the Coast Guard's Aircraft Repair and Supply Center (AR&SC).

Funding support is also provided for contracted engineering services. These services include contractor field teams, avionics software support and aircraft storage facilities. By leveraging these services, the Coast Guard can acquire cost-effective support for aspects of aviation not efficiently provided by its current organization.

Further support is provided to Coast Guard aviation through the funding and maintenance of two major management information systems. The Coast Guard Aviation Maintenance Management Information System (AMMIS) provides the Coast Guard with total asset visibility while capturing critical cost accounting data. Similarly, the Aviation Computerized Maintenance System (ACMS) provides Coast Guard aviation managers with detailed maintenance management information and configuration control. The Coast Guard has initiated the Aviation Logistics Management Information System (ALMIS) AC&I project which will integrate ACMS with AMMIS to integrate the aviation maintenance and logistics management information systems.

Finally, this category provides funding for all operating, maintenance, and administrative expenses associated with AR&SC. These expenses include salaries for civilian federal employees, routine upkeep and maintenance of facilities, housekeeping supplies and equipment, safety program expenses, and administrative supplies consumed in carrying out AR&SC's functions.

III. A. Aeronautical Maintenance: (cont)

AIRCRAFT MODIFICATION WORK

The following aircraft modifications were accomplished during fiscal year 2000 at a total cost of : $4,777,000

Project	(000's)
HH-60J Helicopter:	
Rotor Head Streamlining	290
Crack Mitigation Kit Installs by Sikorsky	200
Extended Hoist Arm	157
Cabin Emergency Egress Lighting	40
Tail Landing Gear Strut Wiper	30
Pressure Refueling/Defueling Hose Upgrade	17
Digital Automatic Flight Control System Computer Rain Shield	11
Number 2 Tactical Data Processor Fan Reversal	7
Digital Encryption Standard Installs	3
Stabilator Actuator Grounding Strap/Bracket	2
Sub Total	**$757**

Project	(000's)
HH-65 Aircraft	
Energy Attenuating Seats	1,265
Fuel Quantity Indicator	759
Environmental Control System Conversion	225
Improved Searchlight	30
Dry Cell Battery Replacement	13
Vibe Monitoring Unit	7
Sub Total	**$2,299**

Project	(000's)
HC-130 Aircraft	
LN-100/Standby Altitude Indicator	1,080
FCS105/Aircraft Commonality	641
Sub Total	**$1,721**

III. A. Aeronautical Maintenance: (cont)

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	**173,947**
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
AVIATION ASSET REALLOCATION	-20,064
OPERATIONAL CAPABILITY SUSTAINMENT	-16,185
II. BUILT-IN CHANGES	
INCREASING CONTRACT COSTS	2,603
III. OPERATE NEW FACILITIES	
USCGC HEALY AVIATION DETACHMENT SUPPORT FOLLOW-	1,323
COMMERCIAL SATELLITE COMMUNICATIONS (SATCOM) FOLLOW-	82
TOTAL	**-32,241**
FY 2002 OE REQUEST LEVEL	**141,706**

III. B. Electronics Maintenance:

Provides service-wide funding for the procurement, installation, replacement, major maintenance, and support of standard electronic, navigation, command and control, and communications systems not provided in the Coast Guard's Acquisition, Construction, and Improvements (AC&I) appropriation. Standard equipment and systems are those with an Electronic Integrated Logistic Support Plan and for which recurring support has been provided through this centralized electronics maintenance program. Information Resources Management (IRM) systems that are included are those in the Coast Guard's Five Year IRM Plan. This account sustains the Coast Guard communications, computer, and sensor base and provides for technology refreshment where OE funding is appropriate.

Examples of supported systems include radio navigation systems (Differential Global Positioning System (DGPS)); command and control systems (Shipboard Command and Control System (SCCS)), Vessel Traffic Services (VTS), radars with associated antennas; and communications systems (i.e. shore- and ship-based radios with associated antennas and telephones).

Major maintenance has two levels:

- Intermediate level maintenance: performed on-site but beyond the capability of the Coast Guard cutter, boat, or unit personnel due to the need for special equipment and/or particular technical skills (i.e. changing a radar on a small boat).

III. B. Electronics Maintenance: (cont)

- Depot level maintenance: performed at a central facility because it cannot be performed on-site, such as rebuilding and overhauling the radar or repairing a broken antenna mast.

Coast Guard major electronics maintenance is performed by both commercial contractors and a network of Coast Guard facilities including the Engineering and Logistics Center (ELC), Command and Control Engineering Center (C2CEN), Telecommunications and Information Systems Command (TISCOM), a network of electronic support units, and the Loran Support Unit (LSU).

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	**40,460**
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
ANNUALIZATION OF FY 2001 MANAGEMENT SAVINGS	-29
MANAGEMENT AND TECHNOLOGY EFFICIENCIES	
SCHEDULED DECOMMISSIONING OF FOUR SEAGOING BUOY	-30
SURFACE ASSET REALLOCATION	-87
II. BUILT-IN CHANGES	
INCREASING CONTRACT COSTS	729
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW	69
INCREASING COST OF READINESS CAPABILITY SUSTAINMENT	221
III. OPERATE NEW FACILITIES	
COMMISSION AND OPERATE THREE SEAGOING BUOY TENDERS	82
49-FOOT STERN LOADING BUOY BOAT (BUSL) FOLLOW-ON	73
DEFENSE MESSAGE SERVICE FOLLOW-ON	400
47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	15
PORTS AND WATERWAYS SAFETY SYSTEMS (PAWSS) INSTALLATION FOLLOW-ON	45
SURFACE SEARCH RADAR SPS-73 SYSTEM FOLLOW-ON	870
COMMERCIAL SATELLITE COMMUNICATIONS (SATCOM) FOLLOW-	60
MILITARY SATELLITE COMMUNICATIONS (MILSATCOM) FOLLOW-	225
DIGITAL SELECTIVE CALLING (DSC) ALERT PROCESSING SYSTEM FOLLOW-ON	87
COMMISSION AND OPERATE TEN COASTAL PATROL BOATS	32
DIGITAL VOICE LOGGER FOLLOW-ON	500
TOTAL	**3,262**
FY 2002 OE REQUEST LEVEL	**43,722**

III. C. Civil/Ocean Engineering And Shore Facility Maintenance:

Provides Service-wide funding for major nonrecurring maintenance which ensures the integrity of the shore infrastructure to maximize facility service life, while avoiding large recapitalization expenses. This request includes funding for repairs, rebuilding, renovation, improvement, and other services provided by the Coast Guard's Civil Engineering program not appropriated in the Coast Guard Acquisition, Construction, and Improvements (AC&I) appropriation. This category includes buildings, grounds, roads, fixed Aids to Navigation structures (ashore and offshore); major non-consumable equipment used to support the shore plant (e.g., generators, compressors, concrete mixers, truck cranes); underground storage tanks; non-consumable ATON equipment in lighthouses and lighted ranges (light and sound signals, and power systems); procurement and installation of towers for radio beacon ground systems; and purchase of non-GSA vehicles.

The Coast Guard's inventory of shore assets includes approximately 22,000 buildings and structures totaling over 30,000,000 square feet, and approximately 22,000 ashore and offshore fixed Aids to Navigation structures (450 of which are lighthouses). The Coast Guard's shore assets hold an estimated value of $7.2 billion. This figure, determined using the replacement cost approach, quantifies both the nature and size of the shore facilities.

The benefits from this funding affect the majority of units, cross most geographic areas, touch each mission owned, and support a myriad of Coast Guard personnel. The program's backlog is over $700M and consists of $362M in deferred maintenance. Typical projects executed with these funds are:

- Maintenance, repairs, and casualty responses to operational facilities serving the American public, such as runways, piers, wharfs, bulkheads, seawalls, boathouses, and support buildings.
- Maintenance and repairs to CG-owned housing (roof systems, sewage, roads, utilities, etc.), changes to provide or upgrade child care facilities in existing buildings, and the identification and remediation of environmental hazards in housing units.
- Building retrofits resulting from Uniform Federal Accessibility Standards requirements, technological advances, environmental requirements, handicap accessibility, and seismic reinforcements.
- Minor improvements and facility modifications to correct space and energy inefficiencies.
- "Quick Fix" maintenance to avoid service failures, higher long term maintenance costs (utility system repairs, roof replacements, paving, and structural inspections), and loss of design useful life.
- Repair and maintenance to address health and safety discrepancies.

III. C. Civil/Ocean Engineering And Shore Facility Maintenance: (cont)

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	**108,883**
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
SURFACE ASSET REALLOCATION	-11
II. BUILT-IN CHANGES	
INCREASING CONTRACT COSTS	1,943
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW INITIATIVES / ENHANCEMENTS)	108
INCREASING COST OF READINESS CAPABILITY SUSTAINMENT	595
III. OPERATE NEW FACILITIES	
SHORE FACILITY CONSTRUCTION FOLLOW-ON	701
USCGC HEALY AVIATION DETACHMENT SUPPORT FOLLOW-ON	25
COMMISSION AND OPERATE TEN COASTAL PATROL BOATS	323
TOTAL	**3,684**
FY 2002OE REQUEST LEVEL	**112,567**

III. D. Vessel Maintenance:

Provides service-wide funding not otherwise appropriated to the Coast Guard Acquisition, Construction, and Improvements (AC&I) or Environmental Compliance and Restoration (EC&R) appropriations for general expenses related to depot level inventory, repair, alteration, modification, and engineering design services in support of the Coast Guard's Naval Engineering Program. Expenses chargeable to this category include:

- Services, supplies and materials required for intermediate and depot level vessel repair and maintenance during dockside and dry-dock availabilities for 233 cutters (65ft or greater in length), 1352 small boats, and 30 barges with some of these assets being retired with appropriate savings in this budget;
- Services, supplies and materials required to respond to vessel equipment and mechanical systems casualties;
- Travel expenses in direct support of vessel and boat maintenance projects;
- General engineering design and contractual services related to vessels;
- Major hull, mechanical and electrical alterations and modifications to boats;
- Procurement of major equipment used for maintenance, repair, and alteration of vessels including propulsion, electrical and auxiliary systems (This includes equipment such as generators, fire fighting systems and equipment, damage control systems and equipment, oily water separators, waste handling systems, etc.);
- Restoration and repair of small boats resulting from fire, flooding, collision, and grounding;
- Contract messing and berthing costs for eligible crewmembers displaced from vessels due to repair or rehabilitation during vessel availabilities;
- Transportation costs of materials and equipment procured with vessel maintenance funds;

III. D. Vessel Maintenance: (cont)

VESSEL MODIFICATION WORK

The following vessel modifications were accomplished during fiscal year 2000 at a total cost of: $6,034,000

Project	(000's)
High/Medium Endurance and Training Cutters	
378 WHEC Refrigerator Replacement	300
378 WHEC FT-4A fuel Control Replacement	330
378 WHEC Incinerator Installation	1,500
378 WHEC Boiler Monitoring System Prototype	180
270 WMEC Fire & Smoke Alarm System Replacement	250
270 WMEC MK29 Gyrocompass Replacement Prototype	150
WHEC &WMEC Crescent Davit Improvements	100
210 WMEC Oily Water Separator Replacement	488
210 WMEC Doppler Speed Log Replacements	400
Sub Total	**3,698**

Project	(000's)
Patrol Boats	
110 WPB Transom Flap Prototype	190
110 WPB Exhaust System Silencer Installation	122
Sub Total	**312**

Project	(000's)
Boats	
Boat Alteration Execution	428
Sub Total	**428**

Project	(000's)
Icebreakers/Icebreaking Tugs	
400 WAGB Freon 134A Conversion	120
140 WTGB Ship Service Boiler Replacement	245
Sub Total	**365**

Project	(000's)
Buoy Tenders	
225 WLB Condition Based Monitoring System Prototype	95
Sub Total	**95**

III. D. Vessel Maintenance (cont)

VESSEL MODIFICATION WORK

Project	(000's)
General	
MK6 Liferaft Installation	1136
Sub Total	1136

REQUIRED CHANGES ($000)	
FY 2001 OE ESTIMATE LEVEL	116,606
	TOTAL
I. PROGRAMMATIC REDUCTIONS	
ANNUALIZATION OF FY 2001 MANAGEMENT SAVINGS	-553
MANAGEMENT AND TECHNOLOGY EFFICIENCIES	
SCHEDULED DECOMMISSIONING OF FOUR SEAGOING BUOY	-566
SURFACE ASSET	-1,056
AVIATION ASSET REALLOCATION	
II. BUILT-IN CHANGES	
INCREASING CONTRACT COSTS	2,108
ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW INITIATIVES / ENHANCEMENTS)	1,068
INCREASING COST OF READINESS CAPABILITY	638
III. OPERATE NEW FACILITIES	
COMMISSION AND OPERATE THREE SEAGOING BUOY	1,124
49-FOOT STERN LOADING BUOY BOAT (BUSL) FOLLOW-	81
47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	28
COMMISSION AND OPERATE TEN COASTAL PATROL BOATS	578
TOTAL	3,450
FY 2002 OE REQUEST LEVEL	120,056

COAST GUARD
FY 2002 BUDGET C-STAGE REQUEST
OPERATING EXPENSES REQUIRED CHANGES
SUMMARY BY BUDGET CATEGORY (DOLLARS IN THOUSANDS)

	FTP MIL	FTP CIV	FTE MIL	FTE CIV	PPA 1 Personnel	PPA 2 O&M	PPA 3 Maintenance	Total Required Changes
I. PROGRAMMATIC REDUCTIONS								
A. TERMINATION OF ONE TIME COSTS	0	0	0	0	0	-8,550	0	-8,550
B. ANNUALIZATION OF FY 2001 MANAGEMENT SAVINGS	0	0	-90	0	-4,425	-724	-582	-5,731
C. MANAGEMENT AND TECHNOLOGY EFFICIENCIES								
1. SCHEDULED DECOMMISSIONING OF FOUR SEAGOING BUOY TENDERS	-203	0	-90	0	-3,497	147	-596	-3,946
2. LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	-6	-4	-2	-1	-106	-179	0	-285
3. ADMINISTRATIVE AND SUPPORT PERSONNEL REDUCTIONS	-57	-37	-57	-37	-2,741	-345	0	-3,086
4. SURFACE ASSET REALLOCATION	-305	0	-305	0	-6,194	-7,634	-1,154	-14,982
5. AVIATION ASSET REALLOCATION	-454	-4	-454	-4	-10,973	-11,742	-20,064	-42,779
6. MARINE SAFETY EFFICIENCIES	-34	0	-34	0	-524	-132	0	-656
7. OPERATIONAL CAPABILITY SUSTAINMENT	0	0	0	0	0	-12,000	-15,185	-28,185
SUBTOTAL CATEGORY I	-1,059	-45	-1,032	-42	-28,460	-41,158	-38,581	-108,200
II. BUILT-IN CHANGES								
A. PERSONNEL ENTITLEMENTS								
1. FY 2002 PAY RAISE (MILITARY 4.6%, CIVILIAN 3.6%)	0	0	0	0	63,266	0	0	63,266
2. ESCALATING HEALTH CARE COSTS	0	0	0	0	32,960	0	0	32,960
3. CIVILIAN WORKFORCE MANDATORY EXPENSES	0	0	0	0	500	0	0	500
4. OUT-YEAR COSTS FOR PREVIOUSLY OBLIGATED ENLISTMENT AND RETENTION BONUSES	0	0	0	0	5,600	0	0	5,600
B. INCREASING CONTRACT COSTS	0	0	0	0	4,175	13,856	7,383	24,414
C. ANNUALIZATIONS								
1. ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW INITIATIVES / ENHANCEMENTS)	0	0	341	21	17,758	7,421	1,245	26,424
2. ANNUALIZATION OF FY 2001 PAY RAISE (3.7%)	0	0	0	0	15,931	0	0	15,931
3. ANNUALIZATION OF FY 2001 NATIONAL DEFENSE AUTHORIZATION ACT ENTITTLEMENTS (NON-MEDICAL)	0	0	0	0	47,000	0	0	47,000
D. OPERATIONAL ADJUSTMENTS								
1. INCREASING COST OF READINESS CAPABILITY SUSTAINMENT	0	0	0	0	0	0	1,454	1,454
2. INCREASING FUEL AND ENERGY COSTS	0	0	0	0	0	45,750	0	45,750
3. GSA RENT INCREASE	0	0	0	0	0	3,000	0	3,000
4. NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION (NTIA) FEES	0	0	0	0	0	195	0	195
SUBTOTAL CATEGORY II	0	0	341	21	187,190	69,222	10,082	266,494
III. OPERATE NEW FACILITIES								
A. SHORE FACILITY CONSTRUCTION FOLLOW-ON	0	0	0	0	0	945	701	1,646
B. COMMISSION AND OPERATE THREE SEAGOING BUOY TENDERS	117	0	77	0	5,447	3,155	1,206	9,808
C. 49-FOOT STERN LOADING BUOY BOAT (BUSL) FOLLOW-ON	0	0	0	0	0	192	154	346
D. DEFENSE MESSAGE SERVICE FOLLOW-ON	0	0	0	0	0	0	400	400
E. 47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON	112	0	56	0	3,972	940	43	4,955
F. USCGC HEALY AVIATION DETACHMENT SUPPORT FOLLOW-ON	54	0	14	0	2,492	14	1,348	3,854
G. PORTS AND WATERWAYS SAFETY SYSTEMS (PAWSS) INSTALLATION FOLLOW-ON	0	7	0	2	122	78	45	245
H. SURFACE SEARCH RADAR SPS-73 SYSTEM FOLLOW-ON	0	0	0	0	0	0	870	870
I. CONFIGURATION MANAGEMENT SYSTEM PROJECT FOLLOW-ON	2	0	2	0	190	388	0	578
J. COMMERCIAL SATELLITE COMMUNICATIONS (SATCOM) FOLLOW-ON	2	3	1	1	99	788	142	1,029

COAST GUARD
FY 2002 BUDGET C-STAGE REQUEST
OPERATING EXPENSES REQUIRED CHANGES
SUMMARY BY BUDGET CATEGORY (DOLLARS IN THOUSANDS)

	FTP MIL	FTP CIV	FTE MIL	FTE CIV	PPA 1 Personnel	PPA 2 O&M	PPA 3 Maintenance	Total Required Changes
K. MILITARY SATELLITE COMMUNICATIONS (MILSATCOM) FOLLOW-ON	0	0	0	0	0	0	225	225
L. GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS), DIGITAL SELECTIVE CALLING (DSC) ALERT PROCESSING SYSTEM FOLLOW-ON	0	0	0	0	0	0	87	87
M. COMMISSION AND OPERATE TEN COASTAL PATROL BOATS	47	0	27	0	1,781	663	933	3,377
N. SELF LOCATING DATUM MARKER BUOY (SLDMB) FOLLOW-ON	0	0	0	0	0	774	0	774
O. DIGITAL VOICE LOGGER FOLLOW-ON	0	0	0	0	0	0	500	500
P. LOCAL NOTICE TO MARINERS AUTOMATION FOLLOW-ON	0	0	0	0	0	925	0	925
Q. SEARCH AND RESCUE CAPABILITIES ENHANCEMENT FOLLOW-ON	0	0	0	0	0	80	0	80
R. DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) FOLLOW-ON	7	0	2	0	148	147	0	295
S. HUMAN RESOURCES INFORMATION SYSTEM FOLLOW-ON	0	0	0	0	0	1,173	0	1,173
SUBTOTAL CATEGORY III	341	10	179	3	14,251	10,262	6,654	31,167
IV NEW/ENHANCED/RESTORATION INITIATIVES								
A. SAFETY ENHANCEMENTS								
1. MARINE TRANSPORTATION SYSTEM PERSONNEL AND INFORMATION MANAGEMENT TOOLS	0	24	0	6	499	346	0	845
2. SEARCH AND RESCUE SYSTEM ENHANCEMENTS	192	2	50	1	4,609	932	0	5,541
3. PASSENGER VESSEL SAFETY IMPROVEMENTS	6	17	2	4	204	45	0	649
B. PERSONNEL SUPPORT INITIATIVES								
1. FUNERAL HONORS DUTY	0	0	0	0	0	50	0	50
2. TRANSIT AND VANPOOL BENEFITS INCREASES	0	0	0	0	0	750	0	750
C. IMPROVE OIL AND HAZMAT SPILL RESPONSE CAPABILITY	0	0	0	0	0	564	0	564
SUBTOTAL CATEGORY IV	198	43	52	11	5,712	2,687	0	8,399
GRAND TOTAL, CATEGORY I-IV	-520	8	-404	-7	178,693	41,012	-21,845	197,860

I. PROGRAMMATIC REDUCTIONS **-$108,200,000**

A. TERMINATION OF ONE TIME COSTS ..... **-$8,550,000**

This item reflects FY 2002 savings associated with the termination of one-time costs for program start-up and exit costs that were funded in FY 2001.

FY 2001 LINE ITEMS	NON-RECURRING AMOUNT ($000)
Decommission Three Cutters	-1,422
Commission Four Cutters	-2,951
Use of Force Armed Helicopter Operations	-4,177
Total	**-8,550**

PPA BREAKDOWN - TERMINATION OF ONE-TIME COSTS	Total ($000)
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Directorates	8,550
Total Line Item Request	**-$8,550**

B. ANNUALIZATION OF FY 2001 MANAGEMENT SAVINGS ..... **-$5,731,000**

Annualizing FY 2001 part-year reductions from the decommissioning of three cutters provides FY 2002 savings.

FY 2001 LINE ITEMS	FTE (MIL)	FTE (CIV)	RECURRING AMOUNT ANNUALIZED ($000)
Decommission CGC BUTTONWOOD	-42	0	-2,401
Decommission CGC IRONWOOD	-16	0	-1,225
Decommission CGC WOODRUSH	-32	0	-2,105
Total	**-90**	**0**	**-5,731**

PPA BREAKDOWN - ANNUALIZATION OF FY2001 MANAGEMENT SAVINGS	Total ($000)
PPA I: Personnel Resources (-90 FTE)	
Military Pay and Allowances	-3,298
Military Health Care	-387
Permanent Change of Station	-689
Training and Education	-51
PPA II: Operating Funds and Unit Level Maintenance	
Pacific Area / 11th District	-307
17th District	-324
Headquarters Directorates	-93
PPA III: Intermediate and Depot Level Maintenance	
Electronics Maintenance	-29
Vessel Maintenance	-553
Total Line Item Request	**-$5,731**

C. MANAGEMENT AND TECHNOLOGY EFFICIENCIES

1. SCHEDULED DECOMMISSIONING OF FOUR SEAGOING BUOY TENDERS ..... -$3,946,000

Decommission four buoy tenders as part of the ongoing Buoy Tender Replacement project. Sixteen 225-foot and fourteen 175-foot buoy tenders will replace a fleet of 37 aging buoy tenders by the end of FY 2005.

CUTTERS	PERS QTRS	FTP (MIL)	FTE (MIL)	PERSONNEL FUNDING ($000)	O&M QTRS	O&M FUNDING ($000)	TOTAL ($000)
CGC SWEETBRIER	3	-64	-48	-1,900	3	-375	-2,275
CGC MADRONA	1	-56	-14	-509	1	-6	-515
CGC SWEETGUM	2	-56	-28	-1,142	2	-231	-1,373
CGC WHITE SUMAC	0	-27	0	54	0	163	217
Total		**-203**	**-90**	**-3,497**		**-449**	**-3,946**

PPA BREAKDOWN - SCHEDULED DECOMMISSIONING OF FOUR BUOY TENDERS	Total ($000)
PPA I: Personnel Resources (-203 FTP, -90 FTE)	
Military Pay and Allowances	-3,525
Military Health Care	-433
Permanent Change of Station	531
Training and Education	-70
PPA II: Operating Funds and Unit Level Maintenance	
7th District	-111
8th District	-222
17th District	-354
Headquarters Directorates	834
PPA III: Intermediate and Depot Level Maintenance	
Electronics Maintenance	-30
Vessel Maintenance	-566
Total Line Item Request	**-$3,946**

2. LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS .....-$285,000

This savings represents a reduction in personnel, printing, and mailing costs associated with the Coast Guard-wide deployment and automation of the Local Notice to Mariners (LNM). The production and distribution of the paper LNM will be replaced with a web-based system that automates the collection and dissemination of the LNM and other aids to navigation information via the Internet. The LNM project will also automate the management and storage of the aids to navigation data, which will eliminate the need for paper record keeping.

PPA BREAKDOWN - LOCAL NOTICE TO MARINERS (LNM) AUTOMATION SAVINGS	Total ($000)
PPA I: Personnel Resources (-10 FTP, -3 FTE)	
Military Pay and Allowances	-56
Civilian Pay and Allowances	-57
Military Health Care	-7
Permanent Change of Station	15
Training and Education	-1
PPA II: Operating Funds and Unit Level Maintenance	
Atlantic Area / 5th District	-21
Pacific Area / 11th District	-14
1st District	-35
7th District	-41
8th District	-23
9th District	-17
13th District	-15
14th District	-5
17th District	-5
Headquarters Directorates	-3
Total Line Item Request	**-$285**

3. ADMINISTRATIVE AND SUPPORT PERSONNEL REDUCTIONS .....-$3,086,000

This item provides recurring personnel operating expense savings resulting from efficiencies that have been identified at Coast Guard Headquarters and several Headquarters managed units. These administrative and support related personnel reductions are commensurate with the FY 2002 operational facility closures and decommissionings.

PPA BREAKDOWN - ADMINISTRATIVE AND SUPPORT PERSONNEL REDUCTIONS	Total ($000)
PPA I: Personnel Resources (-94 FTP, -94 FTE)	
Military Pay and Allowances	-1,415
Civilian Pay and Allowances	-1,395
Military Health Care	-73
Permanent Change of Station	160
Training and Education	-18
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Directorates	-96
Headquarters Units	-249
Total Line Item Request	**-$3,086**

4. SURFACE ASSET REALLOCATION .....-$14,982,000

This item provides recurring personnel and operating expense savings by decommissioning five cutters and retiring eight law enforcement fast boats that are directly supported by two of the cutters being decommissioned. In addition, one 170-foot patrol craft will be removed from the Coast Guard inventory of surface assets. The cutters being decommissioned include some of the oldest and most maintenance intensive and least multi-mission capable cutters in the Coast Guard fleet. These reductions will assist in stemming the increasing rate of consumption of scarce, expensive parts that has drained maintenance support funds. Future adjustments to fleet allocation and relocation will be addressed in consideration of regional strategic assessments.

CUTTERS	PERS QTRS	FTP (MIL)	FTE (MIL)	PERSONNEL FUNDING ($000)	O&M QTRS	O&M FUNDING ($000)	TOTAL ($000)
USNS PERSISTENT	4	-17	-17	-428	4	-2,703	-3,131
USNS VINDICATOR	4	-16	-16	-387	4	-2,396	-2,783
CGC COURAGEOUS	4	-75	-75	-1,375	4	-829	-2,204
CGC DURABLE	4	-75	-75	-1,375	4	-829	-2,204
CGC COWSLIP	4	-49	-49	-887	4	-523	-1,410
170-Foot Patrol Craft	0	0	0	0	4	-200	-200
8 Fast Boats	4	-73	-73	-1,742	4	-1,308	-3,050
Total		**-305**	**-305**	**-6,194**		**-8,788**	**-14,982**

PPA BREAKDOWN - SURFACE ASSET REALLOCATION	Total ($000)
PPA I: Personnel Resources (-305 FTP, -305 FTE)	
Military Pay and Allowances	-6,489
Military Health Care	-361
Permanent Change of Station	705
Training and Education	-49
PPA II: Operating Funds and Unit Level Maintenance	
Atlantic Area / 5th District	-926
Pacific Area / 11th District	-51
13th District	-422
Headquarters Directorates	-6,235
PPA III: Intermediate and Depot Level Maintenance	
Electronics Maintenance	-87
Civil/Ocean Engineering and Shore Facility Maintenance	-11
Vessel Maintenance	-1,056
Total Line Item Request	**-$14,982**

5. AVIATION ASSET REALLOCATION.....-$42,779,000

This item provides recurring personnel and operating expense savings by retiring the oldest and most maintenance intensive aircraft in the Coast Guard fleet (13 HU-25 and 3 HC-130 aircraft). These reductions will assist in stemming the increasing rate of consumption of scarce, expensive parts that has drained maintenance support funds. In addition, savings are achieved by closing two air facilities (Long Island, NY and Muskegon, MI), which includes the retirement of 3 HH-65 helicopters, and reducing the operating hours of HC-130 aircraft and HH-65 helicopters in the remaining Coast Guard inventory. Re-balancing aircraft among aviation units will occur in consideration of regional strategic assessments.

AIRCRAFT / FACILITY	PERS QTRS	FTP (MIL)	FTE (MIL)	FTP (CIV)	FTE (CIV)	PERSONNEL FUNDING ($000)	O&M QTRS	O&M FUNDING ($000)	TOTAL ($000)
Retire 13 HU-25 FACON Aircraft	4	-205	-205	-1	-1	-4,913	4	-19,344	-24,257
Retire 3 HC-130 HERCULES Aircraft	4	-110	-110	-3	-3	-2,588	4	-4,541	-7,129
Eliminate Aviation Augments	4	-100	-100	0	0	-2,438	4	-6,014	-8,452
Close Air Facility Long Island, NY	4	-11	-11	0	0	-287	4	-626	-913
Close Air Facility Muskegon, MI	4	-28	-28	0	0	-747	4	-1,281	-2,028
Total		**-454**	**-454**	**-4**	**-4**	**-10,973**		**-31,806**	**-42,779**

PPA BREAKDOWN - AVIATION ASSET REALLOCATION	Total ($000)
PPA I: Personnel Resources (-458 FTP, -458 FTE)	
Military Pay and Allowances	-11,167
Civilian Pay and Allowances	-83
Military Health Care	-545
Permanent Change of Station	1,208
Training and Education	-386
PPA II: Operating Funds and Unit Level Maintenance	
Atlantic Area / 5th District	-606
Pacific Area / 11th District	-3,630
1st District	-395
7th District	-4,994
8th District	-416
9th District	-357
17th District	-878
Headquarters Directorates	-466
PPA III: Intermediate and Depot Level Maintenance	
Aircraft Maintenance	-20,064
Total Line Item Request	**-$42,779**

6. MARINE SAFETY EFFICIENCIES.....-$656,000

This item provides recurring personnel and operating expense savings by reducing many marine safety activities. Physical inspection of ordnance load-outs on merchant vessels departing U.S. seaports, oil and bulk cargo shore facility inspections and commercial towing vessel inspections.

PPA BREAKDOWN - MARINE SAFETY EFFICIENCIES	Total ($000)
PPA I: Personnel Resources (-34 FTP, -34 FTE)	
Military Pay and Allowances	-546
Military Health Care	-39
Permanent Change of Station	66
Training and Education	-5
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Directorates	-132
Total Line Item Request	**-$656**

7. OPERATIONAL CAPABILITY SUSTAINMENT.....-$28,185,000

This item provides operating expense savings by re-leveling programmed operating standards for Coast Guard cutters and aircraft in FY 2002. The combined result of fewer assets in service and a re-leveling of operating standards will result in an operating tempo that will improve sustainment capability of the current maintenance and support infrastructure.

PPA BREAKDOWN - OPERATIONAL CAPABILITY SUSTAINMENT	Total
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Directorates	-12,000
PPA III: Intermediate and Depot Level Maintenance	
Aircraft Maintenance	-16,185
Total Line Item Request	**-$28,185**

II. BUILT-IN CHANGES $266,494,000

A. PERSONNEL ENTITLEMENTS

1. FY 2002 PAY RAISE (MILITARY 4.6%, CIVILIAN 3.6%)..... $63,266,000

This request provides three quarter funding for the FY 2002 proposed pay increase for military (4.6%) and civilian (3.6%) personnel becoming effective on January 1, 2002. The civilian portion of this pay raise includes pay entitlements and mandated agency retirement contributions in excess of the average pay raise. These mandated costs include retirement cost increases (e.g., contributions to the Federal Employee Retirement System (FERS), FICA and Medicare) and Within Grade increases (WGIs).

PPA BREAKDOWN - FY 2002 PAY RAISE (MILITARY 4.6%, CIVILIAN 3.6%)	Total ($000)
PPA I: Personnel Resources	
Military Pay and Allowances	47,703
Civilian Pay and Allowances	14,581
Military Health Care	592
Permanent Change of Station	390
Total Line Item Request	**$63,266**

2. ESCALATING HEALTH CARE COSTS..... $32,960,000

This request provides funding which will allow the Coast Guard to provide quality health care to its beneficiaries and thereby enable the workforce to meet Administration and Department priorities. Coast Guard health care costs continue to escalate as a result of three factors. First, advances in medical technology and pharmaceutical cost increases are resulting in health care inflation well above the inflation level for the economy as a whole. Second, changes in the Coast Guard's health care benefits package (i.e. inclusion of chiropractic care) are being sought to maintain parity with the benefits offered by the Department of Defense (DoD). Finally, DoD (the Coast Guard's primary medical provider) is improving their billing systems to capture all costs of health care delivered to non-DoD personnel. This billing system improvement has resulted in increased costs to the Coast Guard.

PPA BREAKDOWN - ESCALATING HEALTH CARE COSTS	Total ($000)
PPA I: Personnel Resources	
Military Health Care	32,960
Total Line Item Request	**$32,960**

3. CIVILIAN WORKFORCE MANDATORY EXPENSES $500,000

Funds are requested to cover Congressional and Departmental mandates, including mandatory costs associated with Professional Liability Insurance reimbursement, managers' overtime pay, increased health care costs, Integrated Personnel and Payroll System charges, and the Department of Transportation Disability Center funding.

PPA BREAKDOWN - CIVILIAN WORKFORCE MANDATORY EXPENSES	Total ($000)
PPA I: Personnel Resources	
Civilian Pay and Allowances	500
Total Line Item Request	**$500**

4. OUT-YEAR COSTS FOR PREVIOUSLY OBLIGATED ENLISTMENT AND RETENTION BONUSES $5,600,000

This request provides funding for the out-year costs of incentives previously granted to attract new and retain experienced Coast Guard personnel. These incentives help the Coast Guard compete with the other services and private industry for the limited pool of qualified personnel.

PPA BREAKDOWN – OUT-YEAR COSTS FOR PREVIOUSLY OBLIGATED ENLISTMENT AND RETENTION BONUSES	Total ($000)
PPA I: Personnel Resources	
Military Pay and Allowances	5,600
Total Line Item Request	**$5,600**

B. INCREASING CONTRACT COSTS $24,414,000

Coast Guard operations rely heavily upon contract support for items such as capital asset maintenance, domestic services, cutter and aircraft deployment logistics and food services and procurement. Escalation in the price of goods and services during FY 2001 is a factor that must be accommodated. Funding is requested to ensure that maintenance and logistics contracts are adequately funded, enabling the Coast Guard to provide basic, essential services to the American public in FY 2002.

PPA BREAKDOWN - INCREASING CONTRACT COSTS	Total ($000)
PPA I: Personnel Resources	
Military Health Care	2,787
Permanent Change of Station	907
Training and Education	481
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Units	12,856
PPA III: Intermediate and Depot Level Maintenance	
Aircraft Maintenance	2,603
Electronics Maintenance	729
Civil/Ocean Engineering and Shore Facility Maintenance	1,943
Vessel Maintenance	2,108
Total Line Item Request	**$24,414**

C. ANNUALIZATIONS

1. ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW INITIATIVES / ENHANCEMENTS) $26,424,000

Certain projects and programs for which resources were first provided in FY 2001 were funded for only part of the year. Additional funding and full-time equivalents are required to provide full year resources.

FY 2001 LINE ITEMS	FTE (MIL)	FTE (CIV)	FY 2002 FUNDING ($000)
Shore Facility Construction Follow-On	2	0	330
Commission Four Seagoing Buoy Tenders	75	0	5,640
Sensors And Communications Upgrades / Enhancements Follow-On	0	0	33
Operation And Maintenance of 87-Foot Patrol Boats	0	0	337
49-Foot Buoy Boat Support And Standardization Team	4	0	186
Breaking Surf Station Boat Crews	50	0	1,891
Commercial Fishing Vessel Safety	10	7	1,187
Readiness Sustainment	68	0	3,091
Active Duty Workforce Recruiting And Retention	0	1	88
Tuition Assistance	0	2	209
Response to Weapons of Mass Destruction	3	0	231
Airborne Use of Force	30	0	4,933
Increased Deployable Law Enforcement Detachment Capability	34	0	1,782

FY 2001 LINE ITEMS	FTE (MIL)	FTE (CIV)	FY 2002 FUNDING ($000)
HC-130 Flight Hour Augment Support	37	0	1,774
Enhanced Intelligence Collection And Support	10	4	1,401
Enhanced International Engagement	14	1	1,023
Campaign "Steel Web" Logistics Support	0	0	1,001
Ocean Guardian Living Marine Resources Initiatives	4	6	1,287
Total	**341**	**21**	**26,424**

PPA BREAKDOWN - ANNUALIZATION OF FY 2001 PART-YEAR FUNDING (NEW INITIATIVES / ENHANCEMENTS)	Total ($000)
PPA I: Personnel Resources (0 FTP, 362 FTE)	
Military Pay and Allowances	14,265
Civilian Pay and Allowances	1,766
Military Health Care	1,489
Training and Education	238
PPA II: Operating Funds and Unit Level Maintenance	
Atlantic Area / 5th District	482
Pacific Area / 11th District	1,465
1st District	12
7th District	92
8th District	40
9th District	2
13th District	146
14th District	105
17th District	358
Headquarters Directorates	3,734
Headquarters Units	985
PPA III: Intermediate and Depot Level Maintenance	
Electronics Maintenance	69
Civil/Ocean Engineering and Shore Facility Maintenance	108
Vessel Maintenance	1,068
Total Line Item Request	**$26,424**

2. ANNUALIZATION OF FY 2001 PAY RAISE (3.7%) $15,931,000

Funding is required to annualize the FY 2001 pay raise. Recurring funds are required for the fourth quarter (calendar year) increment of the 3.7 percent military and civilian increases in pay and other entitlements for personnel that became effective January 1, 2001.

PPA BREAKDOWN - ANNUALIZATION OF FY 2001 PAY RAISE (3.7%)	Total ($000)
PPA I: Personnel Resources	
Military Pay and Allowances	12,788
Civilian Pay and Allowances	2,879
Military Health Care	159
Permanent Change of Station	105
Total Line Item Request	**$15,931**

3. ANNUALIZATION OF FY 2001 NATIONAL DEFENSE AUTHORIZATION ACT ENTITLEMENTS (NON-MEDICAL)..... $47,000,000

This request provides funding to maintain Coast Guard compensation parity with the Department of Defense. Entitlements included in this request are Dislocation Allowance for first-term enlistment personnel, pet quarantine costs resulting from Permanent Change of Station moves, reduction from 19 percent to 15 percent in out-of-pocket costs for Basic Allowance for Housing (BAH), BAH for junior enlisted shipboard personnel, Career Sea Pay Reform, expanded use of Hazardous Duty Incentive Pay, and creation of Targeted Subsistence Allowance.

PPA BREAKDOWN - ANNUALIZATION OF FY 2001 NATIONAL DEFENSE AUTHORIZATION ACT ENTITLEMENTS (NON-MEDICAL)	Total ($000)
PPA I: Personnel Resources	
Military Pay and Allowances	47,000
Total Line Item Request	**$47,000**

D. OPERATIONAL ADJUSTMENTS

1. INCREASING COST OF READINESS CAPABILITY SUSTAINMENT $1,454,000

This request provides funding to begin to restore critical aeronautical, naval, electronic, and shore facility engineering support funds to a level consistent with the operational demands placed upon the Coast Guard. The current level of support funding has not kept pace with the rising cost of operations and maintenance support. The effects can be seen in the form of decreased vessel and aircraft availability, increased equipment casualties, substandard shore facilities, and unreliable, antiquated command and control systems.

PPA BREAKDOWN - INCREASING COST OF READINESS CAPABILITY SUSTAINMENT	Total ($000)
PPA III: Intermediate and Depot Level Maintenance	
Electronics Maintenance	221
Civil/Ocean Engineering and Shore Facility Maintenance	595
Vessel Maintenance	638
Total Line Item Request	**$1,454**

2. INCREASING FUEL AND ENERGY COSTS $45,750,000

This resource request increases the base funding for the energy account, which is used to distribute energy funds (i.e. funds for heating, electrical, fuel, etc...) from a centralized Headquarters account to field units. The requested amount represents the Coast Guard's best estimate of the funds required to cover anticipated increases in energy costs for FY 2002. This request must be funded to allow Coast Guard assets (i.e. cutters, aircraft and rescue boats) to operate at revised programmed operational hours and provide vital maritime services to the American public.

PPA BREAKDOWN - INCREASING FUEL AND ENERGY COSTS	Total ($000)
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Directorates (Centralized Fuel and Energy Account)	45,750
Total Line Item Request	**$45,750**

3. GSA RENT INCREASE $3,000,000

This request provides funding to fully cover the cost of the Coast Guard's GSA rent account. The difference between the FY 2001 GSA rent base and the FY 2002 rent estimate leaves a deficit of $3 million. This request ensures the Coast Guard can pay GSA leased space costs.

PPA BREAKDOWN - GSA RENT INCREASE	Total ($000)
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Directorates	3,000
Total Line Item Request	**$3,000**

4. NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION (NTIA) FEES $195,000

This request provides funding for reimbursement to NTIA for operating expenses in support of domestic and international radio spectrum management as specified in Public Law (PL) 105-277. PL 105-277 requires each agency to provide a prorated reimbursement to NTIA for services provided based upon the number of spectrum frequencies assigned. The Coast Guard uses radio spectrum for listening and responding to distress calls from mariners, providing urgent marine information broadcasts and navigation services to mariners, and maintaining an interoperable command, control and information system among Coast Guard stations, vessels and aircraft.

PPA BREAKDOWN - NATIONAL TELECOMMUNICATIONS AND INFORMATION ACT FEES	Total ($000)
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Directorates	195
Total Line Item Request	**$195**

III. OPERATE NEW FACILITIES $31,167,000

A. SHORE FACILITY CONSTRUCTION FOLLOW-ON $1,646,000

This request provides follow-on operations and maintenance funding for shore facility projects scheduled for completion in FY 2002. This funding includes the day-to-day operation and maintenance costs (i.e. energy requirements, utility service, routine repairs and maintenance, housekeeping costs, and uncapitalized equipment) as well as major, non-recurring repair costs (i.e. rebuilding, improvement, rehabilitation, etc...) anticipated throughout the life of the structure. Since such costs increase with facility age, a historically based average is used to cover non-recurring needs which typically include replacing roofs; replacing heating, ventilating, and air conditioning systems; improving energy efficiency; upgrading major electrical services; renovating; and other middle and later life needs. The request provides service-wide funding for major shore facility maintenance that ensures the integrity of the shore infrastructure and maximizes facility service life while avoiding large recapitalization expenses.

SHORE FACILITY PROJECTS ($000)

PROJECT	LOCATION	EST. COMPLETION	O&M
Replace Station Building	Station Shinnecock, NY	Feb-02	35
Aircraft Parking Ramp Extension	Air Station Elizabeth City, NC	Mar-02	52
Improve Pier D1 (North Face)	Group Key West, FL	Feb-02	82
Construct Housing Facility Phase II	Base San Juan, PR	Oct-01	183
Consolidate and Relocate	Marine Safety Office Mobile, AL	Oct-01	130
Waterfront Improvements Phase I	Station Port Huron, MI	Mar-02	28
Bridge Replacement	Integrated Support Command Alameda, CA	Apr-02	177
Hangar Improvements	Air Station Port Angeles, WA	Dec-01	118
Hangar III Interior Rehabilitation	Air Station Kodiak, AK	Jan-02	220
Expansion/Renovation	Station Point Allerton, MA	Oct-01	14
Replace Station Patrol Boat Pier	Station Montauk, NY	Dec-01	21
Construct Wave Attenuator	Station Point Allerton, MA	Dec-01	21
Motby Pier, Utilities Phase II	Activities NY	Oct-01	24
Relocation	Station Fort Totten, NY	Oct-01	19
Divestiture	Station Fort Totten, NY	Oct-01	-19
Replace Patrol Boat Pier	Group Galveston, TX	Jun-01	17
New Patrol Boat Homeport	Carrabell, FL	Oct-01	28
Wharf Improvement	Group San Francisco, CA	Jul-01	38
Relocate Station	Station Carquinez, Martinez, CA	Oct-01	96
New Dispensary	Group Astoria, OR	Feb-02	94
New Homeport	CGC Henry Blake, Everett, WA	Nov-01	75
KKH Sewage Pumps	ISC Honolulu, HI	Sep-01	38
Pier Improvements	CGC Maple, Sitka, AK	Jun-01	82
Boathouse Replacement	Station Ketchikan, AK	Jul-01	24
Roland Hall Fifth Floor Addition	CG Academy, New London, CT	Apr-02	49
		TOTAL	1,646

PPA BREAKDOWN - SHORE FACILITY CONSTRUCTION FOLLOW-ON	Total ($000)
PPA II: Operating Funds and Unit Level Maintenance	
Atlantic Area / 5th District	26
Pacific Area / 11th District	132
1st District	58
7th District	189
8th District	117
9th District	12
13th District	180
14th District	19
17th District	173
Headquarters Units	39
PPA III: Intermediate and Depot Level Maintenance	
Civil/Ocean Engineering and Shore Facility Maintenance	701
Total Line Item Request	**$1,646**

B. COMMISSION AND OPERATE THREE SEAGOING BUOY TENDERS.... $9,808,000

This request provides personnel and operational funding for three replacement Seagoing Buoy Tenders as part of the ongoing Buoy Tender Replacement project. Sixteen 225-foot and fourteen 175-foot buoy tenders will replace a fleet of 37 aging buoy tenders by the end of FY 2005. Without this funding the Coast Guard will be unable to operate the buoy tenders being acquired through the Acquisition, Construction and Improvements appropriation.

CUTTERS	PERS QTRS	FTP (MIL)	FTE (MIL)	PERSONNEL FUNDING ($000)	O&M QTRS	O&M FUNDING ($000)	TOTAL ($000)
CGC CYPRESS & MAT	3	54	41	2,705	2	1,475	4,180
CGC OAK & MAT	2	54	27	2,044	1	1,004	3,048
CGC SYCAMORE & MAT	4	9	9	698	3	1,882	2,580
Total		**117**	**77**	**5,447**		**4,361**	**9,808**

PPA BREAKDOWN - COMMISSION AND OPERATE THREE SEAGOING BUOY TENDERS	Total ($000)
PPA I: Personnel Resources (117 FTP, 77 FTE)	
Military Pay and Allowances	3,882
Military Health Care	369
Permanent Change of Station	807
Training and Education	389
PPA II: Operating Funds and Unit Level Maintenance	
7th District	286
8th District	533
17th District	658
Headquarters Directorates	1,651
Headquarters Units	27
PPA III: Intermediate and Depot Level Maintenance	
Electronics Maintenance	82
Vessel Maintenance	1,124
Total Line Item Request	**$9,808**

C. 49-FOOT STERN LOADING BUOY BOAT (BUSL) FOLLOW-ON $346,000

This request will complete the follow-on funding for personnel, equipment, and support needed to operate and maintain the 49-foot BUSL fleet consisting of 26 boats. This request helps ensure that the Coast Guard will retain the ability to maintain short-range aids to navigation, consequently facilitating navigation and improving safety and mobility on our nation's waterways.

PPA BREAKDOWN – 49-FOOT STERN LOADING BUOY BOAT (BUSL) FOLLOW-ON	Total ($000)
PPA II: Operating Funds and Unit Level Maintenance	
Atlantic Area / 5th District	22
1st District	103
7th District	15
8th District	15
9th District	37
PPA III: Intermediate and Depot Level Maintenance	
Electronics Maintenance	73
Vessel Maintenance	81
Total Line Item Request	**$346**

D. DEFENSE MESSAGE SERVICE FOLLOW-ON..... $400,000

This request provides funding to support the end user hardware and software associated with the Defense Message Service (DMS), a tactical service for secure record messages. The Coast Guard has begun implementation of DMS in order to remain interoperable with the Department of Defense (DoD), other government agencies and allied military forces. DMS is a DoD mandated program that will replace the antiquated Automated Digital Network (AUTODIN) record message system. To maintain this messaging capability, the Coast Guard must be fully operational on DMS.

PPA BREAKDOWN - DEFENSE MESSAGE SERVICE FOLLOW-ON	Total ($000)
PPA III: Intermediate and Depot Level Maintenance	
Electronics Maintenance	400
Total Line Item Request	**$400**

E. 47-FOOT MOTOR LIFE BOAT (MLB) FOLLOW-ON..... $4,955,000

This request provides funding and personnel to properly staff, operate, and maintain the new fleet of 47-foot MLB's. Additional personnel are needed at stations, which were previously staffed for utility boat operations with three person crews. The 47-foot MLB requires a crew of four personnel. Funding this request will ensure the readiness of this fleet to respond to search and rescue and law enforcement missions.

PPA BREAKDOWN - 47' MOTOR LIFE BOAT (MLB) FOLLOW-ON	Total ($000)
PPA I: Personnel Resources (112 FTP, 56 FTE)	
Military Pay and Allowances	2,726
Military Health Care	270
Permanent Change of Station	842
Training and Education	134
PPA II: Operating Funds and Unit Level Maintenance	
Atlantic Area / 5th District	76
Pacific Area / 11th District	81
1st District	142
7th District	103
8th District	91
9th District	91
13th District	193
17th District	3
Headquarters Directorates	57
Headquarters Units	103

PPA III: Intermediate and Depot Level Maintenance	Total ($000)
Electronics Maintenance	15
Vessel Maintenance	28
Total Line Item Request	**$4,955**

F. USCGC HEALY AVIATION DETACHMENT SUPPORT FOLLOW-ON.... $3,854,000

This request provides aviation resources (program flight hours and personnel) required to support the increase in polar deployment days that will occur as HEALY becomes fully operational. This request also includes the special equipment needed for aircraft operations in the Polar Regions. Aviation assets are essential for successful mission completion in the Polar Regions. The aircraft perform essential reconnaissance that enables the ship to transit safely through the polar ice pack. In addition, the aircraft support the logistical needs of the ship and embarked scientists.

PPA BREAKDOWN - USCGC HEALY AVIATION DETACHMENT SUPPORT FOLLOW-ON	Total ($000)
PPA I: Personnel Resources (54 FTP, 14 FTE)	
Military Pay and Allowances	637
Military Health Care	65
Permanent Change of Station	407
Training and Education	1,383
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Directorates	14
PPA III: Intermediate and Depot Level Maintenance	
Aircraft Maintenance	1,323
Civil/Ocean Engineering and Shore Facility Maintenance	25
Total Line Item Request	**$3,854**

G. PORTS AND WATERWAYS SAFETY SYSTEMS (PAWSS) INSTALLATION FOLLOW-ON..... $245,000

This request provides seven watchstanders for Vessel Traffic Services (VTS) in Sault Ste. Marie, Michigan, and Berwick Bay, Louisiana. The personnel requested will complete staffing to allow 7-day x 24-hour watchstanding to oversee safe navigation and operations in ports and waterways. Operating an understaffed safety service exposes the Coast Guard to unacceptable liability. This unsafe practice will be terminated and adequate staffing provided to fully realize the effectiveness of the Automatic Identification System in reducing the risk of maritime vessel accidents. Funding is also requested for adequate operation, maintenance, and modernization of equipment to continue providing safe and efficient traffic organization services and navigation information to the mariner.

PPA BREAKDOWN - PORTS AND WATERWAYS SAFETY SYSTEMS (PAWSS) INSTALLATION FOLLOW-ON	Total ($000)
PPA I: Personnel Resources (7 FTP, 2 FTE)	
Civilian Pay and Allowances	121
Training and Education	1
PPA II: Operating Funds and Unit Level Maintenance	
8th District	24
9th District	52
Headquarters Directorates	2
PPA III: Intermediate and Depot Level Maintenance	
Electronics Maintenance	45
Total Line Item Request	**$245**

H. SURFACE SEARCH RADAR SPS-73 SYSTEM SUPPORT FOLLOW-ON $870,000

This request provides software support funding for the AN/SPS-73 Surface Search Radar (SSR) which replaces the AN/SPS-64 radar. Unlike its predecessor, the AN/SPS-73 radar is computer based; the operating system is proprietary and requires support for software changes. Funds for SSR software support are not part of the original support base since the AN/SPS-64 radar had no computer components.

PPA BREAKDOWN - SURFACE SEARCH RADAR SPS-73 SYSTEM FOLLOW-ON	Total ($000)
PPA III: Intermediate and Depot Level Maintenance	
Electronics Maintenance	870
Total Line Item Request	**$870**

I. CONFIGURATION MANAGEMENT SYSTEM PROJECT FOLLOW-ON $578,000

This request provides funding to support the Configuration Management System. Funds will be used to provide database web administrators who will support the centralized Configuration Management Plus (CMplus) database. Funds will also be used to provide annual software maintenance and hotline support to the 600+ field units that will use CMplus. The integrated configuration, maintenance and supply data maintained within CMplus greatly facilitates logistics planning, budgeting, inventory management and execution of maintenance and supply actions.

PPA BREAKDOWN - CONFIGURATION MANAGEMENT SYSTEM PROJECT FOLLOW-ON	Total ($000)
PPA I: Personnel Resources (2 FTP, 2 FTE)	
Military Pay and Allowances	155
Military Health Care	10
Permanent Change of Station	20
Training and Education	5
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Directorates	388
Total Line Item Request	**$578**

J. COMMERCIAL SATELLITE COMMUNICATIONS (SATCOM) FOLLOW-ON.....$1,029,000

This request provides operating and maintenance resources for commercial SATCOM. Funds will be used to support nine dedicated leased commercial satellite channels for large cutters 210-foot and above, satellite data/voice communications for 110-foot patrol boats, satellite voice communications for 87-foot patrol boats and fixed and rotary wing aircraft communications. The request also includes necessary operational and support personnel.

PPA BREAKDOWN - COMMERCIAL SATCOM FOLLOW-ON	Total ($000)
PPA I: Personnel Resources (5 FTP, 2 FTE)	
Military Pay and Allowances	30
Civilian Pay and Allowances	49
Military Health Care	2
Permanent Change of Station	16
Training and Education	2
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Directorates	1
Headquarters Units	787
PPA III: Intermediate and Depot Level Maintenance	
Aircraft Maintenance	82
Electronics Maintenance	60
Total Line Item Request	**$1,029**

K. MILITARY SATELLITE COMMUNICATIONS (MILSATCOM) FOLLOW-ON..... $225,000

This request provides funding to maintain LST-5D MILSATCOM equipment that is already aboard sixteen 210-foot medium endurance cutters. The Department of Defense previously supported this equipment; however, maintenance responsibility shifts to the Coast Guard in FY 2002. MILSATCOM improves command and control by providing reliable, secure communications for cutters deployed in remote locations and for cutters working with Joint Interagency Task Force elements.

PPA BREAKDOWN - MILSATCOM FOLLOW-ON	Total ($000)
PPA III: Intermediate and Depot Level Maintenance	
Electronics Maintenance	225
Total Line Item Request	**$225**

L. GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS), DIGITAL SELECTIVE CALLING (DSC) ALERT PROCESSING SYSTEM FOLLOW-ON $87,000

This request provides funding for DSC distress communications operations in two of the four ocean coverage areas in the GMDSS. GMDSS was mandated for worldwide use by the International Maritime Organization's (IMO) 1988 amendment to the Safety of Life at Sea (SOLAS) Convention, to which the U. S. is a signatory nation.

PPA BREAKDOWN - GMDSS, DSC ALERT PROCESSING SYSTEM FOLLOW-ON	Total ($000)
PPA III: Intermediate and Depot Level Maintenance	
Electronics Maintenance	87
Total Line Item Request	**$87**

M. COMMISSION AND OPERATE TEN COASTAL PATROL BOATS..... $3,377,000

This request provides funding for the operation and maintenance of ten 87-foot WPB's delivered during FY 2002. Additional 87-foot WPB's are required to complete the replacement of all 82-foot patrol boats, which have reached the end of their economical service lives and are becoming increasingly unreliable and costly to maintain. Current and projected missions, particularly in law enforcement, require more speed, seaworthiness and greater endurance than provided by the 82-foot patrol boats. The 87-foot WPB was designed to provide the additional capability and reliability needed for mission performance in drug interdiction as well as search and rescue, alien migrant interdiction and protection of living marine resources. Six of the ten 87-foot WPB's addressed in this request will replace 82-foot WPB's. Four of the ten 87-foot WPB's in this request are new patrol boats, without corresponding 82-foot decommissionings. Each WPB will provide 1,800 resource hours per hull to primary mission areas. Three additional 87-foot patrol boats will come off the assembly line in 2002, but operation of these vessels will be deferred until 2003 when funding becomes available.

CUTTERS	PERS QTRS	FTP (MIL)	FTE (MIL)	PERSONNEL FUNDING ($000)	O&M QTRS	O&M FUNDING ($000)	TOTAL ($000)
CGC IBIS	0	0	0	4	4	89	93
CGC POMPANO	0	0	0	4	4	89	93
CGC HALIBUT	0	0	0	5	4	89	94
CGC BONITO	0	0	0	5	4	89	94
CGC TERN	0	0	0	0	3	175	175
CGC HERON	0	0	0	0	3	175	175
CGC WAHOO	2	12	6	405	2	226	631
CGC FLYINGFISH	2	12	6	405	2	225	630
CGC HADDOCK	2	11	6	403	2	225	628
CGC SHRIKE	3	12	9	550	3	214	764
CGC SHEARWATER	0	0	0	DEFER TO 2003	0	0	0
CGC BRENT	0	0	0	DEFER TO 2003	0	0	0
CGC PETREL	0	0	0	DEFER TO 2003	0	0	0
Total		**47**	**27**	**1,781**		**1,596**	**3,377**

PPA BREAKDOWN - COMMISSION AND OPERATE TEN COASTAL PATROL BOATS	Total ($000)
PPA I: Personnel Resources (47 FTP, 27 FTE)	
Military Pay and Allowances	1,317
Military Health Care	127
Permanent Change of Station	270
Training and Education	67
PPA II: Operating Funds and Unit Level Maintenance	
Atlantic Area / 5th District	109
Pacific Area / 11th District	284
1st District	81
7th District	94
8th District	68
Headquarters Directorates	27
PPA III: Intermediate and Depot Level Maintenance	
Electronics Maintenance	32
Civil/Ocean Engineering and Shore Facility Maintenance	323
Vessel Maintenance	578
Total Line Item Request	**$3,377**

N. SELF LOCATING DATUM MARKER BUOY (SLDMB) FOLLOW-ON $774,000

This request provides funding for approximately 300 SLDMB replacements, contracted satellite data transmission, logistics and engineering support, and database management. Deployed from Coast Guard aircraft and vessels, SLDMB's will provide near real-time surface current data for improved search and rescue planning, oil spill trajectory predictions and tracking of drifting contraband and migrant crafts.

PPA BREAKDOWN - SLDMB FOLLOW-ON	Total ($000)
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Directorates	399
Headquarters Units	375
Total Line Item Request	**$774**

O. DIGITAL VOICE LOGGER FOLLOW-ON $500,000

This request provides funding to support the Adaptive Digital Systems DVL-32 Digital Voice Logger being installed in Coast Guard communications centers at Groups and Districts and onboard cutters. Funds will be used to provide periodic system maintenance, hardware and software upgrades, and updated maintenance, operating and training manuals. This system will enable Coast Guard communications centers to record and playback critical voice transmissions (i.e. MAYDAY calls) used in responding to search and rescue cases. This enhancement responds to Congress, the National Transportation Safety Board and the public demands for improved Coast Guard capability to record and playback voice transmissions to further prevent the loss of lives at sea.

PPA BREAKDOWN - DIGITAL VOICE LOGGER FOLLOW-ON	Total ($000)
PPA III: Intermediate and Depot Level Maintenance	
Electronics Maintenance	500
Total Line Item Request	**$500**

P. LOCAL NOTICE TO MARINERS AUTOMATION FOLLOW-ON $925,000

This request provides funding for system testing, training, deployment, operations and maintenance of the automated LNM system. The web-based LNM system will replace the production and distribution of the paper LNM by automating the collection and dissemination of the LNM and other aids to navigation information via the Internet. The LNM project will also automate the management and storage of the aids to navigation data, which will eliminate the need for paper record keeping.

PPA BREAKDOWN - LNM AUTOMATION FOLLOW-ON	Total ($000)
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Directorates	925
Total Line Item Request	**$925**

Q. SEARCH AND RESCUE CAPABILITIES ENHACEMENT FOLLOW-ON $80,000

This request provides maintenance funding for search and rescue (SAR) computer decision, planning and monitoring applications. The computer applications will ensure SAR planners have contemporary decision support tools for saving lives and property through more efficient use of on scene searching resources. These open architecture systems also provide improved situational assessment through increased data sharing and interoperability between the Coast Guard and local and / or international SAR resources, which is vital to open-ocean or muti-national rescue efforts.

PPA BREAKDOWN - SEARCH AND RESCUE CAPABILITIES ENHANCEMENT FOLLOW-ON	Total ($000)
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Units	80
Total Line Item Request	**$80**

R. DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) FOLLOW-ON..... $295,000

This request provides resources to support the DGPS and begin to adequately upgrade/refurbish the equipment at the end of its 8-10 year lifecycle. DGPS has become a critical component of the nation's radio navigation system and greatly enhances the safety of navigation along the coasts, in harbors and rivers. It has also become the exclusive mechanism for setting the majority of the aids to navigation for which the Coast Guard is responsible. Without these funds, adequate support and service availability will diminish. Seven technician billets are requested to maintain the system to reliability and availability standards set by the International Maritime Organization and the federal Radionavigation Plan.

PPA BREAKDOWN - DGPS FOLLOW-ON	Total ($000)
PPA I: Personnel Resources (7 FTP, 2 FTE)	
Military Pay and Allowances	70
Military Health Care	8
Permanent Change of Station	61
Training and Education	9
PPA II: Operating Funds and Unit Level Maintenance	
Atlantic Area / 5th District	51
Pacific Area / 11th District	94
Headquarters Directorates	2
Total Line Item Request	**$295**

S. HUMAN RESOURCES INFORMATION SYSTEM FOLLOW-ON $1,173,000

This request provides resources to fund the Coast Guard's portion of the Department of Transportation (DOT) civilian Human Resources Information System (HRIS). DOT requires a modern HRIS to effectively manage human and financial resources. The system will reduce the administrative burden related to processing and improving the quality and quantity of readily available management data. The current DOT information systems for human resources are outdated and have reported material weaknesses and inherent risk of failure. Fiscal Year 2002 is the first year of a four-year phased implementation for the HRIS. At the end of the implementation period, all DOT agencies will be utilizing the DOT HRIS.

PPA BREAKDOWN - HUMAN RESOURCES INFORMATION SYSTEM FOLLOW-ON	Total ($000)
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Directorates	1,173
Total Line Item Request	**$1,173**

IV. NEW/ENHANCED/RESTORATION INITIATIVES $8,399,000

A. SAFETY ENHANCEMENTS

1. MARINE TRANSPORTATION SYSTEM PERSONNEL AND INFORMATION MANAGEMENT TOOLS $845,000

This item requests resources for Marine Transportation System (MTS) activities in support of MTS Task Force recommendations and the MTS Report to Congress. Personnel and funds are needed to establish and act as the interagency coordinator for local port level stakeholders and government committees, including Harbor Safety Committees (HSCs) that are affiliated with Coast Guard Marine Safety Offices. These resources will be used to manage safety, security and environmental protection and improve the efficiency of the MTS. This item also requests funds to support the Waterway Evaluation Tool (WET) which will provide Coast Guard users with a systematic risk-based process to support decision-making on how best to apply resources across diverse waterways.

PPA BREAKDOWN - MARINE TRANSPORTATION PERSONNEL AND INFORMATION MANAGEMENT TOOLS	Total ($000)
PPA I: Personnel Resources (24 FTP, 6 FTE)	
Civilian Pay and Allowances	497
Training and Education	2
PPA II: Operating Funds and Unit Level Maintenance	
Atlantic Area / 5th District	7
Pacific Area / 11th District	7
Headquarters Directorates	136
Headquarters Units	196
Total Line Item Request	**$845**

2. SEARCH AND RESCUE SYSTEM ENHANCEMENTS $5,541,000

This item provides resources needed to improve Coast Guard Search and Rescue (SAR) capabilities and implement some of the recommendations from the National Transportation Safety Board's (NTSB) report concerning the tragic loss of lives on the sailing vessel MORNING DEW. Resources are requested to improve the staffing at SAR Command Centers and Stations. SAR Command Center staffing will be increased to ensure that there is a minimum of two persons on duty in locations where most needed during a 12-hour watch shift. SAR station staffing will be improved to allow a 68-hour workweek duty rotation. A specialty school will ensure that personnel have the requisite small boat handling and navigation skills to stand duty at SAR Stations. In addition, resources will be provided to support Command Center quality assurance and technology support teams to improve the readiness of watchstanders to face mission challenges associated with emergency response. These SAR enhancements address the most urgent shortfalls identified by the NTSB, eliminate high crew fatigue at stations and address problems and challenges associated with a junior, less experienced workforce.

PPA BREAKDOWN - SEARCH AND RESCUE SYSTEM ENHANCEMENTS	Total ($000)
PPA I: Personnel Resources (194 FTP, 51 FTE)	
Military Pay and Allowances	2,130
Civilian Pay and Allowances	52
Military Health Care	232
Permanent Change of Station	1,488
Training and Education	707
PPA II: Operating Funds and Unit Level Maintenance	
Atlantic Area / 5th District	55
Pacific Area / 11th District	46
1st District	49
7th District	6
8th District	3
9th District	5
13th District	62
14th District	2
Headquarters Directorates	50
Headquarters Units	654
Total Line Item Request	**$5,541**

3. PASSENGER VESSEL SAFETY IMPROVEMENTS $649,000

This item requests funding to mitigate the safety risks on passenger vessels (i.e. cruise ships, ferries and high-speed ferries). This outcome will be achieved through maximizing core prevention programs and focusing on innovative means for responding to major passenger vessel accidents. Passenger vessels have become larger, faster, more numerous and more technically sophisticated vessels. Vigorous oversight during the design, construction and operation of all passenger vessels operating in or from the U.S. is required to ensure that these vessels meet the appropriate safety standards at all times. In addition to longer safety inspection times due to their size and complexity, they also require highly trained inspectors; therefore, this item provides funding for enhanced inspector training. Furthermore, passenger vessel safety will be improved by spearheading partnership activities with the local response community, developing a coordinated emergency response and contingency plan, and training local response agencies to work cooperatively under a unified command system. This item provides personnel and funding required to conduct and evaluate these partnership activities and response exercises.

PPA BREAKDOWN - PASSENGER VESSEL SAFETY	Total
PPA I: Personnel Resources (23 FTP, 6 FTE)	
Military Pay and Allowances	129
Civilian Pay and Allowances	383
Military Health Care	7
Permanent Change of Station	74
Training and Education	11
PPA II: Operating Funds and Unit Level Maintenance	
Atlantic Area / 5th District	1
Pacific Area / 11th District	1
1st District	1
7th District	4
8th District	1
9th District	1
13th District	1
14th District	1
17th District	1
Headquarters Directorates	31
Headquarters Units	2
Total Line Item Request	**$649**

B. PERSONNEL SUPPORT INITIATIVES

1. FUNERAL HONORS DUTY $50,000

This item provides funding to allow the Coast Guard to comply with a legislative requirement set forth in the FY 2000 Department of Defense appropriation. The appropriation provided that, upon request, all military services must provide one or two military representatives at the funerals of service veterans. Reservists may be utilized on a voluntary basis and receive a $50 per day stipend, reimbursement for travel if more than 50 miles, and one retirement point. Active duty attendees will only receive travel reimbursement.

PPA BREAKDOWN - FUNERAL HONORS DUTY	Total ($000)
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Directorates	50
Total Line Item Request	**$50**

2. TRANSIT AND VANPOOL BENEFITS INCREASE $750,000

This request provides funding for the recently authorized $100.00 per person per month non-taxable mass transit fare benefit. The Coast Guard is currently funded to provide $65 per person per month. Congress increased the authorized benefit to $100.00 per person per month starting in FY 2002.

PPA BREAKDOWN - TRANSIT AND VANPOOL BENEFITS INCREASE	Total ($000)
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Directorates	750
Total Line Item Request	**$750**

C. IMPROVE OIL AND HAZMAT SPILL RESPONSE CAPABILITY $564,000

This item provides funding to allow the Coast Guard to implement the pollution exercise program as part of a National Contingency Plan preparedness strategy for dealing with a Spill of National Significance (SONS). Such spills are so large and complex that they pose the highest risk to the natural environment, public health and economic vitality of the area impacted. Funding provided for SONS exercises will ensure that non-federal, federal, private, local, and state stakeholders are pre-coordinated and prepared for a SONS, thereby minimizing the environmental and economic impacts of such a major spill. Specifically, this item will fund contractor support for evaluating SONS exercises and support the exercise design and execution team activities.

PPA BREAKDOWN - IMPROVE OIL AND HAZMAT SPILL RESPONSE CAPABILITY	Total ($000)
PPA II: Operating Funds and Unit Level Maintenance	
Headquarters Directorates	564
Total Line Item Request	**$564**

ACQUISITION, CONSTRUCTION, AND IMPROVEMENTS

For necessary expenses of acquisition, construction, renovation, and improvement of aids to navigation, shore facilities, vessels, and aircraft, including equipment related thereto, [$415,000,000], *$659,323,000*, of which [$20,000,000] $19,956,000 shall be derived from the Oil Spill Liability Trust Fund; of which [$156,450,000] *$74,990,000* shall be available to acquire, repair, renovate or improve vessels, small boats and related equipment, to remain available until September 30, [2005; $37,650,000] *2006; $27,500,000* shall be available to acquire new aircraft and increase aviation capability, to remain available until September 30, [2003; $60,113,000] *2004; $90,371,000* shall be available for other equipment, to remain available until September 30, [2003; $63,336,000] *2004; $63,262,000* shall be available for shore facilities and aids to navigation facilities, to remain available until September 30, [2003; $55,151,000] *2004*; *$65,200,000* shall be available for personnel compensation and benefits and related costs, to remain available until September 30, [2002] *2003; and* [$42,300,000], *$338,000,000* for the Integrated Deepwater Systems programs to remain available until September 30, [2003] 2006. *Provided*, That the Commandant of the Coast Guard is authorized to dispose of surplus real property, by sale or lease, and the proceeds shall be credited to this appropriation as offsetting collections and made available only for the National Distress and Response System Modernization program, to remain available for obligation until September 30, [2003] 2004. [*Provided further*, That upon initial submission to the Congress of the fiscal year 2002 President's budget, the Secretary of Transportation shall transmit to the Congress a comprehensive capital investment plan for the United States Coast Guard which includes funding for each budget line item for fiscal years 2002 through 2006, with total funding for each year of the plan constrained to the funding targets for those years as estimated and approved by the Office of Management and Budget: *Provided further*, That the amount herein appropriated shall be reduced by $100,000 per day for each day after initial submission of the President's budget that the plan has not been submitted to the Congress: *Provided further*, That the Commandant shall transfer $5,800,000 to the City of Homer, Alaska, for the construction of a municipal pier and other harbor improvements, contingent upon the City of Homer entering into an agreement with the United States to accommodate Coast Guard vessels and to support Coast Guard operations at Homer, Alaska.] (*Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101(a) of P.L. 106-346.)*

NOTE: The above appropriations language reflects a correction to the President's Budget language in the FY 2002 Appendix. With OST and OMB approval, the project categories were adjusted to reflect the correction.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ACQUISITION, CONSTRUCTION, AND IMPROVEMENTS
Program and Financing (in thousands of dollars)

Identification code: 69-0240-0-1-999		2000 actual	2001 estimate	2002 estimate
	Obligations by program activity:			
	Direct program:			
0001	Search and rescue	96,435	157,955	105,492
0002	Aids to navigation	53,039	66,369	92,305
0003	Marine safety	14,465	19,749	79,119
0004	Marine environmental protection	28,931	146,855	65,932
0005	Enforcement of laws and treaties	212,158	202,355	262,735
0006	Ice operations	72,327	140,849	26,373
0007	Defense readiness	4,822	10,868	13,186
0091	Total direct program	482,177	745,000	645,142
0901	Reimbursable program	5,041	28,000	28,000
1000	Total new obligations	487,218	773,000	673,142
	Budgetary resources available for obligation:			
2140	Unobligated balance carried forward, start of year:	355,610	895,612	564,699
2200	New budget authority (gross)	1,011,296	442,087	687,323
2210	Resources available from recoveries of prior year obligations	17,927	.....	.....
2390	Total budgetary resources available for obligation	1,384,833	1,337,699	1,252,022
2395	Total new obligations	-487,218	-773,000	-673,142
2398	Unobligated balance expiring or withdrawn	-2,003	.....	.....
2440	Unobligated balance carried forward, end of year:	895,612	564,699	578,880
	New budget authority (gross), detail:			
	Discretionary:			
4000	Appropriation	369,326	395,000	639,367
4015	Appropriation (emergency)	623,000	.....	.....
4076	Reduction pursuant to P.L. 106-113	-1,478	.....	.....
4076	Reduction pursuant to P.L. 106-69	-349		
4077	Reduction pursuant to P.L. 106-554	.....	-869	.....
4078	Reduction pursuant to P.L. 106-246	-11,400	.....	.....
4300	Appropriation (total discretionary)	979,099	394,131	639,367

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ACQUISITION, CONSTRUCTION, AND IMPROVEMENTS
Program and Financing (in thousands of dollars)

Identification code: 69-0240-0-1-999		2000 actual	2001 estimate	2002 estimate
	Offsets:			
	Against gross budget authority and outlays:			
8800	Offsetting collections (cash) from: Federal sources	32,447	47,956	47,956
	Against gross budget authority only:			
8895	Change in uncollected customer payments from Federal sources	-1,654	.....	.....
8896	Adjustments to uncollected customer payments from Federal sources	.....	.....	.....
	Net budget authority and outlays:			
8900	Budget authority	979,099	394,131	639,367
9000	Outlays	463,918	660,000	602,022

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ACQUISITION, CONSTRUCTION, AND IMPROVEMENTS
Program And Performance

The Acquisition, construction, and improvements (AC&I) appropriation provides for the acquisition, construction, and improvement of the vessels, aircraft, information management resources, shore facilities, and aids to navigation required to execute the Coast Guard's missions and achieve its performance goals.

Vessels - In 2002, the Coast Guard will acquire multi-mission platforms that use advanced technology to reduce life cycle operating costs. The seagoing buoy tender acquisition will continue with a one-time request for 2 ships.

Deepwater - The Deepwater capability replacement project continues with full scale development. In FY 2002, the Coast Guard will begin to acquire and build the selected integrated deepwater system.

Aircraft - In 2002, the Coast Guard will start the planning process to determine the follow-on acquisition and support requirements for the C130J acquisition project.

Other Equipment - In 2002, the Coast Guard will invest in numerous management information and decision support systems that will result in increased efficiencies. The Marine Information for Safety and Law Enforcement (MISLE), National Distress System (NDR), and Commercial Communications Satellite Upgrade projects will continue.

Shore Facilities - In 2002, the Coast Guard will invest in modern structures that are more energy efficient, comply with regulatory codes, and minimize follow-on maintenance requirements and replace existing dilapidated structures.

Personnel and Related Costs - Personnel resources will be utilized to execute the AC&I projects described above.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ACQUISITION, CONSTRUCTION, AND IMPROVEMENTS
Program and Financing (in thousands of dollars)

Identification code: 69-0240-0-1-999		2000 actual	2001 estimate	2002 estimate
	Spending authority from offsetting collections:			
6800	Offsetting collections (cash)	32,447	47,956	47,956
6810	Change in uncollected customer payments from Federal sources	-1,019		
6815	Adjustments to uncollected customer payments from Federal sources			
6854	Portion credited to expired accounts	-7,939		
6855	Portion of change in uncollected customer payments from Federal sources	7,939		
6890	Spending authority from offsetting collections (total discretionary)	31,428	47,956	47,956
7000	Total new budget authority (gross)	1,010,527	442,087	687,323
	Change in unpaid obligations:			
	Unpaid obligations, start of year:			
7240	Unpaid obligations, start of year	537,580	507,918	573,291
7295	Uncollected customer payments from Federal sources, start of year	-19,974	-18,320	-18,320
7299	Obligated balance, start of year	517,606	489,598	554,971
7310	Total new obligations	487,218	773,000	673,142
7320	Total outlays (gross)	-496,365	-707,956	-649,978
7340	Adjustments in expired accounts(net)	-580		
7345	Recoveries of prior year obligations	-17,927		
7400	Change in uncollected customer payments from Federal sources	580		
7440	Unpaid obligations, end of year	507,918	573,291	596,452
7495	Uncollected customer payments from Federal sources, end of year	-18,320	-18,320	-18,320
7499	Obligated balance, end of year	489,598	554,971	578,132
	Outlays (gross), detail:			
8690	Outlays from new discretionary authority	279,797	146,750	207,831
8693	Outlays from discretionary balances	216,568	561,206	442,147
8700	Total outlays (gross)	496,365	707,956	649,978

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ACQUISITION, CONSTRUCTION, AND IMPROVEMENTS
Object Classification (in thousands of dollars)

Identification code: 69-0240-0-1-999		2000 actual	2001 estimate	2002 estimate
	Direct obligations:			
	Personnel compensation:			
11.1	Full-time permanent	16,165	17,940	20,259
11.3	Other than full-time permanent	815	905	1,022
11.5	Other personnel compensation	224	249	281
11.7	Military personnel	24,146	25,430	34,018
11.8	Special personal services payments	452	470	494
11.9	**Total personnel compensation**	**41,802**	**44,994**	**56,074**
12.1	Civilian personnel benefits	3,666	5,664	4,595
12.2	Military personnel benefits	2,574	3,977	3,132
13.0	Benefits for former personnel	246	380	361
21.0	Travel and transportation of persons	7,652	11,823	12,047
22.0	Transportation of things	813	1,256	1,280
23.2	Rental payments to others	648	661	671
23.3	Communications, utilities, and miscellaneous changes	2,923	3,311	4,048
24.0	Printing and reproduction	116	179	183
25.1	Advisory and assistance services	75,751	112,406	114,533
25.2	Other services	80,600	118,516	63,988
25.8	Purchases of goods & services from government	238	205	200
26.0	Supplies and materials	55,474	81,076	83,275
31.0	Equipment	147,485	269,101	207,573
32.0	Land and structures	62,189	91,451	93,182
99.0	**Subtotal, Direct obligations**	**482,177**	**745,000**	**645,142**
	Reimbursable obligations	5,041	28,000	28,000
99.9	**Total obligations**	**487,218**	**773,000**	**673,142**

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ACQUISITION, CONSTRUCTION, AND IMPROVEMENTS
Personnel Summary

Identification code: 69-0240-0-1-999		2000 actual	2001 estimate	2002 estimate
	Direct:			
	Total compensable workyears			
1001	Full-time equivalent employment civilian	263	284	293
1101	Full-time equivalent employment military	366	366	417

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ACQUISITION, CONSTRUCTION, AND IMPROVEMENTS
Program Digest (in thousands of dollars)

Program by activities:	2000 actual	2001 estimate	2002 estimate
1. Search and rescue	169,242	55,147	121,549
2. Aids to navigation	102,278	112,967	107,594
3. Marine safety	34,325	24,580	92,857
4. Marine environmental protection	39,073	34,101	73,959
5. Enforcement of laws and treaties	480,158	137,881	221,290
6. Ice operations	162,782	45,221	30,436
7. Defense readiness	11,241	4,190	11,638
Total appropriation or estimate:	999,099	414,087	659,323
FTE:			
(Military)	366	366	417
(Civilian)	263	284	293
Total	629	650	710

Note: Amounts shown represent a programmatic distribution of funds appropriated for each year. Therefore, they may not correspond to the amounts on lines 00.01-00.07 of the Program and Financing schedule, which consist of direct obligations of both prior year and current year appropriated funds.

FY 2000 includes $20,000,000 derived from the Oil Spill Liability Trust Fund and $623,000,000 derived from the emergency supplemental appropriation.

FY 2001 includes $19,956,000 derived from the Oil Spill Liability Trust Fund.

FY 2002 includes $19,956,000 derived from the Oil Spill Liability Trust Fund.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ACQUISITION, CONSTRUCTION AND IMPROVEMENTS
Line Item Summary
(in thousands of dollars)

PROJECT			C-STAGE REQUEST	PAGE NUMBERS
I.	VESSELS:			
	A. ACQUIRE VESSELS AND EQUIPMENT:			
	1	SURVEY & DESIGN - CUTTERS AND BOATS	500	VES-1
	2	SEAGOING BUOY TENDER (WLB) REPLACEMENT	70,000	VES-2-3
	B. REPAIR, RENOVATE OR IMPROVE EXISTING VESSELS AND SMALL BOATS:			
	1	POLAR CLASS ICEBREAKER RELIABILITY IMPROVEMENT PROJECT (RIP)	4,490	VES-4
		SUBTOTAL - VESSELS	**74,990**	
II.	DEEPWATER CAPABILITY REPLACEMENT PROJECT:		338,000	DEPWT-1-2
III.	AIRCRAFT:			
	ACQUIRE NEW AIRCRAFT AND INCREASE AVIATION CAPABILITY:			
	1	AVIATION PARTS AND SUPPORT	27,000	A/C-1
	2	C-130J SYSTEM PROVISIONING AND TRAINING SUPPORT ANALYSES	500	A/C-2
		SUBTOTAL - AIRCRAFT	**27,500**	
IV.	OTHER EQUIPMENT:			
	1	PORTS AND WATERWAYS SAFETY SYSTEMS (PAWSS)	12,500	EQUIP-1-2
	2	MARINE INFORMATION FOR SAFETY AND LAW ENFORCEMENT (MISLE) PROJECT	7,450	EQUIP-3-4
	3	NATIONAL DISTRESS AND RESPONSE SYSTEM MODERNIZATION (NDRSM) PROJECT	42,000	EQUIP-5-6
	4	DEFENSE MESSAGING SYSTEM (DMS) IMPLEMENTATION	2,000	EQUIP-7-8
	5	COMMERCIAL SATELLITE COMMUNICATIONS (SATCOM) UPGRADE	1,500	EQUIP-9
	6	GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS)	2,200	EQUIP-10-11
	7	SEARCH AND RESCUE CAPABILITIES ENHANCEMENT PROJECT	1,320	EQUIP-12
	8	THIRTEENTH DISTRICT MICROWAVE MODERNIZATION PROJECT	800	EQUIP-13
	9	HAWAII RAINBOW COMMUNICATIONS SYSTEM MODERNIZATION	3,100	EQUIP-14
	10	HIGH FREQUENCY (HF) RECAPITALIZATION AND MODERNIZATION	2,500	EQUIP-15
	11	READINESS MANAGEMENT SYSTEM (RMS)	1,675	EQUIP-16
	12	DOD C4I INTEROPERABILITY	1,530	EQUIP-17
	13	COMMAND CENTER READINESS AND INFRASTRUCTURE RECAPITALIZATION PROJECT	727	EQUIP-18
	14	P-250 PUMP REPLACEMENT	2,046	EQUIP-19
	15	CONFIGURATION MANAGEMENT - PHASE II	6,023	EQUIP-20-21
	16	SELF-CONTAINED BREATHING APPARATUS (SCBA) REPLACEMENT	1,000	EQUIP-22
	17	MINOR INFORMATION TECHNOLOGY PROJECTS	2,000	EQUIP-23
		SUBTOTAL - OTHER EQUIPMENT	**90,371**	
V.	SHORE FACILITIES AND AIDS TO NAVIGATION:			
	A. SHORE - GENERAL:			
	1	SURVEY AND DESIGN - SHORE OPERATIONAL AND SUPPORT PROJECTS	7,000	SHORE-1
	2	MINOR AC&I SHORE CONSTRUCTION PROJECTS	7,162	SHORE-2
	B. SHORE - AIR STATIONS:			
	1	CONSOLIDATE ELIZABETH CITY AVIATION AND STATION FACILITIES - PHASE I	6,300	SHORE-3

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ACQUISITION, CONSTRUCTION AND IMPROVEMENTS
Line Item Summary
(in thousands of dollars)

PROJECT		C-STAGE REQUEST	PAGE NUMBERS
C.	COAST GUARD HOUSING - VARIOUS LOCATIONS:	11,000	SHORE-4
D.	SHORE - GROUPS/BASES/STATIONS/MSO'S:		
1	ENGINEERING LOGISTICS CENTER - WAREHOUSE CONSOLIDATION	12,600	SHORE-5
2	REBUILD GROUP-MARINE SAFETY OFFICE LONG ISLAND SOUND	4,900	SHORE-6
3	REPLACE COAST GUARD STATION PORT HURON - PHASE II	3,100	SHORE-7
4	CONSTRUCT NEW STATION BRUNSWICK	3,600	SHORE-8
5	REPLACE ISC BOSTON BUILDING NO. 8 UTILITIES	1,600	SHORE-9
E.	AIDS TO NAVIGATION FACILITIES:		
1	WATERWAYS AIDS TO NAVIGATION INFRASTRUCTURE	6,000	SHORE-10
	SUBTOTAL - SHORE FACILITIES AND AIDS TO NAVIGATION FACILITIES	63,262	
VI.	PERSONNEL AND RELATED SUPPORT:		
1	AC&I CORE COMPETENCIES AND CAPABILITIES	700	PERS-1
2	AC&I PERSONNEL COSTS	64,500	PERS-2
	SUBTOTAL - PERSONNEL AND RELATED SUPPORT	65,200	

SUMMARY AC&I		
I.	VESSELS	74,990
II.	DEEPWATER CAPABILITY REPLACEMENT PROJECT	338,000
III.	AIRCRAFT	27,500
IV.	OTHER EQUIPMENT	90,371
V.	SHORE FACILITIES AND AIDS TO NAVIGATION	63,262
VI.	PERSONNEL AND RELATED SUPPORT	65,200
	TOTAL REQUEST C-STAGE - FY 2002	659,323

U.S. COAST GUARD
JUSTIFICATION
ACQUISITION, CONSTRUCTION, AND IMPROVEMENTS
FY 2002 C-STAGE
(dollars in thousands)

SURVEY & DESIGN - CUTTERS AND BOATS **$500**

PROJECT DESCRIPTION: To provide funding in support of future year cutter and boat renovation and acquisition programs prior to the program receiving dedicated funding in the budget.

CAPABILITY ACQUIRED/MAINTAINED: Early planning, requirements development, and cost estimating efforts in support of future cutter and boat projects involve significant engineering and planning efforts. The Coast Guard operates over 230 cutters and 350 small boats. Diverse mission requirements call for complex designs and performance capabilities. Maintaining total in-house engineering expertise would require a considerable staff and costly facilities. Therefore, much of the Naval Engineering Survey and Design work is accomplished by using outside expertise. These efforts include developing and refining requirements through feasibility studies to verify the soundness and practicability of various combinations of vessel performance and payload requirements, with the ultimate goal of determining an optimum set of requirements which will lead to a balanced, integrated, and cost effective ship or boat design. Later, a more detailed design with trade-off analysis identifies critical parameters and permits a more accurate look at potential acquisition budget costs.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Survey & Design Projects	Lump Sum		500

FUNDING HISTORY:

	FY	TOTAL
Survey & Design Projects	1997 & earlier	4,550
Survey & Design Projects	1998	500
Survey & Design Projects	1999	500
Survey & Design Projects	2000	500
Survey & Design Projects	2001	499

ESTIMATED FUTURE COST REQUIREMENT: **TBD**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary							
Secondary	X	X	X	X	X	X	X

U.S. COAST GUARD
JUSTIFICATION
ACQUISITION, CONSTRUCTION, AND IMPROVEMENTS
FY 2002 C-STAGE
(dollars in thousands)

SEAGOING BUOY TENDER (WLB) REPLACEMENT **$70,000**

PROJECT DESCRIPTION: To continue funding the multi-year program to replace the 26 vessel fleet of 50-year-old Seagoing Buoy Tenders. This request funds the last two hulls and associated costs.

CAPABILITY ACQUIRED/MAINTAINED: The capability to maintain short-range aids to navigation in an exposed offshore environment will be retained.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Sailaway (award of hulls 15 & 16)	Each	2	63,700
Logistics/Facilities	Lump Sum		4,200
Project Admin	Lump Sum		700
Spare Parts	Lump Sum		1,400
			70,000

FUNDING HISTORY:

	FY	TOTAL
Contract Design, Hulls 1-6	1997 & earlier	220,790
Hull 7	1998	41,000
Hulls 8, 9	1999	72,600
Hulls 10, 11.	2000	77,000
Hulls 12, 13, 14.	2001	117,740

ESTIMATED FUTURE COST REQUIREMENT: **24,800**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary					X		
Secondary	X	X	X	X		X	

QUANTITY:

Planning Range	16 ships
Funded Number	14 ships
Contracted Number	14 ships
Accepted Number	5 ships

U.S. COAST GUARD
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FY 2002 C-STAGE
(dollars in thousands)

SEAGOING BUOY TENDER (WLB) REPLACEMENT	**$70,000**
UNIT COST ($ in millions):	
Acquisition Baseline Unit Costs	59
Actual Average Unit Cost to Date	39.5
Projected Future Unit Costs	40.9
CONTRACTOR:	
Marinette Marine, Marinette, WI	
Type of Contract: Firm Fixed Price	
Contract Options: FY02, max 2, min 1	
KEY EVENTS:	
Mission Need Statement	FY86
Deliver Lead WLB	FY96
Award Production Contract	FY98
First Production Delivery	FY01
Last Production Delivery	FY04-05

U.S. COAST GUARD
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FY 2002 C-STAGE
(dollars in thousands)

POLAR CLASS ICEBREAKER RELIABILITY IMPROVEMENT PROJECT (RIP) **$4,490**

PROJECT DESCRIPTION: This project restores and improves the operational reliability of the two Polar Class icebreakers, CGCs Polar Star and Polar Sea, to ensure they remain serviceable and operational for the remainder of their design service lives and to halt escalating maintenance and reliability problems. FY 02 funding needed for Phase 3 installation on Polar Sea.

CAPABILITY ACQUIRED/MAINTAINED: A number of shipboard systems are nearing the end of their service lives, require extensive maintenance and are experiencing escalating support cost. This project allows the Coast Guard to continue to support the Nation's interest in the Polar Regions. This request will fund the installation of Phase III items on one cutter. Phase III work will include ship service diesel generator with switch board, sea water cooling system modifications, and replace the standard boat davit system. A total of four phases will be required to complete the entire project on both icebreakers.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Phase 3 Installation USCGC POLAR SEA	Each	1	4,355
Non-recurring Engineering Costs	Lump Sum		135
			4,490

FUNDING HISTORY:

	FY	TOTAL
Design Research & Long Lead Time Materials	1997 & earlier	23,696
Phase 1 Install USCGC POLAR SEA	1998	5,300
Phase 2 Install USCGC POLAR STAR	2000	3,550
Phase 2 Install USCGC POLAR SEA	2001	4,490

ESTIMATED FUTURE COST REQUIREMENT: **32,100**

ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary				X		X	
Secondary	X						

KEY EVENTS:

Project Design	FY90-94
Phase II Contract Award	FY01
Phase III Contract Award	FY02

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FY 2002 C-STAGE
(dollars in thousands)

DEEPWATER CAPABILITY REPLACEMENT PROJECT **$338,000**

PROJECT DESCRIPTION: Recapitalize the Coast Guard's aging and obsolete assets that execute the Coast Guard's missions in the difficult and challenging offshore area of operations. In August 1998, the Coast Guard awarded contracts to three industry teams to design an Integrated Deepwater System (IDS) that maximizes operational effectiveness and minimizes total ownership cost. Industry team proposals to design and construct the IDS are due in July 2001. The Coast Guard intends to award a Phase II contract in the second quarter of Fiscal Year 2002, to begin acquiring, constructing or improving existing assets under the accepted proposal to recaptialize Coast Guard asset capability for mission performance. Prior to Phase II contract award the industry teams' proposals are proprietary information. The requested details can, however, be provided with a proprietary briefing in a controlled environment. This request is for the first year of implementation of the selected team's proposed plan.

CAPABILITY ACQUIRED/MAINTAINED: The Deepwater Project, when completed, is planned to provide affordable operating assets and increase operational effectiveness by leveraging current and future technologies to achieve requisite functional capabilities.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Core Team Technical Support	Lump Sum		34,000
Selected Implementation Plan*	Lump Sum		300,000
(*Additional details can be provided in a proprietary data controlled environment)			
Project Administration	Lump Sum		4,000
			338,000

FUNDING HISTORY:

	FY	TOTAL
Admin, prepare initial contract awards	1998	4,900
Phase I contracts for industry teams and IAGC. Trade off analysis.	1999	24,800
Contract for Conceptual Design. Modeling and simulation.	2000	44,200
MPT studies. Functional design. Project admin.	2001	42,207

ESTIMATED FUTURE COST REQUIREMENT: **TBD**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X	X	X	X		X	X
Secondary					X		

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JUSTIFICATION
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FY 2002 C-STAGE
(dollars in thousands)

DEEPWATER CAPABILITY REPLACEMENT PROJECT **$338,000**

UNIT COST ($ in millions):

Planning range budget and baseline costs for DW assets will be determined at the end of Phase I, the analysis phase.

CONTRACTOR:

Avondale Industries, Inc; Lockheed Martin Gov Electronic Systems; Science Applications International Corporation
Type of Contract: Cost Plus Fixed Price
Contact Options: $1M in FY98 (base Yr); $6M per team in FY99; $8.4M per team in FY00; $5.1M per team in FY01.

KEY EVENTS:

Mission analysis report	FY95
Key Decision Point 1	FY96
Phase 1 Proposal Approval	FY97
Award Industry Concept Exploration Contract	FY98
Project Management Plan	FY00
Conceptual Design Complete	FY00
Key Decision Point 2	FY01
Functional Design Complete	FY01
Award Contract for selected implementation plan	FY02
Key Decision Points 3 & 4	TBD

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JUSTIFICATION
ACQUISITION, CONSTRUCTION, AND IMPROVEMENTS
FY 2002 C-STAGE
(dollars in thousands)

AVIATION PARTS SUSTAINMENT **$27,000**

PROJECT DESCRIPTION: This project provides funding for the repair and replacement of critical aviation parts and equipment to begin restoring the degraded mission readiness of Coast Guard aircraft. This project includes replacement of life-limited parts and equipment that can no longer be repaired and the repair of other parts/support equipment to maintain adequate inventory levels and readiness at Coast Guard Air Stations.

CAPABILITY ACQUIRED/MAINTAINED: TLe Coast Guard will maintain a fleet of 152 operational aircraft in FY 02. Parts inventories at Air Stations have declined to low levels as costs to repair/replace aging systems have outpaced funding. As a result, the mission readiness of Coast Guard aircraft has degraded. In FY 02, this project allows the Coast Guard to fund vital parts and support purchases that will fill critical inventory shortages thereby increasing operational readiness of all Coast Guard aircraft. Given the current state of aviation parts shortages and support equipment condition, this project is vital to restoring readiness of Coast Guard aviation.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Aircraft Parts and Support	Lump Sum	1	27,000
			27,000

FUNDING HISTORY:
None

ESTIMATED FUTURE COST REQUIREMENT: **TBD**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X	X					
Secondary			X	X	X	X	

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C-130J SYSTEM PROVISIONING AND TRAINING SUPPORT ANALYSES $500

PROJECT DESCRIPTION: This request partially funds analysis of training and logistics support requirements for this new, technologically advanced aircraft. This study will determine the required methods of training pilots, aircrew and technicians to operate and maintain the C-130J aircraft. Additionally, this request initiates funds to determine the best mix of contract logistics support and Coast Guard workforce necessary to maintain the C-130J fleet.

CAPABILITY ACQUIRED/MAINTAINED: Funding these studies will lay the groundwork required to ensure that the C-130Js are operated and maintained in a way that will efficiently result in gaining the greatest performance return on the investment.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Aviation Training System Study	Each	1	500

FUNDING HISTORY:

	FY	TOTAL
Acquisition of 6 C-130J Maritime Patrol Aircraft	2000	468,000

ESTIMATED FUTURE COST REQUIREMENT: TBD

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X	X					
Secondary			X			X	X

KEY EVENTS:

Initial Training Capability	FY03/04
Initial Operating Capability	FY04/05 TBD

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PORTS AND WATERWAYS SAFETY SYSTEMS (PAWSS) **$12,500**

PROJECT DESCRIPTION: Funding is requested to implement Vessel Traffic Service (VTS) systems, including radar and communications systems and the Automatic Identification System hardware, in two ports (Houston/Galveston and San Francisco) and to perform surveys and communications analysis in additional ports. This project continues to evaluate the most appropriate application of vessel traffic systems to meet the maritime safety needs in our major ports.

CAPABILITY ACQUIRED/MAINTAINED: This project provides Vessel Traffic Services to facilitate timely, safe transportation of waterborne commerce which has a direct impact on the social and economic viability of the nation. The likelihood of collisions, rammings and groundings, along with the associated loss of life and damage to the environment, are reduced with vessel traffic systems.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
VTS System Implementation	Lump Sum		5,875
Remote Site Prep/Installation	Lump Sum		4,625
Port Survey & Comms. Analysis	Lump Sum		1,125
System Engineering Support	Lump Sum		250
Administrative Support & Testing	Lump Sum		625
			12,500

FUNDING HISTORY:

	FY	TOTAL
Identification of Requirements	1997 & earlier	1,700
System acquisition and installation. System engineering.	1998	5,500
New Orleans completion. 2nd port survey.	1999	6,600
Valdez completion. 3rd port survey.	2000	4,500
System implementation. Remote site prep. Port survey. Comms analy	2001	6,087
ESTIMATED FUTURE COST REQUIREMENT:		**TBD**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary			X	X			
Secondary	X	X			X	X	X

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PORTS AND WATERWAYS SAFETY SYSTEMS (PAWSS) **$12,500**

CONTRACTOR:

Lockheed Martin, Ocean, Radar & Sensor Systems of Syracuse, NY
Maritel Corp, Gulfport, MS

KEY EVENTS:

Project Reset	FY97
System Integrator Contract Award	FY98
Key Decision Point 4	FY00
VTS Valdez Initial Operating Capability	FY01-02
Puget Sound, Houston/Galveston, San Fran completed	FY03
Project Completion	FY05-10

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MARINE INFORMATION FOR SAFETY AND LAW ENFORCEMENT (MISLE)
PROJECT **$7,450**

PROJECT DESCRIPTION. MISLE will replace the existing obsolete Marine Safety Information System (MSIS) as the Coast Guard's cross-functional information system to promote commercial vessel safety and law enforcement by tracking and monitoring a wide range of vessel history information. Better designed and integrated software applications will improve mission effectiveness and efficiency, increase reliability, significantly reduce system response time and eliminate redundant date entry. MISLE will support more than 5000 Coast Guard users at over 550 sites.

CAPABILITY ACQUIRED/MAINTAINED. The Marine Information for Safety and Law Enforcement (MISLE) project satisfies the Port and Tanker Safety Act, the Oil Pollution Act of 1990, and the legislative mandate of Public Law 100-710 which requires the establishment of a nationwide vessel identification system and the modernization of maritime commercial instruments and liens processing. The systems are necessary to meet the information needs and legal mandates of the Coast Guard's Marine Safety and Environmental Protection, Law Enforcement, and Defense Readiness missions.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Marine Safety Network Software Develop.	Lump Sum		7,000
Hardware & Systems Software Acquisition	Lump Sum		450
			7,450

FUNDING HISTORY:

	FY	TOTAL
Requirements, hardware/software acquisition, data conversion	1997 & earlier	24,150
SRM/IIPS/LEISII CPP software development. IV&V.	1998	- 4,000
Software development, Sw/hw acquisition. IV&V.	1999	6,400
Hardware and systems software acquisition	2000	10,500
Software development, Sw/hw acquisition.	2001	8,481

ESTIMATED FUTURE COST REQUIREMENT: **NONE**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary		X	X	X			X
Secondary	X				X	X	

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MARINE INFORMATION FOR SAFETY AND LAW ENFORCEMENT (MISLE)
PROJECT **$7,450**

CONTRACTOR:

Fuentes Systems Concepts, Inc. via OSC Martinsburg contract.
Contract Options: base year plus four option periods

KEY EVENTS:

Acquisition Plan Approved	FY92
Contract Award	FY94
Key Decision Point 2/3	FY96
Key Decision Point 4	FY99
Marine Safety Network(MSN)Phase 1 (includes VDS)	FY01
MSN Phase 2	FY02
MSN Phase 3 (includes LEISII integration)	FY03

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NATIONAL DISTRESS AND RESPONSE SYSTEM MODERNIZATION (NDRSM)
PROJECT **$42,000**

PROJECT DESCRIPTION: Validation and full scale development of the selected alternative solution for the Coast Guard's National Distress and Response System Modernization (NDRSM) project

CAPABILITY ACQUIRED/MAINTAINED. The National Distress and Response System (NDRS) is the Coast Guard's primary asset to perform the functional tasks of detection, classification, and command and control in the Inland and coastal zones for the Search and Rescue and Marine Safety operating programs. The existing National Distress System is inadequate to meet the safety requirements of growing marine traffic, and is not capable of meeting the requirements of the International Convention for the Safety of Life at Sea (SOLAS) treaty. NDRSM will expand existing capability through greater area coverage, eliminate emergency access problems, comply with the federal mandate for narrowbanding, provide voice recorder replay, and add direction finding capability to improve Coast Guard emergency response

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
PhaseIIa Final Design & Initial Operating Capability	Lump Sum		21,000
Environmental Impact Analysis	Lump Sum		2,750
Technical Acquisition Support	Lump Sum		3,000
Project Administration	Lump Sum		1,250
PhaseIIb (Deployment) Initial Site Surveys	Lump Sum		14,000
			42,000

FUNDING HISTORY:

	FY	TOTAL
Stand Up Project, Concept Exploration	1997 & earlier	1,150
Concept exploration.	1998	5,000
Concept Exploration, Contract Preparation	1999	3,000
Contract Evaluation, Preliminary Design	2000	16,000
Preliminary Design, Prototype Development	2001	23,748

ESTIMATED FUTURE COST REQUIREMENT: **TBD**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X	X	X	X			X
Secondary					X	X	

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NATIONAL DISTRESS AND RESPONSE SYSTEM MODERNIZATION (NDRSM)

PROJECT	$42,000
KEY EVENTS:	
Phase I Contract Award	FY00
Phase II Contract Award	FY02
Initial Operating Capability	FY03
Key Decision Point 4	FY03-04
Full Operating Capability	FY05-06

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DEFENSE MESSAGING SYSTEM (DMS) IMPLEMENTATION **$2,000**

PROJECT DESCRIPTION: This project will replace the current military (record) messaging system, Automated Digital Network (AUTODIN), with Department of Defense's (DoD's) mandated replacement, the Defense Message System (DMS), thereby facilitating continued messaging interoperability with DoD, Allies and other government agencies. The Coast Guard is responsible for funding, staffing, and implementing DMS beyond the DoD Enabling Capability for organizational users (shore-based and mobile).

CAPABILITY ACQUIRED/MAINTAINED: Enables the Coast Guard to meet the mandated requirement to have a messaging system that is fully interoperable with DoD and its counterparts. In order to fulfill its missions, the Coast Guard must maintain military messaging interoperability with DoD, and therefore, must implement DMS to ensure continued global connectivity and secure messaging capability.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Primary Equipment/Systems	Lump Sum		230
C4ISR Support	Lump Sum		1,662
Performance & Training	Lump Sum		108
			2,000

FUNDING HISTORY:

	FY	TOTAL
DMS hardware and software implementation	1998	1,400
DMS hardware and software implementation	1999	800
DMS hardware and software implementation	2000	3,477
DMS hardware and software implementation	2001	2,466

ESTIMATED FUTURE COST REQUIREMENT: **7,400**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X	X	X	X	X	X	X
Secondary							

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DEFENSE MESSAGING SYSTEM (DMS) IMPLEMENTATION **$2,000**

KEY EVENTS:	
DMS Transition Plan	FY96
DMS Migration & Architecture Plan	FY97
DMS Master/Project/Implementation Plans	FY98
DMS LCC Establishment	FY99-00
AUTODIN Phaseout	FY99-00
DMS to Shore-side Organizational Users	FY99-02
DMS to Tactical Users	FY02-06
DMS Project Complete	FY08-10

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COMMERCIAL SATELLITE COMMUNICATIONS (SATCOM) UPGRADE **$1,500**

PROJECT DESCRIPTION: Continuation of the multi-year project to install SATCOM equipment on surface operational platforms that currently depend on inadequate high frequency data link (HFDL) communications, and upgrade existing SATCOM equipment with current technology.

CAPABILITY ACQUIRED/MAINTAINED: The existing High Frequency (HF) radio communications infrastructure is an inadequate communications path for support of large bandwidth data exchanges due to limited throughput. Utilization of this new technology will allow the Coast Guard to adapt to an increasingly information-rich environment and take advantage of competitive cost savings. It is anticipated that competition among the satellite service providers will continue to cause a decrease in the cost of service. This will allow the mobile platforms to utilize the commercial satellite communications path to its fullest potential. The new commercial satellite communications path will enable cost effective provision of record message traffic, e-mail, and other mission essential applications, increasing efficiencies in process automation and data fusion. Pending DOD data communications interoperability is reliant on completion of this initiative.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
SATCOM Voice Systems, Install & Parts	Each	50	574
HFDL Systems & Install	Each	27	926
			1,500

FUNDING HISTORY:

	FY	TOTAL
Non-Recurring Engineering - First year Equipment acquisition	1999	4,000
Equipment acquistion and Installation	2000	4,049
Equipment acquistion and Installation	2001	5,447

ESTIMATED FUTURE COST REQUIREMENT: **5,700**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X	X					X
Secondary			X	X	X	X	

KEY EVENTS:

Project Complete	FY04

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GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS) $2,200

PROJECT DESCRIPTION: This continues the project to modernize the Coast Guard's shoreside infrastructure for high and medium frequency Digital Selective Calling (HF/MF DSC), a distress alerting system that is part of GMDSS. Its use is mandated by the SOLAS Convention, to which the U.S. is a signatory nation. The Coast Guard's existing shoreside DSC technology platform is obsolete and rapidly becoming unsupportable. In addition, the project replaces the aging High Frequency (HF) transmitters currently supporting GMDSS at Coast Guard communications stations.

CAPABILITY ACQUIRED/MAINTAINED: This project will facilitate the transition of the Coast Guard's infrastructure for HF/MF DSC to our current IT platform. Both hardware and software will be obtained to modernize the system and improve the process of sorting incoming digital distress alerts. Shore-based HF transmitters, supporting Maritime Public Safety and Command, Control, Communications, Computer, and Intelligence (C4I) missions, are beyond their projected end-of-life. Equipment is 1970s technology, and requires significant, increasing resources to maintain. The missions supported by these transmitters are internationally mandated legal obligations and DOD/NATO interoperability requirements with an expected duration of 10-15 years. These HF requirements cannot be otherwise met or replaced with satellite communication systems. This project will ensure the reliability of the Coast Guard's HF shore-based infrastructure at Coast Guard Communication Stations supporting GMDSS missions.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
HF/MF DSC Development / Installation	Lump Sum	1	1,150
HF Transmitters (Communication Stations)	Each	7	1,050
			2,200

FUNDING HISTORY:

	FY	TOTAL
HF/MF DSC Ashore	1997 & earlier	5,100
System Development/Procurement. HF Transmitter Replacement.	2001	3,076

ESTIMATED FUTURE COST REQUIREMENT: 3,600

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X						
Secondary				X			

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GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS)	$2,200
KEY EVENTS:	
Complete Shore Installs.	FY03

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SEARCH AND RESCUE CAPABILITIES ENHANCEMENT PROJECT **$1,320**

PROJECT DESCRIPTION: This completes the project to enhance Coast Guard Search and Rescue (SAR) capabilities through SAR computer application upgrades and an open architecture that allows for future technological improvements.

CAPABILITY ACQUIRED/MAINTAINED: Funding will allow the Coast Guard to implement a multi-faceted project to improve computer applications for search and rescue (SAR) decision-making, planning and monitoring. This will ensure SAR planners have contemporary decision support tools for saving lives and property through more efficient use of on-scene search resources. The improved systems will also provide improved situational assessment through increased data sharing and interoperability between USCG and local or international SAR resources, vital to open-ocean or multi-national rescue efforts. These computer systems also assist the nation in meeting international obligations for providing rescue services and coordination within those areas of the globe for which the Coast Guard has coordination responsibility.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Software Development & Documentation	Lump Sum	1	1,320

FUNDING HISTORY:

	FY	TOTAL
CASP basic needs/C2PC utilities, hardware, SLDMBs	2001	1,497

ESTIMATED FUTURE COST REQUIREMENT: **NONE**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X						
Secondary				X			

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THIRTEENTH DISTRICT MICROWAVE MODERNIZATION PROJECT **$800**

PROJECT DESCRIPTION: This project will upgrade the existing Coast Guard-owned and operated microwave communications network in Oregon and Washington, used for search and rescue, law enforcement, Vessel Traffic Service for Puget Sound, Coast Guard Data Network, and the National Oceanographic and Atmospheric Administration. This effort provides infrastructure upgrades, equipment purchase and installation, and the transitioning from the existing analog microwave to the hybrid microwave/leased landline solution.

CAPABILITY ACQUIRED/MAINTAINED: In accordance with mandates set forth in the Department of Commerce Spectrum Reallocation Report, the CG must abandon a large portion of the Thirteenth District communication network by CY 2004. This severely impacts our ability to respond to safety emergencies, to monitor vessel mobility within ports and waterways, and to sustain our military readiness. Project work must commence in FY02 to have the system at full operating capability prior to January 2004. The proposed combination of microwaves and leased landlines provides the necessary system and bandwidth to meet the network needs for critical Coast Guard missions (search and rescue, vessel traffic service, and law enforcement).

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Infrastructure Upgrade	Lump Sum		800

FUNDING HISTORY:
None

ESTIMATED FUTURE COST REQUIREMENT: **TBD**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X	X	X	X			
Secondary					X		X

KEY EVENTS:

Identify/Commence Infrastructure Upgrades	FY02
Equipment Acquisition and Installation	FY03-04
Complete Installations & Transition to Hybrid Solution	FY04

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HAWAII RAINBOW COMMUNICATIONS SYSTEM MODERNIZATION **$3,100**

PROJECT DESCRIPTION: This initiative will fund an upgrade to the existing Hawaii Rainbow Communications System, which provides VHF-FM connectivity throughout the Hawaiian Islands for both federal and state agencies. The Hawaii Rainbow Communications System is a unique Federal/State multi-agency partnership, comprised of U.S. Customs Service (USCS), U.S. Coast Guard, U.S. Drug Enforcement Agency, and three State of Hawaii agencies. The federal agencies provide the funding to support the system, while the State agencies provide land and facilities. This project will fund the Coast Guard's one-third share of the total system modernization cost, estimated to be $40M. USCS is the lead agency for the Hawaii Rainbow Communications System and will coordinate acquisition and installation of equipment.

CAPABILITY ACQUIRED/MAINTAINED: The existing Hawaii Rainbow Communications System, installed in the late 1970's, is nearing the end of its life cycle. Availability of parts and components has become problematic and performance of the system is degrading.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Non-recurring Engineering	Lump Sum		500
Hardware Purchase/Installation	Lump Sum		2,600
			3,100

FUNDING HISTORY:
None

ESTIMATED FUTURE COST REQUIREMENT: **4,600**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X	X		X		X	
Secondary			X		X		X

KEY EVENTS:

Provide CG Share for Engineering Study	FY02
System Replacement to USCS for Project Execution	FY02-03

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HIGH FREQUENCY (HF) RECAPITALIZATION AND MODERNIZATION **$2,500**

PROJECT DESCRIPTION: Replace shore based high frequency (HF) transmitters and transceivers with state-of-the-art HF equipment and a flexible network architecture utilizing Automatic Link Establishment (ALE). A total of 732 transmitters and transceivers will be replaced during this 5-year project. The project provides an overarching, comprehensive HF ALE-enhanced communication system architecture that will integrate state-of-the-art telecommunications technology into the CG's long haul, multi-mission communication system.

CAPABILITY ACQUIRED/MAINTAINED: This initiative will ensure the continued viability of the CG's ship and shore-based HF communications infrastructure and its ability to fully support Public Maritime Safety and CG C4I missions. It will develop a comprehensive plan to ensure that CG use of the HF spectrum is automated and integrated into the CG's network centric shore-based architecture. HF ALE technology automates manpower intensive operations and will increase throughput necessary to continue providing reliable service to the maritime public and ensuring interoperability as required by international agreements. This modernization effort will also provide the flexibility and scalability needed to meet current and future voice and data requirements.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Non-recurring Engineering/Integration	Lump Sum		800
Hardware Acquisition/Installation	Each	17	1,325
Transmitter/Transceiver Sparing	Each	5	375
			2,500

FUNDING HISTORY:
None

ESTIMATED FUTURE COST REQUIREMENT: **TBD**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X	X					X
Secondary			X	X	X	X	

KEY EVENTS:

Preliminary Engineering/Integration Work	FY02
Equipment Acquisition and Installation	FY02-06

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READINESS MANAGEMENT SYSTEM (RMS) **$1,675**

PROJECT DESCRIPTION: This requests provides funding for an overarching, integrated Coast Guard Readiness Management System (RMS).

CAPABILITY ACQUIRED/MAINTAINED: A Readiness Smart Window system will provide interactive computer display as the interface to allow a display of common information on operational status and critical logistics information such as personnel, training, and equipment readiness. The system will serve the needs of all levels of the Coast Guard (units/groups, districts/areas, and Commandant). The RMS will help identify issues most effecting readiness and assist making informed decisions to achieve the best balance in meeting readiness standards.

The Navy's TYCOM Readiness Management System (TRMS), a critical part of the Readiness Measurement System, is a new tool developed by the Navy that will greatly improve readiness reporting for major cutters, Island class patrol boats, and PSUs. It will facilitate data entry, reduce errors, and create readiness messages for use throughout the Coast Guard. This request provides funding for tools to allow a web-based analytical capability and real-time visibility of readiness information.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
RMS System Acquisition & Maintenance	Lump Sum	1	1,002
TRMS System Acquisition & Maintenance	Lump Sum	1	673
			1,675

FUNDING HISTORY:
None

ESTIMATED FUTURE COST REQUIREMENT: **2,600**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X	X	X	X	X	X	X
Secondary							

KEY EVENTS:

TRMS Fully Operational	FY02
RMS Fully Operational	FY05

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DOD C4I INTEROPERABILITY **$1,530**

PROJECT DESCRIPTION: This project will provide internet protocol based communications capabilities to meet US Navy IT-21 guidelines, positioning the Coast Guard to meet impending changes in the DOD data communications environment. Funding will be used to provide shoreside infrastructure to support this communications system throughout the Coast Guard and to place systems aboard three icebreaking cutters (two in FY02).

CAPABILITY ACQUIRED/MAINTAINED: Coast Guard assets must have full communications interoperability with DOD counterparts to meet commitments to national defense and joint operations. This project will ensure the transition to internet protocol based communications as outlined by the Navy's IT-21 initiative, which creates a primary pipeline for secure and unclassified data transmissions among assets.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Shoreside Systems (USN & USCG communications centers)	Lump Sum	1	530
Non Recurring Engineering Costs (NRE)	Lump Sum	1	1,000
			1,530

FUNDING HISTORY:
None

ESTIMATED FUTURE COST REQUIREMENT: **TBD**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary						X	X
Secondary	X	X					

KEY EVENTS:

Engineering/installation IT-21 on polar icebreakers	FY 03
Engineering/installation of shoreside systems	FY 02
Engineering/installation of IT-21 system on CGC Healy	FY 03

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COMMAND CENTER READINESS AND INFRASTRUCTURE RECAPITALIZATION PROJECT **$727**

PROJECT DESCRIPTION: This project will improve and standardize command and control tools at Area, District and Section command centers, providing funds for a front-end analysis to develop training, hardware/software deployment and command, control, communications, computer and information system integration strategies. It also funds the expansion of data networking connectivity as well as the deployment of robust processing hardware and integrated decision support tools.

CAPABILITY ACQUIRED/MAINTAINED: This project will ensure that Coast Guard command centers gain the ability to efficiently collect, process and exchange vital information in execution of all Coast Guard missions. Funding will correct current shortfalls documented in the 1999 Coast Guard Command Center Study, including unsupported stand-alone systems, training deficiencies, and inadequate facilities, as well as suboptimal hardware, software and connectivity to support a complex information environment. The support and integration of existing systems are also integral to this effort.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Front-End Analysis for Systems	Lump Sum	1	727

FUNDING HISTORY:
None

ESTIMATED FUTURE COST REQUIREMENT: **TBD**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X	X	X				
Secondary				X	X		

KEY EVENTS:

Mission Need Statement	FY02
Contract Award	FY04
Project Completion	FY05

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P-250 PUMP REPLACEMENT **$2,046**

PROJECT DESCRIPTION: This project will replace the primary portable firefighting and dewatering pumps on Coast Guard cutters. The pump is used on cutters for emergencies and on vessels being assisted at sea. Since the existing P-250 pump is no longer manufactured, the inventory of spare pumps and parts will be depleted by the end of FY02.

CAPABILITY ACQUIRED/MAINTAINED: This project maintains the fleet's base level of readiness, with respect to fire fighting and dewatering capabilities for cutters. Funding this project will provide a "just in time" solution to the problem of supporting obsolete pumps while reducing overall life cycle costs of portable pumps.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Primary Equipment & Sytems	Ship Set	84	1,809
Sparing/Integrated Logistics Support	Lump Sum		237
			2,046

FUNDING HISTORY:
None

ESTIMATED FUTURE COST REQUIREMENT: **NONE**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary							
Secondary	X	X	X	X	X	X	

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CONFIGURATION MANAGEMENT - PHASE II **$6,023**

PROJECT DESCRIPTION: Configuration Management Plus (CMplus) is an integrated configuration-based supply and maintenance application originally designed for Coast Guard cutters. CMplus provides automated central information storage and retrieval for inventory, maintenance, requisitioning and equipment history information. It is the single application that supports all vessel engineering and supply efforts at field units. The FY 2002 CM Project effort will complete testing of the centralized database and deploy it to over 400 shore units. It also will upgrade the cutter version and deploy it to over 200 cutters.

CAPABILITY ACQUIRED/MAINTAINED: The CM Project improves configuration, maintenance and supply support at the field level to overcome system weaknesses identified by GAO audits and to conform to new governmental regulations including the CFO Act and GPRA. CMplus provides the field unit with a single source record to draw upon for engineering and supply information. CMplus has led to very successful DOT IG audits of Operating Materials & Supplies (OM&S) in FY98 and FY99. These evaluations were given with the understanding that the Coast Guard would continue efforts to bring a CFO compliant system to all units that carry OM&S. There are 583 units in the Coast Guard that carry OM&S, currently valued at $251M.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Hardare & Implementation	Lump Sum		2,263
Software	Lump Sum		3,760
			6,023

FUNDING HISTORY:

	FY	TOTAL
Cmplus Phase I thru IV	1997 & earlier	23,065
Cmplus deployed to 21 cutters: 5-210, 3-140, 13-110.	1998	4,017
Cmplus deployed to 21 cutters: 2-210, 1-140, 18-110.	1999	3,800
Cmplus deployed to Polar Icebreakers & last 11-110's.	2000	3,700
Deployment Phase 1 - Software Development	2001	3,592

ESTIMATED FUTURE COST REQUIREMENT: **NONE**

ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary					X		
Secondary	X	X		X	X	X	X

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CONFIGURATION MANAGEMENT - PHASE II **$6,023**

KEY EVENTS:	
Install text based application	FY00
Install preliminary web supply capabilities	FY01
Complete deployment on (5) 110's & (2) Polar Class	FY02
Installation of centralized web based application	FY02
Deploy Cmplus to remaining units (Afloat and Ashore)	FY02/03
Project completed.	FY03

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SELF-CONTAINED BREATHING APPARATUS (SCBA) REPLACEMENT **$1,000**

PROJECT DESCRIPTION: This project is the first phase of a multiyear project to replace the Oxygen Breathing Apparatus (OBA) with SCBA aboard Coast Guard cutters and training commands. The SCBA equipment is used to protect personnel while fighting shipboard fires. This project will outfit most CG cutters and training facilities with SCBAs and the necessary spare parts, refill compressors, extra bottles, storage space modifications, training, and provide funding for disposal of obsolete OBA canisters (Hazmat).

CAPABILITY ACQUIRED/MAINTAINED: Replacing the OBAs with SCBAs will ensure our CG cutters and personnel are equipped with proper, safe, supportable and the most environmentally-friendly personal breathing gear available for fighting fires at sea.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Purchase SCBAs	Ship Set	49	825
Non-Recurring Engineering Costs	Lump Sum		175
			1,000

FUNDING HISTORY:
None

ESTIMATED FUTURE COST REQUIREMENT: **TBD**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary							
Secondary	X	X	X	X	X	X	

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MINOR INFORMATION TECHNOLOGY PROJECTS **$2,000**

PROJECT DESCRIPTION: This initiative provides resources to support a comprehensive information technology (IT) investment management process, execute minor IT initiatives, evaluate emerging technologies, and develop alternatives to satisfy program and enterprise-wide information requirements.

CAPABILITY ACQUIRED/MAINTAINED: This initiative will facilitate the timely acquisition of specialized technical expertise on an as needed basis; the comprehensive design and analysis of alternatives to meet our operations and support information needs; and the ability to rapidly optimize emerging technology in support of program and enterprise-wide information needs through the deployment of incremental system functionality.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Alternative Development & Analysis	Lump Sum		2,000

FUNDING HISTORY:

	FY	TOTAL
Minor AC&I IT Projects	1997 & earlier	1,000

ESTIMATED FUTURE COST REQUIREMENT: **TBD**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary							
Secondary	X	X	X	X	X		

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SURVEY AND DESIGN - SHORE OPERATIONAL AND SUPPORT PROJECTS **$7,000**

PROJECT DESCRIPTION: Funds for this request are required to complete engineering design work prior to project appropriation, and contract administration/project management when construction funding has been appropriated and construction is underway. This request will also provide funds for planning, design, travel, and administrative expenses required which ensures efficient management, contract administration, and execution of the shore capitalization and investment program. The future projects supported are part of the long range plans to support operational units.

CAPABILITY ACQUIRED/MAINTAINED: Provide funds for advance requirements, planning and engineering studies, project design, master plans, and other architectural/engineering efforts to supplement in-house capability. Additionally, funds will be used for preliminary site surveys, property acquisition expenses, options, and real property purchases for future construction. Funding for construction inspection and contract management ensures high quality construction, compliance with accepted building standards and codes, and quick resolution of construction problems. This year's request will also provide planning and design of shore facilities to support siting requirements of new acquisitions including motor lifeboats, buoy tenders, coastal patrol boats and platforms which improve Coast Guard readiness and modernization efforts.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Survey & Design	Lump Sum		5,900
Master / Special Plans	Lump Sum		400
Inspection / Support	Lump Sum		700
			7,000

FUNDING HISTORY:

	FY	TOTAL
==> Summarize work done prior to FY98 here	1997 & earlier	6,000
Facilities Studies, Master Planing, Planning, and Design	1998	5,000
Facilities Studies, Master Planing, Planning, and Design	1999	5,000
Facilities Studies, Master Planing, Planning, and Design	2000	6,000
Facilities Studies, Master Planing, Planning, and Design	2001	6,985

ESTIMATED FUTURE COST REQUIREMENT: **TBD**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary							
Secondary	X	X	X	X	X	X	X

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MINOR AC&I SHORE CONSTRUCTION PROJECTS **$7,162**

PROJECT DESCRIPTION: To provide continuing funds for small, but necessary shore facility construction projects. These projects are less complex and require less advance planning than their major counterparts. The overall cost for any minor shore facility project falls between $350,000 and $1,000,000. Various locations and capital plant actions are involved. Typical problems include substandard, deteriorating, overcrowded or functionally inadequate facilities. This level is necessary because facility changes will be made at various homeports to accommodate new operational cutters and boats delivered to the field. Some of these new acquisitions include motor life boats, buoy tenders, coastal patrol boats and other platforms to increase operational and support readiness for surface/aviation capability.

CAPABILITY ACQUIRED/MAINTAINED: Types of projects planned include:
a. Upgrade facilities to achieve more energy efficient facilities.
b. Renovate existing facilities to comply with current habitability, fire, life safety and occupational standards.
c. Modify existing facilities to meet mission & staff requirements and to comply with regulations.
d. Replace deteriorating facilities which are beyond the intended service life.
e. Construct new facilities to provide for changing mission requirements or new acquisitions.
f. Modify existing mooring facilities for new cutters and boats.

The Coast Guard encourages its units to scale back projects and pursue least costly alternatives. In return, projects are accomplished more quickly, before additional deterioration or facility requirements involve a more costly and extensive design and construction effort.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Minor AC&I Shore Construction-Various	Lump Sum		7,162

FUNDING HISTORY:

	FY	TOTAL
==> Summarize work done prior to FY98 here	1997 & earlier	4,000
Minor AC&I Shore Construction Projects - Various Locations	1998	7,000
Minor AC&I Shore Construction Projects - Various Locations	1999	6,000
Minor AC&I Shore Construction Projects - Various Locations	2000	6,000
Minor AC&I Shore Construction Projects - Various Locations	2001	5,318
ESTIMATED FUTURE COST REQUIREMENT:		**TBD**

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MINOR AC&I SHORE CONSTRUCTION PROJECTS $7,162

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X	X	X	X	X	X	X
Secondary							

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CONSOLIDATE ELIZABETH CITY AVIATION AND STATION FACILITIES - PHASE I **$6,300**

PROJECT DESCRIPTION: This project will consolidate Coast Guard Air Station Elizabeth City and Station Elizabeth City, NC administration, operations and maintenance functions into a single two-story building. Currently, these functions are housed in several functionally inadequate and undersized buildings with safety concerns associated with 1940's construction and design life. Three buildings will be demolished as part of this project; the fourth will be retained as an interim facility until Hangar 49 renovations are completed.

CAPABILITY ACQUIRED/MAINTAINED: Four deteriorated buildings will be replaced with one modern, safe, energy efficient, functional building. Administration, operations, communications and maintenance spaces for the Air Station, C-130 Standardization Team and Station Elizabeth City personnel will be consolidated into the new facility.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Demolition	Lump Sum		70
Building Construction	Lump Sum		6,230
			6,300

FUNDING HISTORY:
None

ESTIMATED FUTURE COST REQUIREMENT: **4,700**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X	X				X	
Secondary			X	X	X		X

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ENGINEERING LOGISTICS CENTER - WAREHOUSE CONSOLIDATION **$12,600**

PROJECT DESCRIPTION: This project consolidates Engineering Logistics Center (ELC) functions at the Coast Guard Yard. Phase 1 involves constructing an addition onto the existing warehouse. This will allow the Coast Guard to vacate leased warehouse space located over 20 miles away. The ELC currently occupies 21 different buildings at three different sites either at the Coast Guard Yard or in leased facilities nearby. This arrangement was intended to be temporary when the ELC was created as a result of the consolidation of Supply centers Curtis Bay and Brooklyn in 1993.

CAPABILITY ACQUIRED/MAINTAINED: Construct an addition to the existing warehouse as Phase 1 which allows the Coast Guard to reduce expensive leased warehouse space. ELC will gain efficiency in operation. Phase 2 is planned to construct another support facility at the Yard to consolidate all the ELC organizations now scattered in leased space.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Construct addition to ELC warehouse	Lump Sum		12,600

FUNDING HISTORY:
None

ESTIMATED FUTURE COST REQUIREMENT: **NONE**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary							
Secondary	X	X	X	X	X	X	

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COAST GUARD HOUSING - VARIOUS LOCATIONS **$11,000**

PROJECT DESCRIPTION: This program will provide replacement for 16 family housing units including roadway and utility improvements in Kodiak, Alaska. In addition, the second phase of housing improvements to 25 units in Valdez, Alaska will be completed -including utility and drainage improvements. Housing need assessments substantiate requirements to construct or improve housing in these locations.

CAPABILITY ACQUIRED/MAINTAINED: Certain areas lack sufficient adequate community housing for personnel to rent or buy, or for the Coast Guard to lease. Many existing units require extensive renovations to meet adequacy and safety criteria. Adequacy criteria include cost, environmental safety, suitability elements (size, number of bedrooms, condition), and commuting factors (time, distance, and cost). Coast Guard owned housing is acquired where other alternatives are inadequate, not available, or not cost effective. Constructing new and improving existing units will reduce the number of Coast Guard personnel who are inadequately housed and improve the quality of life for members and their dependents.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
ISC Kodiak Housing Units / Site work	Lump Sum		8,000
MSO Valdez Housing Improv Phase II	Lump Sum		3,000
			11,000

FUNDING HISTORY:

	FY	TOTAL
==> Summarize work done prior to FY96 here	1997 & earlier	12,000
Construct /purchase approximately 75 units	1998	14,900
Construct approximately 6 family & 38 UPH units	1999	9,000
Construct approximately 62 UPH modules & renovate barracks	2000	7,800
Construct 16 family & 11 UPH modules; improve 28 units	2001	9,978

ESTIMATED FUTURE COST REQUIREMENT: **TBD**

PERFOI ANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary							
Secondary	X	X	X	X	X	X	X

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REBUILD GROUP-MARINE SAFETY OFFICE LONG ISLAND SOUND **$4,900**

PROJECT DESCRIPTION: To replace the existing operational facility Group/Marine Safety Office Long Island Sound and Station New Haven in New Haven, CT with a new, modern, energy efficient, handicapped accessible facility. This three story building contains all operations and communications spaces, engineering maintenance facilities, galley/mess, and berthing for Group/Marine Safety Office Long Island Sound and Station New Haven. The building is deteriorated, functionally and physically obsolete and does not adequately accommodate female personnel. The building has serious health and safety concerns which must be addressed, including asbestos in the form of sprayed asbestos ceilings, vinyl asbestos floor tiles, and asbestos insulation throughout the building. In addition, the building does not meet seismic structural code requirements.

CAPABILITY ACQUIRED/MAINTAINED: A new building will be constructed adjacent to the existing structure, which will provide for more functionally efficient spaces that meet current design standards and health, safety, and seismic structural life safety codes. New construction will include individual berthing modules with private bathrooms and properly configured MSO communications/operations spaces, which have never been addressed since the Marine Safety Office was relocated to the Group facility in the early 1990s. The new facility will meet all handicapped accessibility requirements.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Renovate Grp MSO Multi Purpose Building	Lump Sum		4,800
Demolition	Lump Sum		100
			4,900

FUNDING HISTORY:
None

ESTIMATED FUTURE COST REQUIREMENT: **NONE**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X			X	X		
Secondary		X	X				

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REPLACE COAST GUARD STATION PORT HURON - PHASE II **$3,100**

PROJECT DESCRIPTION: This request will provide a modern, safe waterfront and properly sized shore facilities for Station Port Huron, Michigan. This operational station, whose primary mission is search and rescue, is a parent station to one other station and has its own immediate response requirement. Many critical problems exist with the current site. The station's mooring has silted in forcing remote mooring of the response boat, which increases response time. Ice forms at this location relatively early in the season, requiring removal of the boat much earlier than operationally preferred. Many security problems exist as well. The station is currently housed in an obsolete 1938 wood framed structure. Age and minimal upgrades over the years have degraded the unit's capability to maintain the structure and utilities. The station complement has increased and additional space is required to accommodate personnel. Berthing facilities do not meet current fire, life safety, or occupational health standards. The project will be awarded in two phases; Phase I (FY01) funds the urgently needed waterfront facilities, Phase II (FY02) will address the shore facilities.

CAPABILITY ACQUIRED/MAINTAINED: This project will provide a fully functional waterfront facility, decrease response time, repair security shortfalls, and replace the station's obsolete 1930s era building. It will provide appropriately sized facilities, eliminate safety and environmental problems, reduce maintenance, and create a better work environment for station personnel.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
New facility construction	Each	1	3,100

FUNDING HISTORY:

	FY	TOTAL
Demolition and water front construction	2001	1,297

ESTIMATED FUTURE COST REQUIREMENT: NONE

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X	X	X				
Secondary				X	X	X	X

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CONSTRUCT NEW STATION BRUNSWICK **$3,600**

PROJECT DESCRIPTION: This project will provide new station facilities for Station Brunswick, Georgia. The original station boathouse was destroyed by fire in 1993, the station building was condemned in 1994, and the station has since been operating out of temporary facilities on leased land. The previous boathouse was located 3.5 miles from the station. Neither site is acceptable to construct a new station. The existing temporary facilities are co-located at the site for the Georgia Department of Natural Resources.

CAPABILITY ACQUIRED/MAINTAINED: This project will provide a fully functional, multi-mission station building and replace the current temporary facility.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
New facility construction	Each	1	3,600

FUNDING HISTORY:
None

ESTIMATED FUTURE COST REQUIREMENT: **NONE**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary	X	X	X				
Secondary				X	X	X	X

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REPLACE ISC BOSTON BUILDING NO. 8 UTILITIES **$1,600**

PROJECT DESCRIPTION: This project will replace the existing antiquated boilers, electrical, sanitary, telecommunication, ventilation, and various other systems in Building 8 at ISC Boston, MA. The building, a former warehouse, is approximately 100 years old and is currently used as office and support spaces for ISC Boston. The outdated systems experience frequent electrical, plumbing, heating, and telecommunication outages, and are unable to accommodate current building demands. Additionally, the utility systems are not in compliance with current building codes.

CAPABILITY ACQUIRED/MAINTAINED: This project will provide modern, adequately sized and code compliant building utilities to properly serve the various offices and support spaces within Building No. 8.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Replace Building Utilities	Lump Sum		1,600

FUNDING HISTORY:
None

ESTIMATED FUTURE COST REQUIREMENT: **NONE**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary							
Secondary	X	X	X	X			X

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WATERWAYS AIDS TO NAVIGATION INFRASTRUCTURE **$6,000**

PROJECT DESCRIPTION: This request establishes, maintains and improves transportation on U.S. waterways, through construction and improvements to buoys and structures which assist in navigation

CAPABILITY ACQUIRED/MAINTAINED: Waterways infrastructure projects require an annual base funding level to respond to requirements from expanded U. S. Army Corps of Engineers (ACOE) activity and aging or damaged aids to navigation infrastructure. For example, major ACOE projects in Houston-Galveston, TX, Cape Fear River, NC, and Gulfport, MS cannot be made fully operational without the addition of navigational aids; and aids to navigation improvements are required in Florida because of increases in the cruise ship sizes and sailings.

Safe, efficient marine transportation is an integral component of our nation's transportation system and is essential to the health and well-being of the economy.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Relocate Structures/Ranges (ACOE project)	Lump Sum		2,040
Install Ranges (ACOE projects)	Lump Sum		2,760
Improvements to Waterways as a Result of Waterways Analysis	Lump Sum		1,200
			6,000

FUNDING HISTORY:

	FY	TOTAL
Waterways Aids to Navigation Projects	1997 & earlier	9,500
Waterways Aids to Navigation Projects	1998	5,000
Waterways Aids to Navigation Projects	1999	4,070
Waterways Aids to Navigation Projects	2000	5,000
Waterways Aids to Navigation Projects	2001	4,696

ESTIMATED FUTURE COST REQUIREMENT: **TBD**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary				X	X		
Secondary	X		X				X

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AC&I CORE COMPETENCIES AND CAPABILITIES **$700**

PROJECT DESCRIPTION: To provide information resource management, quality assurance, human resource management, and other management funding to support major acquisition project development.

CAPABILITY ACQUIRED/MAINTAINED: Allows the Coast Guard to comply with appropriations law and to maintain an effective acquisition process by providing AC&I resources that are not project specific. Provides the Coast Guard with the ability to maintain core competencies and capabilities to execute assigned workload.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Management Travel and Supplies	Lump Sum		112
Information Resource Management	Lump Sum		105
Human Resource Requirements	Lump Sum		210
Business Plan Action Items	Lump Sum		70
Project Initiation	Lump Sum		203
			700

FUNDING HISTORY:

	FY	TOTAL
Core acquisition costs.	1997 & earlier	6,550
Core acquisition costs.	1998	500
Core acquisition costs.	1999	750
Core acquisition costs.	2000	750
Core acquisition costs.	2001	998

ESTIMATED FUTURE COST REQUIREMENT: **TBD**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary							
Secondary	X	X	X	X	X	X	X

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AC&I PERSONNEL COSTS **$64,500**

PROJECT DESCRIPTION: Fund salaries, compensation and support costs (including annual pay raise and COLA) for personnel who manage, execute and administer the Acquisition, Construction and Improvements (AC&I) Program.

CAPABILITY ACQUIRED/MAINTAINED: This line item provides the required human resources for AC&I planning, design, engineering, contracting, project management, quality assurance and logistics support to ensure the products and services acquired through the AC&I program are completed on time, on budget, and in compliance with performance requirements. The increase over last year's request is due to pay and COLA increases, and new C130J project, National Distress and Response System project, Great Lakes Icebreaker project and Deepwater project requirements while large projects such as the Seagoing Buoy Tender, Coastal Patrol Boats, and Motor Life Boat are still active.

COST ESTIMATE OF WORK TO BE FUNDED THIS FISCAL YEAR:

ITEM	MEASURE	QUANTITY	TOTAL
Personnel salaries, compensation and support	Lump Sum		64,500

FUNDING HISTORY:

	FY	TOTAL
Direct Personnel Costs	1998	46,500
Direct Personnel Costs	1999	47,700
Direct Personnel Costs	2000	50,180
Direct Personnel Costs	2001	54,032

ESTIMATED FUTURE COST REQUIREMENT: **TBD**

PERFORMANCE EFFECT/OPERATING PROGRAMS SUPPORTED BY THIS ASSET/FACILITY:

	SAR	ELT	MEP	MS	ATON	IO	DR
Primary							
Secondary	X	X	X	X	X	X	X

ENVIRONMENTAL COMPLIANCE AND RESTORATION

For necessary expenses to carry out the Coast Guard's environmental compliance and restoration functions under chapter 19 of title 14, United States Code, [$16,700,000] *$16,927,000,* to remain available until expended. *(Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101 (a) of P.L. 106-346.)*

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ENVIRONMENTAL COMPLIANCE AND RESTORATION
Program and Financing (in thousands of dollars)

Identification code: 69-0230-0-1-304		2000 actual	2001 estimate	2002 estimate
	Obligations by program activity:			
	Direct program:			
1000	Total new obligations	16,971	16,663	20,509
	Budgetary resources available for obligation:			
2140	Unobligated balance carries forward, start of year:	3,350	3,582	3,582
2200	New budget authority (gross)	16,924	16,663	16,927
2210	Resources available from recoveries of prior year obligations	279	.....	.....
2390	Total budgetary resources available for obligation	20,553	20,245	20,509
2395	Total new obligations	-16,971	-16,663	-20,509
2440	Unobligated balance carried forward, end of year:	3,582	3,582	.....
	New budget authority (gross), detail:			
	Discretionary:			
4000	Appropriation	17,000	16,700	16,927
4075	Reduction Pursuant to [P.L. 106-69] (-)	-11	.....	.....
4076	Reduction Pursuant to [P.L. 106-113] (-)	-65	.....	.....
4077	Reduction Pursuant to [P.L. 106-554] (-)	.....	-37	.....
4300	Appropriation (total)	16,924	16,663	16,927
	Change in unpaid obligations:			
7240	Unpaid obligations, start of year:	11,791	11,133	14,401
7310	Total new obligations	16,971	16,663	20,509
7320	Total outlays (gross)	-17,350	-13,395	-11,000
7345	Recoveries of prior year obligations (-)	-279	.....	.....
7440	Unpaid Obligations, end of years	11,133	14,401	23,910
	Outlays (gross), detail:			
8690	Outlays from new discretionary authority	5,077	4,999	6,153
8693	Outlays from discretionary balances	12,273	8,396	4,847
8700	Total outlays (gross)	17,350	13,395	11,000
	Net budget authority and outlays:			
8900	Budget authority (net)	16,924	16,663	16,927
9000	Outlays (net)	17,350	13,395	11,000

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ENVIRONMENTAL COMPLIANCE AND RESTORATION
Program Digest (In thousands of dollars)

Program by activities:	2000 actual	2001 estimate	2002 estimate
1. Cleanup & Restoration Projects & Activities	9,984	9,962	9,919
2. Environmental Compliance Program & Activities	2,138	2,133	2,000
3. Personnel	4,802	4,568	5,008
Total appropriation or estimate:	16,924	16,663	16,927
FTE:			
(Military)	2	2	2
(Civilian)	49	52	52
Total	51	54	54

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ENVIRONMENTAL COMPLIANCE AND RESTORATION
Program and Performance

The Environmental Compliance and Restoration account provides resources to the Coast Guard to satisfy environmental compliance and restoration related obligations arising under chapter 19 of title 14 of the United States Code.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ENVIRONMENTAL COMPLIANCE AND RESTORATION
Object Classification
(in thousands of dollars)

Identification code: 69-0230-0-1-304		2000 actual	2001 estimate	2002 estimate
	Direct obligations:			
	Personnel compensation:			
11.1	Full-time permanent	3,271	3,593	3,778
11.3	Other than full-time permanent	5	5	5
11.5	Other personnel compensation	29	32	34
11.7	Military personnel	168	179	188
11.8	Special personnel services payments	1	1	1
11.9	Total personnel compensation	3,474	3,810	4,006
12.1	Civilian personnel benefits	859	944	993
12.2	Military personnel benefits	7	8	8
13.0	Benefits for former personnel	1	1	1
21.0	Travel and transportation of persons	298	280	365
22.0	Transportation of things	2	2	3
23.2	Rental payments to others	3	3	4
24.0	Printing and reproduction	14	13	17
25.2	Other services	11,845	11,164	14,541
25.8	Subsistence and support of persons	1	1	1
26.0	Supplies and materials	383	359	468
31.0	Equipment	84	78	102
99.9	Total obligations	16,971	16,663	20,509

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ENVIRONMENTAL COMPLIANCE AND RESTORATION
Personnel Summary

Identification code: 69-0230-0-1-304		2000 actual	2001 estimate	2002 estimate
	Direct:			
	Total compensable workyears			
1001	Full-time equivalent employment civilian	49	52	52
1101	Full-time equivalent employment military	2	2	2

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ENVIRONMENTAL COMPLIANCE AND RESTORATION
Justification

Executive Order 13148 and federal, state, and local environmental laws and regulations require site restoration and compliance related actions throughout the Coast Guard, including: restoration of contaminated groundwater and soils; air pollution emission controls; and pollution prevention.

FY 2002 will consist of $16,927,000 in new budget authority. Detailed explanations are included in the following three categories.

1. RESTORATION/MITIGATION.....$9,919,000

Goals are designed to repair damage that has been caused to the natural or human environment. Development of Performance Targets and Measures:

- Clean up all known sites.

Specific Mitigation Operations:

The Coast Guard will continue its policy of addressing the most serious contamination problems first, including continuation of efforts started during prior fiscal years. With some sites, enforcement action by regulatory agencies may factor in project prioritization.

Due to uncertainties in levels of contamination found at each site and potential state enforcement actions, costs and timing may vary, and emergent requirements may necessitate the reprioritization of individual projects. This funding request supports one year of restoration at each site, not the total funding necessary to complete all cleanup actions at each site. Other planned activities including engineering survey and design work, and technology systems designed to support the following:

a. Battery Recovery Activities

Supports servicewide continuation of the Aids to Navigation cleanup efforts, as outlined in the Coast Guard National Plan. With the passage of the Clean Water Act and recognizing that the uncontrolled discharge of any pollutant into America's waterways is detrimental to the environment, the Coast Guard published a policy prohibiting the release of expended batteries.

The Coast Guard has also undertaken a comprehensive cleanup effort to recover batteries and properly dispose of them. The Coast Guard has responsibility for aids to navigation located on navigable waterways and in U.S. waters. Unfortunately, used primary batteries were sometimes discarded in the water or on land while servicing an active aid. Most batteries were discarded at fixed lighted aids before there was general environmental awareness or laws. In 1973, guidance banned on-site disposal of used batteries. Later, the Coast Guard launched its National Battery Recovery and Disposal program after years of research and partnership between the Coast Guard, other federal agencies, state and local governments, academic institutions, private industry, and the public. Although scientific studies indicated that batteries posed no significant threat to human health or the environment, the batteries were found to be improperly discarded and the Coast Guard developed a multiyear, multimillion dollar strategy to properly recover and dispose of them.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ENVIRONMENTAL COMPLIANCE AND RESTORATION
Justification

a. Battery Recovery Activities (cont.)

Since 1973, the Coast Guard has promulgated operational policies prohibiting the disposal of batteries into the waters of the U.S. The Coast Guard has acted with resolve to prevent battery losses in the future including:

- redesigned aids to navigation (the Coast Guard has converted more than 98% of battery powered aids to solar power)
- reinforced mounting brackets and battery boxes to minimize knockdown losses
- training for Coast Guard personnel
- creation of a "cradle to grave" battery tracking system

To date, approximately 10,500 of the more than 12,500 active fixed sites identified have been surveyed. Batteries were discovered at only 22% of the surveyed sites and more than 40,000 batteries (representing approximately 1.9 million pounds of solid waste) have been recovered and disposed of. Consent orders and agreements have been signed with six states and others have been consulted during the recovery efforts.

For FY 2002, the Coast Guard has approximately 2000 active fixed lighted aids left to survey and expects that this portion of the work will be essentially completed by the end of FY 2002. Additionally, the Coast Guard will be reviewing historical, discontinued fixed aid sites to ascertain whether any evidence of remaining structures exists. If Coast Guard structures are found at these sites, recovery dives will be attempted. As a general rule, when the Coast Guard receives notice of discarded batteries from members of the public or state agencies, efforts to seek and recover those batteries are made as quickly as possible.

b. Large installation remediation efforts.

Integrated Support Command, Kodiak Alaska: Continuation of work necessary to fulfill the terms of a signed consent order and Resource Conservation and Recovery Act (RCRA) operating permit as follows: Under the requirements of a 1990 RCRA 3008(h) Consent Order, the Coast Guard was originally required to investigate 36 sites at Integrated Support Center Kodiak. A RCRA operating permit was issued in 1998 and as part of the permitting process, additional sites were identified. The number of sites now under investigation totals 42.

Eight of the original sites were Hazardous Waste Management Units (HWMU) that have been closed. Ten other sites have been approved for no further action with another four pending including two solid waste landfills that were capped in FY 2000. The remaining 20 sites include a former small arms range, abandoned storage tanks and a former fire training pit.

Funds requested for FY 2002 will be used to perform groundwater monitoring at three closed HWMUs and a solid waste landfill. Other work includes the remediation of a large aviation gas spill under the hangar tarmac and investigation and cleanup at abandoned underground storage tank sites.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ENVIRONMENTAL COMPLIANCE AND RESTORATION
Justification

Support Center, Elizabeth City North Carolina: Pursuant to a Resource Conservation and Recovery Act (RCRA) Part B operating permit and the State of North Carolina Administrative Code, the Coast Guard must clean up approximately 23 contaminated sites at Support Center Elizabeth City. Of these sites, 14 are being managed under RCRA regulations and the remaining 9 sites under North Carolina Administrative Code. There are 12 sites, which require investigation and 11 sites, which are currently under or require remedial actions. Funds requested for FY 2002 are for continued investigations and implementation of new and ongoing operations for remedial actions.

c. Minor remediation projects. Planned FY 2002 efforts:

Unit Name:	Project Name:
LORAN Station Sitkinak, AK	Site Disposal
Air Station Traverse City, MI	Soil and water remediation
Radio Station Pt. Higgins, AK	Release investigation
Air Station Brooklyn, NY	Remedial actions
Former Air Station Annette, AK	Site investigation
Group Cape May, NJ	Townsend Inlet corrective action
Air Station Clearwater, FL	Contaminated soils at tennis courts
Poverty Island Light Station, MI	Environmental site assessment
Support Center New York, NY	O&M for remediation systems
Air Station Brooklyn, NY	O&M of Soil Vapor Extraction/Bio-sparging system
Station St. Petersburg, FL	Contamination assessment report for contaminated soil
Station Fairport, OH	Corrective Action-Underground Storage Tank (UST)
ISC Portsmouth, VA	Fuel leak
Cape Sarichef, AK	Site disposal – various conditions
Loran Station Attu, AK	Site decommissioning
Station Ashtabula, OH	UST leak investigation
Station Oak Island, NC	Corrective Action-UST
LORAN Station St. Paul, AK	Annual Monitoring
Group Grand Haven, MI	PCB contamination investigation
Air Station Brooklyn, NY	Post cleanup/monitoring of Soil Vapor Extraction/Bio-sparging system
LORSTA Carolina Beach, NC	Corrective action – UST
ISC Ketchikan, AK	Firing range investigation
CG Yard, MD	Salvage lot, Preliminary Assessment/Site Investigation, remediation
Station Little Creek, VA	Corrective Action-UST
Station Barnegat Light, NJ	Corrective Action-UST at Beach Haven
Marianas Section, GUAM	ASTM phase I & II survey
Station Chincoteague, VA	Corrective Action-UST
Station Manistee, MI	Corrective Action-UST
Station Port Huron, MI	Corrective Action-USTs

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ENVIRONMENTAL COMPLIANCE AND RESTORATION
Justification

Unit Name:	Project Name:
Station Venice, LA	Pipeline leak contamination
Station Rochester, NY	Corrective Action-USTs
Station St. Ignace, MI	Clean up Thunder Bay Island
ANT Team Green Bay, WI	Corrective Action – UST Plum Island
Group Sault Ste. Marie, MI	Corrective Action – UST N. Superior
Station Sturgeon Bay, WI	Corrective Action-UST
Air Station Port Angeles, WA	Site remediation - UST
Activities San Diego, CA	Site investigation
Group Sault Ste Marie, MI	Asbestos/Lead in soil – Drummond Island
ISC Alameda	Subsurface investigation – Novato housing
ISC Boston	RI/FS – South Weymouth buoy depot
USCG Yard, MD	50k gal UST remediation
LORAN Station Shoal Cove, AK	Release investigation
Station Alexandria Bay, NY	Lead in soil – ASTM Phase I survey
Station Portage, MI	Lead & heavy metals – Isle Royale
Station Fort Pierce, FL	Hydrocarbon contamination from UST leak
Station St. Ignace, MI	Clean up Middle Island Light
CGC Mackinaw moorings, MI	ASTM Phase II – Mackinaw lot
ISC Kodiak, AK	Asbestos landfill closure, Airport UST release investigation
LORAN Station Port Clarence, AK	Annual bioventing monitoring
LORAN Station Kodiak, AK	Remedial Action Plan – implementation

2. COMPLIANCE/PREVENTION..... $2,000,000

Goals include eliminating generation of harmful emissions, minimizing future encroachments on the human and natural environment, and reducing consumption of natural resources. Funding in this category is intended to influence the following outcomes:

- Reduction of Hazardous Waste Generation through pollution prevention
- Reduction of Hazardous Material stocks and consumption through procurement controls
- Achieve 100% level of no findings during CG or external unit compliance evaluations.

Specific Prevention and Compliance Operations:

Provides funding to bring Coast Guard shore facilities and vessels into compliance with environmental laws and regulations including: infrastructure-related compliance projects at shore installations; performing

environmental compliance evaluations of shore facilities; developing pollution prevention and hazardous waste minimization strategies; activities to bring facilities into compliance with the more stringent emissions requirements of the 1990 amendments to the Clean Air Act; developing Spill Prevention, Control and Countermeasure (SPCC) plans for shore installations; and developing Facilities Response Plans as required by the Oil Pollution Act of 1990.

These funds also provide for professional development of EC&R personnel as well as program management and administrative costs including statutory reporting requirements. Planned activities include engineering survey and design work, human resource development and technology systems designed to support the following:

a. Unit Assessments servicewide.

Environmental Compliance Evaluation (ECE) Program: Includes a number of major and minor facility audits and annual updates to federal/state/agency environmental audit protocols and information system improvements.

b. Hazardous Waste/Hazardous Minimization efforts.

Pollution Prevention (P2) Program: Includes pollution prevention assessments, hazardous waste minimization efforts, evaluation of pollution prevention equipment and guidance, and the pollution prevention awards program. Modifications to existing equipment or supply processes to reduce the use of hazardous waste and minimize further need for such materials. Training to provide expertise in acquisition of new platforms to ensure construction meets current regulatory requirements to reduce future modification costs.

c. Small Compliance projects.

Small Compliance Activities, Service-Wide: Funds infrastructure related compliance projects under $500,000 at various shore facilities. Projects include construction of or improvements to hazardous waste storage facilities, storage tank spill containment structures, and equipment washdown facilities to meet environmental regulations.

Vessel Compliance, Agency-wide: Includes studies leading to vessel modifications to comply with the Uniform National Discharge Standards.

d. Regulatory Requirements.

Provides for preparing new Spill Prevention, Control, and Countermeasures Plans (SPCC Plans), updating and certifying other SPCC plans and examples of environmental permits as follows:

- Prepare new Clean Air Act permits for Coast Guard shore facilities
- Prepare new Clean Water Act permits for Coast Guard shore facilities

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ENVIRONMENTAL COMPLIANCE AND RESTORATION
Justification

3. PERSONNEL..... $5,008,000

Funds provide for 54 full time equivalent support personnel.

	FTP		FTE	
	Military	Civilian	Military	Civilian
FY 2002	2	53	2	52
Annualization	0	0	0	0
New FY 2002 Request	0	0	0	0
TOTALS:	**2**	**53**	**2**	**52**

ALTERATION OF BRIDGES

For necessary expenses for alteration or removal of obstructive bridges, [$15,500,000] *$15,466,000,* to remain available until expended. *(Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101 (a) of P.L. 106-346.)*

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ALTERATION OF BRIDGES
Program and Financing (in thousands of dollars)

Identification code: 69-244-0241-403		2000 Actual	2001 estimate	2002 estimate
	Obligations by program activity:			
	Direct program:			
1000	Total obligations	16,355	15,466	41,087
	Budgetary resources available for obligation:			
2140	Unobligated balance carried forward, start of year:	27,033	25,621	25,621
2200	New budget authority (gross)	14,943	15,466	15,466
2390	Total budgetary resources available for obligation	41,976	41,087	41,087
2395	Total new obligations (-)	-16,355	-15,466	-41,087
2440	Unobligated balance available, end of year:	25,621	25,621	.....
	New budget authority (gross), detail:			
4000	Appropriation (definite)	15,000	15,500	15,466
4075	Reduction pursuant to 106-113 (-)	-57	.....	.....
4077	Reduction pursuant to 106-554 (-)	.....	-34	.....
4300	Appropriation (total)	14,943	15,466	15,466
	Change in unpaid obligations:			
7240	Unpaid obligations, start of year:	70,134	81,151	47,292
7310	Total new obligations	16,355	15,466	41,087
7320	Total outlays (gross) (-)	-5,338	-49,325	-31,000
7440	Unpaid obligation, end of year	81,151	47,292	57,379
	Outlays (gross), detail:			
8690	Outlays from new discretionary authority	3,437	3,557	3,557
8693	Outlays from discretionary balances	1,901	45,768	27,443
8700	Total outlays (gross)	5,338	49,325	31,000
	Net budget authority and outlays:			
8900	Budget authority (net)	14,943	15,466	15,466
9000	Outlays (net)	5,338	49,325	31,000

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
ALTERATION OF BRIDGES
Object Classification (In thousands of dollars)

Identification code: 69-244-0-1-403		2000 actual	2001 estimate	2002 estimate
25.2	Other services	16,355	15,466	41,087
99.9	Total obligations	16,355	15,466	41,087

DEPARTMENT OF TRANSPORTATUION
U.S. COAST GUARD
ALTERATION OF BRIDGES
PROGRAM AND PERFORMANCE

This appropriation provides the Government's share of the costs for altering or removing bridges determined to be obstructions to navigation. Alteration of obstructive highway bridges is eligible for funding from Federal-Aid Highway program. The Coast Guard will continue to make the determinations as to whether any bridge presents an unreasonable obstruction to navigation, and to administer the program.

Without these funds, bridges that obstruct navigation will continue to pose potential and hazardous conditions cause that could major delays to both commercial and defense vessel mobility and numerous accidents.

The bridge alteration program facilitates the safe and reasonably unhindered passage of marine traffic in the navigable waterways of the United States and minimizes or alleviates the obstructive nature of bridges, through bridge alteration with due consideration for land traffic and the environment. The ongoing activities of the program support intermodal mobility and safety. The goals of this program are:

- Strategic Goals for Mobility (GPRA): Facilitate maritime commerce and eliminate interruptions and impediments to the economical movement of goods and people, while maximizing recreational access to and enjoyment of the water.

- Strategic Goals for Safety (GPRA): Eliminate deaths, injuries, and property damage associated with maritime transportation, fishing, and recreational boating.

DEPARTMENT OF TRANSPORTATUION
U.S. COAST GUARD
ALTERATION OF BRIDGES
FY 2002 Justification

This appropriation provides the Government's share of the costs for altering or removing bridges determined to be obstructions to navigation. The $15,466,000 funding is requested to begin construction on the Burlington Northern Santa Fe Railroad Bridge in Burlington, Iowa. The design of this project is complete and it is ready for construction. The existing bridge continues to unreasonably obstruct navigation and creates a seriously hazardous situation for marine traffic. The FY 2002 request seeks funding at the minimum level necessary to ensure the timely alteration of this obstructive railroad bridge.

Funding ($ in 000)

Bridge Owner	Estimated Total Coast Guard Share	Funding to Date	FY 2002 Program Needs
Burlington Railroad Bridge, Burlington Northern Santa Fe Railroad Company, Burlington, Iowa	$30,000	$13,800	$15,466

RETIRED PAY

For retired pay, including the payment of obligations therefor otherwise chargeable to lapsed appropriations for this purpose, [and] payments under the Retired Serviceman's Family Protection and Survivor Benefits Plans, payments for career status bonuses under the National Defense Authorization Act, and for payments for medical care of retired personnel and their dependents under the Dependents Medical Care Act (10 U.S.C. ch. 55), [$778,000,000] *$876,346,000. (Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101 (a) of P.L. 106-346.)*

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RETIRED PAY
Program and Financing (in thousands of dollars)

Identification code 69-0241-0-1-403		2000 actual	2001 estimate	2002 estimate
	Obligations by program activity:			
	Direct program:			
0001	Regular military personnel	588,936	633,084	685,203
0002	Former Lighthouse Service personnel	217	184	212
0003	Reserve personnel	37,298	39,975	44,280
0004	Survivor benefit programs	17,922	19,684	21,158
0005	Medical care	76,861	85,073	125,493
1000	Total new obligations	721,234	778,000	876,346
	Budgetary resources available for obligation:			
2200	New budget authority (gross)	730,327	778,000	876,346
2395	Total new obligations	-721,234	-778,000	-876,346
2398	Unobligated balance expiring or withdrawn	-9,093	.....	.....
	New budget authority (gross)			
	Mandatory			
6000	Appropriation (definite)	730,327	778,000	876,346
	Change in unpaid obligations:			
7240	Unpaid obligations, start of year	62,347	72,492	89,273
7299	Obligated balance, start of year	62,347	72,492	89,273
7310	Total new obligations	721,234	778,000	876,346
7320	Total outlays (gross)	-713,423	-761,219	-861,300
7340	Adjustments in expired accounts (net)	2,334	.....	.....
7440	Unpaid obligations, end of year:	72,492	89,273	104,319
7499	Obligated balance, end of year	72,492	89,273	104,319
	Outlays (gross), detail:			
8697	Outlays from new mandatory authority	651,076	688,727	772,027
8698	Outlays from mandatory balances	62,347	72,492	89,273
8700	Total outlays (gross)	713,423	761,219	861,300
	Net budget authority and outlays:			
8900	Budget authority	730,327	778,000	876,346
9000	Outlays	713,423	761,219	861,300

DEPARTMENT OF TRANSPORTATION
U. S. COAST GUARD
RETIRED PAY
Program and Performance

This program provides for retired pay of military personnel of the Coast Guard and Coast Guard Reserve, members of the former Lighthouse Service, and for annuities payable to beneficiaries of retired military personnel under the retired serviceman's family protection plan (10 U.S.C. 1431-46) and survivor benefits plans (10 U.S.C. 1447-55); payments for career status bonuses under the National Defense Authorization Act; and for payments for medical care of retired personnel and their dependents under the Dependents Medical Care Act (10 U.S.C. ch. 55).

The following tabulation shows the average number of personnel on the rolls during FY 2000 compared with estimated numbers for FY 2001 and FY 2002.

AVERAGE NUMBER

Category	2000 actual	2001 estimate	2002 estimate
Commissioned officers	5,502	5,633	5,750
Warrant officers	4,425	4,512	4,605
Enlisted personnel	18,985	19,415	19,801
Former Lighthouse Service personnel	8	5	3
Reserve personnel	3,764	3,934	4,152
Total	32,684	33,499	34,311

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RETIRED PAY
Object Classification (in thousands of dollars)

Identification code: 69-0241-0-1-403		2000 actual	2001 estimate	2002 estimate
13.0	Benefits for former personnel	644,373	692,927	750,853
25.6	Medical Care	76,861	85,073	125,493
99.9	Total obligations	721,234	778,000	876,346

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
Program Digest (in thousands of dollars)

Program by activities:								
Regular military personnel (RM)	28,912	588,996	29,560	633,084	90,156	685,084	596	52,000
Former Lighthouse Service personnel (FLS)	8	217	5	184	3	331	-2	0 147
Reserve personnel (RES)	3,764	37,298	3,934	39,975	4,152	44,280	218	4,305
Survivor benefit program (SBP)	...	17,922	.....	19,684	.....	21,158	.....	1,474
Medical care, retirees and dependents (MED)		76,861		85,073		125,493		40,420
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Unobligated balance expiring		9,093						
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Summary of Changes
(In thousands of dollars)

	[illegible]	RM	FLS	RES	SBP	MED
Adjustments to base, built-in changes:						
a Annualization costs						
1 Additions to rolls during 2001 (876 average)	18,905	17,672		1,233	.	
2 Annualization of savings due to attritions from the rolls during 2001 (-416 average)	-7,754	-7,345	-22	-387	.	
b Cost-of-living increase payable effective January 1, 2001 (3.4%)	6,013	5,660	2	351	.	
c Survivor benefit program	1,377	..			1,377	
Program changes:						
a Additions to rolls during 2002 (641 average)	31,885	30,550	.	1,335		
b Savings due to attritions from the rolls during 2002 (-289 average)	-6,043	-5,599	-7	-437		
c Cost-of-living increase payable effective January 1, 2002 (2.5%)	13,543	12,724	4	815	.....	
d Medical care, retirees and dependents	40,420					40,420
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RETIRED PAY
Justification

This appropriation provides funding for retired pay of military personnel of the Coast Guard and Coast Guard Reserve, annuities for members of the former Lighthouse Service, and for payments to their survivors. In addition, this appropriation also provides funding for medical and dental care of retired military personnel and their dependents.

Members are added to the rolls each month as they are voluntarily or involuntarily retired. Members are removed from the rolls during the year, normally due to the death of that member. Nonetheless, the normal pattern results in a gradual increase in the retired rolls throughout the years.

Estimated changes to the retirement rolls for the end of fiscal years FY 2000 through FY 2001 are as follows:

Change in Numbers on the Retired Rolls

	2000 actual	2001 estimate	2002 estimate
On rolls, beginning of year	32,867	33,679	34,479
Additions:			
Regular military personnel:			
Commissioned officers	240	268	282
Warrant officers	163	175	174
Enlisted personnel	910	888	861
Reserve personnel	310	269	286
Subtotal	1,623	1,600	1,603
Reductions:			
Attritions	-811	-800	-800
On rolls, End of Year	33,679	34,479	35,282

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RETIRED PAY
Summary of Changes

The increases requested are based on the annualization of FY 2001 adjustments and anticipated changes in FY 2002.

		Estimate ($000)	Average (Personnel)
	Retired Pay	692,927	33,499
	Health Care	85,073	N/A
	Total Appropriation, FY 2001	**778,000**	**33,499**
1	The following are adjustments to the FY 2001 Appropriation Base.		
	a. Annualized costs:		
	(1) Retirements	18,905	876
	(2) Attritions	-7,754	-416
	(3) Cost-of-living increase, effective Jan. 1, 2001 (3.4%)	6,013	N/A
	b. Survivor benefit program.		
	(1) Projected increase in Survivor Benefit payments	1,377	N/A
	Subtotal, FY 2001 adjustment	18,541	460
2	The following are the adjustments to the FY 2002 Budget Request based on the new program adjustments that will begin in FY 2002:		
	a. Retirements	31,885	641
	b. Attritions	-6,043	-289
	c. Cost-of-living increase effective Jan. 1, 2002 (2.5%)	13,543	N/A
	d. Medical benefits	40,420	N/A
	Subtotal, FY 2002 adjustment	79,805	352
	Total, FY 2002 Request	**876,346**	**34,311**

RESERVE TRAINING

[INCLUDING TRANSFER OF FUNDS]

For all necessary expenses of the Coast Guard Reserve, as authorized by law; maintenance and operation of facilities; and supplies, equipment, and services, [$80,375,000; *Provided,* That no more than $22,000,000 of funds made available under this heading may be transferred to Coast Guard "Operating expenses" or otherwise made available to reimburse the Coast Guard for financial support of the Coast Guard Reserve: *Provided further,* That none of the funds in this Act may be used by the Coast Guard to assess direct charges on the Coast Guard Reserves for items or activities which were not so charged during fiscal year 1997.] *$83,194,000.*
(Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101 (a) of P.L. 106-346.)

DEPARTMENT OF TRANSPORTATION
-U.S. COAST GUARD
RESERVE TRAINING
Program and Financing (in thousands of dollars)

Identification code: 69-0242-0-1-403	2000 actual	2001 estimate	2002 estimate
Obligations by program activity:			
Direct program:			
0001 Initial Training	2,528	4,161	4,300
0002 Continuing Training	43,767	49,321	51,277
0003 Operation and maintenance support	15,644	16,364	16,918
0004 Program Management and Administration	9,887	10,352	10,699
0091 Total direct program	71,826	80,198	83,194
0901 Reimbursable program	16	40	40
1000 Total new obligations	71,842	80,238	83,234
Budgetary resources available for obligation:			
2200 New budget authority (gross)	71,968	80,238	83,234
2395 Total new obligations (-)	-71,842	-80,238	-83,234
2398 Unobligated balance expiring or withdrawn (-)	-126	.....	.....
New budget authority (gross), detail:			
Discretionary:			
4000 Appropriation (definite)	72,000	80,375	83,194
4077 Reduction Pursuant to [P.L. 106-554] (-)	.....	-177	.....
4079 Reduction Pursuant to [P.L. 106-69] (-)	-48	.....	.....
4300 Appropriation (total)	71,952	80,198	83,194
Spending authority from offsetting collections:			
6800 Offsetting collections (cash)	31	40	40
6810 Change in uncollected customer payments from Federal sources	-81	.....	.....
6815 Adjustments to uncollected customer payments form Federal sources	66	.....	.....
6890 Spending authority from offsetting collections (total)	16	40	40
7000 Total new budget authority (gross)	71,968	80,238	83,234

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESERVE TRAINING
Program and Financing (in thousands of dollars)

Identification code 69-0242-0-1-403	2000 actual	2001 estimate	2002 estimate
Change in unpaid obligations:			
7240 Unpaid obligations, start of year:	8,620	8,190	10,493
7295 Uncollected customer payments from Federal Sources Federal sources, start of year (-)	-115	-34	-34
7299 Unpaid obligations, start of year	8,505	8,156	10,459
7310 Total new obligations	71,842	80,238	83,234
7320 Total outlays (gross) (-)	-72,816	-77,968	-82,845
7340 Adjustments in expired accounts (net)	429	.....	.....
7400 Change in uncollected customer payments from Federal sources:	81	.....	.....
7440 Unpaid obligations, end of year:	8,190	10,459	10,849
7495 Orders on hand from Federal sources (-)	-34	-34	-34
7499 Obligated balance, end of year	8,156	10,425	10,815
Outlays (gross), detail:			
8690 Outlays from new discretionary authority	62,629	69,812	72,419
8693 Outlays from discretionary balances	10,187	8,156	10,425
8700 Total outlays (gross)	72,816	77,968	82,845
Offsets:			
Against gross budget authority and outlays: Offsetting collections (cash) from:			
8800 Federal sources:	31	40	40
8895 Change in uncollected customer payments from Federal sources	81	.....	.....
8896 Adjustment to uncollected customer payments from Federal Sources	66	.....	.....
Net budget authority and outlays:			
8900 Budget authority (net)	71,952	80,198	83,194
9000 Outlays (net)	72,786	77,928	82,805

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESERVE TRAINING
Program and Performance

The Coast Guard Reserve Forces provide qualified personnel and trained units for active duty in the event of conflict, national emergency, or natural and man-made disasters. The reservists maintain their readiness through mobilization exercises, and duty alongside regular Coast Guard members during routine and emergency operations. Reservists will continue to serve as a cost effective surge force for response to human and natural disasters. The FY 2002 Selected Reserve program level will support a strength of 8,000 reservists.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESERVE TRAINING

Days of Training

	2000 actual	2001 estimate	2002 estimate
Initial Training:			
Initial active duty for training	29,332	30,400	30,400
Continuing training:			
Selected Reserve (with pay):			
Active duty training	85,375	96,600	96,600
Drill training	161,650	173,000	173,000
Other Ready Reserve (without pay):			
Active duty for training	721	730	730
Drill training	4,088	3,100	3,100

The table below shows the personnel strength in the various Reserve categories at the end of FY 2000, FY 2001, and FY 2002.

PERSONNEL IN THE COAST GUARD RESERVE[1]

	2000 actual	2001 estimate	2002 estimate
1. Ready Reserve			
a. Selected Reserve:			
(1) Initial Training[2]	161	150	150
(2) Continuing Training:			
Drill Pay Strength	7,965	7,770	7,770
Subtotal, Selected Reserve	8,126	7,920	7,920
b. Individual Ready Reserve	4,772	4,800	4,800
Subtotal, Ready Reserve	12,898	12,720	12,720
2. Standby Reserve:			
a. Active Status	2	0	0
b. Inactive Status	151	150	150
Subtotal, Standby Reserve	153	150	150
Total[1]	13,051	12,870	12,870

[1] Includes personnel in the second period of the split initial training program

[2] Excludes Reserve personnel on extended active duty and in the Retired Reserve

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESERVE TRAINING
Object Classification (in thousands of dollars)

Identification code: 69-0242-0-1-403		2000 actual	2001 estimate	2002 estimate
	Direct obligations:			
	Personnel compensation:			
11.1	Full-time permanent	3,109	3,399	3,566
11.3	Other than full-time permanent	24	27	28
11.5	Other personnel compensation	106	116	122
11.7	Military personnel	53,130	61,838	64,578
11.8	Special personnel benefits	307	316	330
11.9	Total personnel compensation	56,676	65,696	68,624
12.1	Civilian personnel benefits	767	838	879
12.2	Military personnel benefits	6,115	7,011	7,216
13.0	Benefits for former personnel	167	232	242
21.0	Travel and transportation of persons	2,101	1,189	1,074
22.0	Transportation of things	1,082	612	553
23.2	Rental payments to others	433	446	452
23.3	Communications, utilities, and miscellaneous changes	10	6	5
24.0	Printing and reproduction	137	78	70
25.2	Other services	758	429	387
25.8	Subsistence and support of persons	1,815	2,222	2,282
26.0	Supplies and materials	812	830	851
31.0	Equipment	768	433	392
42.0	Insurance claims and indemnities	185	175	167
99.0	Subtotal, Direct obligations	71,826	80,198	83,194
	Reimbursable obligations	16	40	40
99.9	Total obligations	71,842	80,238	83,234

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESERVE TRAINING
Personnel Summary

Identification code: 69-0242-0-1-403		2000 actual	2001 estimate	2002 estimate
	Direct:			
	Total compensable workyears:			
1001	Full-time equivalent employment, civilian	82	87	87
1101	Full-time equivalent employment, military	394	406	406

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESERVE TRAINING
Coast Guard Selected Reserve Recruiting

FISCAL YEAR	NON-PRIOR SERVICE	PRIOR SERVICE	TOTAL RECRUITS
1992	360	276	636
1993	58	36	94
1994	37	.....	37
1995	87	.....	87
1996	166	61	227
1997	229	74	303
1998	386	161	547
1999	256	517	773
2000	200	479	679
2001 (est)	200	500	700
2002 (est)	200	500	700

NOTE: "Non-prior Service" recruiting also includes direct appointment petty officer accessions (ages 26-35)

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESERVE TRAINING
Functional Distribution of Reserve Drill Training

OPERATING FUNCTION	FY 2000	FY 2001	FY 2002
Operational Programs	48%	48%	48%
Contingency & Surge Operations	2%	2%	2%
Support Program	48%	48%	48%
Total	100%	100%	100%

RESERVE AUGMENTATION WORKHOURS	
FISCAL	WORKHOURS
1992	1,768,890
1993	1,870,292
1994	1,404,126
1995	1,263,844
1996	1,819,776
1997	1,891,300
1998	1,907,916
1999	1,970,000
2000	2,072,678
2001 (est)	2,273,000
2002 (est)	2,273,000

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESERVE TRAINING
Reserve Year-End Strength Summary

	TOTAL STRENGTH	OFFICERS	ENLISTED
SELECTED RESERVE			
SEPTEMBER 30, 1992	11,232	1,536	9,696
SEPTEMBER 30, 1993	9,341	1,318	8,023
SEPTEMBER 30, 1994	7,423	1,175	6,248
SEPTEMBER 30, 1995	7,340	1,173	6,167
SEPTEMBER 30, 1996	7,708	1,224	6,484
SEPTEMBER 30, 1997	7,524	1,272	6,252
SEPTEMBER 30, 1998	7,587	1,275	6,312
SEPTEMBER 30, 1999	7,959	1,262	6,697
SEPTEMBER 30, 2000	7,965	1,204	6,761
SEPTEMBER 30, 2001 (est)	7,920	1,200	6,720
SEPTEMBER 30, 2002 (est)	7,920	1,200	6,720
READY RESERVE			
SEPTEMBER 30, 1992	18,576	2,000	16,576
SEPTEMBER 30, 1993	17,471	1,818	15,653
SEPTEMBER 30, 1994	16,671	1,715	14,956
SEPTEMBER 30, 1995	14,891	1,569	13,322
SEPTEMBER 30, 1996	14,878	1,521	13,357
SEPTEMBER 30, 1997	13,988	1,474	12,514
SEPTEMBER 30, 1998	12,871	1,460	11,411
SEPTEMBER 30, 1999	12,695	1,435	11,260
SEPTEMBER 30, 2000	13,051	1,426	11,472
SEPTEMBER 30, 2001 (est)	12,870	1,400	11,470
SEPTEMBER 30, 2002 (est)	12,870	1,400	11,470

The SELECTED RESERVE is composed of members who perform training duty with pay to prepare them for high priority mobilization assignments. This group is maintained at a high level of readiness for activation at the earliest stage of a national emergency.

The READY RESERVE is composed of Selected Reserve and Individual Ready Reserve (IRR) personnel. Members of the IRR are also mobilization resources, but their lower priority assignments do not require participation in a program of peacetime training.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESERVE TRAINING
Program Digest (in thousands of dollars)

Program by activities:	2000 actual	2001 estimate	2001 estimate
1. Initial Training	2,533	4,161	4,300
2. Continuing Training	43,844	49,321	51,277
3. Operation and maintenance support	15,672	16,364	16,918
4. Program Management and Administration	9,903	10,352	10,699
Total appropriation or estimate:	71,952	80,198	83,194
FTE:			
(Civilian)	82	87	87
(Military)	394	406	406
Total	476	493	493

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESERVE TRAINING
Summary of Budget Category & Justifications

(in thousands of dollars)

BUDGET CATEGORY	TITLE	REQUIRED CHANGES	
	FY 2001 Enacted Budget Authority		$ 80,798
BUILT IN CHANGES			
	A. FY 2002 pay raise		
	(4.6% for Mil and 3.6% for Civ)	2,352	
	B. Annualization:		
	Annualize FY 2001 Pay Raise (3.7% Mil/Civ)	644	
	SUBTOTAL, BUILT-IN CHANGES	2,996	
	TOTAL INCREASES		$ 2,996
	FY 2002 TOTAL REQUEST		$ 83,794

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESERVE TRAINING
FY 2002 Justification

Budget
Category

FY 2001 ENACTED BUDGET AUTHORITY:..... $80,198

BUILT-IN CHANGES:..... $2,996,000

A. Personnel Entitlements:

FY 2002 Pay Raise (4.6% for Mil./ 3.6% for Civ)..... $2,352,000

This request provides three-quarter year funding for the FY 2002 proposed 3.6 percent for civilian and 4.6 percent for military pay increase for personnel anticipated to become effective on January 1, 2002.

Amount by PPA ($000)

Initial Training.....	$100
Continuing Training.....	$1,457
Operations & Maintenance Support.....	$429
Program Management & Administration.....	$366
Total	$2,352

B. Annualization:

Annualization of FY 2001 Pay Raise (3.7 % military/civilian)..... $644,000

Funding is requested to annualize the FY 2001 pay raise. Recurring funds are required for the fourth quarter (calendar year) increment of the 3.7 percent military and civilian in pay and other entitlements for personnel, effective January 1, 2001.

Amount by PPA ($000)

Initial Training.....	$33
Continuing Training.....	$404
Operations & Maintenance Support.....	$124
Program Management & Administration.....	$83
Total.....	$644

TOTAL BUILT -IN CHANGES

Amount by PPA ($000)

1. Initial Training.....	$133
2. Continuing Training.....	$1,861
3. Operations & Maintenance Support.....	$553
4. Program Management & Administration.....	$449
Total Built-in Changes.....	$2,996

. . . . . .

TOTAL BUILT-IN CHANGES..... $2,996
FY 2002 TOTAL BUDGET AUTHORITY REQUEST..... $83,194

RESEARCH, DEVELOPMENT, TEST AND EVALUATION

For necessary expenses, not otherwise provided for, for applied scientific research, development, test, and evaluation; maintenance, rehabilitation, lease and operation of facilities and equipment, as authorized by law, [$21,320,000] *$21,722,000,* to remain available until expended, of which [$3,500,000] $3,492,000 shall be derived from the Oil Spill Liability Trust Fund: *Provided,* That there may be credited to and used for the purposes of this appropriation funds received from State and local governments, other public authorities, private sources, and foreign countries, for expenses incurred for research, development, testing, and evaluation. *(Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101(a) of P.L. 106-346)*

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESEARCH, DEVELOPMENT, TEST AND EVALUATION
Program and Finance (in thousands of dollars)

Identification code: 69-0243-0-1-999		2000 actual	2001 estimate	2002 estimate
	Obligations by program activity:			
	Direct program:			
0001	Search and Rescue	1,677	1,980	1,890
0002	Aids to Navigation	2,331	2,751	2,626
0003	Marine Safety	6,717	7,929	7,567
0004	Marine Environmental Protection	2,596	3,065	2,925
0005	Enforcement of Laws and Treaties	5,248	6,149	5,912
0006	Ice Operations	368	433	414
0007	Defense Readiness	344	407	388
0800	Total direct program	19,281	22,714	21,722
0901	Reimbursable program	390	593	390
1000	Total new obligations	19,671	23,307	22,112
	Budgetary resources available for obligation:			
2140	Unobligated balance carried forward, start of year	1,052	1,369	.....
2200	New budget authority (gross)	19,274	21,866	22,112
2210	Resources available from recoveries of prior year obligations	714	.....	.....
2390	Total budgetary resources available for obligation	21,040	23,235	22,112
2395	Total new obligations	-19,671	-23,307	-22,112
2440	Unobligated balance carried forward, end of year	1,369	.....	.....
	New budget authority (gross), detail:			
	Discretionary:			
4000	Appropriation	15,500	17,828	18,230
4015	Appropriation (emergency)	.....	.....	.....
4078	Reduction to Pursuant P.L. 106-554	.....	-47	.....
4079	Reduction to Pursuant P.L. 106-69	-7	.....	.....
4300	Appropriation (total discretionary)	15,493	17,781	18,230
	Spending authority from offsetting collections			
	Discretionary:			
6800	Offsetting collections (cash)	4,777	4,085	3,882
6810	Change in uncollected customer payments Federal sources	-996	.....	.....
6890	Spending authority from offsetting collections (total discretionary)	3,781	4,085	3,882
7000	Total new budget authority (gross)	19,274	21,866	22,112

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESEARCH, DEVELOPMENT, TEST AND EVALUATION
Program and Finance (in thousands of dollars)

Identification code: 69-0124-0-1-999		2000 actual	2001 estimate	2002 estimate
	Change in unpaid obligations:			
	Unpaid obligations, start of year:			
7240	Unpaid obligations, start of year	14,611	13,226	14,000
7295	Uncollected customer payments from Federal sources, start of year	-1,796	-800	-800
7299	Obligated balance, start of year	12,815	12,426	13,200
7310	Total new obligations	19,671	23,307	22,112
7320	Total outlays (gross)	-20,342	-23,371	-22,516
7340	Adjustments in expired accounts (net)	-547	.	..
7345	Recoveries of prior year obligations	-714	.	. . .
7400	Change in uncollected customer payments from Federal Sources	996		. . . .
	Unpaid obligations, end of year:			
7440	Unpaid obligations, end of year	13,226	14,000	9,596
7495	Uncollected customer payments from Federal sources, end of year	-800	-800	-800
7499	Obligated balance, end of year	12,426	13,200	10,796
	Outlays (gross), detail:			
8690	Outlays from new discretionary authority	10,588	13,509	13,544
8693	Outlays from discretionary balances	9,754	9,862	8,972
8700	Total outlays (gross)	20,342	23,371	22,516
	Offsets:			
	Against gross budget authority and outlays:			
	Offsetting collections (cash) from:			
	Federal sources:			
8840	Non-Federal Sources	4,777	4,085	3,882
8895	Change in uncollected customer payments from Federal sources	-996	. . . .	. . . .
	Net budget authority and outlays:			
8900	Budget authority	15,493	17,781	18,230
9000	Outlays	15,565	19,286	18,634

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESEARCH, DEVELOPMENT, TEST AND EVALUATION
Program and Performance

The Coast Guard's Research, and Development program includes the development of techniques, methods, hardware, and systems which directly contribute to increasing the productivity and effectiveness of Coast Guard's operating missions. Priorities for 2002 include the R&D investment areas; Detect, Identify and Classify Marine Targets; Decision Support/Resource Allocation/Risk Management; Future Communications Concepts; Intelligent Waterways; Human Error Reduction/Fatigue Analysis; Energy Conservation and Contraband Detection Technologies.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESEARCH, DEVELOPMENT, TEST AND EVALUATION
Object Classification (in thousands of dollars)

Identification code: 69-0243-0-1-999		2000 actual	2001 estimate	2002 estimate
	Direct obligations:			
	Personnel compensation:			
11.1	Full-time permanent	4,615	5,010	5,296
11.3	Other than full-time permanent	281	305	322
11.5	Other personnel compensation	91	98	104
11.7	Military personnel	2,197	2,314	2,416
12.0	Special personal services payments	33	34	35
11.9	Total personnel compensation	7,217	7,761	8,173
12.1	Civilian personnel benefits	1,065	1,157	1,223
12.2	Military personnel benefits	222	216	226
13.0	Benefits for former personnel	18	25	26
21.0	Travel and transportation of persons	425	536	478
22.0	Transportation of things	50	64	57
23.2	Rental payments to others	389	489	436
23.3	Communications, utilities, and miscellaneous changes	161	202	181
24.0	Printing and reproduction	151	190	170
25.1	Advisory and assistance services	337	425	378
25.2	Other services	772	973	866
25.5	Research and Development Contracts	6,970	8,789	7,826
25.8	Subsistence and support of persons	18	15	14
26.0	Supplies and materials	1,365	1,720	1,532
31.0	Equipment	121	152	136
99.0	Subtotal, Direct obligations	19,281	22,714	21,722
	Reimbursable obligations	390	593	390
99.9	Total obligations	19,671	23,307	22,112

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESEARCH, DEVELOPMENT, TEST AND EVALUATION
Personnel Summary

Identification code: 69-0243-0-1-999		2000 actual	2001 estimate	2002 estimate
	Direct:			
	Total compensable workyears			
1001	Full-time equivalent employment civilian	70	74	74
1101	Full-time equivalent employment military	31	31	31

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
RESEARCH, DEVELOPMENT, TEST AND EVALUATION
Line Item Summary (in thousands of dollars)

Identification code 69-0243-0-1-999	2000 actual	2001 estimate	2002 estimate
1. Marine Safety			
A. Marine Safety	3,108	5,437	4,059
FTE	14	23	17
Non-Personnel	1,770	3,577	2,541
Personnel	1,338	1,860	1,518
B. Search & Rescue Capability	1,162	456	.....
FTE	5	2	.....
Non-Personnel	400	300	.....
Personnel	762	156	.....
C. Support Interagency Ship Structure Committee (SSC) Research	159	380	.....
FTE	1	1	.....
Non-Personnel	120	250	.....
Personnel	39	130	.....
Marine Safety total	4,429	6,273	4,059
FTE total	19	26	17
Non-Personnel total	2,290	4,127	2,541
Personnel total	2,139	2,146	1,518
2. Waterways Safety & Management and Aids to Navigation	1,444	1,193	1,870
FTE total	7	5	8
Non-Personnel total	450	785	1,171
Personnel total	994	408	699
3. Marine Environmental Protection	2,263	1,139	1,605
FTE total	10	4	6
Non-Personnel total	1,530	750	1,005
Personnel total	733	389	600
4. Comprehensive Law Enforcement	3,213	4,412	4,832
FTE total	14	19	20
Non-Personnel total	2,375	2,903	3,025
Personnel total	838	1,509	1,807
5. Technology Investment	3,746	3,982	4,951
FTE total	16	16	20
Non-Personnel total	2,725	2,620	3,100
Personnel total	1,021	1,362	1,851
6. R&D Personnel, Program Support & Operations	3,898	4,274	4,405
FTE total	35	35	34
Non-Personnel total	1,492	1,234	1,539
Personnel total	2,406	3,040	2,866
TOTAL REQUEST	19,993	21,273	21,722
FTE total	101	105	105
Non-Personnel total	10,862	12,419	12,381
Personnel total	9,131	8,854	9,341

Beginning in FY 2002, the Research, Development, Test and Evaluation budget request will consolidate Search and Rescue Capability, Marine Safety and Support for Interagency Ship Structure Committee Research budget category into a single budget category titled Marine Safety

G1: MARINE SAFETY $4,059,000

NOTE: Beginning with the Fiscal Year 2002 Coast Guard RDT&E Budget Request, IMPROVE SEARCH AND RESCUE CAPABILITY (formerly Budget Sheet No. G1), MARINE SAFETY (formerly Budget Sheet G3) and SUPPORT FOR INTERAGENCY SHIP STRUCTURE COMMITTEE (SSC) RESEARCH (formerly Budget Sheet G4) have been combined as Budget Sheet G1: MARINE SAFETY. The RESOURCE SUMMARY table (below) details this consolidation.

PROGRAM DESCRIPTION:

Marine Safety Research supports the Coast Guard and Departmental Safety goal to eliminate deaths, injuries, and property damage associated with maritime transportation, fishing, and recreational boating. Two major initiatives show great potential to help reduce the number of accidents on U.S. waterways: the development of risk management analytical tools for marine inspection and regulatory missions, and the development of fatigue countermeasures that minimize human error and reduce crew fatigue. The first pinpoints root-cause safety problems from the galaxy of components that can malfunction on complex marine engineering systems. The second addresses the 80% of maritime mishaps in which human error was the direct cause or was a major contributing factor. Other Marine Safety research and development initiatives are focused on more traditional research areas such as: improving the Computer-Assisted Search Planning (CASP) system used in tactical search and rescue (SAR) operations by more accurately applying all information available on wind, currents, survivor characteristics (i.e., life raft or personal flotation device); reducing the threat of shipboard fires by testing and evaluating ship fire safety systems; improving the coordination of CG operations through the use of new communications systems; and encouraging state-of-the-art marine engineering design though membership in the Ship Structure Committee (SSC), an interagency consortium that coordinates research to enhance maritime safety.

FY 2001 Anticipated Activities/Accomplishments	FY 2002 Program Request	Outcome(s) Sought
Delivering a real-time ocean current and drift monitoring system that integrates latest sensor and web based technology to help pinpoint victim location. Working with industry and labor organizations to develop "crew endurance plans" to improve crew performance and minimize fatigue-related accidents. Developing risk assessment techniques for use in field operations. Developing risk-based decision aids and resource allocation tools for both regulatory and operational missions. Developing national protocols for safety and distress calls. Partnering with industry to improve fire safety in main machinery compartments.	Continuing to improve search planning tools. Building on the unit-level risk assessment "toolbox," address more complex risk analysis problems at the program level. Continue evaluating the role that human error plays in maritime casualties. Extend lessons learned from developing Coast Guard crew endurance plans to improve alertness on commercial vessels. Conduct scientific research necessary to establish and defend the U.S. position with regard to it's role in setting international safety standards. Researching ways to integrate Coast Guard into emergency cellular phone networks on a global level	**Enhanced Safety:** Contribute to saving lives and property by: • Adapting risk management techniques that have been successful in commercial safety activities for Coast Guard use. • Reducing crew fatigue and improving alertness. • Developing effective international safety specifications and regulations. • Using new ocean monitoring technologies to more quickly locate search targets. • Expanding and improving the ability of mariners to quickly and easily report accidents and make distress calls.

G1: MARINE SAFETY $4,059,000

SUPPLEMENTAL INFORMATION

MARINE SAFETY supports DOT Safety and CG Maritime Safety performance goals.

Risk Management, Decision Support and Resource Allocation Investment Area

Research Initiative	CG Strategic Gaps	Performance Goal	Anticipated Benefit
Search Planning Tool Methodology: Improving the Computer-Assisted Search Planning (CASP) system used in tactical search and rescue (SAR) operations by more accurately applying all information available on wind, currents, survivor characteristics (i.e. life raft or personal flotation device)	Several factors compound the difficulty of successful response: untimely notification to the Coast Guard of distress, incorrect reporting of the distress site location, severe weather conditions at the distress site, and severe property damage.	Improve search planning by updating the search-planning model to incorporate data on the effect of surface winds on search targets, and improving search algorithms by employing sophisticated probability mathematics, improved surface current data, and self-locating datum marker buoys	Higher search success rates, increased savings of lives and property, reduced resource time, and reduced cost to the Coast Guard
Risk-Based Planning and Management Technologies: Develop risk-based approaches that can optimize existing decision-making processes in the field by developing the guidelines and technical framework to support a marine safety in Coast Guard risk-based decision-making (RBDM)	Lack of a objective method to determine the best use of scarce resources. Development, and implementation of risk methodologies and decision support tools will help the Coast Guard solve this problem	Improve SAR operations by planners with contemporary decision support tools for saving lives and property.	Coast Guard decisions based on appropriate, systemic risk management processes enhancing the ability of the Coast Guard to optimize the use of resources to reduce risk

Communications Investment Area

Research Initiative	CG Strategic Gaps	Performance Goal	Anticipated Benefit
USCG Global Incident Notification: Integrate the Coast Guard into the United States Enhanced 911 network and routing emergency calls on a global level. R&D is looking at the infrastructure and procedural issues of using cellular phones for distress communications	The NTSB found serious deficiencies in the Coast Guard's communication system. A recent National Boating Federation study funded by the Coast Guard on cellular phone usage has shown that VHF-FM has not been replaced, but cellular is gaining popularity. A survey of 890 recreational boats showed that VHF-FM was carried by 93.5% of boaters, and cellular is on 70.1% of surveyed boats	Improve the ability of mariners in distress to notify the Coast Guard. Improve SAR Command & Control performance (Alaskan Coastal Zone Coverage)	Automatic wireless call routing for maritime related distress incidents, quicker response times

G1: MARINE SAFETY $4,059,000

Human Error Reduction and Fatigue Management Need			
Research Initiative	**CG Strategic Gaps**	**Performance Goal**	**Anticipated Benefit**
Human Factors in Casualty Investigations: Improve the ability of Investigating Officer (IO) to identify and report human-related causes of accidents, and thereby increase the accuracy of the marine casualty database.	In approximately 80% of all maritime mishaps, human error was either the direct cause or a major contributing factor. In many of these instances the effects of fatigue on the vessels' crews played a significant role in the accidents	Improve the validity, reliability, and completeness of reports of casualties involving human action, inaction, or decision-making	Procedures established and documented for the investigation of human-related causes of accidents and training materials on their use. More valid, reliable, and complete reports of casualties involving human action, inaction, or decision-making
Shipboard Fatigue Countermeasures Analysis: Research specific methods to implement strategies to maintain alertness, safety, and prevent chronic fatigue during commercial maritime operations.	Currently, practical guidance to mitigate the impact of fatigue on deep draft vessels is needed to ensure safety, the prevention of personnel injuries, and ultimately the prevention of accidents that may impact our environment.	Provide guidelines and strategies for commercial maritime vessels to promote vessel safety.	Provide the commercial maritime industry with USCG lessons learned and products for minimizing crew fatigue
Human Performance and Safety for CG Operations: Evaluate the effects of crew fatigue on performance and safety aboard USCG cutters and produce USCG Crew Endurance Plans to mitigate the impact of watch schedules, duty cycles, and possible future crew reductions on workload and safety.	CG personnel mission demands are steadily increasing with unbalanced workloads and excessive work hours will contribute to performance and safety aboard CG cutters	Provide guidelines and strategies for Coast Guard crew personnel regarding fatigue on performance	Minimize fatigue, shift lag, and performance degradation under environmental and operational conditions characteristic of USCG cutter patrol. Provide sound recommendations on feasibility of future crew reductions aboard USCG cutters
Human Error in Commercial Operations: Extend lessons learned from developing Coast Guard crew endurance plans to improve alertness on commercial vessels	Commercial fishing continues to rank as one of the most hazardous occupations in America	Reduce the number of crewmember fatalities on U.S. commercial vessels	Reduced risk of fatalities on commercial vessels by incorporating lessons learned to educate crewmembers

G1: MARINE SAFETY $4,059,000

Special Services Area			
Research Initiative	**CG Strategic Gaps**	**Performance Goal**	**Anticipated Benefit**
IMO Fire Protection Support: Perform fire research tests used to buttress the U.S. position at International Maritime Organization deliberations.	Millions of U.S. Passengers need to be protected aboard foreign flag vessels. Larger and faster vessels are increasing the need to have sound U.S. positions at international safety regulatory meetings	Improve safety of passenger vessels and passengers through research on improved fire safety	Improved personnel safety aboard commercial vessels
Development of Improved Fire Safety Measures for Tank Vessels: Develop measures that will improve tank vessel fire safety throughout the world by focusing on prevention, suppression, and/or safety management methods	United States flagged tank vessels had the second highest rate of fires/explosions among all flags (during the period of 1978-1992) Fires/explosions on tank vessels had the highest number of lives lost during the same period Fires onboard tank vessels have, in addition to the normal hazards of fire onboard a ship, the added potential for serious environmental damage due to loss of their cargo	Develop measures that will improve tank vessel fire safety throughout the world This includes investigation of tank vessel deck foam systems to improve protection of the cargo tanks, double hull void space protection, improvements to cargo pump room protection, and methods to improve tank barge safety. The efforts will focus on prevention, suppression, and/or safety management methods	Reduced risk of fire and/or its effects; more lives saved, and reduced environmental impact
Support for Ship Structure Committee: Provide support and guidance to Ship Structure Committee (SSC) for research planning through joint meetings with other Federal and Canadian agencies Execute research that contributes to better understanding of the design, production technologies, and life cycle risk management of marine structures	Millions of U.S. passengers need to be protected aboard foreign flag vessels Larger and faster vessels are increasing the need to have sound U.S. positions at international safety regulatory meetings	Support research on improved ship structures to reduce the potential for damage-related oil discharge including assessments of risk associated with new vessel design	Increased safety and mobility reduced environmental risks, and reduced costs of maritime transportation.

G2: WATERWAYS SAFETY & MANAGEMENT AND AIDS TO NAVIGATION **$1,870,000**

PROGRAM DESCRIPTION:

U.S. international trade is expected to double by 2020. Our domestic waterways are a critical component in this international commerce and transportation system. This indicates a great need for a well-integrated intermodal transportation system, one with a robust maritime transportation system as the focal point, with efficient and effective links to land and air modes. The Coast Guard, together with the Maritime Administration (MARAD) and other federal agencies, has developed the Marine Transportation System (MTS) – an interagency initiative focused on the maritime portion of the national transportation system. The objective of the MTS effort is to support a world-class waterways system that improves our global competitiveness and maintains national security. Waterways management research supports the Coast Guard and Departmental Goals of **Safety, Mobility, and Economic Growth** by facilitating maritime commerce and eliminating impediments to the swift and economical movement of goods and people while maximizing recreational enjoyment of the water. This research area will focus on providing the technology for managing ever-increasing traffic in major ports. Key to successful achievement of the USCG Safety and Mobility goals is a robust, effective waterways management system. The R&D program is developing intelligent waterways technologies to provide the maximum amount of positional and traffic information to the mariner while limiting the number of government-operated traffic control systems. Efforts in this research area include technology to: customize the mix of visual and electronic aids to the need of each port and waterway; integrate risk-based management processes for resource allocation based on a balance of affordability and waterway performance; and develop waterway designs and marine information systems that together facilitate safe, efficient and effective movement of people and goods in transit, especially as this movement transitions between different modes of transportation.

G2: WATERWAYS SAFETY & MANAGEMENT AND AIDS TO NAVIGATION

$1,870,000

FY 2001 Anticipated Activities/Accomplishments	FY 2002 Program Request	Outcome(s) Sought
Building on past involvement in the development of international navigation standards, working on international committees that are developing technical standards for the Universal Automatic Information System used by mariners. Developing a final waterways analysis methodology. Using consumer requirements, developed an assessment model to measure the relative performance of various combinations of electronic and visual navigational aids. Using this model of navigation aid performance in developing an overall aid mix analysis methodology for the Coast Guard to use in determining the right mix of visual and electronic navigational aids.	Investigate, develop, test, and demonstrate technologies, methods, and standards useful for providing future vessel traffic management safety and mobility information using fully automated means. Particular emphasis will be placed on information interfaces that automatically gather and deliver navigation safety and mobility information to the marine operator. Develop an analytical tool that will determine the level of service required from the aid system by each class of waterway user and provide a basis for developing a method of determining the impact of aid mix alternatives on each class of user. Determine the technical feasibility of blending several emerging technologies, such as ubiquitous communications, wearable computers and voice recognition, into the development of an augmented reality aids to navigation system	**Enhanced Mobility, Economic Growth and Trade** • Continue to improve the orderly and expeditious flow of goods and services in our Nation's ports and waterways. • Provide the capability to deal with large anticipated increases in traffic volume on the nation's waterways by giving managers the tools to assess both the effectiveness of various aid mixes with regard to waterways safety, and the effects of various user mixes on system safety requirements. • Improve marine safety by providing mariners with real-time position, speed, safety and traffic information. This effort has the potential to not only provide the mariner with "dashboard" information, but to also give them a "picture" of all other traffic in their area and related safety information.

G2: WATERWAYS SAFETY & MANAGEMENT AND AIDS TO NAVIGATION $1,870,000

SUPPLEMENTAL INFORMATION

WATERWAYS SAFETY & MANAGEMENT & AIDS TO NAVIGATION supports DOT Mobility/Economic Growth & Trade and CG Maritime Mobility performance goals.

Waterway Information Systems Investment Area

Research Initiative	CG Strategic Gaps	Performance Goal	Anticipated Benefit
Vessel Traffic Management Research: Investigate, develop, test, and demonstrate technologies, methods, and standards useful for providing future vessel traffic management safety and mobility information using fully automated means	Ports and waterways are growing more congested each year. The number of collisions, allisions, and groundings have been rising	Maximize vessel mobility within ports and waterways and reduce costs by providing the information navigators need in a timely manner to traverse waterways safely and efficiently. Fully automated could improve safety while reducing implementation and operating costs, and reduce the communications congestion on the VHF marine frequencies	Improved waterways operational performance, improved safety, reduced marine commerce cost; increased capacity of existing shipping lanes; improved environmental protection, and increased safety and enjoyment for recreational boaters
Aid Mix: A System Analysis of Aids to Navigation: Develop the information, methods and tools to support the Aids to Navigation program manager in determining the future AtoN System requirements and related program policies and strategies	The Coast Guard has not met its navigation aid availability goal for several years	Maximize vessel mobility and safety within ports and waterways by upgrading the ATON system. This will reduce ATON maintenance	Optimal mix of aids to navigation which take advantage of technological advances, reduced costs without sacrificing safety, mobility, and protection of natural resources
Intelligent Waterways Research: Determine the technical feasibility of blending several emerging technologies, such as ubiquitous communications, wearable computers and voice recognition, into the development of an augmented reality aids to navigation system	Waterways Management system that will provide the capability to positively identify and monitor vessel position and movements for real-time waterways management	Eliminate vessel collision, allisions, and groundings by providing the capability to provide virtual aids to navigation information in all reduced visibility situations	Improved waterways operational performance, improved safety; reduced marine commerce cost; increased capacity of existing shipping lanes; improved environmental protection, and increased safety and enjoyment for recreational boaters

G3: MARINE ENVIRONMENTAL PROTECTION $1,605,000

PROGRAM DESCRIPTION:
Marine Environmental Protection research supports the Department's and Coast Guard's **Human and Natural Environment/Protection of Natural Resources** goals conducting research and developing tools and methods to eliminate environmental damage and natural resource degradation associated with maritime transportation, fishing, and recreational boating. Marine Environmental Protection R&D seeks to protect and preserve the environment by developing ways to train and evaluate critical response personnel during the periods between spills and by using technology to stop the introduction of foreign species into the local environment.

FY 2001 Anticipated Activities/Accomplishments	FY 2002 Program Request	Outcome(s) Sought
Delivering a training system to evaluate the planning and execution of major Marine Spill Response Area exercises. The system is so successful in improving performance that it is being evaluated as a platform that can be modified to support other types of USCG exercises. Delivering a technical assessment of the risks of a potential spill of newly developed hazardous substance products to the Marine Board. Delivering the techniques and equipment necessary to support burning spilled oil on the ocean. This is an effective and efficient method of removing large quantities of oil from the ocean surface before it reaches shore and further harms the environment. Deploying a prototype on scene command and control system for the coordination and management of major oil/hazmat spills.	Develop a system that allows Federal On Scene Commanders and their staff to monitor and control emergency response assets during a major oil spill Exploit emerging technologies to develop faster and more effective spill cleanup methods that help minimize environmental damage Investigate heat, flushing, filtration, chemicals, and tank/piping redesign as means of reducing the risk of aquatic nuisance species (ANS) being introduced into U.S. waterways through vessel ballast water. Develop a prototype of one or a combination of these options for possible incorporation into a vessel's ballast water management practices.	**Protection of Natural Resources** Contribute to the protection of the environment by: • Developing responses to threats posed by the development and use of new petroleum products. • Developing techniques to clean up spills in "fast water" environments. • Providing On-Scene Coordinators with immediate and continuous access to the information needed to minimize the impact and cost of major spills. • Developing active aquatic nuisance species counter-measures that can be used on vessels to eliminate the risks associated with this hazard • Developing in-situ burning as an oil spill cleanup alternative

G3: MARINE ENVIRONMENTAL PROTECTION $1,605,000

SUPPLEMENTAL INFORMATION

MARINE ENVIRONMENTAL PROTECTION supports DOT Human and Natural Environment and CG Protection of Natural Resources performance goals.

Aquatic Nuisance Species Prevention Investment Area

Research Initiative	CG Strategic Gaps	Performance Goal	Anticipated Benefit
Development of Ballast Water Management Practices for Coastal Shipping: Evaluate potential management practices that could be used to control the spread of aquatic nuisance species (ANS) by all vessels	A more aggressive emphasis on ballast water technology to eliminate the influx of aquatic nuisance species	Prevent environmental damage caused by the influx of aquatic nuisance species by all vessels in U S waters	Research results provided to develop regulations that will help prevent the introduction of aquatic nuisance species (ANS) into U S water and lead to improvements in ballast water management practices
Aquatic Nuisance Species Prevention: Use technology to eliminate the risk associated with the introduction of foreign species into the local environment.	A more aggressive emphasis on ballast water technology to eliminate the influx of aquatic nuisance species	Prevent environmental damage caused by the influx of aquatic nuisance species by all vessels in U S waters	Alternatives analysis technical assessment tool to prevent the introduction of foreign organisms into U S coastal waters

Risk Management, Decision Support and Resource Allocation Investment Area

Research Initiative	CG Strategic Gaps	Performance Goal	Anticipated Benefit
On-Scene Command and Control System (OSC2) Prototypes: Develop and demonstrate a cost-effective, computer based, emergency response management tool, which significantly assists in the collection, analysis, display, and dissemination of relevant National Interagency Incident Management System, Incident Command System information within both the "Unified Command" and the "normal day-to-day" Command Centers	During a major spill, large amounts of information must be processed, displayed, transmitted, and archived New tools are essential which will (a) organize and present information and displays to allow decisions to be made based on the best available data, and (b) record that data for subsequent analysis and debriefing.	Improve marine eco-systems by raising the validity, reliability, and completeness of response management tools involving decision-making	Improved command post decision making and spill response oversight, significantly improved command post information retention for post spill analysis.

G3: MARINE ENVIRONMENTAL PROTECTION $1,605,000

Risk Management, Decision Support and Resource Allocation Investment Area (cont.)			
Research Initiative	**CG Strategic Gaps**	**Performance Goal**	**Anticipated Benefit**
Predictive Models for Improved Spill Response: Develop submerged oil spill containment and recovery systems, tracking systems and spill trajectory numerical models	The discharge of oil into U S waters can have devastating effects on coastal area environments and industries Without proper protective equipment, the Coast Guard workforce would be negatively impacted in both its preventative and response activities	Eliminate oil discharge into the water from maritime sources	Better understanding of behavior of spilled non-floating oils Enhanced cleanup capabilities for these oils and protection of the marine environment
Oil Spill Response Investment Area			
Research Initiative	**CG Strategic Gaps**	**Performance Goal**	**Anticipated Benefit**
Oil Spill Prevention Initiatives: Exploit emerging technology to develop faster and more effective clean-up methods that reduce negative impacts on the environment	The discharge of oil into U S waters can have devastating effects on coastal area environments and industries Without proper protective equipment, the Coast Guard workforce would be negatively impacted in both its preventative and response activities	Eliminate oil discharge into the water from maritime sources through preventing environmental damage	State-of-the-art spill cleanup methods for response teams

G4: COMPREHENSIVELAW ENFORCEMENT $4,832,000

PROGRAM DESCRIPTION:
Comprehensive Law Enforcement research supports the Coast Guard's **Maritime Security** goal and the Department's **National Security** goal by conducting research and development aimed at halting the flow of illegal drugs, migrants, and contraband, preventing illegal incursions into our Exclusive Economic Zone, and suppressing violations of federal law in the maritime region. Most Coast Guard mission activities rely on detecting, identifying, and classifying targets at sea. A significant performance gap exists in the Coast Guard's current ability to detect targets of interest, and then identify those targets that should be interdicted. The R&D Program is examining sensor alternatives that will give operational commanders a functional knowledge of all activity in their area of responsibility at a reasonable cost. It is also exploring new methods of halting fleeing suspect vessels, and investigating new methods to see into compartments heretofore hidden from inspection.

FY 2001 Anticipated Activities/Accomplishments	FY 2002 Program Request	Outcome(s) Sought
Developing airborne use of force tactics that have moved from concept development to limited scope deployments. This concept is being considered for full time use. Participating on a CG Sensor Team which is coordinating the procurement, management and exploitation of sensor technologies throughout the Coast Guard. Developing multi-mission operational scenarios to assist in the design and development of law enforcement requirements for current and future procurements. Evaluating techniques for launching Unmanned Aerial Vehicles (UAV) from any size vessel. UAV's are being considered for over-the horizon aerial surveillance Beginning evaluation of an Unattended Underwater Acoustic Sensor (UUAS) system that may be useful for detection of go-fast vessels.	Continue to develop new sensor packages to improve operational commanders capability to detect, identify, and intercept targets of interest. The sensor capability will operate against all three law enforcement threats: drug smuggling, alien migration, and fishing in protected areas. Technologies that are being evaluated include acoustic and satellite options Continue to develop technologies to improve detection of hidden contraband in locations that were previously impossible to search. Continue to improve tactical communications systems to improve interagency coordination, command, and control Continue to develop technologies that give commanders a wider range of options to stop fleeing vessels	<u>Maritime Security</u>: Contribute to reducing drug and undocumented migrant smuggling by: • Providing operational commanders with the location and movement of all law enforcement threats within their operational area. This allows the maximum use of available units to thwart illegal activity. This technology provides improvements in search and rescue and spill response for no additional cost. • Severely reducing the effectiveness of "go-fast" boats by giving operational commanders a wider range of apprehension options to stop fleeing vessels. • Developing novel search technologies that will help the Coast Guard find more contraband and make hiding contraband more risky and expensive for the smuggler

G4: COMPREHENSIVELAW ENFORCEMENT $4,832,000

SUPPLEMENTAL INFORMATION

COMPREHENSIVE LAW ENFORCEMENT supports DOT and CG National/Maritime Security/Defense performance goals.

Interdiction Technologies Investment Area

Research Initiative	CG Strategic Gaps	Performance Goal	Anticipated Benefit
Vessel Search Via Low Energy Imaging Techniques - Ultrasonic Technology: Use low energy interrogation technologies and techniques such as ultrasonic and/or electromagnetic sensors to develop an imaging device and evaluate its potential as a tool for searching vessel tanks and unaccounted spaces	Currently available boarding tools, technology, and inspection methods do not afford boarding teams the ability to account for all spaces Such accountability measures are time consuming, resource intensive, and have a high probability of causing damage to the vessel and its cargo	Develop for Coast Guard boarding teams methods to account for all spaces aboard vessels, to improve drug seizure rates	100% space accountability for Coast Guard boarding teams ; Increased discovery of illegal migrants and smuggled contraband, increased arrests, and increased deterrent effect of the ELT program
Contraband Detection Capability Enhancement: Develop technologies to improve detection of hidden contraband in area that are currently impossible to inspect	Modern sensors to increase detection capability are needed, these include generation III NVGs, FLIR, radars, and radar detectors	Improved efficiency may increase operational effectiveness (e g , the numbers of vessels searched, search accuracy and confidence in the search results) Improved technologies and equipment may also result in an increased discovery and seizure of contraband before it enters the U S	More efficient vessel searches
Nonlethal Disabling Technologies Assessment: Evaluate various non-lethal means that may enhance the safety of CG boarding team members Develop technologies that provide options to stop fleeing vessels other than asking them to stop or use disabling fire.	Drug Interdiction Capabilities - need the tools and technology to remain current with dynamic and non-risk adverse smuggling organizations	Improve intelligence gathering and expanding "use of force" helicopter and "over-the-horizon" boat operat ons to increase drug seizure rates, and deter illegal migrants smuggling and fishing	Improved boarding team control and increased team safety.

Identify and Classify Marine Targets Investment Area

Research Initiative	CG Strategic Gaps	Performance Goal	Anticipated Benefit
Sensor Technology Evaluation: Develop new sensor packages to improve operational commanders capability to detect, identify, and intercept targets of interest in all three law enforcement areas drug enforcement, alien migration, and fisheries protection	Gaps exist in the Coast Guards ability to detect all targets of interest and then identify those that need to be interdicted before committing our limited assets to the task	Wide Area Surveillance capabilities must be capable of linking to cutter, aircraft, and shoreside to ensure tactical and strategic information exchange to improve drug, migrant & fisheries interdiction goals	Improved situational data for on-scene and shore-side mission commanders, more effective decision-making and resource allocation

G4: COMPREHENSIVE LAW ENFORCEMENT $4,832,000

Communications Investment Area			
Research Initiative	**CG Strategic Gaps**	**Performance Goal**	**Anticipated Benefit**
Sensor Fusion: Identify and define software decision aids that will allow Coast Guard strategic and tactical mission planners to more effectively employ operational resources.	A standardized system for resource allocation decision making using Wide Area Surveillance capabilities to link cutter, aircraft and shoreside.	Improve sensor technology and data systems will give operational commanders and their vessels and aircraft an accurate picture of the threat in their area of operation	Improved decision-making by logistical planners; proactive allocation and use of operational resources.
Improved Tactical Data Exchange: Improve tactical communications systems to improve interagency coordination, command, and control	Gaps currently exist in the Coast Guard's ability to effectively transfer tactical data from one unit to another.	Meet Coast Guard interdiction goals by improving command and control tactical communication systems with other agencies	Improved interagency communication systems

G5: TECHNOLOGY INVESTMENT — $4,951,000

PROGRAM DESCRIPTION:

Technology Investment research supports the Coast Guard's Management Effectiveness goal. The primary purpose of this research is to increase performance capabilities and resources to partially offset the effects of long-term increases in operational requirements. Technology is used to optimize the use of existing resources and to improve the functionality of core infrastructure systems, such as communications and propulsion systems. Funds are also used to evaluate the technical feasibility and business sense of new ideas. The strategy is to stay abreast of and exploit emerging technologies to cull those ideas that will immediately increase productivity and enhance mission performance. Wherever possible, the Coast Guard wants to leverage R&D resources by partnering with other governmental and private entities and adapting systems being developed in parallel to solve urgent operational problems, thereby conserving resources.

FY 2001 Anticipated Activities/Accomplishments	FY 2002 Program Request	Outcome(s) Sought
Meeting one of the major goals of the Fuel Cell Demonstration Program by successfully generating industry interest in developing fuel cells for the marine environment Partnering with industry and other federal agencies to demonstrate shore-side fuel cell capability. Commencing evaluation of communications technologies that will give commanders better operational control over activities in their area of responsibility. Evaluating the potential of wireless communications for CG operations. Testing a variety of distance learning alternatives to formal training programs that will increase personnel at the duty station and provide just-in-time training, where and when it is needed. Reporting on key developments in current and future technology, its potential impact and how this new technology may affect key Coast Guard business decisions. Determining the technical feasibility and implementation potential of breakthrough technologies that can be exploited for Coast Guard use.	Participate in fuel cell consortium to encourage development of applications for the marine industry. Commercially viable maritime fuel cells will give all maritime interests an environmentally friendly and significantly more efficient propulsion system that is more reliable and less costly to maintain. Determine if fuel cells are a realistic, cost effective alternative for remote shore station use. Continue to evaluate the ability of rapidly changing computer and communications technologies to increase a commander's overall knowledge of the threats he/she is facing and to coordinate units under their control. Simularly, evaluate concepts to use this technology to give operational units a better picture of all threats in the area so that they can better coordinate their activities and share tactical information. Expand distance learning capabilities to afloat units Continue to provide key CG decision makers with information on current and future technology, its potential impact and how this new technology will affect Operations	**Exploit Technology:** Improve performance and minimize costs by: • Reducing energy consumption • Identifying propulsion alternatives that less expensive to maintain and operate. • Increase the ability of all CG assets to "talk" to one another and share tactical information. • Giving commanders real time information on the locations of their assets and the status of ongoing operations. Give individual units an awareness of the context of their activities within the overall operational picture • Bringing more training to the student rather than the student to training • Capitalizing on breakthrough technologies to alert senior managers to the business and policy implications of new technologies. • Leveraging the work of sister laboratories by adapting new developments to CG applications

G5: TECHNOLOGY INVESTMENT $4,951,000

SUPPLEMENTAL INFORMATION			
TECHNOLOGY INVESTMENT is cross-programmatic, and thus supports multiple DOT and CG performance goals.			
Risk Management Decision Support and Resource Allocation Investment Area			
Research Initiative	**CG Strategic Gaps**	**Performance Goal**	**Anticipated Benefit**
Loss Exposure and Risk Analysis Methodology: Develop a methodology for conducting risk assessments on CG platforms and in CG facilities, and managing the identified risks.	Statistics demonstrate an overwhelming need to improve our loss prevention program and the management of risk at our facilities. The Coast Guard relies on compliance-based safety surveys, not on predictive risk information to identify potential hazards before they result in losses. The result is an inefficient approach to loss prevention.	Reduce fatalities, lost workdays and cost to government by using a tool which implementation supports Risk Management Capability	Risk reduction recommendations applied to new Cutter designs, shore facility planning, marine safety inspection procedures, and the Cutter crew optimization projects
Energy Management Technologies Investment Area			
Research Initiative	**CG Strategic Gaps**	**Performance Goal**	**Anticipated Benefit**
Shore Facility Fuel Cell Demo: Investigate the potential benefits of fuel cell technology for cost-effective electric power generation and co-generation at Coast Guard shore facilities.	Need for clean efficient energy alternatives to current gasoline and diesel systems	Reduce the adverse effects of transportation on ecosystems and the natural environment, and reduce the amount of pollution from transportation sources	A clean, reliable and potential economical source of premium electric power and heat producing technology.
Fuel Cell Propulsion for a WMEC: Demonstrate the benefits of fuel cell propulsion and ship's service on board Coast Guard cutters. Develop marine fuel cell prototype that will provide technical and cost data necessary to evaluate future applications of marine fuel cells	Need for clean efficient energy alternatives to current gasoline and diesel systems	Reduce the adverse effects of transportation on ecosystems and the natural environment, and reduce the amount of pollution from transportation sources	Reduced fuel expenses, avoidance of fines for polluting, reduced manning and enhanced mission effectiveness. Also reduction of greenhouse gas and diminution of U.S. dependency upon foreign petroleum sources
USCG Vessel Energy Alternatives: Identify, test, and evaluate efficient alternatives for USCG small boat and cutter energy needs, (propulsion and ship service)	Need for clean efficient energy alternatives to current gasoline and diesel systems	Reduce the adverse effects of transportation on ecosystems and the natural environment, and reduce the amount of pollution from transportation sources	Significant energy savings for USCG vessels

G5: TECHNOLOGY INVESTMENT $4,951,000

Energy Management Technologies Investment Area			
Research Initiative	**CG Strategic Gaps**	**Performance Goal**	**Anticipated Benefit**
Energy Advancements: Developing energy reducing alternatives for power and propulsion	Need for clean efficient energy alternatives to current gasoline and diesel systems	Reduce the adverse effects of transportation on ecosystems and the natural environment, and reduce the amount of pollution from transportation sources	A Coast Guard energy management strategy, leading to reduced energy costs.
Communications Investment Area			
Research Initiative	**CG Strategic Gaps**	**Performance Goal**	**Anticipated Benefit**
Mobile Communications Infrastructure. Evaluate new and emerging commercial systems to meet Coast Guard mobile communications requirements. Develop an architecture for wide area network connectivity between mobile platforms and shore units.	Communications Infrastructure - units do not have the right C4ISR systems to carry out the mission, needs for mission-essential applications	Improves operational effectiveness, supports all operations performance goals	A more cost-effective commercial mobile communications alternative; better service to the public..
Future Communications Systems. Develop a global system that will augment current High Frequency systems used for operational communications.	Communications Infrastructure - units do not have the right C4ISR systems to carry out the mission, needs for mission-essential applications	Improves operational effectiveness, supports all operations performance goals	Reduced flow of illegal drugs/illegal aliens
Special Services Area			
Research Initiative	**CG Strategic Gaps**	**Performance Goal**	**Anticipated Benefit**
Afloat Learning Environments. Provide a technical basis that will ensure that the best practices of on-site training system design are available to the USCG.	Pipeline training activities frequently cause operational personnel shortages.	Improve crew training and increase work days available from existing assets	More efficient and effective on-site training programs; fewer mission days lost to formal classroom training
Future Technologies/Select Projects. Research rapidly emerging technologies that would enhance and complement Coast Guard missions.	All	Improve operational performance by keeping abreast of latest technology and its impact on mission performance.	Rapid deployment of beneficial emerging technologies, and evaluation of threats posed by new technologies to the performance of CG missions.

G6: R&D PERSONNEL, PROGRAM SUPPORT & OPERATIONS $4,405,000

PROGRAM DESCRIPTION:

This activity provides the support services required to conduct the Coast Guard R&D Program. It provides the strategic planning, programming, management and support personnel, material, resources and leased facilities for the execution of the Coast Guard RDT&E Program, including:

- Leased facilities for R&D activities.
- Centralized computer systems and network management support.
- Technical library and technical referral service.
- Overall program management (HQ) and liaison with external agencies
- Specialized management personnel, including contracting officers, accounting technicians and a procurement lawyer.
- R&D Management Information System, which correlates and integrates CG R&D Program efforts.
- Support services including mail, typing, secretarial, technical editing and technical publication printing and binding.
- Human Resources, Facilities Management, and Property Management.

FY 2001 Anticipated Activities/Accomplishments	FY 2002 Program Request	Outcome(s) Sought
Managing and administering the RDT&E support program. Providing program and financial management services for the RDT&E Program. Providing support services for the RDT&E Program. Improving coordination with other governmental and private entities to improve products and share development costs. Initiating a "stage gate" product review process that mirrors industry best practices. Developing contract vehicles that support the "stage gate" process. Developing partnerships that will enhance R&D capabilities as a "learning" organization	Manage and administer the RDT&E support program. Provide program and financial management services. Provide support services. Partner with other agencies to improve products and share development costs. Develop contracts that include business analysis capabilities for R&D portfolio management, and which foster and enhance the use of a "stage gate" progress for ongoing review of R&D projects. Develop programs and partnerships to enhance R&D capabilities as a "learning" organization and as the technology advisor for the CG.	<u>Program Support:</u> Contribute to program effectiveness by: • Keeping management overhead to a minimum. • Providing accurate and timely financial information. • Providing technology advice throughout the acquisition process. • Leveraging R&D capabilities and products through joint ventures with other government and private-sector agencies. • Developing employee skills in project management, contract administration, and product development.

G6: R&D PERSONNEL, PROGRAM SUPPORT & OPERATIONS $4,405,000

SUPPLEMENTAL INFORMATION			
R&D PERSONNEL, PROGRAM SUPPORT AND OPERATIONS (program management and support services)			
Research Initiative	**CG Strategic Gaps**	**Performance Goal**	**Anticipated Benefit**
Portfolio Management and New Product Gating Process. Incorporate industry best practices into R&D project selection and product management practices.	Supports all	Provide management and administrative support for the R&D Program	R&D products that are essential to CG performance goals and maximize investment in highest potential projects.
New program-wide contracting vehicle. Larger contracts encourage greater competition, competing task orders encourage price competition	Supports all.	Provide management and administrative support for the R&D Program	Most effective research & development for lowest cost.

DEPARTMENT OF TRANSPORTATION
COAST GUARD
OIL SPILL LIABILITY TRUST FUND
Unavailable Collections (in millions of dollars)

Identification code: 20-8185-0-7-304		2000 actual	2001 estimate	2002 estimate
	Balance, start of year:			
0199	Balance, start of year:	839	973	895
	Receipts:			
0202	Interest on investments	59	56	42
0203	Fines and penalties	33	6	6
0204	Recoveries	7	7	7
0299	Total receipts	99	69	55
0400	Total: Balances and collections	1,155	1,042	950
	Appropriation:			
0500	Minerals Management Service	-6	-6	.....
0501	Environmental Protecton Agency	-50	-49	.....
0502	Oil spill recovery, Coast Guard	-62	-61	.....
0503	Trust fund share of expenses	-49	-48	.....
0504	Research and special program administration	-5	-7	.....
0505	Denali Commission trust fund	-5	-10	.....
0507	North Pacific marine research institute fund	-5	.....	.....
0599	Subtotal appropriation	-182	-181	.....
0799	**Total balance, end of year**	973	861	.....

DEPARTMENT OF TRANSPORTATION
COAST GUARD
OIL SPILL LIABILITY TRUST FUND
Unavailable Collections (in millions of dollars)

Identification code: 20-8185-0-7-304		2000 actual	2001 estimate	2002 estimate
	Unexpended balance, start of year			
0100	Uninvested balance	2	10	5
	U.S. Securities:			
0101	Par value	1,062	1,199	1,121
0102	Unrealized discounts	-48	-51	-46
0199	Total balance, start of year	1,017	1,156	1,066
	Cash income during the year:			
	Governmental receipts:			
0202	Fines and penalties	33	6	6
0204	Recoveries	7	7	7
	Intragovernmental transactions:			
0240	Earnings on investments, oil spill liability trust fund	59	56	42
	Offsetting collections:			
0280	Offsetting collections(020-00-8221-0)	35	34	.....
0299	Total cash income	316	103	55
	Cash outgo during year:			
0500	Oil spill research	-6	-6	.....
0501	Oil spill response	-38	-59	.....
0502	Oil Spill Recovery, Coast Guard	-68	-61	.....
0503	Trust fund share of expenses	-49	-48	.....
0504	Trust fund share of pipeline safety	-9	-4	.....
0505	Denali Commission trust fund	-5	-10	.....
0507	North Pacific marine research institute fund	.....	-5	.....
0599	Total cash outgo	-175	-193	.....
	Unexpended balance, end of year:			
0700	Uninvested balance	10	5	.....
	U. S. Securities.			
0701	Par value	1,199	1,121	.....
0702	Unrealized discounts	-51	-46	.....
0799	Total balance, end of year	1,156	1,066	950

DEPARTMENT OF TRANSPORTATION
COAST GUARD
OIL SPILL LIABILITY TRUST FUND
Program and Performance

The Oil Spill Liability Trust Fund is used to finance oil pollution prevention and cleanup activities by various Federal agencies. In accordance with the provisions of the Act, the Fund may finance annually up to $50 million of emergency resources and all valid claims from injured parties resulting from oil spills. For Coast Guard, this funds the following accounts: Trust fund share of expenses, Oil spill recovery, and Payment of claims.

The Omnibus Budget Reconciliation Act of 1989, Public Law 101-239, triggered collection of a 5 cent tax on each barrel of oil produced domestically or imported to be deposited into the Oil Spill Liability Trust Fund. The authority to collect the oil barrel tax expired on December 31, 1994. Legislation will be proposed to reinstate the tax and place a $5 billion cap on the Fund's balance.

DEPARTMENT OF TRANSPORTATION
COAST GUARD
OIL SPILL RECOVERY, COAST GUARD
Program and Financing (in thousands of dollars)

Identification code: 69-8349-0-7-304		2000 actual	2001 estimate	2002 estimate
	Obligations by program activity			
0001	Emergency fund	56,603	50,000	50,000
0002	Payment of claims	10,833	10,000	10,000
0003	Prince William Sound Oil Spill Recovery Institute	982	1,200	1,200
1000	Total new obligations (object class 25.2)	68,418	61,200	61,200
	Budgetary resources available for obligation			
2140	Unobligated balance available, start of year.	81,106	76,330	76,330
2200	New budget authority (gross)	61,815	61,200	61,200
2210	Resources available from recoveries of prior year obligations	1,827	.....	.....
2390	Total budgetary resources available for obligation	144,748	137,530	137,530
2395	Total new obligations	-68,418	-61,200	-61,200
2440	Unobligated balance available, end of year	76,330	76,330	76,330
	New budget authority (gross), detail:			
	Mandatory:			
6026	Appropriation (trust fund, definite)	50,000	50,000	50,000
6027	Appropriation (trust fund, indefinite)	11,815	11,200	11,200
6250	Appropriation (total mandatory)	61,815	61,200	61,200
	Change in unpaid obligations:			
	Unpaid obligations, start of year: Obligated balance,			
7240	start of year	93,631	92,260	92,260
7310	Total new obligations	68,418	61,200	61,200
7320	Total outlays (gross)	-67,962	-61,200	-61,200
7345	Adjustments in unexpired accounts	-1827	.....	.....
	Unpaid obligations end of year: Obligated balance			
7440	end of year	92,260	92,260	92,260
	Outlays (gross), detail:			
8697	Outlays from new mandatory authority	61,833	61,200	61,200
8,698	Outlays from mandatory balances	6,129		
8700	Total outlays (gross)	67,962	.....	.....
	Net budget authority and outlays:			
8900	Budget authority	61,815	61,200	61,200
9000	Outlays	67,962	61,200	61,200

DEPARTMENT OF TRANSPORTATION
COAST GUARD
OIL SPILL RECOVERY, COAST GUARD
Program and Financing (in thousands of dollars)

Identification code: 69-8349-0-7-304	2000 actual	2001 estimate	2002 estimate
Distribution of budget authority by account:			
Emergency Fund	50,000	50,000	50,000
Payment of Claims	10,833	10,000	10,000
Oil Spill Recovery Institute	982	1,200	1,200
Distribution of outlays by account:			
Emergency Fund	54,306	50,000	50,000
Payment of Claims	12,674	10,000	10,000
Oil Spill Recovery Institute	982	1,200	1,200

DEPARTMENT OF TRANSPORTATION
COAST GUARD
OIL SPILL RECOVERY, COAST GUARD
Program and Performance

This account provides resources from the Oil Spill Liability Trust Fund for costs associated with the cleanup of oil spills. These include emergency costs associated with oil spill cleanup, the Prince William Sound Oil Spill Recovery Institute, and the payment of claims to those who suffer harm from oil spills where the responsible party is not identifiable or is without resources. The program activities in this account will continue to be funded under separate permanent appropriations, and are being displayed in a consolidated format to enhance presentation.

DEPARTMENT OF TRANSPORTATION
COAST GUARD
TRUST FUND SHARE OF EXPENSES
Program and Financing (in thousands of dollars)

Identification code: 69-8349-0-7-304		2000 actual	2001 estimate	2002 estimate
	Obligations by program activity:			
0001	Operating expenses	25,000	24,945	24,945
0002	Acquisition, construction and improvements	20,000	19,956	19,956
0003	Research, development, test and evaluation	3,500	3,492	3,492
1000	Total new obligations (object class 92.0)	48,500	48,393	48,393
	Budgetary resources available for obligation:			
2200	New budget authority (gross)	48,500	48,393	48,393
2395	Total new obligations	-48,500	-48,393	-48,393
	New budget authority (gross), detail:			
	Discretionary:			
4026	Appropriation (trust fund, definite)	48,500	48,393	48,393
	Mandatory			
6027	Appropriation (trust fund, indefinite)	.....	.....	.....
7000	Total new budget authority (gross)	48,500	48,393	48,393
	Change in unpaid obligations:			
7310	Total new obligations	48,500	48,393	48,393
7320	Total outlays (gross)	-48,500	-48,393	-48,393
	Outlays (gross), detail:			
8690	Outlays from new discretionary authority	48,500	48,393	48,393
	Net budget authority and outlays:			
8900	Budget authority	48,500	48,393	48,393
9000	Outlays	48,500	48,393	48,393
	Distribution of budget authority, by account:			
	Operating expenses	25,000	24,945	24,945
	Acquisition, construction and improvements	20,000	19,956	19,956
	Research, development, test, and evaluation	3,500	3,492	3,492
	Distribution of outlays, by account:			
	Operating expenses	25,000	24,945	24,945
	Acquisition, construction and improvements	20,000	19,956	19,956
	Research, development, test, and evaluation	3,500	3,492	3,492

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
TRUST FUND SHARE OF EXPENSES
Program and Performance

This account provides resources from the Oil Spill Liability Trust Fund for activities authorized under the Operating expenses; Acquisition, construction and improvements; Research, development, test and evaluation accounts.

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BOAT SAFETY

[AQUATIC RESOURCES TRUST FUND]

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
BOAT SAFETY
Program and Finance (in thousands of dollars)

Identification code 69-8149-0-7-403		2000 actual	2001 estimate	2002 estimate
	Obligations by program activity:			
	Direct program:			
0001	State recreational boating safety programs	55,915	71,848	59,000
0002	Compliance and Boating Programs	5,000	5,000	5,000
1000	Total new obligations	60,915	76,848	64,000
	Budgetary resources available for obligation:			
2140	Unobligated balance carried forward, start of year	9,654	12,848	0
2200	New budget authority (gross)	64,000	64,000	64,000
2210	Resources available from recoveries of prior year obligations	109	...	...
2390	Total budgetary resources available for obligation	73,763	76,848	64,000
2395	Total new obligations	-60,915	-76,848	-64,000
2440	Unobligated balance carried forward, end of year	12,848	0	0
	New budget authority (gross), detail:			
	Mandatory:			
6200	Transferred from other accounts [14-8151]	64,000	64,000	64,000
	Change in unpaid obligations:			
	Unpaid obligations, start of year:			
7240	Unpaid obligations, start of year:	37,050	46,167	61,472
7299	Obligated balance: start of year	37,050	46,167	61,472
7310	Total new obligations	60,915	76,848	64,000
7320	Total outlays (gross)	-51,798	-61,543	-63,226
	Unpaid obligations, end of year:			
7440	Unpaid obligations, end of year	46,167	61,472	62,246
7499	Obligated balance, end of year	46,167	61,472	62,246
	Outlays (gross), detail:			
8693	Outlays from discretionary balances	9,500	830	81
8697	Outlays from new mandatory authority	28,500	29,370	29,370
8698	Outlays from mandatory balances	13,798	31,343	33,775
8700	Total outlays (gross)	51,798	61,543	63,226
	Net budget authority and outlays:			
8900	Budget authority	64,000	64,000	64,000
9000	Outlays	51,798	61,543	63,226

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
BOAT SAFETY
Program and Performance

This account provides grants for the development and implementation of a coordinated national recreational boating safety program. Boating safety statistics reflect the success in meeting the program's objectives. No discretionary appropriation is requested for 2002 from the Boat safety account of the Aquatic resources trust fund. The Transportation Equity Act for the 21st Century (TEA 21) provides mandatory funding from the Aquatic resources trust fund of $64 million annually beginning in 1999. Of this total, $59 million is provided for grants to States and $5 million is available for Coast Guard coordination of the national boating safety program.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
BOAT SAFETY
Object Classification (in thousands of dollars)

Identification code 69-8149-0-7-403		2000 actual	2001 estimate	2002 estimate
21.0	Travel and Transporation of people	17	0	0
25.2	Other services	0	0	5,000
25.3	Purchases of goods and services from government accounts	2,462	6,180	1,180
41.0	Grants, subsidies, and contributions	58,436	70,668	57,820
99.9	Total obligations	60,915	76,848	64,000

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
AQUATIC RESOURCES TRUST FUND
Unavailable Collection (in millions of dollars)

Identification code: 69-8147-0-7-403		2000 actual	2001 estimate	2002 estimate
	Balance, start of year			
0199	Balance, start of year	843	845	898
	Receipts:			
0201	Excise Taxes, Sport Fish Restoration	342	352	392
0202	Customs duties, Sport Fish Restoration	34	36	39
0240	Interest on investments	46	83	72
0299	Total receipts and collections	422	471	503
0400	Total: Balances and collections	1,265	1,316	1,401
	Appropriations			
0500	Sport fish restoration	-420	-418	-476
0799	Balance, end of year	845	898	925
	Memorandum (non-add) entries			
9201	Total investments, start of year: Federal securities: Par value	1,148	1,192	1,184
9202	Total investments, end of year: Federal securities: Par value	1,192	1,184	1,280

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
AQUATIC RESOURCES TRUST FUND
Program and Performance

The Internal Revenue Act of 1986, as amended by TEA-21, provides for the transfer of Highway Trust Fund revenue derived from the motorboat fuel tax and certain other taxes to the Aquatic Resources Trust Fund. Appropriations are authorized from this fund to meet expenditures for programs specified by law, including sport fish restoration and boating safety. Excise tax receipts for the trust fund include motorboat, fuel tax receipts, plus receipts from excise taxes on sport fishing equipment, sonar and fish finders, and small engine fuels, and import duties on fishing equipment and recreational vessels.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
SUPPLY FUND
Program and Financing (in thousands of dollars)

Identification code: 69-4535-0-4-403		2000 actual	2001 estimate	2002 estimate
	Obligations by program activity:			
	Direct program:			
1000	Total new obligations (object class 26.0)	63,159	64,485	64,485
	Budgetary resources available for obligation:			
2140	Unobligated balance carried forward, start of year:	383	1,986	.....
2200	New budget authority (gross)	64,762	62,499	64,485
2390	Total budgetary resources available for obligation	65,145	64,485	64,485
2395	Total new obligations	-63,159	-64,485	-64,485
2440	Unobligated balance carried forward, end of year:	1,986	.....	.....
	New budget authority (gross), detail:			
	Discretionary :			
	Spending authority from offsetting collections:			
6800	Offsetting collections (cash)	64,762	62,499	64,485
	Change in unpaid obligations:			
7240	Unpaid obligations			
	Obligated balance:	7,024	6,672	8,658
7299	Obligated balance, start of year	7,024	6,672	8,658
7310	Total new obligations	63,159	64,485	64,485
7320	Total outlays (gross)	-63,511	-62,499	-64,485
7440	Unpaid obligations, end of year	6,672	8,658	8,658
7499	Obligated balance, end of year	6,672	8,658	8,658
	Outlays (gross), detail:			
8690	Outlays from new discretionary authority	64,762	62,499	64,485
8693	Outlays from discretionary balances	-1,251	.....	.....
8700	Total outlays (gross)	63,511	62,499	64,485
	Offsets:			
	Against gross budget authority and outlays:			
	Offsetting collections (cash) from:			
8800	Federal sources:	-55,063	-53,124	-53,124
8840	Non-Federal sources	-9,700	-9,375	-11,361
8890	Total, offsetting collections (cash)	-64,763	-62,499	-64,485
	Net budget authority and outlays:			
8900	Budget authority	.....	.....	.....
9000	Outlays	-1,251	.....	.....

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
SUPPLY FUND
Program and Performance

The Coast Guard Supply Fund, in accordance with 14 U.S.C. 650, finances the procurement of uniform clothing, commissary provisions, general stores, technical material, and fuel for vessels over 180 feet in length. The fund is normally financed by reimbursements from sale of goods.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
COAST GUARD YARD FUND
Program and Financing (in thousands of dollars)

Identification code: 69-4743-0-4-403		2000 actual	2001 estimate	2002 estimate
	Obligations by program activity:			
	Operating Expenses:			
0901	Cost of goods sold	22,575	22,914	23,304
0902	Other	47,578	48,292	49,113
0903	Capital Investment: Purchase of equipment	1,469	1,491	1,516
1000	Total new obligations	71,622	72,697	73,933
	Budgetary resources available for obligation:			
2140	Unobligated balance carried forward, start of year:	3,154	7,457	0
2200	New budget authority (gross)	75,925	65,240	73,933
2390	Total budgetary resources available for obligation	79,079	72,697	73,933
2395	Total new obligations	-71,622	-72,697	-73,933
2440	Unobligated balance carried forward, end of year:	7,457	0	0
	New budget authority (gross), detail:			
	Discretionary :			
	Spending authority from offsetting collections:			
6800	Offsetting collections (cash)	75,925	65,240	73,933
	Change in unpaid obligations:			
7240	Unpaid obligations, start of year	-2,198	-642	6,815
7299	Obligated balance, start of year	-2,198	-642	6,815
7310	Total new obligations	71,622	72,697	73,933
7320	Total outlays (gross)	-70,066	-65,240	-73,933
7400	Change in uncollected customer payments from Federal sources	.....	.....	.....
7440	Unpaid obligations, end of year	-642	6,815	6,815
7499	Obligated balance, end of year	-642	6,815	6,815
	Outlays (gross), detail:			
8697	Outlays from new discretionary authority	75,925	65,240	73,933
8693	Outlays from discretionary balances	-5,860	.....	.....
8700	Total outlays (gross)	70,065	65,240	73,933
	Offsets:			
	Against gross budget authority and outlays:			
	Offsetting collections (cash) from:			
8800	Federal sources:	-75,925	-65,240	-73,933
	Net budget authority and outlays:			
8900	Budget authority	.....	.....	.....
9000	Outlays	-5,860	.....	.....

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
YARD FUND
Program and Performance

This fund finances the industrial operation of the Coast Guard Yard, Curtis Bay, MD (14 U.S.C.). The Yard finances its operations out of advances received from Coast Guard appropriations and other agencies for all direct and indirect costs.

ANALYSIS BY TYPE OF WORK (%)

	2000 actual	2001 estimate	2002 estimate
Vessels repairs and alterations	32	25	25
Boat repairs and construction	20	22	10
Buoy fabrication	1	1	1
Fabrication of special and Miscellaneous items	47	52	64
Total	100	100	100

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
COAST GUARD YARD FUND
Object Classification (in thousands of dollars)

Identification code: 69-4743-0-4-403		2000 actual	2001 estimate	2002 estimate
	Direct obligations:			
	Personnel compensation:			
11.1	Full-time permanent	21,009	21,595	21,959
11.3	Other than full-time permanent	2,495	2,564	2,608
11.5	Other personnel compensation	4,875	5,010	5,095
11.7	Military personnel	895	928	962
11.9	Total personnel compensation	29,274	30,097	30,624
12.1	Civilian personnel benefits	6,106	6,200	6,429
12.2	Military personnel benefits	74	77	80
21.0	Travel and transportation of persons	70	71	72
22.0	Transportation of things	28	29	29
23.3	Communications, utilities, and miscellaneous changes	2,126	2,148	2,185
24.0	Printing and reproduction	17	17	17
25.2	Other services	3,495	3,500	3,560
26.0	Supplies and materials	30,000	30,121	30,491
31.0	Equipment	432	437	446
99.9	Total obligations	71,622	72,697	73,933

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
YARD FUND
Personnel Summary

Identification code: 69-4743-0-4-403		2000 actual	2001 estimate	2002 estimate
	Reimbursable:			
	Total compensable workyears:			
2001	Full-time equivalent employment civilian	572	572	632
2101	Full-time equivalent employment military	21	22	22

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
GENERAL GIFT FUND
Program and Financing (in thousands of dollars)

Identification code: 69-8533-0-7-403		2000 actual	2001 estimate	2002 estimate
	Obligations by program activity:			
1000	Total new obligations	243	80	80
	Budgetary resources available for obligation:			
2140	Unobligated balance carried forward, start of year:			
	Uninvested	88	129	129
2141	U.S. Securities: Par value	1,560	1,493	1,493
2142	Unrealized discounts	-43	46	46
2200	New budget authority (gross)	214	80	80
2390	Total budgetary resources available for obligation	1,819	1,748	1,748
2395	Total new obligations	-243	-80	-80
	Unobligated balance carried forward, end of year:			
2440	Treasury balance	129	129	129
2441	U.S. Securities: Par value	1,493	1,493	1,493
2442	Unrealized discounts	-46	-114	-114
6005	Budget authority (indefinite appropriation)	214	80	80
	New budget authority (gross), detail:			
	Mandatory:			
7000	Total new budget authority (gross)	243	80	80
	Change in unpaid obligations:			
7240	Unpaid obligations	154	67	.....
7310	Total new obligations	243	80	80
7440	Unpaid obligations	67	.....	.....
	Outlays (gross), detail:			
8700	Total outlays (gross)	330	80	80
	Net budget authority and outlays:			
8900	Budget authority	214	80	80
9000	Outlays	330	80	80

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
COAST GUARD GENERAL GIFT FUND

This trust fund, maintained from gifts and bequests, is used for purposes as specified by the donor in connection with the Coast Guard training program (10 U.S.C. 2601).

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
GENERAL GIFT FUND
Object Classification (in thousands of dollars)

Identification code: 69-8533-0-7-403		2000 actual	2000 estimate	2002 estimate
21.0	Travel and Transportation	3	.....	.....
25.2	Other services	240	62	62
26.0	Supplies and materials	.....	10	10
31.0	Equipment	.....	8	8
99.9	Total obligations	243	80	80

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
MISCELLANEOUS TRUST REVOLVING FUNDS
Program and Financing (in thousands of dollars)

Identification code: 69-9981-0-8-403		2000 actual	2001 estimate	2002 estimate
	Obligations by program activity:			
	Direct program:			
0901	Cadet activities	8,032	8,140	8,248
0902	Surcharge collections, sales of commissary stores	.....	.....	.....
0909	Reimbursable program by activities	8,032	8,140	8,248
1000	Total new obligations (object class 25.2)	8,032	8,140	8,248
	Budgetary resources available for obligation			
2140	Unobligated balance carried forward, start of year:	68	.....	.....
2200	New budget authority (gross)	8,032	8,140	8,248
2390	Total budgetary resources available for obligation	8,100	8,208	8,248
2395	Total new obligations	-8,032	-8,208	-8,248
2440	Unobligated balance carried forward, end of year:	.....	.....	.....
	New budget authority (gross), detail			
	Mandatory			
6900	Offsetting collections (cash)	8,032	8,140	8,248
	Change in unpaid obligations			
7310	Total new obligations	8,032	8,140	8,248
7320	Total outlays (gross)	-8,207	-8,136	-8,244
	Outlays (gross), detail			
8697	Outlays from new mandatory authority	8,207	8,136	8,244
	Offsets			
	Against gross budget authority and outlays:			
8800	Offsetting collections (cash) from: Federal sources:	-8,207	-8,136	-8,244
	Net budget authority and outlays			
8900	Budget authority	.....	.....	.....
9000	Outlays	.....	.....	.....

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
MISCELLANEOUS TRUST REVOLVING FUNDS
Program and Performance

The Coast Guard cadet fund is used by the Superintendent of the Coast Guard Academy to receive, plan, control, and expend funds for personal expenses and obligations of Coast Guard cadets.

The Coast Guard surcharge collections, sales of commissary stores fund is used to finance expenses incurred in connection with the operation of the Coast Guard commissary store in Kodiak, Alaska. Revenue is derived from a surcharge placed on sales (14 U.S.C. 487).

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
MISCELLANEOUS TRUST REVOLVING FUNDS
Object Classification (in thousands of dollars)

Identification code: 69-9981-0-8-403		2000 actual	2001 estimate	2002 estimate
23.3	Communications, utilities, and miscellaneous charges	.....	26	26
25.2	Other services	8,032	7,912	8,016
26.0	Supplies and materials	.....	164	166
31.0	Equipment	.....	38	40
99.9	Total obligations	8,032	8,140	8,248

Supplementary Information Index

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SUPPLEMENTARY INFORMATION

The following information has been requested each year by the Committees in questions for the record. In order to provide the Committees with adequate information for oversight functions and to be more responsive, the Coast Guard is providing this information as a part of the Budget Justifications.

TYPE AND NUMBER OF COAST GUARD AIRCRAFT, FISCAL YEAR 2001

	Number in Class (1)	Field Allowances
Fixed Wing:		
HC-130H "Hercules"	30	26
HU-25 "Guardian" (2)	41	26
VC-4A	1	1
C-20B	1	1
Rotary Wing:		
HH-65A "Dolphin" (3)	94	82
HH-60J "Jayhawk"	42	35
MH-68 (4)	8	8
Total, all aircraft	217	179

(1) Includes Spare and Maintenance Aircraft
(2) 8 HU-25 in storage
(3) Assumes addition of 2 HH-65s for Air Facility Waukegan, IL.
(4) Assumes 8 MH-68 aircraft accepted in FY 01. Current lease contract with Augusta Aerospace Corporation.

AIRCRAFT OPERATING COSTS

ACTUAL FY 2000

TYPE	NO. OF AIRCRAFT: (OPERATIONAL/ SUPPORT)	ESTIMATED COSTS (1)	RESOURCE HOURS	COST PER HOUR
HC-130	26 / 4	$44.50 M	20.1 K	$2.2 K
HH-60J	35 / 7	$39.82 M	23.7 K	$1.7 K
HH-65A	80 / 12	$64.98 M	45.7 K	$1.4 K
HU-25A (2)	15 / 4	$18.12 M	6.6 K	$2.8 K
HU-25B	3 / 1	$8.74 M	3.8 K	$2.3 K
HU-25C	8 / 1	$13.89 M	5.6 K	$2.5 K
VC-4A	1 / 0	$0.34 M	0.6 K	$0.5 K
C-20B	1 / 0	$0.94 M	0.6 K	$1.6 K
MH-90 (3)	2 / 0	$3.12 M	0.3 K	$9.2 K
TOTALS	171 / 29	$194.45 M	107.0 K (4)	

PROJECTED FY 2001

HC-130	26 / 4	$59.49 M	21.0 K	$2.8 K
HH-60J	35 / 7	$48.54 M	24.0 K	$2.0 K
HH-65A (5)	82 / 12	$75.39 M	48.1 K	$1.6 K
HU-25A	14 / 3	$27.35 M	10.0 K	$2.7 K
HU-25B	2 / 1	$3.91 M	1.4 K	$2.7 K
HU-25C/D (6)	10 / 2	$19.54 M	7.1 K	$2.7 K
VC-4A	1 / 0	$0.50 M	0.7 K	$0.7 K
C-20B	1 / 0	$1.01 M	0.5 K	$2.0 K
MH-68 (3) (7)	8 / 0	$8.44 M	2.9 K	$2.9 K
TOTALS	179 / 29	$244.16 M	115.7 K (8)	

PROJECTED FY 2002

HC-130	26 / 4	$61.48 M	21.0 K	$2.9 K
HH-60J	35 / 7	$52.29 M	24.0 K	$2.2 K
HH-65A	82 / 12	$82.89 M	48.7 K	$1.7 K
HU-25A	12 / 4	$24.18 M	8.5 K	$2.8 K
HU-25B	0 / 0	$0 M	0 K	$0 K
HU-25C/D (9)	14 / 2	$28.21 M	10.0 K	$2.8 K
VC-4A	1 / 0	$0.51 M	0.7 K	$0.7 K
C-20B	1 / 0	$1.03 M	0.5 K	$2.1 K
MH-68 (3)	8 / 0	$9.78 M	4.8 K	$2.0 K
TOTALS	179 / 29	$260.38 M	118.2 K (8)	

(1) Costs derived by multiplying actual resource hours flown by budgeted costs per hour. The cost figures include aircraft fuel, depot level maintenance, and unit level maintenance costs.
(2) 3 HU-25s reactivated in 4th qtr FY00.
(3) MH-90/MH-68 costs include all contract costs for configuration and lease.
(4) HH-60J and HH-65A aircraft flew 95% program flight hours, and HU-25A/B/C and HC-130H aircraft flew 89% program flight hours due to operational reductions caused by resource constraints.
(5) Assumes addition of 2 HH-65s for Air Facility Waukegan, IL, in 3rd and 4th qtrs FY01.
(6) Assumes 2 HU-25s converted to HU-25D aircraft.
(7) Assumes 8 MH-68 aircraft accepted in FY01. Current lease contract with Agusta Aerospace Corporation.
(8) Assumes HH-60J and HH-65A aircraft fly 95% program flight hours; HU-25A/B/C and HC-130H aircraft fly 89% program flight hours due to operational reductions caused by resource constraints.
(9) Assumes 4 HU-25s converted to HU-25D aircraft.

AIRCRAFT MODIFICATION WORK, FY2000

The following aircraft modifications were accomplished during fiscal year 2000 at a total cost of $4,776,000

Project	(000's)
HH-60J Helicopter:	
Rotor Head Streamlining	290
Crack Mitigation Kit Installs by Sikorsky	200
Extended Hoist Arm	157
Cabin Emergency Egress Lighting	40
Tail Landing Gear Strut Wiper	30
Pressure Refueling/Defueling Hose Upgrade	17
Digital Automatic Flight Control System Computer Rain Shiek	11
Number 2 Tactical Data Processor Fan Reversal	7
Digital Encryption Standard Installs	3
Stabilator Actuator Grounding Strap/Bracket	2
Sub Total	**$756**

Project	(000's)
HH-65 Helicopter:	
Energy Attenuating Seats	1,265
Fuel Quantity Indicator	759
Environmental Control System Conversion	225
Improved Searchlight	30
Dry Cell Battery Replacement	13
Vibe Monitoring Unit	7
Sub Total	**$2,299**

Project	(000's)
HC-130 Aircraft:	
LN-100/Standby Attitude Indicator	1,080
FCS105/Aircraft Commonality	641
Sub Total	**$1,721**

MASS TRANSIT SUBSIDY BENEFIT PROGRAM

The units and the number of personnel currently participating in the program at each location is as follows:

Location:	Personnel Count as of November 30, 2000
Coast Guard Headquarters, Washington, DC	911
Activities New York, NY	37
ISC Alameda, CA	181
ISC Boston, MA	182
ISC St. Louis, MO	15
Coast Guard Group, Ohio Valley Louisville, KY	3
Marine Safety Office Pittsburgh, PA	5
ISC Miami, FL	46
ISC New Orleans, LA	141
ISC Cleveland, OH	165
ISC San Pedro, CA	33
ISC Seattle, WA	437
ISC Honolulu, HI	43
Coast Guard Group Philadelphia, PA	3
Human Resource Services and Information Center, Topeka, KS	14
MLC Atlantic, Norfolk, VA	45
Total:	2,261 (1)

(1) Fiscal year 2002 estimate is 2,314 commuters.

OPERATING EXPENSES (OE) FUNDING FOR CHILD DEVELOPMENT CENTERS

Current OE funding for Coast Guard Child Development Centers (CDCs) is as follows:

FY 2001 ESTIMATED CHILD DEVELOPMENT CENTER OE FUNDING

CDC LOCATION	OPERATIONS	SALARIES	TOTAL
Cape Cod, MA	$ 19,675	$271,878	$291,553
San Juan, PR	14,000	212,815	226,815
Cape May, NJ	24,195	212,815	237,010
Borinquen, PR	18,000	212,815	230,815
Petaluma, CA	23,500	222,115	245,615
Kodiak, AK	44,890	242,815	287,705
New London, CT	29,035	231,115	260,150
Alameda, CA	15,250	222,115	237,365
Washington, DC	14,300	231,115	245,415
TOTALS:	$202,845	$2,059,598	$2,262,443

FY 2002 ESTIMATED CHILD DEVELOPMENT CENTER OE FUNDING

CDC LOCATION	OPERATIONS	SALARIES	TOTAL
Cape Cod, MA	$19,675	$284,341	$304,016
San Juan, PR	14,320	222,518	236,838
Cape May, NJ	24,195	222,518	246,713
Borinquen, PR	18,050	222,518	240,568
Petaluma, CA	23,500	232,318	255,818
Kodiak, AK	20,910	253,318	274,228
New London, CT	28,500	241,718	270,218
Alameda, CA	21,200	232,318	253,518
Washington, DC	14,900	241,718	256,618
TOTALS:	$185,250	$2,152,285	$2,338,5350

ROUTINE PUBLICATIONS

The periodicals listed below provide an update to the listing of Coast Guard headquarters and routine field publications:

HEADQUARTERS PUBLICATION	NUMBER PRINTED AND FREQUENCY
Aids to Navigation Bulletin	1,600 quarterly
Coast Guard Magazine (Note 1)	24,000 monthly
Enlisted Hi-line	3,000 semiannually
Marine Safety Newsletter	800 monthly
Navigator (Auxiliary Magazine)	39,000 quarterly
On Scene	5,000 quarterly
Proceedings of the Marine Safety Council	8,450 quarterly
Radio Navigation Bulletin	2,800 semiannually
Coast Guard Reservist Magazine	24,000 monthly
T-Magazine	canceled
Vital Signs	canceled
Systems Times	4,000 quarterly

Notes:
(1) Formerly the "Commandant's Bulletin"

DISTRICT/FIELD PUBLICATIONS	NUMBER PRINTED AND FREQUENCY
Gulf River Connection (Note 2)	2,500 quarterly
Coastline	1,700 monthly
Local Notice to Mariners	28,000 weekly

Note:
Note: This publication is only produced on-line.

MAJOR ACQUISITION PROJECTS

The following lists all of the Coast Guard's projects that have been designated as Major Acquisitions:

Deepwater Capability Replacement Analysis
Coastal Buoy Tender (WLM) Replacement
Seagoing Buoy Tender (WLB) Replacement
Coastal Patrol Boat (CPB) Replacement
Ports & Waterways Safety Systems (PAWSS)
Great Lakes Icebreaking (GLIB) Capability Replacement
Stern Loading Buoy Boat (BUSL) Replacement
Fleet Logistics System (FLS)
Marine Information for Safety and Law Enforcement (MISLE)
Motor Lifeboat (MLB) Replacement
National Distress and Response System (NDRS) Modernization
Surface Search Radar (SSR)
C-130J Aircraft

ACQUISITION REVIEW COUNCIL MEMBERSHIP

The membership of the Coast Guard Acquisition Review Council (CGARC) is provided in the following table. The sponsor is the Assistant Commandant of the program having the primary need for the particular major acquisition. The Assistant Commandant for Operations (G-O) or the Assistant Commandant for Marine Safety (G-M) normally serves as sponsor.

CGARC MEMBERSHIP

Chair: Vice Commandant (G-CV)
Members:
- Chief of Staff (G-CCS)
- Assistant Commandant for Acquisition (G-A)
- Assistant Commandant for Systems (G-S)
- Assistant Commandant for Human Resources (G-W)
- Director of Resources (G-CRC)
- Director of Finance and Procurement (G-CFP)
- Director of Information and Technology (G-SI)
- Chief Counsel (G-L)
- Sponsor

MAJOR ACQUISITION SEMI-ANNUAL BRIEFS

The following is a list of the Major Acquisition Semi-Annual Briefs held during the f year. Semi-Annual Briefs are informational briefings held to provide Department of Transportation officials and Coast Guard Headquarters staffs with a complete and cur status of projects.

Project	Date
Coastal Patrol Boat Replacement	January 28, 2000
Great Lakes Heavy Icebreaking Capability	January 28, 2000
Motor Lifeboat Replacement	February 17, 2000
Surface Search Radar Replacement	February 17, 2000
Ports and Waterways Safety Systems	March 22, 2000
Fleet Logistics System	March 22, 2000
Seagoing Buoy Tender (WLB) Replacement	April 26, 2000
Coastal Buoy Tender (WLM) Replacement	April 26, 2000
Stern Loading Buoy Boat (BUSL) Replacement	April 26, 2000
National Distress System Modernization	May 17, 2000
Marine Information for Safety and Law Enforcement (MISLE)	May 17, 2000
Coastal Patrol Boat Replacement	July 19, 2000
Motor Lifeboat Replacement	July 19, 2000
Great Lakes Heavy Icebreaking Capability	August 30, 2000
Ports and Waterways Safety Systems	August 30, 2000
Surface Search Radar Replacement	September 6, 2000
Fleet Logistics System	September 6, 2000
Seagoing Buoy Tender (WLB) Replacement	October 18, 2000
Coastal Buoy Tender (WLM) Replacement	October 18, 2000
Stern Loading Buoy Boat (BUSL) Replacement	October 18, 2000
National Distress System Modernization	November 15, 2000
Marine Information for Safety and Law Enforcement (MISLE)	November 15, 2000

Rank Order of Fatal Accidents – 1999

Rank Order of Fatal Accidents	1999 Recreational Boat Accident Statistics State	Number of Reported Fatal Accidents	Number of Reported Fatalities	Total Number of Reported Accidents
1	Florida	52	58	1,299
2	Texas	42	51	210
3	California	36	42	894
4	Louisiana	30	35	178
5	Washington	28	31	114
6	Michigan	27	28	343
7	New York	22	25	314
8	Alaska	21	26	77
9	North Carolina	20	29	187
10	Missouri	19	23	240
11	Virginia	19	21	184
12	Ohio	19	19	232
13	Mississippi	17	24	87
14	Minnesota	17	22	160
15	Alabama	17	17	118
16	Tennessee	16	19	130
17	Wisconsin	16	18	167
18	South Carolina	16	18	120
19	Georgia	16	16	195
20	Kentucky	14	20	75
21	Arkansas	14	15	91
22	Oregon	13	16	95
23	Illinois	13	13	159
24	Oklahoma	12	16	92
25	Idaho	12	13	68
26	Pennsylvania	10	10	125
27	Massachusetts	10	10	49
28	Colorado	9	11	85
29	Arizona	7	9	302
30	New Jersey	7	7	212
31	Maine	6	7	55
32	Maryland	6	6	182
33	New Hampshire	6	6	109
34	Iowa	6	6	86
35	Montana	5	6	25
36	Connecticut	5	5	72
37	Kansas	5	5	50
38	Utah	4	4	156
39	Indiana	4	4	150
40	Nebraska	3	4	54
41	Rhode Island	3	3	38
42	West Virginia	3	3	25
43	Delaware	3	3	22
44	Wyoming	2	3	24
45	Nevada	2	2	129
46	Vermont	2	0	13

Rank Order of Total Accidents	1999 Recreational Boat Accident Statistics State	Number of Reported Fatal Accidents	Number of Reported Fatalities	Total Number of Reported Accidents
47	North Dakota	1	1	15
48	Atlantic Ocean *	1	1	12
49	South Dakota	1	1	8
50	Virgin Islands	0	2	5
51	New Mexico	0	0	37
52	District of Columbia	0	0	16
53	Hawaii	0	0	15
54	Pacific Ocean *	0	0	13
55	Puerto Rico	0	0	13
56	Guam	0	0	5
57	Gulf of Mexico **	0	0	0
58	American Somoa	0	0	0
59	N. Mariana Islands	0	0	0
	Totals	**639**	**734**	**7,931**

* More than 3 miles off-shore
** More than 9 miles off-shore

Rank Order of Fatal Accidents by Numbered Boat – 1999

Rank Order of Fatal Accidents by Numbered Boats	1999 Recreational Boat Accident / Numbering Statistics State/Territory	Number of Reported Fatal Accidents	Number of Numbered Boats	Fatal Accidents per Numbered Boat
1	Alaska	21	25,960	0.00080894
2	Idaho	12	83,554	0.00014362
3	Washington	28	250,606	0.00011173
4	Montana	5	50,687	0.00009864
5	Louisiana	30	313,035	0.00009584
6	Colorado	9	101,137	0.00008899
7	Kentucky	14	169,759	0.00008247
8	Rhode Island	3	36,522	0.00008214
9	Virginia	19	235,330	0.00008074
10	Arkansas	14	173,437	0.00008072
11	Wyoming	2	26,287	0.00007608
12	Massachusetts	10	149,170	0.00006704
13	Texas	42	629,640	0.00006670
14	Oregon	13	196,102	0.00006629
15	Delaware	3	45,854	0.00006543
16	Florida	52	805,079	0.00006459
17	Alabama	17	267,868	0.00006346
18	New Hampshire	6	96,456	0.00006220
19	Mississippi	17	281,958	0.00006029
20	Missouri	19	331,693	0.00005728
21	North Carolina	20	353,166	0.00005663
22	West Virginia	3	54,477	0.00005507
23	Vermont	2	37,932	0.00005273
24	Oklahoma	12	229,770	0.00005223
25	Utah	4	77,171	0.00005183
26	Tennessee	16	314,624	0.00005085
27	Georgia	16	316,770	0.00005051
28	Maine	6	120,197	0.00004992
29	Connecticut	5	102,071	0.00004899
30	Kansas	5	102,424	0.00004882
31	Ohio	19	407,347	0.00004664
32	Arizona	7	153,517	0.00004560
33	New York	22	524,326	0.00004196
34	Nebraska	3	72,153	0.00004158
35	South Carolina	16	414,527	0.00003860
36	California	36	955,700	0.00003767
37	Illinois	13	372,618	0.00003489
38	Nevada	2	60,644	0.00003298
39	New Jersey	7	221,152	0.00003165

Rank Order of Fatal Accidents by Numbered Boats	1999 Recreational Boat Accident / Numbering Statistics State/Territory	Number of Reported Fatal Accidents	Number of Numbered Boats	Fatal Accidents per Numbered Boat
40	Iowa	6	203,081	0.00002954
41	Maryland	6	208,766	0.00002874
42	Pennsylvania	10	352,231	0.00002839
43	Wisconsin	16	564,313	0.00002835
44	Michigan	27	985,732	0.00002739
45	North Dakota	1	42,380	0.00002360
46	Minnesota	17	793,107	0.00002143
47	South Dakota	1	52,499	0.00001905
48	Indiana	4	219,089	0.00001826
49	American Somoa	0	146	0.00000000
50	District of Columbia	0	1,811	0.00000000
51	Guam	0	3,000	0.00000000
52	Hawaii	0	15,147	0.00000000
53	New Mexico	0	78,945	0.00000000
54	N. Mariana Islands	0	1,046	0.00000000
55	Puerto Rico	0	52,186	0.00000000
56	Virgin Islands	0	4,072	0.00000000
		638	12,738,271	

Off-Shore Fatal Accidents

Atlantic Ocean *	1
Gulf of Mexico **	0
Pacific Ocean *	0
	1

Total Number of Fatal Accidents	639

* greater than 3 miles offshore
** greater than 9 miles offshore

AVERAGE RETIRED PAY BY GRADE

Average Annual Pay for Retired Personnel by Grade:

Commissioned Officers:	Regular	Reserve (1)
O-10	85,809	0
O-9	85,812	0
O-8	78,562	30,296
O-7	69,348	0
O-6	54,557	18,934
O-5	35,954	12,886
O-4	30,329	10,841
O-3	24,288	12,058
O-3E	25,365	15,567
O-2	14,226	13,256
O-2E	18,204	7,140
O-1	10,551	0
O-1E	17,016	0
Warrant Officers:		
W-4	32,208	12,179
W-3	22,609	8,919
W-2	18,732	7,039
W-1	16,482	0
Enlisted Personnel:		
MCPOCG	40,834	0
E-9	26,639	10,234
E-8	20,311	8,181
E-7	16,692	7,344
E-6	13,046	5,231
E-5	8,596	4,276
E-4	4,946	3,324
E-3	4,242	0
E-2	4,073	4,416
E-1	3,524	0

Annual Retirements and Numbers on the Rolls:

Numbers on Rolls: (2)

	Estimate	Actual
2001	33,499	-----
2000	33,462	32,684
1999	33,257	31,812
1998	32,520	32,143
1997	31,146	31,533
1996	30,297	30,360
1995	29,098	29,366
1994	28,412	28,383
1993	27,883	27,799

1992	27,208	27,296

Annual Retirements and Numbers on the Rolls (cont.)

Number on rolls:	Estimate	Actual
1991	26,661	26,571
1990	26,094	26,070
1989	25,523	25,513
Retirements:		
2001	1,600	------
2000	1,818	1,623
1999	1,644	1,537
1998	1,517	1,436
1997	1,311	1,612
1996	1,446	1,648
1995	1,250	1,486
1994	1,178	1,156
1993	1,092	1,079
1992	1,157	1,097
1991	1,065	1,051
1990	1,172	1,046
1989	1,104	987

Notes:

(1) Reserve Retired Pay is based on a "point" system. "Points" are accumulated for the number of years of active duty service, courses completed, and drills performed. It is possible for retired pay inversions to occur that would otherwise seem unlikely, i.e., lower ranks may retire at higher pay levels than higher ranks.

(2) Average strength on the rolls during year indicated.

Established in accordance with congressional mandate.

RESERVE TRAINING - OTHER SERVICES

ESTIMATED OBLIGATIONS FOR OTHER SERVICES
(in thousands of dollars)

	2000	2001	2002
Commercial meals for drilling reservists	445	584	593
Computer maintenance & programming services	168	170	177
Contracted berthing for drilling reservists	1,209	1,500	1,800
Training services (1)	21	330	350
Active units' support of reserve program (2)	500	500	500
Advertising & Other Recruiting Initiatives (3)	3,500	2,400	2,266
Total	5,843	5,484	5,686

Notes:

(1) In FY 00, tuition assistance was not RT funded. It was paid by AFC-56. In FY 99 and FY 01 AFC-90 paid tuition assistance benefits to SELRES members.

(2) Estimated portion of the PSC-R expensed at the active unit 40% of $155 per SELRES member.

(3)Bonuses were continued in Jan 01 for hard to fill rates/billets.

DEFENSE READINESS RESOURCES

Defense readiness program information is developed by a "program budget" cost allocation model. The model spreads the Coast Guard Operating Expenses appropriation across operational mission categories based on the percentage of time Coast Guard multimission assets spent conducting each mission. The defense readiness information is as follows:

(in millions of dollars)

	Fiscal Year		
	1999	2000 (est)	2001 (est)
Operating Expenses	$60.0	$42.8	$45.2
AC&I	6.1	11.2	4.2
RDT&E	0.6	0	0.0
Total	$66.7	$54.0	$49.2

Workload data for fiscal year 1999 is as follows:

	Missions	Resource Hours	Employment Hours
Cutters	235	4,419	5,799
Aircraft	212	489	542
Boats	984	3,756	4,332

Coast Guard Budget Authority Historical Data
(in thousands of dollars)

FISCAL YEARS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Operating Expenses	2,070,250	2,353,934	2,493,462	2,582,495	2,587,770	2,624,838	2,575,930	2,633,009	2,714,979	3,044,971	2,852,813	3,184,978	3,382,838
Acquisition, Construction, and Improvements	444,164	411,326	401,500	364,398	311,500	320,545	361,875	374,590	395,906	624,465	1,008,299	414,087	659,323
Environmental Compliance & Restoration	..	21,500	21,500	21,779	22,600	20,997	21,000	21,800	21,000	21,400	16,924	16,663	16,927
Port Safety Development	...	...	...	...	...	...	15,000	5,000	...	...	...	...	...
Alteration of Bridges	2,323	3,747	11,100	12,596	12,940	..	16,000	16,000	17,000	37,575	14,939	15,466	15,466
Retired Pay	420,800	451,800	487,700	500,150	548,774	562,585	579,522	616,784	653,196	684,000	730,327	778,000	876,346
Reserve Training	71,614	74,305	75,000	72,733	64,000	64,377	62,000	65,390	67,000	74,000	71,952	80,198	83,194
Research, Development, Test & Evaluation	20,465	25,000	29,150	33,431	22,500	20,169	18,000	19,000	19,000	17,000	18,993	21,273	21,722
Boat Safety	29,910	34,999	35,000	36,398	39,750	32,500	30,000	45,000	55,000	64,000	64,000	64,000	64,000
Pollution Fund	49,409	..	.	..	...	..	...	..	.	..		...	...
Oil Spill	5,441	50,000	16,376	55,603	55,801	55,148	51,620	57,020	59,316	65,859	61,815	61,200	61,200
Gift Fund	80	80	28	229	60	80	104	237	97	153	214	80	80
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Operating Expenses

	Estimates		Appropriations
1990	$ 2,242,200,000 [1]	1990	$ 2,070,250,000 [1,2,3,4,5]
1991	2,391,351,000 [1]	1991	2,353,934,000 [6,7,8,9,46,50]
1992	2,539,600,000 [48]	1992	2,493,462,000 [6,10,11,12,13]
1993	2,603,000,000 [8,51]	1993	2,561,065,000 [14,15,16,17,18,51]
1994	2,609,747,000 [8,15]	1994	2,587,840,320 [15,16,18,20]
1995	2,630,505,000 [15]	1995	2,624,837,847 [21,15,22,23,24,25]
1996	2,618,316,000 [15]	1996	2,575,930,000 [15,25,26]
1997	2,637,850,000 [15]	1997	2,633,008,646 [15,25,30,31]
1998	2,740,000,000 [15,52]	1998	2,714,934,000 [15,32,33,34]
1999	2,771,705,000 [15,35]	1999	3,044,970,798 [15,32,36,37]
2000	2,941,039,000 [15,38]	2000	2,852,812,955 [15,32,39,40,41,42]
2001	3,083,000,000 [15,43,44]	2001	3,184,977,600 [45,46,47]
2002	3,382,838,000 [15,46,47]		

[1] Includes $30,000,000 derived from Boat Safety Account.

[2] Includes a transfer of $160,000,000 from Sec. 9059 of the Department of Defense Appropriations Act, 1990 (P.L. 101-165). An additional $140,000,000 of in-kind assistance is also available.

[3] Reflects reduction of $5,857,000 (0.3 percent) for Emergency Drug Funding under Title IV, Chapter VI, P.L. 101-164.

[4] P.L. 99-177 The Balanced Budget and Emergency Deficit Control Act of 1985.

[5] Includes $7,500,000 transfer from the Acquisition, Construction and Improvements account (P.L. 101-164).

[6] Includes a transfer of $295,000,000 from the Department of Defense Appropriations Act, 1991 (Sec. 8047).

[7] Includes $41,489,000 derived from the Oil Spill Liability Trust Fund.

[8] Includes $35,000,000 derived from the Boat Safety Account.

[9] This amount is reduced by .0013 percent (4-25-91 sequester order).

[10] Includes $138,700,000 from the Department of Defense Appropriations Act, 1992 (sec. 810 of P.L. 102-172).

[11] Includes $31,876,000 from the Oil Spill Liability Trust Fund.

[12] Includes $14,490,000 transfer from the Department of Defense for Dire Emergency/Desert Storm Supplemental (Title I of P.L. 102-229).

[13] Includes $20,000,000 for Hurricane Andrew/Iniki Relief (P.L. 102-368).

[14] Includes $253,000,000 transfer from the Department of Defense Appropriations Act, 1993 (sec. 9166 of P.L. 102-396).

[15] Includes $25,000,000 from the Oil Spill Liability Trust Fund.

[16] Includes $32,250,000 derived from Boat Safety Account.

[17] Includes $7,000,000 rescission pursuant to P.L. 103-50.

[18] Includes $65,100 transfer from ONDCP pursuant to P.L. 102-393

[19] Transfer of $21,700,000 from the Department of Defense Appropriations Act, 1994 (Title VIII. sec. 8111 of P.L. 103-139) and $70,320,000 from the Office of National Drug Control Policy.

[20] Includes $4,000,000 reappropriated pursuant to FY 1994 Supplemental Appropriations Act, P.L. 103-211.

[21] Includes $25,000,000 from the Boat Safety Account.

[22] Reflects reductions of $663,000 (sec. 330) for working capital fund and $201,825 (sec. 331) for bonuses awards and transfer of $792,828 for consolidated civil rights office (P.L. 103-331).

[23] Includes reductions of $1,629,000 for DOT working Capital Fund, $4,117,000 for DOT Adm. reduction, $1,100,000 for Government wide reduction and $4,300,000 for Coast Guard reduction pursuant to P.L. 104-19.

[24] Includes $11,200,000 transfer from Department of Defense (sec. 8115A of P.L. 103-335).

Operating Expenses

[25] Includes $28,297,000 transferred under the Department of Defense Emergency Supplemental Appropriations Act, P.L. 104-61.

[26] Includes $20,000,000 from the Boat Safety Account.

[27] Reflects reduction of $1,928,000 in working capital fund, and bonuses and awards.

[28] Includes $300,000,000 transfer from Department of Defense (Operations and Maintenance, Defense-wide of P.L. 104-61).

[29] Includes $299,718,000 transfer from Department of Defense, $14,645,451 from ONDCP Special Forfeiture Fund and $650,000 transferred to DOT "Rental Payments" appropriation pursuant to P.L. 104-208.

[30] Includes Supplemental appropriation for TWA 800 crash pursuant to P.L. 105-18.

[31] Includes reduction of $2,026,805 for TASC (sec. 320) and $3.000 for awards (sec.346) pursuant to P.L. 104-205.

[32] Includes $300,000,000 transfer from Department of Defense.

[33] Includes $63,000 for International Cooperative Administration support Services Program provision pursuant to P.L. 105-119 Sec 404.

[34] Includes $529,000 reduction for TASC pursuant to P.L. 105-66 Sec. 320.

[35] Includes $309,000,000 for defense -related activities.

[36] Includes Omnibus Consolidated and Emergency Supplemental Appropriations Act, 1999 P.L. 105-277: $16,300,000 for Counter Drug Activities and Interdiction, $100,000,000 for Military Readiness and Contingency Operations, $31,773,000 for Year 2000 Conversion

[37] Includes $200,000,000 for Kosovo Emergency Supplemental pursuant to P.L. 106-31.

[38] Includes $334,000,000 for Defense-related activities.

[39] Includes $77,000,000 from the Military Construction Appropriations Act, 2001 P.L. 106-246.

[40] Includes $1,693,000 TASC reduction pursuant to P.L. 106-69 Sec. 319.

[41] Includes $25,000 reduction for Clinger Cohen and $300,955 ONDCP-HIDTA transfer.

[42] Includes $3,500,000 Year 2000 rescission pursuant to P.L. 106-246.

[43] Includes $341,000,000 transfer from Department of Defense.

[44] Includes proposed $116,000,000 User Fee Offset.

[45] Includes a government-wide rescission (.22 percent) of $7,022,400 pursuant to P.L. 106-554.

[46] Includes $340,250,000 transfer from Department of Defense.

[47] Includes $24,945,000 from the Oil Spill Liability Trust Fund.

[48] Includes $31,054,000 derived from the Oil Spill Liability Trust Fund.

[49] Includes $18,922,000 for Operations Desert Shield and Desert Storm Supplemental Appropriations Act , 1991, P.L. 102-28.

[50] Includes $200,000 for Office of National Drug Control Policy transfer, P.L. 101-509.

[51] Includes $10 million for the Supplemental for Midwest Flood (P.L. 103-75).

Acquisition, Construction, and Improvements

	Estimates		Appropriations	
1990	$682,300,000	1990		$436,686,000 [2]
1991	437,800,000 [1]		By transfer	-7,478,000
1991	419,536,000	1991		411,331,000 [3,5]
1992	422,978,000 [4]	1992	Dire Emergency Supp	390,000,000 [6]
1993	422,978,000 [3,4]	1992		21,500,000
1993	414,000,000 [6]	1993		340,000,000 [7]
1994	414,000,000 [8]	1994		327,500,000 [9]
1994	Investment -35,000,000	1994	Rescission	-20,000,000 [9]
1994	(Supp.) Rescission -2,000,000	1994	(Supp.) by transfer	-4,000,000 [10]
1995	439,200,000 [11]	1995		362,937,400 [11,12]
1995	(Supp.) Rescission 0	1995	(Supp.) Rescission	-35,314,000 [13]
1996	428,200,000 [13]	1996		362,375,000 [11]
1997	411,600,000 [8]	1997		374,840,000 [8]
1998	379,000,000 [8,14]	1998		397,850,000 [8,14]
1999	407,773,000 [8,15,16]	1999		395,465,000 [8,15]
1999	0	1999	Div B, Supplmental	230,000,000 [25]
2000	350,326,000 [8,17]	2000		376,099,000 [8,18,19,24]
2000	0	2000	Supplemental	623,000,000 [20]
2001	520,200,000 [8,21]	2001		414,087,000 [22]
2002	659,323,000			

[1] Submitted with estimates as required by the Coast Guard Authorization Act of 1988.
[2] Reflects reduction of $1,314,000 (0.3 percent) for Emergency Drug Funding under Title IV, Chapter VI, P.L. 101-164.
[3] Includes a transfer of $5,000,000 from the Department of Defense Appropriations Act, 1991 (Sec. 8047).
[4] Includes $26,752,000 derived from the Oil Spill Liability Trust Fund.
[5] This amount is reduced by .0013 percent (4-25-91 sequester order)
[6] Includes $33,822,000 derived from the Oil Spill Liability Trust Fund; and proposes a transfer of $18,000,000 from the Department of Defense Appropriations Act, 1993.
[7] Includes $35,640,000 derived from the Oil Spill Liability Trust Fund.
[8] Includes $20,000,000 derived from the Oil Spill Liability Trust Fund.
[9] Funds provided in P.L. 102-368 are rescinded.
[10] By transfer from Operating Expenses, $4,000,000 (P.L. 103-211).
[11] Includes $52,500,000 derived from the Oil Spill Liability Trust Fund.
[12] Reflects reductions of $12,600 for bonuses and awards (sec. 331). Also, $6,378,000 of prior year unobligated balances are reduced for procurement reform (sec. 323) (P.L. 103-331)
[13] Includes rescission of $4,400,000 from Dire Supplemental (Hurricane Andrew/Iniki).
[14] Of which $9,000,000 shall be credited as offsetting collections.
[15] Of which $1,000,000 shall be credited as offsetting collections.
[16] An additional $35,000,000 in navigation assistance fees is proposed.
[17] Includes $41,000,000 proposed user fees.
[18] Includes reduction of $1,478,000 (0.38 percent) (Sec.301, title III, Appendix B-HR# 3425, P.L. 106-113).
[19] Includes reduction of $349,000 for TASC (Sec. 319).
[20] Includes funds for C-130J/C-27 Aircraft--attached FY01 MILCON Appropriation Act, P.L. 106-246.
[21] Includes $96,000,000 proposed user fees and $10,000,000 asset sales.
[22] Includes a government-wide rescission (0.22 percent) of $913,000 (P.L. 106-554)
[25] Includes: $117.4 million for Counter Drugs, $100 million for Readiness; and $12.6 million for Hurricane Georges
[24] Reflects $11,400,000 reduction pursuant to P.L. 106-246.

Acquisition, Construction, and Improvements

Vessels

Estimates		Appropriations	
1990	$376,200,000 [3]	1990	$132,302,000 [1,2]
1991	162,200,000 [3]	1991	157,500,000 [1,4]
1992	164,100,000 [3]	1992	144,150,000 [1]
1993	106,800,000 [3]	1993 Dire Emergency Supp	92,450,000 [1]
(By transfer)	-3,000,000		
1994	115,200,000 [3]	1994	95,300,000 [1]
1994 Investment	-22,900,000	1994 Rescission	-20,000,000 [5]
1995	214,250,000 [3]	1995	187,900,000 [1]
(Supp.) Rescission	0	(Supp.) Rescissions	-12,133,000
1996	203,700,000 [3]	1996	167,600,000 [1]
1997	237,000,000 [3]	1997	216,500,000 [1]
1998	186,900,000 [1]	1998	212,100,000 [1]
1999	234,573,000 [1]	1999	219,923,000 [1]
2000	165,760,000 [1]	2000	134,560,000 [1,6]
2001	257,180,000 [1]	2001	156,450,000 [1]
2002	74,990,000 [1]		

[1] Amount for program specific in appropriations language.
[2] Reflects reduction of $398,000 (0.3 percent) for Emergency Drug Funding under Title IV, Chapter VI P.L. 101-164.
[3] Amount not specified in proposed appropriations language
[4] This amount is reduced by .0013 percent (4-25-91 sequester order).
[5] Funds provided in P.L. 102-368 are rescinded.
[6] Reflects reduction of $1,478,000 (0.38 percent) (Sec.301, title III, Appendix E-HR# 3425, P.L. 106-113).

Aircraft

Estimates		Appropriations	
1990	$202,100,000 [3]	1990	$96,110,000 [1,2]
		By transfer	7,478,000 [2]
1991	110,300,000 [3]	1991	90,010,000 [1,4]
1992	64,100,000 [3]	1992	60,350,000 [1]
1993	41,300,000 [3]	1993 Dire Emergency Supp	31,300,000 [1]
1993 (By transfer)	-1,500,000		
1994	71,900,000 [3]	1994	49,685,000 [1]
1995	14,900,000 [3]	1995	11,800,000 [1]
1996	19,500,000 [3]	1996	12,000,000 [1]
1997	21,400,000 [3]	1997	18,040,000 [1]
1998	26,400,000 [1]	1998	25,800,000 [1]
1999	37,131,000 [1]	1999	35,700,000 [1]
2000	22,110,000 [1]	2000	44,210,000 [1]
2001	43,650,000 [1]	2001	37,650,000 [1]
2002	27,500,000 [1]		

[1] Amount for program specific to appropriations language.
[2] Reflects reduction of $590,000 (0.3 percent) for Emergency Drug Funding under Title IV, Chapter VI P.L. 101-164, and transfer from operating expenses.
[3] Amount not specified in proposed appropriations language.
[4] This amount is reduced by .0013 percent (4-25-91 sequester order).

Acquisition, Construction, and Improvements

Other Equipment *

Estimates		Appropriations	
1990	$13,200,000 [3]	1990	$15,852,000 [2,3]
1991	$24,500,000 [3]	1991	15,000,000 [3,4]
1992	48,800,000 [3]	1992	48,750,000
1993	83,900,000 [3]	1993	56,565,000 [1]
1994 (By transfer)	-7,100,000		
1994	68,700,000 [3]	1994	44,500,000 [1]
1994 Investment	-12,100,000		
1995	61,500,000	1995	29,700,000 [1]
1995 (Supp.) Rescission	0	1995 (Supp.) Rescission	-2,500,000
1996	56,300,000 [3]	1996	49,200,000 [1]
1997	46,700,000 [3]	1997	41,700,000 [1]
1998	49,700,000 [1]	1998	44,650,000 [1]
1999	33,969,000 [1]	1999	36,569,000 [1]
2000	53,726,000 [1]	2000	51,626,000 [1]
2001	60,313,000 [1]	2001	60,113,000 [1]
2002	90,371,000 [1]		

[1] Amount for program specific in appropriations language.
[2] Reflects reduction of $48,000 (0.3 percent) for Emergency Drug Funding under Title IV, Chapter VI, P.L. 101-164.
[3] Amount not specified in proposed appropriations language.
[4] This amount is reduced by .0013 percent (4-25-91 sequester order).

* In 1990 and 1991, this category was title "Command, Control, and Communications Related Systems".

Acquisition, Construction, and Improvements

Shore and Aids to Navigation Facilities

	Estimates		Appropriations
1990	$59,700,000 [3]	1990	$70,887,000 [1,2]
1991	86,000,000 [3]	1991	111,885,000 [1,4,5]
1992	105,050,000 [3]	1992	102,750,000 [1]
1993	127,700,000 [3]	1993	123,685,000 [1]
(By transfer)	-4,700,000		
1994	119,200,000 [3]	1994	96,400,000 [1]
		(Supp.) (by transfer)	-4,000,000 [6]
1995	103,550,000 [3]	1995	89,350,000 [1]
1995 (Supp.) Rescission	0	1995 (Supp.) Rescissions	-16,281,000
1996	99,800,000 [3]	1996	88,875,000 [1]
1997	59,500,000 [3]	1997	52,350,000 [1]
1998	69,000,000 [1]	1998	68,300,000 [1]
1999	53,650,000 [1]	1999	54,823,000 [1]
2000	55,800,000 [1]	2000	63,800,000 [1]
2001	61,606,000 [1]	2001	63,336,000 [1]
2002	63,262,000		

[1] Amount for program specific in appropriations language.
[2] Reflects reduction of $213,000 (0.3 percent) for Emergency Drug Funding under Title IV, Chapter VI, P.L. 101-164.
[3] Amount not specified in proposed appropriations language.
[4] Includes transfer of $5,000,000 from the Department of Defense Appropriations Act, 1991 (Sec. 8047).
[5] This amount is reduced by .0013 percent (4-25-91 sequester order).
[6] By transfer from Operating Expenses, $4,000,000 (P.L. 103-211).

Personnel and Related Costs

Estimates		Appropriations	
1990	$31,100,000 [3]	1990	$21,535,000 [2,3]
1991	36,536,000 [3]	1991	36,936,000 [1]
1992	40,928,000 [3]	1992	34,000,000 [1]
1993	36,300,000 [3]	1993	36,000,000 [1]
1993 (By transfer)	-1,700,000 [3]		
1994	39,000,000	1994	41,615,000 [1]
1995	45,000,000 [3]	1995	44,187,400 [5]
1996	48,900,000 [3]	1996	44,700,000 [1]
1997	47,000,000 [3]	1997	46,250,000 [1]
1998	47,000,000 [1]	1998	47,000,000 [1]
1999	48,450,000 [1]	1999	48,450,000 [1]
2000	52,930,000 [1]	2000	50,581,000 [1,6]
2001	55,151,000 [1]	2001	55,151,000 [1]
2002	65,200,000 [1]		

[1] Amount for program specific in appropriations language.
[2] Reflects reduction of $65,000 (0.3 percent) for Emergency Drug Funding under Title IV, Chapter VI. P.L. 101-164.
[3] Amount not specified in proposed appropriations language
[4] This amount is reduced by .0013 percent (4-25-91 sequester order).
[5] Reflects reductions of $13,400 for bonuses and awards (sec. 331) (P.L. 103-331).
[6] Reflects reduction of $349,000 for TASC (Sec. 319).

INTEGRATED DEEPWATER SYSTEMS

ESTIMATES	APPROPRIATION
2000.....$0	2000.....$44,200,000
2001.....42,300,000	2001..... 42,300,000
2002.....338,000,000	

ENVIRONMENTAL COMPLIANCE AND RESTORATION

	ESTIMATES			APPROPRIATIONS	
1991		$7,000,000	1991		$21,500,000 [2]
1992		25,100,000	1992		21,500,000
1993 [1]		25,100,000			
1993		30,500,000	1993		22,000,000
1994		23,057,000	1994		22,600,000
1995		25,000,000	1995		23,497,300 [3]
1995	(Supp.) Rescissions	0	1995	(Supp.) Rescissions	-2,500,000
1996		25,000,000	1996		21,000,000
1997		25,000,000	1997		21,800,000 [4]
1998		21,000,000	1998		21,000,000
1999		21,000,000	1999		21,000,000
2000		19,500,000	2000		16,924,000 [5]
2001		16,700,000	2001		16,663,260 [6]
2002		16,927,000			

[1] Submitted with estimates as required by the Coast Guard Authorization Act of 1988.

[2] This amount is reduced by .0013 percent (4-25-91 sequester order).

[3] Reflects reduction of $2,700 for bonuses and awards (Sec. 331/P.L. 103-331).

[4] Reflects transferred funds of $200,000 to other accounts for GSA Rent, pursuant to P.L. 104-205.

[5] Reflects reduction of $65,000 (0.38 percent Sec. 301. Title III, Appendix E-HR #3425. P.L. 106-113) and reduction of $11,000 for TASC (Sec. 319), pursuant to P.L. 106-69.

[6] Reflects a government-wide rescission of $36,740 (0.22 percent) pursuant to P.L. 106-554.

ALTERATION OF BRIDGES

	ESTIMATES		APPROPRIATIONS	
1990	$2,330,000		1990	$2,323,000 [1]
1991	6,353,000	[2]	1991	$3,747,000 [3]
1992	10,200,000		1992	11,100,000
1993	10,200,000			
1993	11,100,000		1993	12,600,000
1994	12,940,000		1994	12,940,000
1995	0		1995	0
1996	2,000,000	[4]	1996	16,000,000
1997	2,000,000	[4]	1997	16,000,000
1998	0	[5]	1998	17,000,000
1999	0	[5]	1999	37,575,000 [6]
2000	0	[5]	2000	14,943,000 [7]
2001	0	[5]	2001	15,465,900 [8]
2002	15,466,000			

[1] Reflects reduction of $7,000 (0.3 percent) for Emergency Drug Funding under Title IV, Chapter VI. P.L. 101-164.

[2] Reflects pending legislation to transfer this function to the Corps of Engineers.

[3] This amount is reduced by .0013 percent (4-25-91 sequester order).

[4] Proposed for railroad bridges only.

[5] Proposed to be funded under Federal-Aid Highways program.

[6] Includes $28,800,000 appropriations transfer from DOD National Defense Sealift Fund, pursuant to P.L. 105-262, and reduction of $5,225,000 for administrative and travel expenses, pursuant to P.L. 106-31.

[7] Includes reduction of $57,000 (0.38 percent) (Sec. 301, title III. Appendix B-HR #3425. P.L. 106-113).

[8] Includes a government-wide rescission of $34,100 (0.22 percent) pursuant to P.L. 106-554.

RETIRED PAY

Estimates		Appropriations	
1990	420,800,000	1990	420,800,000
1991	451,200,000 [1]		
1991	437,200,000	1991	437,200,000 [2]
1991 (Supp)	14,500,000	1991 (Dire Emergency Supp)	14,500,000 [3]
1992	487,700,000	1992	487,700,000
1993	519,000,000 [1]		
1993	519,700,000	1993	519,700,000
1994	548,774,000	1994	548,774,000
1995	562,585,000	1995	562,585,000 [2]
1996	582,022,000	1996	579,522,000 [3]
1997	608,084,000	1997	608,084,000 [3]
1997 (Emerg Supp.)	0	1997 (Emerg Supp.)	9,200,000
1998	645,696,000 [1]	1998	653,196,000
1999	684,000,000 [4]	1999	684,000,000
2000	730,327,000 [4]	2000	730,327,000
2001	778,000,000	2001	778,000,000
2002	876,346,000		

[1] Submitted with estimates as required by the Coast Guard Authorization Act of 1988.

[2] This amount is reduced by .0013 percent (4-25-91 sequester order).

[3] Reflects government-wide rescission of $2,500,000 (Sec. 31002 of P.L. 104-134).

[4] Estimate of such sums as may be necessary. CBO estimates such sums as $721,000,000.

[5] Does not reflect a transfer of 500K to other accounts.

RESERVE TRAINING

ESTIMATES			APPROPRIATIONS		
1990		$73,800,000	1990		$72,582,000 [1]
			1990	Sequestration	-968,000 [2]
1991		78,400,000			
1991		78,932,000			$74,306,000 [4]
1992		77,300,000	1992		25,000,000
1993		77,300,000		By transfer	50,000,000 [5]
1993		31,530,000	1993		72,600,000
1993	(By transfer)	(43,000,000) [6]	1993	(By transfer)	(50,000,000) [7]
1994		64,000,000	1994		64,000,000
1995		65,032,000	1995		64,976,725 [8]
1996		64,859,000	1996		62,000,000
1997		65,890,000	1997		65,890,000
1998		65,000,000	1998		67,000,000
1999		67,000,000	1999		69,000,000
			1999	Div. B, Title I	5,000,000
2000		72,000,000	2000		71,952,000 [9]
2001		73,371,000	2001		80,198,175 [10]
2002		83,194,000			

[1] Reflects reduction of $218,000 (0.3 percent) for Emergency Drug Funding under Title IV, Chapter VI, P.L. 101-164.

[2] P.L. 99-177, The Balanced Budget and Emergency Deficit Control Act of 1985.

[3] Submitted with estimates as required by the Coast Guard Authorization of 1988.

[4] This amount is reduced by .0013 percent (4-25-91 sequester order).

[5] Transfer from Department of Defense Appropriations Act, 1992 (Sec. 8100, Title VIII of P.L. 102-172).

[6] Proposed to be transferred from the Department of Defense.

[7] Transfer from Department of Defense Appropriations Act, 1993 (Sec. 9166 of P.L. 102-396).

[8] Reflects reduction of $4,275,000 for bonuses and awards (Sec. 331 of P.L. 103-331).

[9] Reflects reduction of $48,000 for TASC (Sec. 319).

[10] Reflects reduction of (0.22%) rescission for $176,825 (per P.L. 106-554).

Research, Development, Test and Evaluation

Estimates		Appropriations	
1990	19,000,000	1990	20,738,000 [3]
1990		1990 Sequestration	-273,000 [1]
1991	19,000,000 [2]		
1991	23,000,000	1991	25,000,000 [4]
1992	28,800,000	1992	29,150,000
1993	28,800,000 [3]	1993	27,815,000 [4]
1993	29,900,000 [5]	1994	22,500,000 [7]
1994	25,000,000 [7]	1995	20,169,000 [8,9,10]
1995	20,310,000 [8]	1996	18,000,000 [8]
1996	22,500,000 [8]	1997	19,000,000 [11,12]
1997	20,300,000 [12]	1998	19,000,000 [13]
1998	19,000,000 [13]	1999	12,000,000 [13]
1999	18,300,000 [13]	1999 Div B, Title 1	5,000,000
2000	21,709,000 [13]	2000	18,993,000 [13,14]
2001	21,320,000 [16]	2001	21,273,096 [15,16]
2002	21,722,000 [16]		

[1] P.L. 101-239 provided the revised sequester report published in the Federal Register on 28 December 1989, from the Omnibus Reconciliation Act of 1989.

[2] Submitted with estimates as required by the Coast Guard Authorization Act of 1988.

[3] Reflects reduction of $62,000 (0.3 percent) for Emergency Drug Funding under Title IV, Chapter VI, P.L. 101-164.

[4] This amount is reduced by .0013 percent (4-25-91 sequester order).

[5] For comparability purposes, this table includes $4,000,000 in 1993 from the Oil Spill Liability Trust Fund (Trust Fund Share of Expenses).

[6] Includes $5,595,000 derived from the Oil Spill Liability Fund (Trust Fund Share of Expenses), in accordance with FY 1993 DOT and related Agencies Appropriations Act, P.L. 102-388.

[7] Includes $4,457,000 derived from the Oil Spill Liability Fund (Trust Fund Share of Expenses), in accordance with FY 1994 DOT and related Agencies Appropriations Act, P.L. 103-122.

[8] Includes $3,150,000 derived from the Oil Spill Liability Fund (Trust Fund Share of Expenses).

[9] Includes reduction of $137.00 in personnel and related costs account reflected in the 4th quarter from the FY 1995 Emergency Supplemental and Rescissions Act, P.L. 104-19.

[10] Reflects reduction of $3,600 for bonuses and awards (Sec. 331 of P.L. 103-331).

[11] Reflects a transfer of $200,000 to the DOT "Rental Payments"appropriation for GSA Rent, pursuant to P.L. 104-205, Title III - General Provisions, SEC.326.

[12] Includes $5,020,000 from the Oil Spill Liability Trust Fund (Trust Fund Share of Expenses).

[13] Includes $3,500,000 from the Oil Spill Liability Trust Fund (Trust Fund Share of Expenses).

[14] Reflects reduction of $7,000 for TASC pursuant to P.L. 106-69.

[15] Reflects a government-wide rescission (0.22%) of $46,904 pursuant to P.L. 106-554.

[16] Includes $3,492,000 from the Oil Spill Liability Trust Fund (Trust Fund Share of Expenses).

Boating Safety

	Estimates		Appropriations
1990	30,000,000	1990	29,910,000 [1]
1991	30,000,000	1991	34,999,000 [2]
1992	35,000,000	1992	35,000,000
1993	35,000,000 [3]		
1993	35,000,000 [2]	1993	37,250,000 [2]
1994	39,750,000 [4]	1994	39,750,000 [4]
1995	7,500,000 [4]	1995	32,500,000 [4]
1996	30,000,000 [6]	1996	30,000,000 [6]
1997	45,000,000 [7]	1997	45,000,000 [7]
1998	55,000,000 [8]	1998	55,000,000 [9]
1999	55,000,000 [10]	1999	64,000,000 [11]
2000	64,000,000 [11]	2000	64,000,000 [11]
2001	64,000,000 [11]	2001	64,000,000 [11]
2002	64,000,000 [11]		

[1] Reflects reduction of $90,000 (0.3 percent) for Emergency Drug Funding under Title IV, Chapter VI. P.L. 101-164.

[2] Includes mandatory funds of: $5,000,000 in 1993 pursuant to Title V of P.L. 102-587.

[3] Submitted with estimates as required by the Coast Guard Authorization Act of 1988.

[4] Includes mandatory funds of: $7,500,000 in 1994 and 1995, pursuant to Title V of P.L. 102-587.

[5] This amount is reduced by .0013 percent (4-25-91 sequester order).

[6] Includes mandatory funds of: $30 million in 1996 pursuant to Title V P.L. 102-587.

[7] Includes mandatory funds of: $45 million in 1997 proposed legislation.

[8] Includes mandatory funds of: $20 million in 1998 per proposed legislation.

[9] Includes $20 million pursuant to P.L. 102-587.

[10] Includes mandatory funds of: $55 million in 1999 pursuant to proposed legislation.

[11] FY 1999, FY 2000, FY 2001 and FY 2002 amounts adjusted for Transportation Equity Act (TEA 21) for the Boat Safety appropriation.

Port Safety Development

Estimates		Appropriations	
1995	0	1996	$15,000,000
1997	0	1997	5,000,000

United States Coast Guard
Fiscal Year 2000
Drug Interdiction Activity Report

Section 103 of the Coast Guard Authorization Act of 1996 (Public Law 104-324) directed the Secretary of Transportation to submit quarterly reports on all expenditures related to Coast Guard drug interdiction activities during that quarter. This supplementary information synopsizes that data for all of 2000.

Three appropriations support the Coast Guard's drug interdiction mission: Operating Expenses (OE); Acquisition, Construction, and Improvements (AC&I); and Research, Development, Test, and Evaluation (RDT&E). The Coast Guard uses a program budget model to estimate actual expenditures by operating program. The model uses resource hours and other workload data to allocate costs to each of the Coast Guard's operating programs.

The Coast Guard's actual expenditures for drug law enforcement in fiscal year 2000 totaled $760.8 million. This total is broken down by supporting appropriations as follows: OE - $585.8 million; AC&I - $171.1 million; and RDT&E - $3.8 million. The attached table provides this information along with the actual cutters and aircraft resource hours dedicated to drug interdiction missions in 2000. (Note: not all RDT&E funds scored to drug interdiction program.)

During Fiscal Year 2000, the Coast Guard continued Campaign STEEL WEB, our ten-year strategy to reduce the flow of illegal drugs through the Transit Zone in direct support of the President's National Drug Control Strategy (NDCS). The centerpiece of STEEL WEB is the sequential denial of the use of maritime routes by drug smugglers by employing a series of operations in which interdiction forces are concentrated in high-threat areas. In fiscal year 2000, Congress appropriated funding to enhance the Coast Guard's ability to effect the "endgame" to effectively interdict the most elusive maritime drug smuggling threat - the go-fast vessel. Operation NEW FRONTIER, the Coast Guard's endgame initiative which combines cutters, armed helicopters and specially outfitted cutter small boats, was employed in two limited-scope deployments in 2000. In six possible opportunities for go-fast intercept, NEW FRONTIER forces successfully interdicted all six vessels, seized over 2,600 pounds of cocaine, nearly 12,000 pounds of marijuana, and detained 18 suspects. The Coast Guard is in the process of permanently establishing this unique concept, which is expected to deploy again in 2001. Another endgame initiative being explored to address the drug smuggling threat is the Deployable Pursuit Boat, or DPB, a high-speed interceptor deployed deep in the transit zone to pursue, intercept, stop and board go-fasts.

The Coast Guard applied a shift in our limited resources to address the burgeoning go-fast threat in the eastern Pacific during 2000. Interdictions in this region accounted for over 80 percent of all drugs seized by the Coast Guard, setting a new non-commercial maritime seizure record of 132,480 pounds of

cocaine and over 50,000 pounds of marijuana, with a street value of $4.4 billion. Additionally, Operation FRONTIER SHIELD, institutionalized in 1999, continued to deter smuggling into Puerto Rico and disrupt traditional smuggling routes into the United States. The Coast Guard also continued Operations GULF SHIELD and BORDER SHIELD in the Gulf of Mexico and along the southwest border respectively. These smaller-scale operations served to anchor the maritime flanks of the southwest border with Mexico as federal, state and local agency interdiction efforts ashore were increased. In 2000, the Coast Guard also continued to initiate and participate in numerous multi-national combined counterdrug operations with our foreign partners throughout the Transit Zone, including Operation CARIBE VENTURE (island nations of the eastern Caribbean), Operation RIP TIDE (Jamaica and the Cayman Islands) and Operation FRONTIER SABER (Bahamas, Turks and Caicos).

In support of interagency counterdrug efforts in the Transit Zone, the Coast Guard remained a primary force provider for Joint Interagency Task Force (JIATF)-East and JIATF-West, providing ships and aircraft for counterdrug operations such as Operation CAPER FOCUS off the Pacific coast of Colombia and south Central America; Operation SNOW FLURRY in the eastern Pacific; Operation CARIBE SHIELD in the deep Caribbean; and Operations MAYAN – JAGUAR, LIFESAVER and MILLENNIUM STRIKE in the western Caribbean. The Coast Guard deployed Law Enforcement Detachments (LEDET) aboard ships of the U.S. Navy and our international partners (United Kingdom, Netherlands), deployed throughout the Transit Zone. Finally, the Coast Guard continued to provide valuable training to law enforcement personnel in foreign countries in our effort to improve the effectiveness of maritime interdiction forces of these Source and Transit countries.

The Coast Guard seized a record 132,480 pounds of cocaine during fiscal year 2000; the previous record was set in 1999 at 111,689 pounds. The Coast Guard also seized 50,463 pounds of marijuana. The estimated street value of these seizures is more than $4.4 billion.

A comparison of Coast Guard interdiction accomplishments for fiscal years 1997, 1998, 1999, and 2000 is summarized in the following table:

Fiscal Year	Number of Cases	Vessels Seized	Cocaine Seized (Lbs)	Marijuana Seized (Lbs)	Arrests
1997	122	64	103,617	102,538[1]	233
1998	129	75	82,623	31,390	297
1999	118	74	111,689	61,506[2]	302
2000	92	57	132,480	50,463	203

Notes. 1. Includes 52,294 pounds of hashish
2. Includes 32,634 pounds of hashish

Department of Transportation
U.S. Coast Guard
Quarterly Drug Interdiction Expenditure Report
Through Fourth Quarter FY 2000

($ in thousands of dollars)

RESOURCE DATA	First Quarter	Second Quarter	Cumulative Total	Third Quarter	Cumulative Total	Fourth Quarter	Cumulative Total (FY00)
Cutter Resource Hours	28,345	28,867	57,212	19,198	76,410	21,199	97,609
Aircraft Resource Hours	4,440	5,009	9,449	2,930	12,379	3,350	15,729
Boat Resource Hours	1,004	889	1,893	1,054	2,947	1,419	4,366
Total Resource Hours	33,789	34,765	68,554	23,182	91,736	25,968	117,704

EXPENDITURE DATA (BY APPROPRIATION)	First Quarter	Second Quarter	Cumulative Total	Third Quarter	Cumulative Total	Fourth Quarter	Cumulative Total (FY00)
Operating Expenses	$ 150,907	$ 175,204	$ 326,111	$ 32,988	$ 359,099	$ 226,726	$ 585,825
Acquisition, Construction, and Improvements	$ 43,046	$ 75,693	$ 118,739	$ 50,354	$ 169,093	$ 2,054	$ 171,147
Research, Development, Test, and Evaluation	$ 957	$ 957	$ 1,914	$ 957	$ 2,871	$ 958	$ 3,829
Total Expenditures	$ 194,910	$ 251,854	$ 446,764	$ 84,299	$ 531,063	$ 229,738	$ 760,801

Interim Report to Congress

on

Coast Guard Military Health Care

February 2001

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I. EXECUTIVE SUMMARY

In accordance with the Senate Report 106-309 accompanying the Department of Transportation and Related Agencies Appropriations Bill, 2001, this Interim Report is submitted by the Commandant of the Coast Guard. The Task Force was first convened on October 10, 2000 at Coast Guard Headquarters. The Task Force is required to submit its Final Report to Congress no later than July 1, 2001.

The United States Coast Guard is a multi-mission armed service in the Department of Transportation. It provides a broad array of maritime services to protect people and the maritime environment. The Coast Guard's legally mandated missions include maritime search and rescue; marine safety and environmental protection; law enforcement, including drug interdiction; aids to navigation; recreational boating safety; domestic and international ice patrols; and national defense operations.

The Coast Guard was directed by the Senate to "form a task force to assess the systematic requirements of the Coast Guard in providing health care to its uniformed personnel and determine if the Coast Guard should continue its participation in TRICARE or transition to an alternate health care system, such as the Federal Employee's Health Benefits Program." The Committee also directed the Coast Guard to "analyze such issues as program administration, access to providers, scope of coverage, and costs to the agency and individual expenses."

As part of the review, several options were identified for Task Force evaluation: (1) the replacement of TRICARE with an alternate Federal Employees Health Benefits Program (FEHBP)-type plan; (2) the addition of an alternate FEHBP-type plan to augment the current system; and (3) retention of the current system, including TRICARE.

Several factors affect the Coast Guard's ability to meet its systemic health care requirements. These include Coast Guard operational readiness requirements; joint service interoperability; Coast Guard unit locations; distance from military medical facilities; availability and affordability of local health care; specific unit missions; unique characteristics of deployable platforms; work environments; and workforce demographics. The Coast Guard's systemic requirement for active duty personnel consists of the ability to ensure access to those services necessary to maintain fitness-for-unrestricted worldwide duty and to support operational readiness. The Coast Guard must also maintain a medical readiness capability that is both compatible and seamless with the other armed services. This is a critical support element for military readiness, national security and interoperability among the armed forces. The Coast Guard's systemic requirement for active duty family members is to ensure access to affordable quality family health care at all active duty unit locations, and to provide a family member health care benefit in parity with DOD.

Coast Guard operating environments demand optimal flexibility in personnel assignments. Operating costs preclude depth in critical service specialties, often forcing reliance on "just-in-time" staffing to meet mission requirements around the world. Active duty personnel must be fit for unrestricted worldwide duty to the greatest extent possible, or must be able to receive health care to achieve that status in a minimum amount of time. Traditional service methods that provide military health care through centralized major

military health care facilities are not often available to meet Coast Guard needs. Less than 25% of Coast Guard units are in locations that allow access to major military facilities for active duty and family member health care. In contrast, over 90% of DOD personnel and families are stationed at bases containing medical facilities. As a result, the Coast Guard must use other sources of care for its active duty members. Coast Guard family members often find themselves relying on the local health care system. This is an especially acute concern for the Coast Guard's remote area workforce, where over 50% of the typical small unit staffing consists of junior enlisted members in pay grades E-5 and below.

The Coast Guard meets its systemic health care requirement through its organic health care delivery system and participation in TRICARE. The Coast Guard's organic health care delivery system includes its network of 32 primary care clinics, 114 afloat and ashore sick bays, and contracts with private sector providers. These are the primary care sources for approximately two-thirds of the Coast Guard's active duty workforce. Other sources of care include DOD treatment facilities (MTFs), TRICARE, the Veterans Administration Medical Centers and the Uniformed Services Family Health Program. Program management and administration is provided by Coast Guard Headquarters and two regional Maintenance and Logistics Commands. All Coast Guard active duty personnel are enrolled in TRICARE. Coast Guard family members also use TRICARE as their military health benefit. The combination of the Coast Guard's organic health care delivery system and DOD/TRICARE currently accounts for approximately ninety-eight percent of Coast Guard active duty health care. The remaining two-percent is obtained from Coast Guard contracts with local providers.

The Coast Guard has several current gaps in health care delivery, and anticipates a number of future challenges. Primary challenges include sufficient resources to provide adequate health care to meet mission budgetary issues, compatibility with DOD to ensure interoperability, and obtaining access to affordable quality health care at all unit locations.

The Presidents Budget includes requests for additional funding in 2002 to pay the cost of new TRICARE benefit enhancements in the fiscal year 2001 National Defense Authorization Act (NDAA), and to expand and upgrade medical information technology systems to ensure interoperability with DOD. This will ensure compatibility and cost-effective use of Coast Guard, DOD, and TRICARE health care systems.

Section VII (Health Care Provisions) of the National Defense Authorization Act (NDAA) was enacted on October 30, 2000. It significantly improves the health care benefit to active duty members, their eligible family members, retirees and their eligible family members. These improvements are designed to remedy many outstanding provider access, scope of coverage, organizational cost, and individual member affordability problems that are driven by unit location and distance from major military medical facilities. These new NDAA family member entitlements can help close the most significant Coast Guard health care service gaps, particularly in remote and high health care cost areas. The Task Force will assess the impact of NDAA in its evaluation of the three previously mentioned health care service options in the Final Report.

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Subj: COAST GUARD HEALTH CARE TASK FORCE CHARTER

II. INTRODUCTION

In accordance with the Senate Report 106-309 accompanying the Department of Transportation and Related Agencies Appropriations Bill, 2001, this Interim Report is submitted by the Commandant of the Coast Guard and was used in preparing the Coast Guard's fiscal years 2001 and 2002 budgets.

The Coast Guard was directed by the Senate to "form a task force to assess the systematic requirements of the Coast Guard in providing health care to its uniformed personnel and determine if the Coast Guard should continue its participation in TRICARE or transition to an alternate health care system, such as the Federal Employee's Health Benefits Program." The Committee also directed the Coast Guard to "analyze such issues as program administration, access to providers, scope of coverage, and costs to the agency and individual expenses." An excerpt of the Committee language and a copy of the Task Force charter are provided as addenda (1) and (2). In complying with the Senate's request, the Coast Guard Health Care Task Force will:

- Identify the Coast Guard's systemic requirements;
- Discuss the Coast Guard's organic health care delivery system;
- Discuss Coast Guard participation in TRICARE;
- Identify gaps in health care delivery and future challenges;
- Identify the need for additional fiscal year 2002 Coast Guard health care funding, including that required to implement the new health benefits provisions contained in the recently enacted fiscal year 2001 National Defense Authorization Act (NDAA); and
- Present alternative health care options for further study to meet the Coast Guard's systemic requirements.

The Task Force was first convened on October 10, 2000 at Coast Guard Headquarters. The Task Force is required to submit its Final Report to Congress no later than July 1, 2001.

The Coast Guard, as an armed service, faces unique challenges in delivering cost effective, quality health care to its active duty personnel and family members at many unit locations. These challenges impact the Coast Guard's mission performance and its ability to recruit and retain its people. Mission requirements find Coast Guard men and women inside and outside the continental United States, often in areas lacking timely access to affordable health care. In recognition of these gaps in adequate, accessible health care, the Senate asked the Coast Guard to evaluate its current health care system, and to examine alternative options to improve health care service to its people. The Coast Guard appreciates this shared interest in ensuring its members of the armed forces and their families are afforded proper health care services.

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Subj: COAST GUARD HEALTH CARE TASK FORCE CHARTER

III. COAST GUARD HEALTH CARE AND SYSTEMIC REQUIREMENTS

This section addresses the Coast Guard's systemic requirements, organic health care delivery system, and participation in TRICARE. It describes specific Coast Guard health care requirements, their relationship to Coast Guard mission performance and operational readiness, and the rationale for the Coast Guard's use of multiple sources of health care delivery.

The Coast Guard's systemic health care requirement for active duty personnel: The Coast Guard's systemic requirement for active duty personnel consists of those services necessary to maintain fitness-for-unrestricted worldwide duty, and to support operational readiness. Health care support includes the provision of routine medical and dental care, plus a highly customized menu of physical examination requirements that are not readily available in the private sector. These military specific services include: aviation; diving; worldwide deployment; command afloat; service point of entry (accession, enlistment, commissioning); dental; periodic fitness-for-unrestricted worldwide duty determinations; disability evaluations; hearing conservation; hazardous chemical exposure monitoring; and related occupational medicine hazards. Each type of physical examination has specific requirements that are based on the member's occupational status in the Coast Guard, and on their current or future duty station locations.

Coast Guard medical readiness must be compatible to and seamless with the other armed services. This is a critical support element for military readiness, national security and daily interoperability between the Coast Guard and DOD. Achieving and maintaining this medical readiness capability is dependent upon the Coast Guard's ability to meet the following three medical readiness components. First, the Coast Guard must retain the ability to assess, achieve and maintain member fitness-for-unrestricted worldwide duty. Second, the Coast Guard must be able to ensure access to quality, cost-effective, and appropriate scope of coverage health care from federal and private sector sources at individual unit locations. Third, the Coast Guard must ensure the requisite operational and occupational medicine expertise to enable its personnel to perform effectively and safely while deployed on operations at-sea and around the world.

The Coast Guard's Organic Health Care Delivery System

The Coast Guard's organic health care delivery system is designed to meet service operational readiness requirements for diverse unit locations, missions and patient needs. It consists of primary care clinics, afloat and ashore sick bays, contracts with private sector providers, and open purchase of local health care in the absence of other alternatives. These sources are augmented by use of DOD Military Treatment Facilities (MTFs), TRICARE, Veterans Administration Medical Centers, and the Uniformed Services Family Health Program. Overall system management and administration is provided by Coast Guard Headquarters and its two regional Maintenance and Logistics Commands. Access, scope of coverage and cost factors will be covered in the Final Report.

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Subj: COAST GUARD HEALTH CARE TASK FORCE CHARTER

The Coast Guard's organic health care delivery system manages issues affecting fitness-for-unrestricted worldwide duty, access to providers, scope of coverage, cost of patient care, and medical readiness issues related to joint service interoperability. Preliminary analysis indicates that the current system meets these requirements in three critical ways. First, it provides overarching Coast Guard management of a multiple source, armed service health care program. Second, it delivers health care to over two-thirds of the Coast Guard's active duty workforce through its network of Coast Guard clinics and sick bays. Third, it coordinates care and fitness-for-unrestricted worldwide duty issues with DOD and TRICARE through daily contact and electronic connectivity. Electronic connectivity with DOD and TRICARE is an essential component of joint service interoperability, and of providing the most uniform benefit possible to all service members, regardless of unit location.

Coast Guard-wide, Coast Guard clinics provide primary care to approximately 45% of the total number of Coast Guard units, encompassing approximately two-thirds of the total active duty workforce. Approximately 34% of Coast Guard units rely on local civilian TRICARE providers. The remaining 21% use DOD MTFs and non-TRICARE affiliated civilian providers under Coast Guard contract. (Secondary and tertiary care is obtained from DOD MTFs and civilian providers). This utilization takes maximum advantage of available uniformed service health care to meet systemic requirements. It supplements uniformed service health care with private sector augmentation to ensure fitness-for-unrestricted worldwide duty. The current system of Coast Guard managed, multiple source care, is the product of a long history of intra- and inter-service experience, innovation, and necessity.

Coast Guard clinics: The Coast Guard operates an outpatient network of 32 primary care Coast Guard clinics. Addendum (3) is a map of their locations. Coast Guard clinics are located at large Coast Guard units, and where several smaller Coast Guard units can collectively access their services. All Coast Guard clinics are staffed with Coast Guard physicians. Most clinics provide dental care, and all clinics provide at least a limited amount of pharmaceutical services. Coast Guard clinics are staffed and funded to treat active duty personnel. In areas lacking DOD MTFs, Coast Guard clinics provide health care to approximately three thousand collocated DOD active duty personnel. Coast Guard clinics also provide a platform for Coast Guard and other Department of Defense Reserve and National Guard organizational components to receive health care evaluations, treatment and training. This function is primarily conducted after normal working hours, and during weekends, to coincide with reserve drill scheduling. Most Coast Guard clinics also treat non-active duty eligible beneficiaries, including retirees, from the Coast Guard and the other uniformed services on a time and space available basis.

Seventy-five percent of Coast Guard clinics are located in areas that lack access to DOD MTFs. They are the single largest source of Coast Guard active duty health care in areas that are far from major DOD medical facilities. Coast Guard clinics that are located inside DOD MTF catchment areas often have specialized support missions requiring in-house, on-site expertise, such as aviation, marine and occupational medicine expertise. This scope of health care coverage is difficult to find in the private sector in general, and often impossible to find at remote locations. A prime example of specialized scope of coverage

is the need for a Coast Guard flight surgeon to support air station operations. Coast Guard flight surgeons determine whether Coast Guard pilots and crews are fit for flight operations. They analyze emergent situations at sea or at remote shore sites to determine the appropriate level of the Coast Guard medical response to various operational evolutions in urgent situations. They also coordinate transport destination medical care and on-scene intervention, and provide ancillary training for rescue personnel.

Coast Guard clinics also provide health care advice to deployed units for urgent mission related operations. Coast Guard physicians are frequently called upon to provide health care advice to independent duty health services technicians assigned to operational units for patient encounters such as alien migrant interdiction operations, search and rescue, and for national emergencies such as hurricanes, flooding, and earthquakes. Coast Guard clinics and their health services professional staff support Coast Guard sick bays by mentoring and training enlisted health services technicians. Coast Guard physicians and physician assistants play a leading role in this effort. Coast Guard providers teach health services technicians how to function in independent isolated settings. This mentoring is a critical Coast Guard clinic function. It ensures that the appropriate levels of training and clinical experience are obtained to enable health services technicians to function competently on independent duty, especially when assigned to Coast Guard cutters.

Coast Guard sickbays: Coast Guard sick bays provide on-site patient assessment and care to active duty personnel. There are 70 afloat and 44 ashore sick bays. Coast Guard afloat sick bays are located on its sea-going buoy tenders, larger cutters and polar icebreakers. Coast Guard ashore sick bays are small medical departments at selected shore stations. Coast Guard ashore sick bays are generally located at Coast Guard operational units containing approximately seventy-five active duty personnel. These units lack the active duty population size for a Coast Guard clinic to be cost-effective. Instead, they use local TRICARE or civilian providers under Coast Guard contract for higher levels of care. Health services personnel assigned to ashore sick bays also have a broad geographic area of oversight responsibility. This includes the management of health care for smaller, non-sick bay equipped units in their unit's chain of command. They provide a mission-essential, indispensable source of on-demand "deck plate" care. Coast Guard sick bays maintain regular contact with Coast Guard clinics, TRICARE, and their respective Maintenance and Logistics Commands for patient tracking and case management.

Coast Guard contracted private sector care: Units that lack access to Coast Guard clinics, MTFs, TRICARE civilian providers, or other sources of federal health care must be able to obtain care for their active duty personnel in the local community. In these situations, limited to approximately two-percent of Coast Guard units, the Coast Guard contracts with local providers to obtain more favorable fee schedules. When contracting is not possible, the Coast Guard is forced to purchase care at usual and customary rates.

Coast Guard participation in TRICARE

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TRICARE for active duty personnel: TRICARE is the military health system's managed care program. Coast Guard active duty service members and active duty family members, as eligible beneficiaries of an armed service, are authorized to obtain medical and dental care from the military health services system (TRICARE) under Chapter 55 of Title 10, USC. The TRICARE program is administered by 32 CFR 199. All armed services personnel enroll into TRICARE Prime, and authorized care is provided without cost to the member. All Coast Guard active duty personnel are enrolled in the TRICARE Prime program, regardless of the local source of their routine health care. Active duty TRICARE enrollment confirms the eligibility for active duty military personnel to receive authorized health care. It facilitates specialty and inpatient referrals in both the Military Health System and in civilian facilities, and enables access to benefits such as commercial pharmaceutical services, including the National Mail Order Pharmacy Program. Coast Guard TRICARE participation also provides a medical support linkage to DOD, and enhances joint service interoperability. The Coast Guard uses TRICARE in locations lacking access to Coast Guard clinics, or where a higher level of care is required. The Coast Guard's health services program administration works to ensure that Coast Guard health care and TRICARE operate synergistically, to optimize Coast Guard health care delivery and control costs. TRICARE currently meets the Coast Guard's active duty health care need at most Coast Guard unit locations.

TRICARE for active duty family members: TRICARE is the authorized military health benefit for family members. The two major TRICARE family member program options are TRICARE Prime and TRICARE Standard. A third option is TRICARE Extra. Where choice exists for TRICARE options, beneficiaries may elect to enroll in TRICARE Prime or to participate in TRICARE Extra or TRICARE Standard. TRICARE Prime is a Health Maintenance Organization (HMO) type program. TRICARE Extra is a Preferred Provider (PPO) type program, offering additional patient discounts for using network providers. TRICARE Standard is an out-of-network, managed fee-for-service program.

Active duty family members pay no out-of-pocket costs when enrolled into TRICARE Prime at DOD Military Treatment Facilities (MTFs). They were liable for a per visit co-pay when they use a civilian TRICARE Prime network provider. The recently enacted fiscal year 2001 National Defense Authorization Act eliminates these per visit co-pays for eligible family members that lack access to MTFs. This will have a dramatic impact on one of the Coast Guard's most critical family member health care affordability gaps. Funding requirements to pay for these benefit enhancements and other related Coast Guard health care needs are contained in addendum (4). The Final Report will evaluate the pros and cons of the Coast Guard's reliance on TRICARE, including access to providers, scope of coverage, and cost.

Invoice and case management: TRICARE processes all health care invoices generated by Coast Guard active duty and family member visits to TRICARE providers. DOD, in turn, bills the Coast Guard for TRICARE-related services. TRICARE health care finders provide case management assistance, and coordinate inpatient and other complex episodes of care with the Coast Guard's organic health care delivery system.

IV. FUTURE CHALLENGES

The Coast Guard will face several future challenges to its ability to deliver timely and affordable health care to its active duty personnel and family members. The primary challenges include budgetary considerations, health care benefit parity with DOD, DOD interoperability, and health care access, scope of coverage, and affordability problems at certain Coast Guard units.

Budgetary considerations

Inflation: Health care inflation continues to increase. The impact on the Coast Guard parallels the private sector in many areas. Traditionally, the increase for the budget base includes the previous year, combined with the non-pay cost of living increase. For fiscal year 2002, the non-pay cost of living increase is expected to be 1.7%, and the projected Health Care Finance Administration (HCFA) increase in medical costs is projected to be 6.6%. Likewise, pharmaceutical costs are expected to rise at a similar rate. It is important to note that many major private sector health care plans, including those offered by the Federal Employees Health Benefit Program, have experienced recent annual premium increases of 10% or more.

Impact of budgetary planning process: Based on the lead role of the Department of Defense and the National Defense Authorization Act (NDAA) legislative development and enactment process, budgetary planing and projections can be challenging for the Coast Guard. For instance, when NDAA 2001 was enacted, it had resource implications impacting the fiscal years 2001 and 2002 Coast Guard budget; yet the fiscal year 2001 budget was enacted on October 5, 2000. Also, the fiscal year 2002 budget was submitted to the Department of Transportation at the end of July 2000. Although close coordination with DOD continues to be a priority in determining upcoming budgetary projections, the determination of out-year estimates is extremely difficult because of the legislative and budgetary planning and implementation process.

The National Defense Authorization Act (NDAA): The NDAA was enacted on October 30, 2000. Section VII (Health Care Provisions) significantly improves the health care benefit to active duty members, their eligible family members, retirees and their eligible family members. The Coast Guard will require additional fiscal year 2001 and 2002 funding to implement the new NDAA provisions. NDAA funding requirements are provided in addendum (4).

The new NDAA provisions should positively impact the Coast Guard health care system. The provisions will remedy many outstanding provider access, scope of coverage, organizational cost, and individual member affordability problems. They include the introduction of a TRICARE Prime Remote (TPR) for Family Members benefit at all active duty unit locations where the member is TPR-eligible, and the elimination of TRICARE-Prime related co-pays at non-MTF locations. They also include new authority for TRICARE to negotiate higher reimbursement rates to attract new provider participation. The introduction of new TRICARE providers in certain areas should lower fee schedules

and reduce out-of-pocket expenses for family members. It may also reduce current Coast Guard active duty health care costs, by enabling the Coast Guard to disengage from the use of local, higher cost, non-TRICARE providers.

Enhanced and simplified pharmaceutical benefits and other ancillary care improvements are also contained in the NDAA. Planned TRICARE customer service improvements should also ameliorate a host of provider billing problems that currently plague far too many service members and their families. These new family member entitlements are expected to close the most significant overall Coast Guard health care service gaps.

Coast Guard health care benefit parity with the other services: In comparison to DOD, the geographic isolation of many Coast Guard units creates different health care access, scope of coverage and affordability challenges for Coast Guard active duty service members and their families. Coast Guard families usually spend a greater percentage of total service time in medically "under-served" areas. They have had fewer opportunities to participate in the lower out-of-pocket cost, TRICARE Prime option. This situation is especially acute for Coast Guard family members who are in junior enlisted and officer pay grades. The Task Force reviewed the family member health care situation at 27 remote Coast Guard units with a history of health care access problems. The findings revealed that 69% of the enlisted workforce stationed at those units were in pay grades E-5 or lower. These junior members are among the least able to afford out-of-pocket expenses for family member health care. Indeed, DOD strongly encourages MTF use for families of active duty members in pay grades E-4 and below, and ensures MTF appointment availability. The distribution of Coast Guard units required to meet diverse Coast Guard missions does not allow comparable MTF access for its junior personnel. In comparison to DOD, this has resulted in a career-spanning, health care benefit disparity for the Coast Guard family.

Interoperability: Coast Guard clinics must maintain an effective, internal and external cross-platform, electronic information and data retrieval system. Unimpeded interoperability with the Military Health System's (MHS) health care delivery program (TRICARE) is an essential component of the Coast Guard's health care delivery system. Integration within the MHS medical information system infrastructure is vital to achieving interoperability. The Department of Defense utilizes a host of government owned and commercial software/systems to manage medical information and processes, many of which have applicability for the Coast Guard. The most important system for daily Coast Guard/DOD/TRICARE health care interoperability is DOD's Composite Health Care System (CHCS and CHCSII). This is an automated medical information system deployed worldwide to over 600 military hospitals and clinics. It is one of the world's largest and most advanced health information systems, serving over 8,000,000 patients. CHCS provides automated support for health care providers by facilitating appointment management, documentation, order entry, and results retrieval. The system supports health care administrators and administrative support personnel with a variety of resource management and patient administration functions. CHCS is the critical joint service electronic bridging platform, and one of the most important elements of joint service interoperability.

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Coast Guard and DOD health care delivery systems interact almost constantly. Nearly all Coast Guard clinics are electronically linked to host DOD MTF sites. All Coast Guard clinics should be linked to DOD by the end of fiscal year 2001. This electronic linkage enables Coast Guard use of DOD's CHCS, and other related systems. It optimizes patient access, minimizes health care treatment times, and enhances military interoperability. The implementation, maintenance and currency of this linkage through future system evolutions will require additional Coast Guard funding identified in addendum (4).

Geographic Concerns: Coast Guard units are located in areas ranging from urban, "medically saturated" to remote "medically under-served." Unit distance from DOD MTFs and Coast Guard clinics dictates how the Coast Guard participates in TRICARE. Under TRICARE, the distance in mileage and driving time from the nearest DOD MTF determines where and how active duty service members and their families will get their care. The active duty member's TRICARE designation drives the TRICARE status of their family members. Approximately 600 Coast Guard units, representing more than half of the total number of units examined with personnel assigned, are eligible for TRICARE Prime Remote. TRICARE Prime Remote offers the TRICARE Prime-like benefit to family members that lack access to DOD MTFs. However, nearly 200 of these TRICARE Prime Remote eligible Coast Guard units still lack local access to TRICARE Prime civilian providers. This represents a significant gap in service delivery, and places additional financial burdens on Coast Guard active duty family members. In these locations, TRICARE Standard, the highest out-of-pocket TRICARE program, is often the only option available. Further, the lack of TRICARE providers in some of these locations results in higher service costs for active duty health care.

Active duty family members at TRICARE Prime remote locations receive most of their health care under the higher out-of-pocket expense, TRICARE Standard program. When given the option, over 80% of Coast Guard active duty family members choose the lower out-of-pocket expense TRICARE Prime program. These Coast Guard enrollment figures are consistent with those experienced by DOD. Family members also compete for a limited amount of care at Coast Guard clinics, based on time and space availability. Over 90% of Coast Guard active duty family members are enrolled in, and pay the premiums for, the TRICARE Active Duty Family Member Dental Plan. This level of enrollment is also consistent with that reported for DOD. Indeed, when given the same options, Coast Guard family members will opt for the same benefit choices as their DOD counterparts. The new NDAA provisions will provide this choice.

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V. ALTERNATIVES

The Task Force is evaluating three options to meet the Coast Guard's systemic health care support requirement for its active duty personnel and family members. These options are consistent with the direction given in the Senate request. They cover the Coast Guard's organic health care delivery system, TRICARE, and alternate private sector plans like the Federal Employees Health Benefit Program (FEHBP). They will be discussed in greater detail in the Final Report. A brief description of each follows:

Option #1: Retain the Coast Guard's organic health care delivery system, but shift augmentation from TRICARE to a FEHBP-type, private sector-based plan.

Option #1 shifts the Coast Guard's external health care augmentation from TRICARE to an alternate private sector-based health care program like the FEHBP. It would require the establishment of a new private sector-based, "global" health care delivery program. This program must be able to support the Coast Guard's systemic health care requirements for operational readiness, interoperability, and active duty and family member health care around the world. It will also require a significant amount of administrative overhead to establish and manage the contract(s), in many ways paralleling the ongoing efforts of DOD with TRICARE. Beneficiaries would either be continued in the private sector plan as retired eligibles, or reverted to TRICARE. Enabling legislation and funding authority would be required.

Option #2: Retain the Coast Guard's organic health care delivery system with TRICARE augmentation.

Option #2 retains the current state of Coast Guard health care delivery with external augmentation through TRICARE. Future internal adjustments would fine tune the Coast Guard's program, as TRICARE enhancements addressed gaps in remote area health care delivery.

Option #3: Retain the Coast Guard's organic health care delivery system with TRICARE augmentation, and test the viability of private sector-based plan augmentation on an experimental, demonstration-type project basis.

Option #3 is similar to Option #2, but allows for controlled experimentation of a private sector-based program in selected areas suffering from Coast Guard and or TRICARE service delivery gaps. It will require enabling legislation and funding authorization, and will result in increased overhead to establish and maintain the contract(s). Selected use of private sector plans would not alter the Coast Guard's TRICARE interface, or impact beneficiary eligibility in retirement.

VI. CONCLUSION

The Coast Guard has complex health care needs. These are dictated in part, by the location of many of its units in areas suffering from problems with access to providers, scope of coverage, and the lack of affordable health care.

This Interim Report has discussed the Coast Guard's systemic requirement to provide health care support. It described the Coast Guard's organic health care delivery system, and how its network of clinics and sick bays provides health care to the majority of Coast Guard active duty personnel, especially those in remote areas. It also discussed the Coast Guard's participation in TRICARE, including TRICARE's role in ensuring interoperability, and as the military health benefit for Coast Guard family members.

As one of the nation's armed forces, the Coast Guard must meet its obligation to provide adequate, affordable health care to all of its members and their families. Failure to provide quality health care will negatively impact member recruitment, retention, service quality of life, and mission success. Fortunately, several new health care benefit enhancements, contained in the fiscal year 2001 National Defense Authorization Act, hold the potential to meet the Coast Guard's needs and eliminate existing gaps.

The Task Force is evaluating options to meet the Coast Guard's systemic health care requirements. The ability of each of these options to meet these requirements will be discussed in the Final Report.

Excerpt from Senate Report (106-309) accompanying the Department of Transportation and Related Agencies Appropriations Bill, 2001

Military health care task force.—The Coast Guard, as a uniformed service, is required by statute to be a full participant in the Department of Defense TRICARE program. The health care delivery structural requirements of the Coast Guard, however, are vastly different from what is necessary for the Defense Department. Under TRICARE, military personnel and their dependents are expected to rely on the nearest military treatment facility for health services. Unlike DOD personnel who are stationed in large military bases, Coast Guard personnel typically are assigned to small stations, many of which are at remote locations a great distance from the nearest military treatment facility. As a result of this difference, the Coast Guard cannot justify health care facilities at these units and must rely on the participation of health care providers in the community for health services. The Committee com-mends the Coast Guard for working with DOD to increase the reimbursement rates in remote areas to attract greater civilian participation in TRICARE. Nevertheless, the Committee is concerned that this alone will not improve the quality of health care at remote stations. Also, the Coast Guard does not need to maintain an organic health care system as the military services must for over-seas operations. Given these anomalies, the Committee directs the Coast Guard to form a task force to assess the systemic readiness affects the Coast Guard in providing health care to its uniformed personnel and determine if the Coast Guard should continue its participation in TRICARE or migrate to an alternate health care system, such as the Federal Employees Health Benefits Program. The task force shall analyze such issues as program administration, access to providers, scope of coverage, and costs to the agency and individual members. The task force shall submit a report and recommendations to Congress by September 30, 2001 and should provide an interim report for use in the preparation of the fiscal year 2002 budget request.

Addendum (1)

U.S. Department of Transportation
United States Coast Guard

Commandant
United States Coast Guard

Washington, DC 20593-0001
Staff Symbol: G-CCS
Phone: (202) 267-1642
FAX: (202) 267-4500

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From: Chief of Staff
To: Director of Resources
Director of Health and Safety
Via: Assistant Commandant for Human Resources

Subj: COAST GUARD HEALTH CARE TASK FORCE CHARTER

Ref: (a) Excerpt from Senate Appropriations Bill NO. S. 2720

1. PURPOSE. This Charter establishes a Coast Guard Health Care Task Force to accomplish actions directed by the Senate Appropriations Committee Report, reference (a). The Task Force report will include health care for active duty members and their families.

2. GOALS. The goals of the Health Care Task Force are: (1) to determine whether the Coast Guard's health care delivery system meets service operational readiness requirements, (2) to identify Coast Guard health care needs that are being met by TRICARE, (3) to identify Coast Guard health care needs that are not being met by TRICARE, and (4) to determine if the Coast Guard should transition to an alternate health care source such as the Federal Employee Health Benefits Program (FEHBP).

3. BACKGROUND. The Coast Guard's health care delivery system is designed to meet service operational readiness requirements for diverse unit locations, missions and patient needs. Multiple health care sources in the federal and private sectors, including Coast Guard clinics and sick bays, are utilized.

Coast Guard active duty service members and active duty family members, as eligible beneficiaries of an armed service, are authorized to obtain medical and dental care from the military health services system (TRICARE) under Chapter 55 of Title 10, USC. The TRICARE program is administered by 32 CFR 199. All armed services personnel enroll into TRICARE Prime, and authorized care is provided without cost to the member.

Active duty family members in each service are also entitled to receive care under TRICARE. Where choices exist for TRICARE options, beneficiaries may elect to enroll in TRICARE Prime or to participate in TRICARE Standard/Extra. Active duty family members pay no out-of-pocket costs when enrolled into TRICARE Prime at DOD Military Treatment Facilities (MTFs) and pay a per visit co-pay when they use a civilian TRICARE Prime network provider. Active duty family members who elect to use TRICARE Standard or TRICARE Extra must meet an annual deductible and then pay per visit cost-shares.

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Subj: COAST GUARD HEALTH CARE TASK FORCE CHARTER

5. ASSUMPTIONS.

a. The Coast Guard Health Care Task Force will address Coast Guard active duty service member and Coast Guard active duty family member health care as integral components of operational readiness.

b. The Coast Guard, as one of the five armed services, must maintain military interoperability and readiness.

c. All Coast Guard active duty service members and active duty family members should have health care options comparable to their counterparts in the other armed services.

6. AUTHORITY. The Health Care Task Force Co-Chairs have the authority to take actions necessary to ensure that the project is completed in accordance with the details and scope of this Charter, including authority to:

a. Obtain assistance from program, facility and support managers to meet the project schedule Bring any difficulties in obtaining support to the attention of the Chief of Staff.

b. Issue correspondence related to the project.

7. RESPONSIBILITY AND ACCOUNTABILITY

a. Task Force Co-Chairs. As a Task Force Co-Chair, you are responsible for the planning, development and completion of the Health Care Task Force project. You are directly responsible to the Chief of Staff for executing this Charter. In addition you shall:

(1) Establish a Health Care Task Force Working Group and appoint a full-time team leader to conduct the daily activities of the Task Force.

(2) Obtain biweekly briefings from the Health Care Task Force, on project progress, and provide regular updates to the Chief of Staff.

(3) Ensure that the interests of all affected program, facility and support managers are considered.

(4) Ensure that ongoing DOD efforts to improve TRICARE, including initiatives of the Defense Medical Oversight Committee, are a component of the Health Care Task Force's analysis.

b. Program, Facility and Support Managers. By copy hereof, program, facility and support managers are directed to support the Health Care Task Force in meeting the objectives of this Charter.

Addendum (2)

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Subj: COAST GUARD HEALTH CARE TASK FORCE CHARTER

8. ORGANIZATION AND RESOURCES. The Health Care Task Force Co-Chairs will oversee the activities of the Health Care Task Force as part of normal duties. A full-time Health Care Task Force Team Leader will be assigned for the duration of the project, and additional full-time personnel may also be assigned. A Health Care Task Force Working Group will be identified, with membership to ensure broad representation of Coast Guard operational and support functions, including the two Coast Guard members assigned to the TRICARE Management Activity and the Defense Medical Oversight Committee. The Health Care Task Force should ensure input from active duty and their family members (beneficiaries), health professionals in the fields of medicine, dentistry, pharmacy, occupational and environmental health, clinic and health benefits administration, as well as from Coast Guard health services technicians and health benefits advisors. DOD's Office of the Assistant Secretary for Health Affairs and other relevant external organizations should also be consulted. Enclosure (1) contains the list of some of the proposed program elements to be represented on the Health Care Task Force.

Additionally, subject matter specialists will be assigned part-time as needed. Personnel assigned directly to program, facility and support managers may accomplish portions of the project at their current duty stations. They shall respond to the Health Care Task Force requests for information and support in their areas of responsibility. Health Care Task Force personnel currently attached to other units, whose presence is required at Coast Guard Headquarters, shall be assigned TAD, as appropriate. Input from program and support managers, as well as Maintenance and Logistics Commands, Districts and Areas will be obtained by tasking from you. Direct Liaison Authority is hereby granted for all Health Care Task Force correspondence and communication to facilitate timeliness. Each Directorate/Office identified in enclosure (1) shall provide the name of their representative to the Task Force Team Leader by 29 September 2000.

9. REQUIRED REPORTS AND SCHEDULE. Commence the project on 29 September 2000 or as soon thereafter as practical. Deliver a draft interim report to the Chief of Staff for use in preparation of the FY2002 budget request no later than 15 November 2000. Submit a draft of the final report to the Coast Guard for Chief of Staff approval no later than 1 March 2001, so that the final report can be submitted to the Committee by 1 July 2001. Advise the Chief of Staff promptly if the study begins to indicate that the scope of this Charter cannot be complied with or if areas are identified that are more suitable for separate follow-on study.

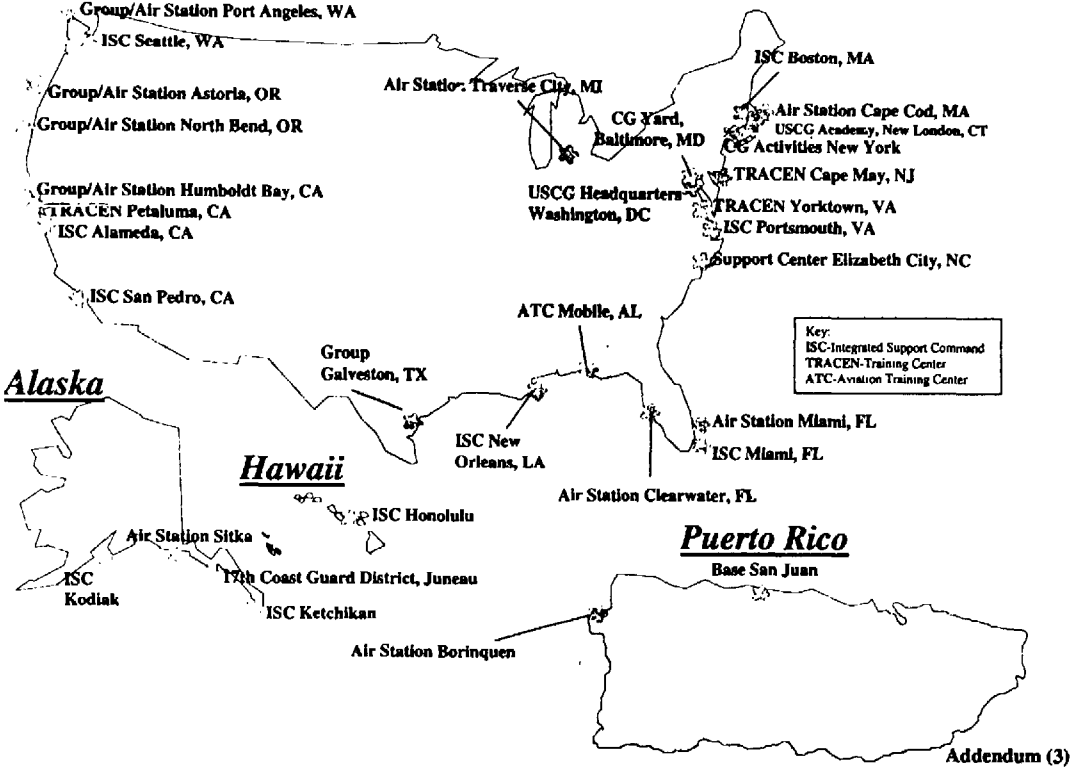
Also, during the course of the study, identify any area that you consider in need of immediate corrective action.

T. W. JOSIAH

Encl: (1) Coast Guard Health Care Task Force Participating Program Elements

Addendum (2)

LOCATION OF COAST GUARD CLINICS



Addendum (3)

FY02 OMB Submission (Health Care Cost)

LINE ITEM	ESTIMATE ($K)
Medical Inflation (Increases in technology/modernization); comparing this increase to the authorized Non-Pay COLA cap of 1.7%, the medical base must be funded an additional 5.1% just to keep up with HCFA inflation estimates.	8,784
TRICARE Enhancements (Improve customer service, appointment availability, address geographic disparities)	11,187
TRICARE Prime Remote Implementation for dependents*	4,800
CG Integration to OOD IT Health Care Systems	2,185
Increased pharmaceutical costs due to inflation. HCFA reports that pharmaceutical costs are increasing at a rate of more than 10% annually. Comparing that to the Non-Pay COLA of 1.7% and subsequently the additional 5.1% requested above leaves the Coast Guard short by 3.4% to purchase pharmaceuticals	2,725
Cape May Medical Staff Augmentation for Increased Accessions	1,599
Chiropractic Care*	140
Elimination of TRICARE Prime Co-Payments*	1,400
Reimbursement for Medical Travel Expenses*	140
DOD shift to Cost Per Treatment Codes	2,100
Transition to DOD Formulary	2,000
CURRENT FY 2002 BUDGET REQUEST	**37,060**

*NOTE: The funding level of this item may be adjusted by a possible FY 2001 supplemental.
**NOTE: The total liability in FY 2002 may be reduced by a recurring FY 2001 supplemental

Appendix C:
FIVE YEAR
CAPITAL INVESTMENT PLAN

Overview

The Department of Transportation and Related Agencies Appropriations Act of 2001 directs the Secretary of Transportation to "transmit to the Congress a comprehensive capital investment plan for the United States Coast Guard, which includes funding for each budget line item for fiscal years 2002 through 2006, with total funding for each year of the plan constrained to the funding targets for those years as estimated and approved by the Office of Management and Budget."

This plan reflects OMB targets. It also meets OMB guidance with respect to the linkage of capital investments to performance goals, and the highlighting of gaps which those investments are intended to fill. The FY02 CIP represents a substantial expansion in scope from the FY 01 version. While this CIP reflects some new starts for FY 03, many more will arise as a result of the continuing business planning process. The CIP presents the most accurate information available as of the date of publication, but post submission changes may occur as the budget build process progresses.

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Introduction

This Capital Investment Plan broadly ties the wide range of services the Coast Guard provides to the American public, to capital investments required to 1) maintain the Coast Guard's operating capability, 2) enhance existing capability, or 3) meet new requirements for capability. These investments directly enhance the national interest by improving economic trade and vitality, protecting the environment and natural resources, ensuring safe and efficient maritime transportation, and maintaining law and order. The Coast Guard's unique, multi-mission capabilities are characterized by its motto, *Semper Paratus - Always Ready*. Highly flexible, the Coast Guard routinely responds to a variety of national emergencies: natural disasters such as floods or hurricanes; transportation incidents such as maritime collisions and airline or rail crashes; environmental disasters like oil spills, and national security crises around the world. Yet everyday, its capital equipment and personnel are productively employed in delivering routine services to the public. U.S. taxpayers receive a double benefit: an effective defense force and crisis-response provider, as well as a cost-effective service that enhances national security and delivers vital services in its daily operations.

This Capital Investment Plan describes the linkage between our planned capital investments and our mission, strategic goals, performance goals, and strategies/activities. It is informed in large part by the Coast Guard's Performance Plan. Amplifying information regarding performance and measurement issues can be obtained from the Performance Plan.

Coast Guard Mission Statement

We protect the people, the environment and the maritime security of the United States.

Strategic Goals

The Coast Guard has established five strategic "outcome" goals to describe what the Coast Guard seeks to achieve or influence over the long term.

Maritime Safety ..... Eliminate deaths, injuries, and property damage associated with maritime transportation, fishing, and recreational boating.

Maritime Security ..... Protect our maritime borders from all intrusions by halting the flow of illegal drugs, aliens, and contraband into this country through maritime routes; preventing illegal incursions of our Exclusive Economic Zone; and suppressing violations of federal law in the maritime region.

Protection of Natural Resources Eliminate environmental damage and natural resource degradation associated with all maritime activities, including transportation, commercial fishing, and recreational boating.

Maritime Mobility ..... Facilitate maritime commerce and eliminate interruptions and impediments to the economical movement of goods and people, while maximizing recreational access to and enjoyment of the waterways.

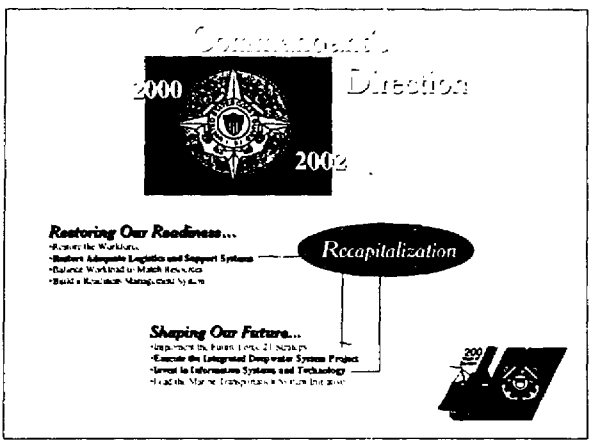
National Defense ..... Defend the nation as one of the five U.S. Armed Services. Enhance regional stability in support of the National Security Strategy, utilizing our unique and relevant maritime capabilities.

The Five Year Capital Investment Plan represents a requirements-based summary of the Coast Guard's AC&I funding needs – whether for sustainment of current capability or to close identified capability gaps. The layout of this section is based on the format in which we submit our budget to Congress, NOT on the system-of-systems format used elsewhere in the Agency Capital Plan.

With few exceptions, outyear initiatives to close performance gaps are *not* included. Outyear "new starts" which *are* included are those that are already "in the works" based on the Coast Guard's planning proposal process or near-term support strategies. Operating programs cannot project which of the many new initiatives planned for years two through five of the Five Year CIP will survive our capital investment decision-making process, but can roughly indicate what level of recapitalization will be required to maintain capability.

Commandant's Direction

The Commandant's Direction guides the Coast Guard in managing its operations and resources. Below is a list of the two areas of emphasis and their associated imperatives that identify the Coast Guard's priorities for the next two years. The Commandant's Direction describes what mangers will emphasize to ensure the Coast Guard remains on track with the long-term elements of the Strategic Plan as well as the vision outlined in Coast Guard 2020.



Summary of Coast Guard Performance Goals

Strategic Goals

DOT

	Safety	National Security	Economic Growth and Trade	Mobility	Human and Natural Environment
USCG	Maritime Safety	Maritime Security	National Defense	Maritime Mobility	Protection of Natural Resources
Performance Goals	S1 **SaveLives** - Save all mariners in distress	C1 **Drugs** - Reduce drug flow by denying maritime smuggling routes	N1 **MilRdns** - Achieve and sustain complete military readiness	M1 **Aids** - Maximize vessel mobility with ports and waterways	P1 **Oil** - Eliminate oil discharged into the water
	S2 **SavePrpy** - Save all property in imminent danger	C2 **Migrants** - Reduce undocumented migrants flow entering via maritime routes	N2 **MilOps** - Provide core military competencies	M2 **Collisions** Eliminate vessel collisions, allisions, and groundings	P2 **Garbage** - Eliminate plastics and garbage discharged into the water
	S3 **Casualties** - Eliminate crewmember fatalities on U.S. commercial vessels	C3 **FFV** - Eliminate illegal EEZ encroachment		M3 **Domice** - Maintain navigation in ice-bound areas	P3 **Pollutn** - Eliminate the adverse impacts of pollution
	S4 **Passlss** - Eliminate passenger fatalities			M4 **PolarOps** - Provide icebreaking capability in polar regions	resources
	S5 **RecBoat** - Eliminate recreational boating fatalities				

Capital Investments in Support of

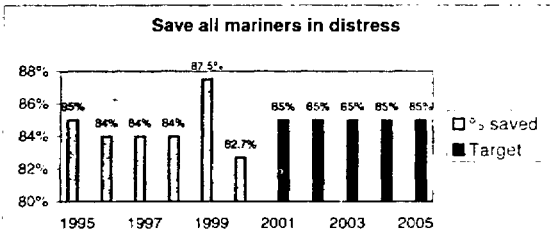
Maritime Safety Performance Goals

SAR Capabilities Enhancement Project
Global Maritime Distress and Safety System
Integrated Deepwater System
National Distress and Response System Modernization
Marine Information for Safety and Law Enforcement
Seagoing Buoy Tender Replacement
Ports and Waterways Safety System
Waterways Aids to Navigation Infrastructure
P-250 Pump Replacement
Electro Optical Sensors for Cutters and Boats

Response to Mariners in Distress

Goal: Save all mariners in distress and save all property in imminent danger.

Target: Save at least 85% of all mariners in distress and 80% of property in imminent danger as the number of mariners and vessels on the water continues to grow.



Performance Measure: Percent of all mariners in imminent danger who are rescued.

Target:	1999	2000	2001	2002
	N/A	N/A	85%	85%
Actual:	87.5%	82.7%		

Performance Measure: Percent of property reported in imminent danger saved.

Target:	1999	2000*
	N/A	80%
Actual:	80%	63%

* Due to upgrades to our database, results were reported using a different methodology for 2000 than 1999.

Discontinued Performance Measure: Percent of mariners reported in imminent danger who are rescued.

Target:	1999	2000
	93%	93%
Actual:	95%	93.4%

Note on Data

Due to changes in data queries, the percent of property saved is reported differently for 2000 than 1999. Our new database also allows us to report the number of missing persons. In this first year of data, more cases than expected were found where bodies were not recovered. Before adding this number into our data analysis, we will track and report it separately to assure that this represents a data trend and not an aberration.

Why We Act

The Coast Guard's main safety priority is to prevent distress situations from occurring. However, over 40,000 distress cases occur annually. These cases involve the Coast Guard saving the lives of approximately 4,000 mariners annually in imminent danger, and providing some form of emergency assistance to nearly 100,000 mariners. The number of recreational and commercial marine users continues to grow rapidly as more people move to coastal regions, and as global trade increases. Coast Guard response readiness will be strained to meet future demand. No other government agency or private organization has the expertise, assets, and 24 hour-a-day on-call readiness to conduct search and rescue missions in all areas of the maritime region.

Key Success Factors

Several factors compound the difficulty of conducting a successful distress response: untimely distress notification; incorrect or unknown information about the distress; poor communications with the mariners in distress; severe weather at the distress location; and severe injuries that reduce the chances of mariner survival. The most persistent factor to deal with in saving more lives is mariner behavior. Mariners who use safety tools and use good judgment have an enormously better chance of avoiding or surviving an emergency.

2000 Results

In 2000, the Coast Guard responded to 40,068 calls for assistance and saved 3,365 lives. While our ability to save the lives of mariners able to report their distress remains relatively constant, we are concerned about the drop in the percentage of all mariners saved. This year we missed our goal of saving 85% of all mariners in distress. Only 82.7% were saved, the lowest result we have seen since 1993. An additional 297 people were lost at sea in 2000 and recorded as unaccounted for. Our new data system did not capture this statistic, and although we have always known some number of lives were not accounted for, we have not known its magnitude. When added to the lives

lost in our "save all mariners in distress" measure, these additional cases drop our result to 77.1%. However, we were able to rescue 93.4% of mariners reported in imminent danger.

Historically the majority of search and rescue cases involve recreational boats, commercial fishing vessels, and "people only" (swimmer, diver, etc.). These cases also make up the majority of lives lost. While there will always be some number of lives the Coast Guard will not be able to save due to the severity, location, or circumstances of the distress, there are improvements that can be made. The National Distress and Response System, our maritime emergency radio network, will be modernized (to be completed in 2005) to eliminate the 65 existing communications gaps, and add direction finding and immediate recorded voice playback and enhancement capability. NDRS's direction finding capability will reduce the amount of time expended on hoaxes and false alarms – 25 percent of all SAR time.

Past Performance

Over the past several years the number of search and rescue cases has decreased because of better safety awareness and the maturing of the commercial assistance industry, which now handles many non-emergency cases. However, the number of severe cases where lives are most likely to be lost has remained relatively constant. While our ability to save the lives of mariners able to report their distress remains relatively constant, we are concerned about the drop in the percent of all mariners saved. Although 1999's result was higher than those of previous years, our result in 2000 is the lowest we have seen since 1993.

Strategies to Improve Performance

- ONGOING: The Coast Guard seeks to prevent distress cases from occurring by conducting safety boardings Coast Guard Auxiliary vessel safety checks, and public service campaigns that serve to improve mariner knowledge and skills. The Auxiliary conducts about 40,000 classes for 240,000 boaters each year. However, when prevention efforts fail, the Coast Guard responds to accidents in order to mitigate the damage. To maximize survival chances in incidents that do occur, we maintain a continuous response capability in coastal and deepwater areas using shore stations, boats, cutters, and aircraft. We operate a VHF-FM distress network providing extensive coverage of inland and coastal waters. Our search and rescue personnel are experts in search techniques, and rescue procedures. We employ advanced search sensors and search planning models and require mariners to carry effective distress locating and survival equipment. We work with the international search and rescue community to implement new technology such as the Global Maritime Distress and Safety System that will greatly improve the ability of mariners to notify others of their distress. We also maintain the Automated Mutual-Assistance Vessel Rescue System (AMVER) that allows us to divert nearby commercial vessels to render assistance.
- NEW: The Coast Guard will modernize communication systems and acquire new planning and decision tools to improve the percentage of lives saved.
- COORDINATION: The Coast Guard partners with international, national, state, and local agencies that have response expertise and responsibilities. We work with the International Maritime Organization to implement standards that improve the survival chances of mariners in distress. At the federal level, the Navy and Air Force also maintain limited rescue capabilities. Each agency assists the others depending on need, and the best response capability for a particular location and situation.

New Capital Investments to Support Strategies

SAR Capabilities Enhancement Project: Improves SAR planning tools, replaces aging hardware, and provides additional support for growing SAR information systems. Decision making and planning is critical to saving more lives – particularly in "people only" cases where finding a person floating in the water is difficult.

Global Maritime Distress and Safety System: Improves the ability of mariners to communicate distress information – key to saving more lives. It will automate the sorting, evaluation, and identification of distress calls.

Integrated Deepwater System: Recapitalizes the system of surface, air, command and control, intelligence, and logistics systems which prosecute SAR in the remote and often dangerous deepwater operating environment.

National Distress & Response System: Improves the Coast Guard's ability to detect mariners in distress to notify the Coast Guard – a critical factor in saving more lives. The current system is taxed by a growing boater population, has gaps in coverage, and does not have direction finding and rapid playback features that would contribute to saving more lives.

P-250 Pump Replacement: Replace the primary portable firefighting and dewatering pump on cutters.

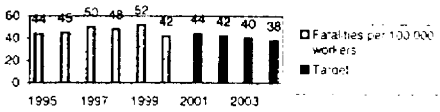
Electro Optical Sensors for Cutters and Boats: Equips 210' and Mature Class medium endurance cutters, 110' and 87' patrol boats, and small boats to effectively operate at night and in adverse weather conditions.

Maritime Worker Fatality Prevention

GOAL: Eliminate crewmember fatalities on U.S. commercial vessels

TARGET: By 2005, reduce the crewmember fatality rate per 100,000 workers to no more than 38. Reduce crewmember fatalities to 44 per 100,000 workers in 2001.

Eliminate crewmember fatalities on U.S. commercial vessels



Why We Act

Work in the marine environment can be a dangerous occupation. Although the number of fatalities is relatively small, maritime workers have one of the highest fatality rates in the transportation field. Alaskan fishermen, for example, have an occupational fatality rate 20 times the national average. This loss of life also has negative economic impacts on the industries, towns and families involved. The Coast Guard has the expertise and personnel to minimize these fatalities through education, regulation, and enforcement.

Key Success Factors

Human error plays a significant role in worker fatalities, poor material condition of vessels or equipment plays a lesser role. The majority of deaths are attributable to personnel casualties vs. vessel casualties. The largest portion of fatalities occurs in the fishing industry. Accidents in this industry involve falls overboard, entanglement, collisions, hull failures, groundings, and capsizings.

While the Commercial Fishing Vessel Industry Safety Act of 1988 has helped reduce fishing vessel fatalities 20 percent from pre-Act levels, dwindling fisheries stocks, more competition, and regulated limited-time fishing seasons have increased risk-taking by fishermen and made fishing-related deaths an ongoing problem. Compounding this is the fact that fishing vessels have relatively few required safety standards. The variable nature of this industry makes it difficult to develop universal fishing safety regulations: vessels vary greatly in size and operate in diverse locations and climates.

Hazards to personnel have also been endemic to the tug and barge industry. Crewmembers working to attach a barge to a tug, or to free a grounded vessel are at risk of being crushed in an accident, or falling overboard - the single greatest cause of fatalities in this industry.

2000 Results

The casualty data indicate that the death rate among fishermen has reached a plateau or begun a slight upward climb while the population of fishing vessels is in steady state. However the National Marine Fisheries Service believes that the industry is still over-capitalized and putting excessive pressure on fish stocks. Due to dwindling fish stocks, fishermen experience increased economic pressure and competition resulting in reduced profit opportunities. These economic pressures combined with fisheries management decisions encourage risk taking, deferred maintenance of vessel - and deferred purchase/upkeep of required safety gear.

Past Performance

The maritime worker fatality rate has been rising since 1995 mainly due to increases in fatalities in the commercial fishing industry. Approximately one-half of all maritime worker fatalities occur on commercial fishing vessels. However, within the other industry sectors, there has been a general reduction in the fatality rate due in part to the collaborative Prevention Through People Initiative efforts with industry groups that promoted better awareness of safety risks, and reduced the sizable role human error plays in fatalities.

The Fishing Vessel [illegible] task force has identified 59 recommendations [illegible] safety. Among these recommendations [illegible] inspections [illegible] reduce [illegible]. These recommendations [illegible]

Strategies to Improve Performance

- ONGOING: The Coast Guard seeks to prevent fatalities by reducing human error and improving material conditions of vessels and facilities. To accomplish this we develop safety regulations, licensing requirements, and risk-based training programs, inspect for compliance, and partner

with industry to educate companies and individual mariners on safety risks. For vessels not required to be inspected by the Coast Guard, we focus on education and voluntary action. The Coast Guard also aggressively enforces the new International Safety Management (ISM) Code. This code changes the philosophy of safety from a regime based on technical requirements to one that gives equal importance to the human element. Research and development efforts are utilized to improve safety equipment and reveal how human decisions play a role in accidents. For those incidents that do occur, the Coast Guard maintains a search and rescue capability to minimize loss of life.

- NEW. The Fishing Vessel Casualty Task Force recently examined fishing vessel casualties. Their top 10 recommendations included instituting safety examinations, inspections and operator licensing; developing safety and stability standards; coordinating fisheries stock management with safety; and improving casualty investigation data. The Coast Guard will work toward integrating these recommendations into existing maritime worker fatality prevention efforts.
- COORDINATION. The Coast Guard coordinates with the Occupational Safety Health Administration (OSHA) in developing vessel safety standards for equipment such as deck machinery to reduce the risk of injury and fatalities. We work with the National Transportation Safety Board to investigate major maritime accidents and use the investigation results to develop better safety strategies. We investigate less serious incidents to determine causes and identify trends. In cooperation with private industry, we promote the Prevention Through People Initiative which takes a people-focused approach to reducing casualties. We partner with the American Waterway Operators (AWO), International Council of Cruise Lines, and the Passenger Vessel Association – the partnership with AWO has already produced a decline in towboat worker deaths.

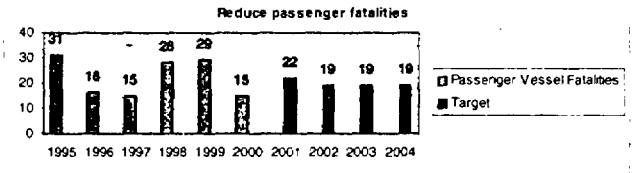
New Capital Investments to Support Strategies

Marine Information for Safety and Law Enforcement: Replaces the obsolete and unsupportable Marine Safety Information System. The new system will provide an improved capability to track trends and support analysis of safety incidents. This information is in turn used to support all aspects of the inspection and licensing programs by tracking and monitoring a wide range of vessel history information, providing a nationwide vessel identification system, and modernizing maritime commercial instruments and liens processing.

Passenger Fatalities

GOAL: Eliminate passenger vessel fatalities.

TARGET By 2005, reduce passenger fatalities to no more than 19. Reduce fatalities to 22 in 2001.



Why We Act

Each year over 207 million passengers are carried aboard cruise ships, ferries, charter fishing boats, sightseeing boats, gaming vessels and other commercial passenger vessels in the U.S. 5.85 million North American vacationers alone traveled on cruise lines in 1999 – and that number is expected to grow to 6.37 million in 2000. There are approximately 300 domestic passenger vessels and 130 foreign flag passenger vessels operating from U.S. ports. The number of cruise ships alone in the US market is expected to grow from 161 to 206 over the next 4 years. Collectively, these vessels provide one of the safest forms of transportation But the capsizing of the amphibious passenger vessel MISS MAJESTIC in May 1999 on Lake Hamilton, Arkansas resulting in the deaths of 13 of the 21 passengers highlights the potential for disaster that exists.

As newer vessels are put into use with much higher passenger capacities and speeds, the risk for a major catastrophe involving a passenger vessel increases, as does the potential for loss of life. There has been dramatic growth in the use of high speed, high capacity ferries in Puget Sound, San Francisco, Southern California, and the Northeast. In the last decade, passengers moved by the Washington State Ferry System have increased over 2% a year. Also, unique winged craft are being developed. In sum, future passenger industry growth will increase congestion and maritime casualty risk on coastal and inland waterways.

Key Success Factors

From historical data, we know that collisions, allisions and vessels running aground make up a majority of passenger vessel accidents, and most of these are caused by human error. But we also know that the highest danger to passenger lives generally occurs in the lower frequency incidents such as fire and capsizings These too are accidents frequently caused by human error, as well as by equipment and vessel condition. To make matters worse, passenger vessels also transport people who are often unfamiliar with the procedures for reacting to these dangerous incidents.

In addition, most cruise ships are foreign flagged, the Coast Guard does not have complete inspection authority; flag state regulators and classification societies make up the other oversight sources. The Coast Guard's Prevention Through People Program and implementation of International Safety Management Code target these concerns.

2000 Results

Based on preliminary data estimates, there were 15 fatalities on passenger vessels in FY 2000. Compared to other modes of transportation, the safety record of passenger vessels operating from US ports, including both domestic and foreign vessels, is outstanding. In FY2000, there was approximately one death on a passenger vessel every 24 days compared to approximately one death every day on commercial aircraft.

Past Performance

The trend in passenger fatalities has varied over the past five years There have been no passenger deaths on foreign flag cruise ships in U.S. ports due to a vessel casualty in the last 16 years. For the domestic fleet, the safety record, while still relatively excellent, varies from year to year with no clear trend emerging Of the estimated 6,200 vessels in the domestic passenger vessel fleet, only 9 vessels were involved in casualties that resulted in the death of a passenger in FY2000. The fatalities were the result of falls, asphyxiation, being struck by objects and other randomly occurring accidents.

Strategies to Improve Performance

- ONGOING: The Coast Guard initiates risk-based decision making to focus on maximizing core prevention programs while seeking innovative means of preventing and minimizing the impacts of major passenger casualties through response actions. Risk based decision making is

used in all mission areas, with the Port State Control program providing a good example. Arriving foreign flagged vessels enter their data into a matrix which is subsequently used to assess risks and expend resources accordingly.

We participate in the development of international safety standards dealing with fire protection, management practices, watchkeeping, and emergency drills. We provide consultations to maritime interests on the revised Standards for Training Certification and Watchkeeping. We also administer a Control Verification program that monitors the safety of all vessels that embark passengers from U.S. ports. The program consists of an initial examination as well as quarterly and annual examinations. The new International Safety Management Code is aggressively enforced. Research and development efforts are utilized to improve safety equipment and reveal how human decisions play a role in accidents. For those incidents that do occur, the Coast Guard maintains a search and rescue capability to minimize loss of life.

- **NEW:** The Coast Guard will expand its use of risk-based decision making to increase the efficiency of services provided, and improve the effectiveness of safety activities in stopping accidents. Risk-based decision making will benefit all strategic goals.
- **COORDINATION** The Coast Guard coordinates with OSHA in developing vessel health standards that reduce the risk of accidents. The Coast Guard also works with the National Transportation Safety Board (NTSB) to investigate major maritime accidents and use the investigation results to develop better safety strategies; it investigates less serious incidents to determine causes and identify trends. The Coast Guard works with the International Maritime Organization to improve the level of safety standards on a worldwide basis. Through the Prevention Though People initiative, the Coast Guard has a partnership with the Passenger Vessel Association to identify and mitigate safety risks. The Coast Guard has also established several Outlines of Cooperation with Classification Societies. These organizations serve to regulate the industry and reduce the risk of accidents. Lloyd's Register of Shipping is one example of a well known classification society.

New Capital Investments to Support Strategies

Seagoing Buoy Tender Replacement: Provides new buoy tenders used to establish safe waterway markings and minimize groundings and collisions.

Marine Information for Safety and Law Enforcement: Replaces the obsolete and unsupportable Marine Safety Information System, and provides a means by which the Marine Safety program's entire data warehouse can be accessed. The new system will provide an improved capability to track trends and support analysis of safety accidents – vital data on which to make risk-based decisions.

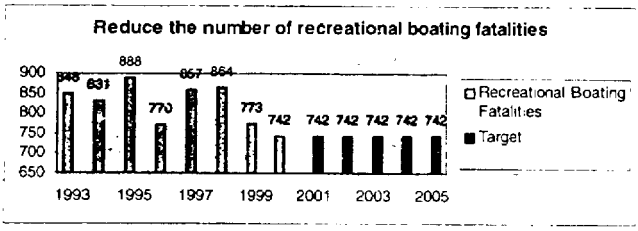
Ports and Waterways Safety System: Implements Vessel Traffic Service (VTS) systems in two ports (Houston/Galveston and San Francisco) and performs surveys and communications analysis in two additional ports. The PAWSS assesses risks in major U.S. ports and evaluates the most appropriate application of vessel traffic service systems to meet the maritime safety needs.

Waterways Aids to Navigation Infrastructure: Improves aids to navigation in conjunction with Corps of Engineers projects to reduce accidents.

Recreational Boating Fatality Prevention

GOAL: Eliminate recreational boating fatalities.

TARGET: Reduce recreational boating to 742 fatalities or less.



Why We Act

For modes of transportation, recreational boating is second only to highway travel in the annual number of related fatalities. The number of recreational boaters continues to grow as more people move to the coastal regions, and the water becomes a more popular place for recreation. In 1998, there were 78 million boaters taking to the water in 20 million craft. The number of personal watercraft has increased an average of 27% each year since 1987. This increase has produced a greater risk of fatalities and injuries on our waterways. Over 700 boaters, including about 40 children, die in boating accidents each year – mostly as a result of drowning.

Key Success Factors

The largest factor in recreational boating fatalities is lack of personal floatation device (PFD) use. More than half of all fatalities are the result of capsizings or falls overboard – 80% of these victims drown. Overall, about 80% of all drowning victims do not wear life jackets. Fatalities could be vastly reduced by increased PFD use. The primary causes of accidents are operator inattention, carelessness, and excessive speed; operator intoxication is also a significant factor. 80% of all boating fatalities occur on boats where the operator had no formal training. The Coast Guard works with state agencies to implement boating safety programs - success in reducing fatalities is partly dependent on effectiveness of the state's education and enforcement programs.

2000 Results

Recreational boating fatalities declined to 742 in 2000 -- the lowest number of fatalities the Coast Guard has reported to date. High gas prices and colder, wetter weather during the boating season are believed to have reduced the overall level of boating activity this year, contributing to the decline in fatalities.

Past Performance

While the recent trend in boating fatalities has been mixed, fatalities have declined dramatically since the early 1960s and 70s. Today, there are fewer than half the number of recreational boating fatalities as there were in the early 1970s. At the same time, the number of recreational boats has more than doubled. This long-term reduction in fatalities is due to cooperative boating safety education and enforcement efforts, safer boats and equipment manufactured in accordance with Coast Guard standards, and life jacket use. Still, too many fatalities occur each year – mostly as a result of accidents involving operator controllable factors.

More than half of all recreational boating fatalities are the result of capsizings or falls overboard – and the percent of victims who drown remains high. The majority of these drowning victims were not wearing life jackets.

Accident prevention is the best way to reduce fatalities – but when accidents do occur, boaters have a vastly improved chance of surviving if they are wearing a life jacket.

Strategies to Improve Performance

- ONGOING: The Coast Guard conducts public service campaigns with states, safety organizations, and industry to promote personal floatation device use, operator training, and good boating behavior. Our annual Safe Boating Campaign is kicked-off in late May, right before the start of the boating season. We also conduct on-the-water safety boardings, while the Coast Guard Auxiliary conducts boating safety courses, and dockside courtesy examinations. We will provide $59 million in grant funding to state recreational boating safety education and training programs. This mandatory appropriation, in place through FY 2003, assists states in implementing effective boating safety programs. We continually work to increase personal floatation device effectiveness by improving wearability and reliability. We enforce boating under the influence statutes and promote lowering the intoxication

threshold to .08% for adults, and to a zero tolerance level for minors. Our research and development projects seek to reduce human error and improve mariner awareness.

- **NEW:** The Coast Guard will improve its search and rescue planning and decision-making tools, and communications network. Many recreational boaters are saved from death by our search and rescue activities. We will also expand the Coast Guard Auxiliary's search and rescue and education activities.
- **COOPERATION:** The Coast Guard and Coast Guard Auxiliary work with state and local governments and safety organizations such as Boat/U.S. and the U.S. Power Squadron to provide boating education and training programs. We assist boaters in finding the right class for their needs. We also partner with the National Safe Boating Council, National Association of State Boating Law Administrators, Safe America Foundation, insurance industry, and boat manufacturer to promote public service safety messages and distribute information on boating equipment safety recalls. –

New Capital Investments to Support Strategies:

SAR Capabilities Enhancement Project: Improves SAR planning tools, replaces aging hardware, and provides additional support for growing SAR information systems. Decision making and planning is critical to saving more lives – particularly in "people only" cases where finding a person floating in the water is difficult.

Global Maritime Distress and Safety System: Improves the ability of mariners to communicate distress information – key to saving more lives. It will automate the sorting, evaluation, and identification of distress calls.

Integrated Deepwater System: Develops a system of surface, air, command and control, intelligence, and logistics systems to carry out SAR in the remote and often dangerous deepwater region.

National Distress & Response System: Improves the ability of mariners in distress to notify the Coast Guard – a critical factor in saving more lives. Current system is taxed by a growing boater population, and does not utilize up to date direction finding and rapid playback features that would contribute to saving more lives.

Capital Investments in Support of

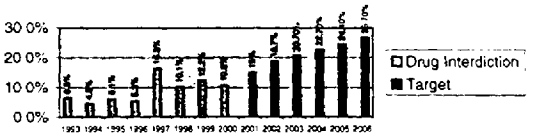
Maritime Security Performance Goals

Integrated Deepwater System
Electro Optical Sensors for Cutters and Boats

Illegal Drug Interdiction

GOAL	Reduce the flow of illegal drugs by denying maritime smuggling routes as part of the interagency effort to impact the national demand level.
TARGET	Increase the percentage of cocaine seized over noncommercial maritime routes to 18.7% by 2002 and to 27.7% by 2007. (from the baseline computed from the FY95-97 average of 8.7)

Increase the seizure rate of cocaine smuggled over maritime routes to 18.7%



Why We Act

Every American citizen is adversely impacted by illegal drug use. Over 20,000 Americans die every year because of illegal drugs, and there are about 700 drug-related murders each year. The annual social cost of drug use is estimated at $110 million – the consequence of drug-related crime (Office of National Drug Control Strategy "Drug Facts and Figures") Drug smuggling destabilizes nations where drugs are produced and transported, degrading our national security. Fighting drugs requires education, treatment, domestic law enforcement, high seas interdiction, and international cooperation The National Drug Control Strategy (NDCS) is the President's comprehensive policy document addressing all these needs. The Coast Guard, as lead agency for maritime and co-lead agency for airborne interdiction, plays a vital role in implementing NDCS goals "Shield America's Air, Land and Sea Frontiers from the Drug Threat" and "Break Drug Sources of Supply."

Key Success Factors

Smuggling via maritime routes is an efficient method of transporting illegal drugs. Maritime borders are more difficult to control than airport and highway entry ports, and illegal drugs can be disguised as or included with legitimate cargo. Moreover, smuggling routes can easily be shifted between different maritime paths, or between land and air routes. The Caribbean maritime routes are overlapped by numerous national jurisdictions that must coordinate strategies to create an effective deterrent. Domestic and international socioeconomic conditions influence the supply and demand of illegal drugs. Finally, other agency efforts such as large land-based pulse operations may shift drugs flows to maritime routes. We must continue to improve our readiness and effectiveness as smugglers continue to find more sophisticated techniques.

2000 Results

The Coast Guard's drug seizure rate fell in 2000, despite the fact that the Coast Guard set a new non-commercial maritime seizure record for cocaine. Final seizure and cocaine shipment data for 2000 show a seizure rate of approximately 10.6%, as compared to the target of 13%.

Drug interdiction operations take place in a challenging and ever changing environment The international drug syndicates operating throughout our hemisphere are resourceful, adaptable, and extremely powerful At the same time, socioeconomic conditions, here and abroad, influence the supply and demand for illegal narcotics.

In FY 2000, the Coast Guard set a new non-commercial maritime seizure record of approximately 132,480 pounds of cocaine. The Service also seized over 50,000 pounds of marijuana. The results are attributed to a higher concentration of patrols in the Eastern Pacific Ocean, improved intelligence sharing with other law enforcement agencies and cooperation with Central and South American countries, and use of Law Enforcement Detachments (LEDETs). A growing threat in smuggling has been the shipment of cocaine to the U.S. through the eastern Pacific. This year, the Coast Guard applied a shift in our limited resources to address the burgeoning go-fast threat in the eastern Pacific. Interdictions in this region accounted for over 80 percent of all drugs seized by the Coast Guard.

We also continue to take aggressive steps toward stopping go-fast vessels - a major problem - with Operation New Frontier, in which Coast Guard cutters sailed with specially equipped "use of force" helicopters and high-speed interdiction boats. These units carry high-tech equipment designed to safely stop fleeing go-fasts. Operation NEW FRONTIER was employed in two

limited-scope deployments in 2000. In six possible opportunities for go-fast intercept, NEW FRONTIER forces successfully interdicted all six vessels, seized over 2,600 pounds of cocaine, nearly 12,000 pounds of marijuana, and detained 18 suspects.

Operation FRONTIER SHIELD, institutionalized in 1999, continued to deter smuggling into Puerto Rico and disrupt traditional smuggling routes into the United States in 2000. The Coast Guard also continued Operations GULF SHIELD and BORDER SHIELD off the coasts of the Gulf of Mexico and California respectively. These smaller-scale operations served to anchor the maritime flanks of the Southwest Border with Mexico as federal, state and local agency interdiction efforts ashore were increased.

Past Performance

We have produced good results. Record years have occurred in Fiscal Years 1999 and 2000, with cocaine seizures of over 111,650 pounds and 132,480 pounds respectively. This marks the third and fourth years of an aggressive counter-narcotics campaign, Operation Steel Web. In 2000, the raw cocaine seizure numbers surpass the record 1999 capture by over 19 percent.

Strategies to Improve Performance

- ONGOING: The Coast Guard has a Counterdrug Strategic plan that sets goals and establishes a framework of campaign plans that target high-threat areas. It is closely aligned with NDCS goals. We seek to maintain an effective maritime presence using cutters and aircraft to seize drugs and deter smugglers, reducing the cocaine flow. We particularly target the high-threat from go-fast smuggling vessels using our own high-speed pursuit boats and armed helicopters that can use force to stop fleeing vessels. However, patrolling is only part of our strategy to improve performance. We seek to make our efforts more effective by employing improved patrol tactics, using intelligence more effectively, and applying better training. We also send cutters to other nations for engagement and training to enhance their ability to prevent smuggling. Our research projects seek to improve detection capability, including new technology to counter threats to our detection and search devices, resulting in better detection of illegal smuggling.
- NEW: The Coast Guard will focus on stopping the prime mover of cocaine through the drug transit zone: go-fasts. They will likely transport over half the cocaine smuggled by maritime in FY 2001. Intercept capability is critical to stopping this threat. We will increase the number and capability of both surface and air patrol craft – particularly the capability of intercepting go-fast smuggling vessels. We will also increase intelligence resources to improve the productivity of our patrol efforts. Resources acquired through FY99 supplemental counterdrug funding will have been brought on line, and will produce their full effect in FY'01.
- COORDINATION: The Office of National Drug Control Policy (ONDCP) coordinates overall U.S. drug control policy. The Coast Guard Commandant serves as the U.S. Interdiction Coordinator to coordinate efforts conducted by Defense, Customs, Drug Enforcement Agency, and state and local law enforcement. The Coast Guard also coordinates with the State Department to negotiate international bilateral agreements to combat smuggling.

New Capital Investments to Support Strategies

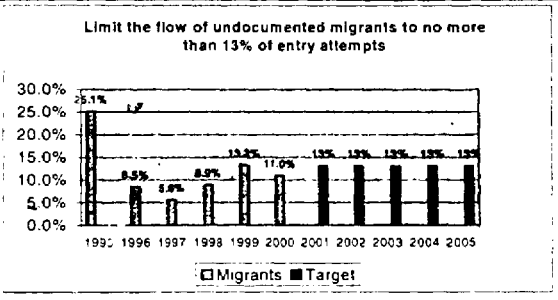
Integrated Deepwater System: Develops a system of surface, air, command and control, intelligence, and logistics systems to carry out drug interdiction in the deepwater area of responsibility. Deepwater assets with long endurance capabilities are essential to maintaining an effective drug interdiction presence in the deep Caribbean and Eastern Pacific where there are limited resupply and refueling opportunities.

Electro Optical Sensors for Cutters and Boats: Equips 210' and Mature Class medium endurance cutters, 110' and 87' patrol boats, and small boats to effectively operate at night and in adverse weather conditions.

Undocumented Migrant Interdiction

GOAL: Reduce the flow of undocumented migrants entering the U.S. via maritime routes.

TARGET Hold the flow of undocumented migrants entering the U.S. via maritime routes to no more than 13% of estimated entry attempts as the number of migrant attempts and professional migrant smuggling operations grows.



Why We Act

Attempting to illegally enter the U.S over maritime routes poses a grave safety risk to the undocumented migrants involved. Many do not survive the harsh environmental conditions, or are preyed upon by smugglers. Undocumented migrants can also adversely affect regional economies, particularly in cases of mass migrations. Furthermore, large migrations of people can increase instability already present within a source country. The threat of illegal migration continues to grow as socio-economic conditions in Haiti and Cuba continue to deteriorate. The Coast Guard attempts to deter or interdict undocumented migrants and ensure their well being and safety. We are the only agency with the expertise and assets needed to conduct at-sea migrant interdictions, rescues, and migrant smuggler apprehensions.

Key Success Factors

Smuggling via maritime routes is a convenient and efficient method of transporting undocumented migrants. The majority of undocumented migrants attempting to enter the U.S. by sea come from island nations such as Haiti and Cuba where ships and boats are common and available modes of transportation. Maritime borders are more difficult to control than entry ports such as airports and highway border crossings, and undocumented migrants can be hidden aboard vessels engaged in legitimate trade. Socioeconomic and political conditions in migrant source countries largely drive migrants' entry attempts. Migrant smuggling organizations are becoming more common, particularly around Cuba. These organizations increase the opportunity for migrants to attempt illegal entry. Smugglers use small vessels that are difficult to detect and can often outrun the fastest Coast Guard cutters. Maintaining the readiness to interdict and deter migrants in rapidly changing social and political conditions is critical to preventing large numbers of migrants from entering the U.S

2000 Results

We met our goal in FY 2000, holding attempts at illegal immigration by sea to 11% of potential entry attempts. However, we met this year's target largely because migrant flow from China shifted away from the US in response to 1999 Coast Guard interdiction efforts in Guam.

Past Performance

Last year we did not meet our performance goal. We reported that a large number of Chinese migrants were targeting Guam. This year, in response to Coast Guard interdiction efforts in 1999 and 2000, Chinese migrants are once again targeting Mexico and Central America, for eventual passage across the land border of the U.S.

There was also a reduced flow of Cuban migrants attempting to reach the U.S. by maritime means in 2000. This is partially the result of an improvement in efficiency in granting immigrant visas by the U.S. Interest Section in Havana, an increased number of Cubans taking illegal flights to the U.S. from third countries, and an increased number travelling to Mexico (by air) and crossing the land border illegally. However, U.S. laws and policies continue to challenge interdiction efforts: a combination of U.S. laws and policies make it difficult to return a Cuban migrant who lands ashore in the U.S. - thereby providing a strong incentive for Cuban migrants to make the attempt, and keeping the demand for Coast Guard interdiction

efforts high. In FY 2000 over 50% of the known flow of Cuban migrants reached U.S. soil.

In addition, professional smuggling remains an ongoing problem. Smugglers have carved out a lucrative business for themselves, and the majority of the migrants attempting to illegally enter the U.S. employ their services. Chinese migrants pay smugglers $35,000-40,000 each for passage to the U.S.; Cuban migrants pay $3,000-8,000. Organized crime structures within the U.S. provide further support, allowing migrants to make a small down payment for travel, with the balance paid off while working in the U.S.

In addition, there are numerous forces that motivate migrants and are largely outside the control of the Coast Guard. These include immigration policy decisions, political and economic situations in the source country, and the economic imbalance between the U.S. and the developing world.

Strategies to Improve Performance

- ONGOING: The Coast Guard maintains a presence in the maritime environment to deter smugglers and reduce migrant flows. We seek to maintain the readiness to intercept 90% of all known migrant vessels detected at sea. Even the knowledge that Coast Guard cutters are stationed off the shore of a migrant source country can serve as an effective deterrent to a mass migration, as Coast Guard operations did in 1993 and 1994 in Haiti and Cuba. We also establish agreements with source countries to assist in reducing migrant flow. For example, aircraft overflight authority granted by the Dominican Republic in 1996 contributed significantly to a decrease in migrant flow.
- NEW: The Coast Guard will expand its sensor capabilities using new technologically advanced sensors that will improve the probability of detecting undocumented migrant vessels and smuggling vessels.
- COORDINATION: The Coast Guard provides at-sea enforcement of immigration laws, and conducts seaborne repatriation of undocumented migrants. The disposition of undocumented migrants is coordinated with the Border Patrol and Immigration and Naturalization Service. The Coast Guard also coordinates with Customs and state and local law enforcement organizations in interdicting migrants.

New Capital Investments to Support Strategies

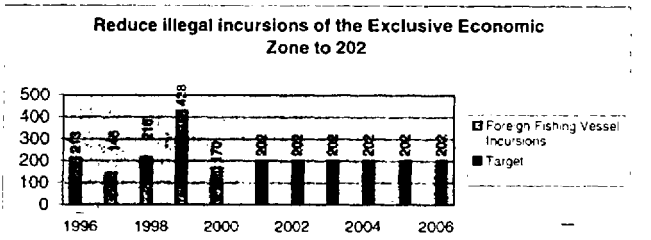
Integrated Deepwater System: Develops a system of surface, air, command and control, intelligence, and logistics systems to carry out migrant interdiction and migrant rescues in the deepwater area of responsibility. Deepwater is essential to keeping assets with long endurance capabilities and extensive command and control capabilities on station during times of increased migration attempts and mass migration events such as the Mariel Boatlift.

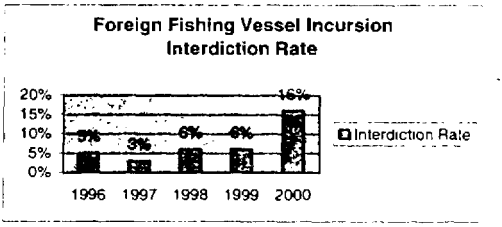
Electro Optical Sensors for Cutters and Boats: Equips 210' and Mature Class medium endurance cutters, 110' and 87' patrol boats, and small boats to effectively operate at night and in adverse weather conditions.

Foreign Fishing Vessel Incursions

GOAL: Eliminate illegal encroachment of the 200 mile U.S. Exclusive Economic Zone by foreign fishing vessels.

TARGET: Reduce illegal encroachment from the FY98 baseline of 218 encroachments to 202.





Why We Act

Our Exclusive Economic Zone (EEZ) represents a significant source of renewable resources over which we exercise jurisdiction. It provides a livelihood for commercial fishers, a source of recreation for over 17 million Americans and a rich supply of seafood for the American public. Commercial and recreational fisheries annually contribute an estimated $20 billion and $10 billion respectively to the economy. Many encroachments are committed by large foreign fishing vessels that are capable of harvesting large quantities of fish in short periods of time, potentially harming the sustainability of our fisheries stocks. We are the only agency with the expertise and asset capability to deter and interdict violations 200 nautical miles offshore at the boundaries of the EEZ.

Key Success Factors

The U.S. EEZ is the largest in the world, covering 3.36 million square miles of ocean and 95,000 miles of coastline. This makes comprehensive monitoring difficult. U.S. fisheries stocks within the EEZ are valuable to foreign vessels that choose to illegally exploit them. Economic conditions of foreign countries and the increasing world-wide demand for fish products as a critical source of food may drive the number of encroachment attempts. An increasing number of foreign fishing vessels, and an increasing world-wide demand for fisheries food products will make protecting our sovereign EEZ more difficult.

2000 Results

We appear to have met our goal of less than 202 incursions - only 170 were detected this year. Unfortunately, however, the lower number of detected incursions can also be attributed to decreased surveillance availability, particularly from aircraft. Because of flaws in the detected incursions measure, we are currently developing an interdiction rate measure that better reflects our resource capabilities and international cooperation efforts.

Past Performance

After a record high in the number of detected incursions in 1999 (428), we are seeing results in our efforts to improve interdiction effectiveness. We appear to have met our goal this year largely due to our improved coordination with Mexican, Russian and Canadian authorities to increase prosecution rates and decrease the number of incursions along our EEZ borders.

Following the spike in incursions in the Bering Sea last year, we worked closely with the Russian Federal Border Guard to improve cooperation. The result was more successful prosecutions in 2000 – and correspondingly fewer interdictions as the fishing fleet came to realize they would be prosecuted if they were caught.

We also stepped up our efforts in the Gulf of Mexico, where the largest number of illegal incursions has always occurred. There, small Mexican lanchas operate in the U.S. EEZ, and rapidly flee to the Mexican territorial seas when sighted. The Coast Guard worked closely with Mexican enforcement officials to prosecute those violators that we were able to interdict. We also employed fast "Guardian" Coast Guard boats, and as we began to interdict more of the lanchas (15% of detected incursions this year, as opposed to 5% last year), we began to see a decline in the number of incursions in this region.

In addition, during the summer of 2000 we signed a Law Enforcement Memorandum of Understanding (MOU) with Canada to allow Coast Guard vessels and aircraft to operate in Canadian waters to identify violators. Previously, Canadian commercial fishermen set their gear in U.S. waters, but fled the area when Coast Guard vessels approached. Now Coast Guard units may enter Canadian waters and airspace to identify violators, and forward evidence to Canadian authorities for prosecution. As a result of improved coordination with our Canadian partners as well as a successful prosecution of a violator this past May, incursions in Lake Erie are also on the decline.

Decreased surveillance availability of patrol aircraft is occurring most clearly in the Western Pacific, where eight non-contiguous EEZs around various U.S. island territories pose a daunting enforcement challenge. In this region, we detected 32 incursions in fiscal year 2000, compared to 44 in fiscal year 1999. However, we had no successful interdictions either year, and little reason to believe the actual number of incursions decreased.

Strategies to Improve Performance

- ONGOING: The Coast Guard maintains a presence in the EEZ to deter illegal incursions by foreign fishing vessels and apprehend those vessels that do illegally enter. Incursions include both illegal fishing and illegal transshipment of fish products caught by domestic vessels. We seek to maintain the readiness to intercept 90% of all known suspected violations. The area of greatest concern is Alaska and the Pacific Northwest. In recent years, the Coast Guard has flown nearly-daily missions and maintained a continuous deepwater cutter presence along the EEZ boundary during peak fishing seasons to deter incursions by the huge Russian, Japanese, Polish, Chinese, and Taiwan fleets operating along the line. Another area of concern is the resource-rich U.S. EEZs in the Western Pacific, which encompass 3 million square miles. To safeguard these areas, the Coast Guard maintains a presence using high endurance cutters and aircraft. The Deepwater Capability project is critical to continuing this effective strategy.
- NEW: Increase aircraft and cutter surveillance capability, along with airborne sensors and detection equipment in order to more effectively utilize EEZ patrol hours.
- COORDINATION: The Coast Guard works closely with the National Marine Fisheries Service who establishes fisheries management plans, and monitors foreign fishing vessels. The Coast Guard provides input to the management plans and conducts at-sea enforcement of regulations.

New Capital Investments to Support Strategies

Integrated Deepwater System: Develop an integrated system of surface, air, command and control, intelligence, and logistics systems to carry out statutory mandates for EEZ enforcement in the deepwater area of responsibility to ensure the increasing worldwide demand for fish products does not deplete our fisheries stocks. Deepwater assets are critical to enforcing the sovereignty of our vast EEZ particularly offshore Alaska and in the Western Pacific.

Electro Optical Sensors for Cutters and Boats: Equips 210' and Mature Class medium endurance cutters, 110' and 87' patrol boats, and small boats to effectively operate at night and in adverse weather conditions.

Capital Investments in Support of

Protection of Natural Resources

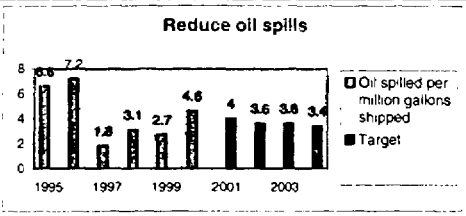
Performance Goals

Integrated Deepwater System
Seagoing Buoy Tender Replacement
Ports and Waterways Safety System
Marine Information for Safety and Law Enforcement
Waterways Aids to Navigation Infrastructure
Electro Optical Sensors for Cutters and Boats

Oil Spill Prevention

GOAL: Eliminate oil discharged into the water from maritime sources.

TARGET: By 2005, reduce the average annual volume of oil pollution from maritime sources to no more than 3.4 gallons per million gallons of oil shipped. Reduce oil spills in 2001 to 4 gallons per million gallons shipped



Note on Revised Data

In FY 2000, the Coast Guard brought an improved information technology on line for its marine safety programs. As a result, data queries had to be revised. The new indicator is a more accurate and repeatable depiction of oil spills over time. The original FY 2001 target for oil spills was 4.62 gallons per million shipped; this converts to four gallons using the new method. The reduction of 20% over the next five years from the average of the past five years represents the same proportional reduction in oil spills that our programs were aiming for in the original target.

Waterborne shipments of crude oil and petroleum products data are obtained from U.S. Army Corps of Engineers Waterborne Commerce Statistics. We measure reported spills into navigable waterways of oil or oil products that are determined to be from a maritime source. Maritime sources include: all commercial and recreational vessels, and certain waterfront facilities such as fixed platforms, shipyards, marinas, etc.

Spills from undetermined sources, pipelines and outer continental shelf platforms are not included in the results. Also, spills from other vessel and facility sources not typically regulated by the Coast Guard (such as public vessels) are not included.

Why We Act

The U.S. imports over 7 million barrels of crude oil a day, most of it via maritime transportation. Petroleum products are also transported within the U.S. over its inland and coastal waterways. Discharge of oil into U.S. waters, particularly in accidents like the *Exxon Valdez* oil spill, can have devastating effects on coastal area environments, which in turn produce serious repercussions on local tourist and fishing industries. U.S petroleum demand is expected to increase by about 2% a year, increasing oil shipment by water, and potentially increasing the risk of a spill.

Key Success Factors

Over 90% of the total volume of oil spilled is the result of a few large oil spills. These spills are mostly the result of groundings, collisions, and fires. Human error plays a significant role in these incidents. Tank barges are the major source of discharged oil, accounting for approximately 75% of the volume spilled, 40% of all spill incidents, and most major spills. Tank ships are also a significant source of pollution, especially in terms of the number of major and medium oil spills. Furthermore, tank ship accidents pose a threat of catastrophic pollution. Economic factors and government action can affect regulation compliance by industry. As the amount of petroleum products shipped by maritime carriers continues to increase, the Coast Guard must be ready to ensure these shipments don't lead to accidents that harm the environment.

2000 Results

Preliminary data indicate that we missed our target for reducing the amount of oil spilled to 4.1 gallons per million gallons shipped. The estimated volume of oil spilled per million gallons shipped in FY2000 is 4.6 gallons. Of the total volume of oil spilled in FY2000, 61% was spilled from facilities and 39% from vessels. Three large spills contributed to over 94% (537,510 gallons) of the total volume spilled from facilities. Two of these spills were from waterfront facilities and were the result of a storage tank rupture at a refinery and a pipeline leak within a waterfront facility.

Two large spills contributed to over 36% (130,100 gallons) of the total volume spilled from vessels. One of these spills resulted when a tankerman overfilled a tankbarge discharging over 70,000 gallons of oil into the Houston Ship Channel. The other large spill was caused when a large recreational yacht sank off the coast of Puerto Rico after a Coast Guard helicopter rescued the crew.

The data reinforces the continued trend of a small number of spills contributing to the largest percentage of volume spilled. Tank barges and waterfront facilities are the major sources of oil spills accounting for over 65% of the volume spilled and 56% of the major (over 10,000 gallons) spill incidents. An effort that began in 1994 to establish procedures to coordinate responses to maritime pollution incidents between the United States and Mexico culminated in the adoption of the MEXUS Plan in February 2000.

Past Performance

The oil spill rate has been variable over the long term: rising in 1993 to 1996 but dropping significantly in 1997 through 1999. This is due to the infrequent occurrence of a major oil spill. The number of major and medium oil spills and the volume of oil spilled have decreased significantly from pre-1990 levels.

Historically, major- and medium-size oil spills are few in number but account for around 97 percent of the total volume of oil spilled in a given year. Tank barges and tank ships are the leading sources of major and medium spills. Our partnerships with American Waterways Operators, International Association of Independent Tanker Owners and the Baltic and International Maritime Council seek to reduce tank and barge spills. As a result of reducing tank and barge spills, the overall average number of oil spills that are more than 10,000 gallons has dropped by approximately 50 percent from pre-1991 levels.

Strategies to Improve Performance

- ONGOING: The Coast Guard develops pollution prevention standards, enforces pollution regulations, and educates mariners on pollution prevention strategies and procedures. We employ the "Prevention through People" philosophy to identify the human causal factors in pollution incidents and focus on education of mariners and industry to reduce these factors. We investigate pollution accidents and analyze the cause for remedial action. The Coast Guard Research and Development Center works to fingerprint spill samples in order to identify the source of the spill. The Coast Guard pursues regulatory activity to implement Oil Pollution Act of 1990 provisions that require tank vessel and facilities carrying or transferring bulk hazardous material to operate in accordance with an approved response plan. We work to establish a barge numbering system which helps prevent abandoned barges becoming pollution hazards by identifying barge owners. The Coast Guard also maintains vessel traffic systems, and aids to navigation systems to reduce the risk of collisions and groundings that may result in a pollution incident.
- NEW: The Coast Guard seeks to increase knowledge and awareness of near miss incidents that could provide a leading indicator of factors that lead to a serious pollution accident.
- COOPERATION: The Coast Guard coordinates pollution prevention activities with the Environmental Protection Agency (EPA). EPA focuses on inland pollution, while the Coast Guard is responsible for the coastal maritime zone. The Coast Guard also coordinates the inspection of waterfront facilities with the Department of Transportation's Research and Special Projects Administration.

New Capital Investments to Support Strategies

Seagoing Buoy Tender Replacement: Provides new buoy tenders used to establish safe waterway markings and minimize accidents.

Ports and Waterways Safety Systems: Implements Vessel Traffic Service (VTS) systems in two ports (Houston/Galveston and San Francisco) and performs surveys and communications analysis in two additional ports. Evaluates the most appropriate application of vessel traffic service systems to meet the maritime safety needs in major U.S. ports.

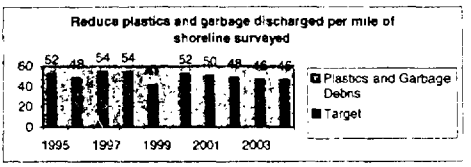
Marine Information for Safety and Law Enforcement: Replaces the obsolete Marine Safety Information System. The new system will provide an improved capability to support analysis of pollution incidents, and determine better strategies for reducing spills.

Waterways Aids to Navigation Infrastructure: Improves aids to navigation in conjunction with Corps of Engineers projects to reduce pollution-causing accidents.

Plastics and Garbage Debris Prevention

GOAL: Eliminate plastics and garbage discharged into the water from maritime sources.

TARGET: By 2005, reduce the amount of vessel-generated plastic and garbage to no more than 46 pieces per mile of shoreline. Reduce to 50 pieces per mile in 2001.



Why We Act

Marine debris degrades water quality and defiles coastal beaches. One of the most harmful effects of marine debris is its lethal impact on birds and marine animals. Sea birds commonly ingest plastic: fishing line, plastic wrap, or plastic foam. Sea turtles often mistake plastic bags for jellyfish – a common food. Every year an estimated 30,000 northern fur seals die due to entanglement in plastic debris. Lost fishing nests and fishing line is one of the most dangerous forms of debris in the marine environment. Discarded or lost nets continue to trap fish, resulting in economic losses to the fishing industry as well as needlessly killing marine life. In one Florida beach cleanup, volunteers retrieved several miles of fishing line in just three hours. Fishermen and boaters are also affected when marine debris fouls propellers and clogs water intake ports causing engines to overheat.

Key Success Factors

Key sources of marine debris are trash items and galley waste from fishing vessels, cruise ships, and cargo ships; and fishing net fragments discarded or lost from fishing vessels. Recreational fishing and boating also generates trash such as plastic bags and cups, as well as tremendous amounts of the seriously threatening monofilament fishing line. Marine debris is measured and categorized annually by the Center for Marine Conservation. Only debris categorized as being from vessel sources is included in the Coast Guard's data. Over 25,925 pieces of fishing line were collected from U.S. beaches during the Center for Marine Conservation's 1996 beach cleanup, and at least 40% of all the entanglements reported during the cleanup involved fishing line.

2000 Results

Data for calendar year 2000 is unavailable within the timeframe of this report; therefore, 1999 results are presented due to the lag time in reporting. The target of 55 items of debris per mile cleaned in 1999 was met at 41 items.

Past Performance

Marine debris amounts have been declining for the past several years. In particular, dramatic reductions in the amount of galley waste and commercial fishing waste have been observed since 1988, with smaller reductions in vessel operational waste and recreational boating waste. The National Marine Fisheries Service conducted a recent study in Alaska that showed marine debris from vessel sources is declining. The Center for Marine Conservation has noted that the drop in marine debris is an indication that mariners are observing MARPOL regulations regarding the dumping of plastics. Annex V of MARPOL deals with plastics and garbage disposal from ships. It prohibits the ocean dumping of plastics from ships. Trash handling and distance from shore requirements have also been set on other types of solid wastes. All vessels, regardless of nationality, are bound by these restrictions within our territorial waters.

Strategies to Improve Performance

- **ONGOING:** The Coast Guard promotes educational initiatives such as the Sea Partners program that seeks to educate maritime users about the detrimental effects of maritime pollution, and the laws prohibiting discharge of plastic into the water. It also promotes the use of appropriate port disposal facilities in lieu of dumping debris overboard at sea. In addition to education, the Coast Guard assists in developing, and enforcing the International Convention for the Prevention of Pollution from Ships, commonly referred to as the MARPOL Treaty.
- **COORDINATION:** The Coast Guard works with the EPA to enforce pollution regulations and keep beaches and other coastal areas free of contaminating debris. The Coast Guard, EPA, National Marine Fisheries Service, National Park Service, and the Center for Marine Conservation also coordinate in monitoring and measuring marine debris amounts in efforts such as EPA's National Marine Debris Monitoring Program.

We build on the efforts of private groups such as the Center for Marine Conservation that seek to educate mariners on marine debris regulations, and the harmful effects of debris.

New Capital Investments to Support Strategies

No new capital investments planned.

Pollution Response

GOAL: Improve pollution response preparedness.

TARGET: By 2005, improve pollution response preparedness by developing and meeting Coast Guard program standards. Specific target and measure to be determined. **Data to be Collected.**

Why We Act

Although the Coast Guard works to prevent pollution incidents from happening, it also responds to minimize the impact of those that do occur. Pollution incidents can be devastating – the *Exxon Valdez* oil spill killed a great number of marine mammals, fish and birds, and caused a serious economic loss to the fishing industry. Yet, the *Exxon Valdez* oil spill would have had far worse impacts on the marine environment and local fishing industry had it not been for Coast Guard efforts to effectively coordinate response efforts, halt the discharge of oil, and contain and remove oil in the water. U.S. petroleum demand is expected to increase by about 2% a year, increasing oil shipment by water, and potentially increasing the risk of a spill.

Key Success Factors

A quick response to pollution-causing incidents, coupled with the ability to choose the appropriate spill mitigation strategy, and getting the appropriate equipment on scene is key to minimizing environmental damage. Incident location, extent of vessel or facility damage or mechanical problem, type of petroleum product spilled, on scene weather, sea conditions, and length of time oil has been in the water all play a role in how successful mitigation efforts will be. Each pollution incident is different – the Coast Guard must maintain the readiness to formulate and implement the best response that minimizes the impact of the contaminants.

Past Performance

The Coast Guard is developing a measure and target to gauge success in pollution response. The goal last used in 1998 focused on percentage of spilled oil removed from the water. However, this is not an adequate measure of performance since in some cases the more effective response to minimize pollution is to leave the oil in the water and apply dispersants, or burn it on the spot. A new measure is currently under development that will reflect overall performance in choosing the proper response in mitigating pollution incidents.

Strategies to Improve Performance

- ONGOING: The Coast Guard seeks to maintain a high level of response preparedness. It staffs the National Response Center which serves as the sole national point of contact for reporting all oil, chemical, radiological, biological, and ecological discharges into the environment anywhere in the U.S. The center gathers and distributes spill data for Federal On-Scene Coordinators and serves as the communications and operations center for spill responses. The Coast Guard also operates three National Strike Teams that must maintain a 24 hour-a-day readiness for major incident response. We also maintain smaller response teams at Marine Safety Offices around the country. Research and development projects play a large role in improving pollution response, including the development of predictive models for response equipment, and evaluation of on the spot burning as a response tool.
- COORDINATION: The Coast Guard maintains agreements with a variety of federal entities to coordinate spill response. Through the National Response Team (NRT) and Regional Response Teams (RRT), the Coast Guard works with sixteen federal departments and agencies and many state and local governments. The NRT is chaired by the Environmental Protection Agency; the Coast Guard serves as Vice Chair. Each of the 13 RRTs are co-chaired by EPA and the Coast Guard.

New Capital Investments to Support Strategies

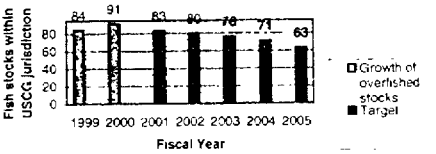
No new capital investments planned.

Living Marine Resources

GOAL: Enforce federal regulations that result in all living marine resource stocks achieving and maintaining healthy, sustainable populations

TARGET: Reduce the number of fisheries species within Coast Guard-enforced Fisheries Management Plans that are designated as overfished by 1%.

Reduce the Number of Overfished Stocks



Why We Act

Our oceans represent a significant source of renewable wealth. Commercial and recreational fisheries contribute about $50 billion annually to the U.S economy. A 1996 United Nations world fisheries report revealed some startling facts (1) World fish catch has more than quadrupled since 1950; (2) There is a sustainable 80 million metric ton catch available world wide, yet over 90 million metric tons was harvested in 1997 and demand for fish protein in 2010 will reach 115 million metric tons; and (3) 27% of the world wide catch is discarded as bycatch (fish which are unintentionally netted during the process of fishing for targeted species). The U.S. has the largest and one of the most productive EEZs in the world, with an estimated 20% of the world's fishery resources. However, many domestic fisheries are in danger of collapse. The increasing fishing capacity of the 110,000 commercial fishing vessels in the U.S. far exceeds the fish stocks' capabilities to reproduce. The Sustainable Fisheries Act passed in 1996 attempts to deal with the many problems facing fisheries today over-capitalization, over-fishing, by-catch, and the protection of essential fish habitat. Also contributing to the protection of living marine resources are new regulations to limit the harm to fisheries habitat caused by invasive species carried to our shore in commercial vessel ballast water. It is up to the Coast Guard to provide the enforcement crucial to the success of these new and existing fishery management plans and achieve the ultimate outcome goal of healthy sustainable fisheries

Key Success Factors

Maintaining healthy fisheries stocks is a complex problem First, environmental factors (climate conditions, species reproductive capabilities) must be favorable for stock sustainability or recovery. Next, scientific assessments of stock size and sustainability calculations must be accurate The management strategies and regulations used to keep fishing from exceeding these scientific calculations must be correctly developed. And finally, the regulations must be adequately enforced The Coast Guard controls only this last factor - the enforcement of regulations.

Failure to provide accurate scientific assessments or effective regulation enforcement results in over-harvesting, unintentional by-catch, and illegal fishing These reduce the overall health and abundance of fisheries stocks As fishing boats grow larger and more efficient these factors will increase, further threatening fisheries health The economic health of the fishing industry and individual fishermen affects their propensity for compliance with regulations: in bad times, some will ignore regulations meant to sustain fisheries levels. As the demand for seafood grows worldwide, the Coast Guard will be pressed to maintain the readiness to enforce all fisheries regulations

2000 Results

In 1999 we adopted a new goal that aligns our measurement with the Sustainable Fisheries Act (SFA). Under SFA, the National Marine Fisheries Service (NMFS) works toward fisheries sustainability, and reports on the number of fish stocks "over-fished" or "approaching over-fished" status

Preliminary data indicate that there was a nine-percent increase in over-fished species under Coast Guard jurisdiction, which was very close to the eight percent goal. It is important to remember that this increase is a result of a stricter definition of overfishing in the 1996 Sustainable Fisheries Act, and not necessarily a sudden decline in the biomass of stocks NMFS continues to assess fish stocks under the new definition, and as such it is possible that a few more species may be added to the overfished list in 2001

NMFS' draft 2000 Report to Congress lists 107 fish stocks as overfished, either due to low biomass (92 stocks), overfishing despite the biomass level (72 stocks), or both (57 stocks). This represents an increase of nine overfished stocks over last year. The Coast Guard has enforcement responsibility for 91 of these 107 stocks, an increase of seven overfished stocks over last year's number of 84.

Maintaining fish stocks within our EEZ is a complex management challenge. There are many factors that influence the viability of fish stocks, but we influence only one of these factors through at-sea enforcement of management plan regulations. The economic health of the fishing industry, especially as more strict fishing limits are imposed, may create pressure to fish beyond those limits. Environmental factors may separately affect the health of the fish stocks either positively or negatively. Also, errors in scientific estimates may affect both the fisheries management plans and the measure of success.

Past Performance

Assessments of overfished stocks are relatively new, and the data collection methodologies are still being refined. Hence, 1999 was the first year with comparable performance data. Although the percentage of overfished stocks is a good measure of performance, Coast Guard performance must also be viewed in terms of the number of healthy stocks we helped prevent from degrading. This preventative activity is vital to keeping healthy, high-value Alaskan and Bering Sea stocks from ever reaching an endangered point.

In order to manage its enforcement activity and ensure that regulations have the intended impact within overall management plans, the Coast Guard monitors regulation compliance rates. It has set a goal of increasing the number of major fisheries that have achieved at least a 95% observed compliance rate. While this is a lower-level outcome, it is critical to ensure Coast Guard effort contributes to the final outcome – healthy fish stocks. In 1998, we achieved a 96% compliance rate.

Coast Guard fisheries enforcement has experienced a recent decrease in effort due to competing demand in other mission areas. The greatest impacts were in New England and Alaska. Additional closed fishing areas were implemented in the Gulf of Maine in 1998, due to competing resource demands, there was no enforcement presence there 80 percent of the time. However, one positive development has been the recovery of Kemp's Ridley sea turtles. The number of adult Kemp's Ridley turtles has improved from a low of 1,050 in 1985 to over 3,000 in 1998. An integral part of this recovery has been the implementation of turtle excluder devices (TEDs) in shrimp trawls, which eliminate turtle mortality in these nets. An intense level of enforcement effort at-sea was instrumental to achieving a high level of observed compliance with TEDs regulations, which subsequently contributed to the species' improvement.

The Coast Guard has been working with the National Marine Fisheries Service (NMFS) to enforce their fisheries management schemes. The FY 2001 budget will help us to improve our ability to fully enforce fisheries management plans.

Strategies to Improve Performance

- ONGOING: The National Marine Fisheries Service (NMFS) and regional Fisheries Management Councils develop biologically effective living marine resource management plans and establish regulations that guide enforcement. The Coast Guard develops viable enforcement schemes, monitors compliance with international agreements, and ensures compliance with laws and regulations. We maintain a surface and air presence on fishing grounds to deter violations and apprehend those that do break the law; each year we strive to board 20% of all fishing vessels in areas of importance. Major laws enforced include the Magnuson Stevens Fishery Conservation Act, Lacey Act, High Seas Drift Net Moratorium, and the Marine Mammal and Endangered Species Act. We are working with NMFS to develop a national Vessel Monitoring System that will provide automated information on vessel positions. This will improve our surveillance of important fishing areas. We developed a ship reporting system to protect the critically endangered Northern Right Whale from vessel collisions, and have pursued regulatory activity regarding ship ballast water management to reduce harm by invasive species.
- COORDINATION: The Coast Guard works closely with NMFS and also coordinates with state fisheries enforcement organizations.

New Capital Investments to Support Strategies

Integrated Deepwater System: Develop a system of surface, air, command and control, intelligence, and logistics systems to carry out statutory mandates for fisheries enforcement in the deepwater area of responsibility. Deepwater assets are essential to enforcing fisheries regulations on the high seas, and at the outer reaches of the Exclusive Economic Zone to ensure the increasing worldwide demand for fish products does not deplete our fisheries stocks.

Electro Optical Sensors for Cutters and Boats: Equips 210' and Mature Class medium endurance cutters, 110' and 87' patrol boats, and small boats to effectively operate at night and in adverse weather conditions.

Capital Investments in Support of

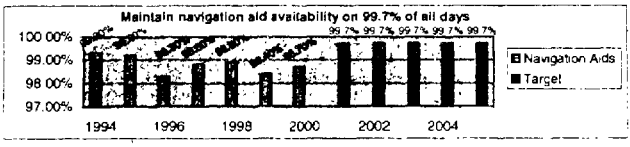
Maritime Mobility
Performance Goals

Seagoing Buoy Tender Replacement
Waterways Aids to Navigation Infrastructure
Great Lakes Icebreaker Replacement
Polar Icebreaker Reliability Improvement Project

Navigation Aids

GOAL: Maximize vessel mobility within ports and waterways.

TARGET: Maintain navigation aid availability days at 99.7% of all days.



Why We Act

Over 2 billion tons of domestic and foreign commerce is transported through U.S. ports and waterways every year. The Coast Guard's Navigation Programs (Short Range Aids to Navigation and Radio Navigation Aids) promote the efficient movement of marine users and commerce on the navigable waters of the United States to support national defense, economic, scientific, environmental, and social needs. The programs are concerned with operation of sound, visual and electronic signals to mark safe water or warn of dangers.

Key Success Factors

Navigation aids can be moved out of position or rendered unusable by natural currents and shifts in the waterway bottom, and vessel allisions. Severe weather conditions such as hurricanes or river flooding can degrade an entire aid to navigation system in a particular area, greatly impacting waterway mobility.

2000 Results

We fell short of our goal to maintain the national system availability at 99.7% this year. The actual system availability was 98.7%. An aid is considered "not available" when some key function – its light, whistle or horn – is not working, or when the aid's physical location is not correct. In 2000, the Coast Guard maintained approximately 50,000 aids to navigation serving the U.S. and its territories.

Past Performance

Although the goal target has not been achieved, our aids to navigation system provided a very high level of utility to maritime users. Because our aids provided several facets of use (visual, audible and electronic) particular outages did not entirely eliminate their usefulness.

Strategies to Improve Performance

- ONGOING: The Coast Guard operates a fleet of buoy tenders to maintain the more than 50,000 federal aids to navigation.

We use various evaluation tools and models to prioritize aid to navigation discrepancies and improvements in order to optimally maintain the system. We develop and operate radionavigation systems such as LORAN-C and the Differential Global Positioning System (DGPS) to provide mariners with highly accurate, continuous, navigation capabilities. We develop and apply new technology to make the system more efficient and effective. The Coast Guard, along with the Maritime Administration and other federal agencies has developed the Marine Transportation System - an inter-agency initiative focused on the marine portion of the national transportation system. The objective of this effort is to support a world-class waterways system that improves our global competitiveness and national security. Marine transportation is now characterized by many diverse organizations engaged in a complex environment, often working independently and for the accomplishment of different goals. This initiative will address the future needs of the nation by improving the coordination and cooperation among all stakeholders and will assist agencies in establishing constructive priorities and in drafting legislation that supports the outcome of this effort. We also must be ready to protect our ports and navigation systems as part of the nation's critical infrastructure.

- NEW: The Coast Guard will pursue the integration of technology into the navigation system. We will automate navigation information and promote electronic navigation, including digital nautical charts. We will also pursue new policy development in areas such as public/private partnerships.
- COORDINATION: The Coast Guard works closely with the Army Corps of Engineers to provide effective navigation aids for channel dredging and infrastructure projects. The Coast Guard also coordinates with the Maritime Administration on shoreside infrastructure projects through venues such as the Interagency Committee for Waterways Management. To ensure radionavigation systems provide maximum transportation benefits, the

Coast Guard works with the Federal Aviation Administration and Federal Railroad Administration to determine future needs for LORAN-C and the Nationwide DGPS. The Coast Guard is also working with a spectrum of agencies to develop the Federal Radionavigation Plan for the effective management of all federal radionavigation systems.

New Capital Investments to Support Strategies

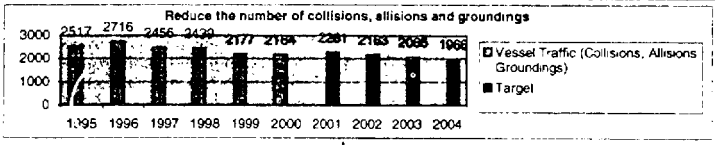
Seagoing Buoy Tender: Replaces aging buoy tenders with more capable vessels; critical to maintaining the readiness of 50,000 federal aids to navigation.

Waterways Aids to Navigation Infrastructure: Commences projects to install, replace, and realign navigation aids in coordination with Corps of Engineers channel dredging projects. This will improve aid to navigation infrastructure to support and maximize the utility of the Corps of Engineers projects.

Vessel Traffic

GOAL: Eliminate vessel collisions, allisions, and groundings.

TARGET By 2005, reduce the number of vessel collisions, allisions and groundings to no more than 1966. Reduce to 2261 vessel collisions, allisions and groundings in 2001.



Why We Act

As U.S. ports are squeezed by larger volumes of maritime and recreational vessel traffic, the impact of the closure of a major waterway on commerce in and around these ports becomes even more significant. Ninety-five percent of U.S foreign trade is moved by water, and the volume of this trade is expected to increase by a third over the next two decades. A vessel accident in a major waterway will impact major vessel movements, passenger vessel operations, recreational users, barge traffic, and even begin to affect local and national rail and truck transportation services Coast Guard efforts are key to facilitating the movement of commerce within our ports and waterways. As such, the Coast Guard has the role of coordinating the prevention of and responding to these major waterway incidents.

Key Success Factors

Training, planning, preventative maintenance and other human factors continue to play a central role in many accidents. The high volume of maritime traffic in our ports and waterways leaves little room for error, and makes every mistake potentially dangerous Obstructions, shoaling, and poor channel markings, less than optimal bridge span placement or design, and low visibility weather also compound the risk of accident.

2000 Results (Preliminary Data)

Current numbers indicate that we will meet the target. There were 1,177 events among freight and tank ships over 500 gross tons, mostly caused by human error, and 2,164 events among all commercial vessels Coast Guard efforts are key to facilitating the movement of commerce within our ports and waterways These efforts preserve America's waterways as freeways of commerce and recreation and provide every American safe and efficient access

Commercial vessels make approximately 70,000 port calls in the United States each year. At the same time, Americans operate about 20 million recreational craft With both commercial and recreational traffic and competition for access to U.S waterways to increase dramatically in the years ahead, the potential for disaster and increased demand on Coast Guard maritime safety and search and rescue capabilities, from inland waters to the high seas, will grow as well.

Past Performance

The number of collisions, allisions, and groundings has been declining We are still analyzing incident information to refine our strategies for improving performance, and refine our measurement efforts to ensure measurement reflects the true risk of accident.

Strategies to Improve Performance

- ONGOING: In addition to the extensive visual and radionavigation systems it maintains, the Coast Guard coordinates safe and efficient movement of traffic through Vessel Traffic Services (VTS). These units serve as an extra aid to mariners in navigating though congested and difficult ports and waterways.

  The Coast Guard seeks to reduce human error in mobility accidents through people-focused training and education efforts. We develop and enforce standards for navigation, manning, and training. We also aggressively enforce the International Safety Management Code that concentrates on human factors that cause mishaps.

  The Coast Guard also uses technology to reduce incidents Our Ports and Waterways Safety System (PAWSS) Project will include a Universal Shipborne Automatic Identification System that will identify vessels by type and name This will minimize waterborne traffic conflicts and collisions. These shipboard transponders will be a major component of the Coast Guard's VTS in New Orleans, a particularly congested and difficult waterway area.

- NEW: The Coast Guard will conduct an analysis of incidents that occurred during 1996-1998 to identify leading causes of accidents, the underlying conditions that contribute to the causes, and the appropriate

strategies to mitigate those conditions.

- **Coordination:** The Coast Guard works closely with the Army Corps of Engineers to provide effective navigation aids for channel dredging and infrastructure projects. The Coast Guard also coordinates with the Maritime Administration on shoreside infrastructure projects through venues such as the Interagency Committee for Waterways Management. Pilot associations and private traffic services provide assistance that complements Coast Guard vessel traffic service functions. The Coast Guard, in cooperation with private industry, promotes the Prevention Through People initiative which takes a people-focused approach to reducing collisions, allisions, and groundings.

New Capital Investments to Support Strategies

Seagoing Buoy Tender: Replaces and operates new, more capable buoy tenders that are critical to maintaining the readiness of 50,000 federal aids to navigation.

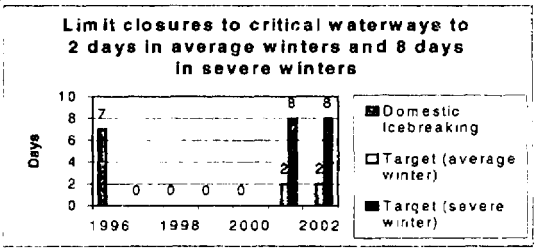
Waterways Aids to Navigation - Infrastructure: Commences projects to install, replace, and realign navigation aids in coordination with Corps of Engineers channel dredging projects. This will improve aid to navigation infrastructure to support and maximize the utility of the Corps of Engineers projects.

Ports and Waterways Safety System: Implements Vessel Traffic Service (VTS) systems in two ports (Houston/Galveston and San Francisco) and performs surveys and communications analysis in two additional ports. Evaluate the most appropriate application of vessel traffic service systems to meet the maritime safety needs in major U.S. ports.

Domestic Icebreaking

GOAL: Maintain the navigation season in ice-bound areas of the Great Lakes.

TARGET: Limit closures of designated critical waterways to 2 days (average winter) and 8 days (severe winters.)



Why We Act

During the ice season, 15 million tons of commerce is shipped over the Great Lakes; maintaining a winter shipping season (through Coast Guard icebreaking) facilitates the efficient transportation of this commerce. In the northern U.S., reliable mobility is crucial to the winter delivery of home heating oil. The ability of fishing vessels to transit ice-choked harbors in New England ensures fisherman can continue to support their families, and provide much-demanded seafood to the nation.

Key Success Factors

Ice blockage reduces mobility and delays winter navigation. Icebreaking performance is affected by ice thickness that is linked to the severity of winter weather patterns. It is also dependent on wind conditions: ice may be blown back into a cleared track so that commercial vessels cannot transit. Analyzing past winter weather patterns, and maintaining the readiness to break ice in severe winter conditions is critical to maintaining winter navigation mobility. Some sources of delay, such as lock closures, must be addressed by other agencies such as the Army Corps of Engineers and the Saint Lawrence Seaway Authority of Canada.

2000 Results

We met our goal for limiting closures of critical waterways to two days in an average winter and 8 days in a severe winter. There were no closures in FY 2000. The winter of 1999 – 2000 was slightly warmer than average. Great Lakes icebreaking assistance started on 22 December 1999 and was terminated on 31 March 2000. A total of 110 vessels were assisted, requiring a total of 1,763 ship operation hours. In the First District, the icebreaking season spanned from 15 December 1999 to 20 March 2000. A total of 357 vessels were assisted, many of which carried petroleum products for home heating and power generation. Without icebreaking support, many communities in the Northeast would experience calamitous oil shortages during the coldest days of a harsh winter.

Coast Guard aviation supported the Great Lakes domestic icebreaking mission with 137 HH-65 helicopter sorties from Air Stations Traverse City and Detroit, accumulating 250 flight hours. Air Station Corpus Christi also supported this mission with HU-25 Falcons providing 24 hours of flight time for ice reconnaissance patrols.

Coast Guard domestic icebreaking operations continue to be an integral and vital component of the marine transportation system for all commercially navigable waterways in the Northeast and throughout the Great Lakes and St Lawrence Seaway. Without a robust icebreaking capability, maritime commerce would essentially cease to move during the winter.

Past Performance

Goal targets have been met in the past five years. 1996 was a severe winter; 1997-99 were categorized as warmer than average winters: unseasonably warm temperatures resulted in minimal ice. Only a few vessels were assisted on the Great Lakes in these years because of the mild conditions. In past severe winters, upwards of 500 vessels have needed assistance. The 1999 weather conditions continued a trend where winters of the last 20 years have been generally milder than the winters of the previous 20-year period. However, specific years can still be quite severe and require extensive icebreaking activity. The winter of 1993-94 was among the most severe of the past 35 years.

Strategies to Improve Performance

- ONGOING: The Coast Guard ensures the continued movement of commerce by maintaining the readiness of a fleet capable of breaking ice and allowing ships transit.

The fleet includes a heavy icebreaker, icebreaking tugs, and buoy tenders. Not only do the icebreakers clear tracks, but they also free commercial vessels that are trapped in ice. In addition, icebreaking provides secondary benefits of improved search and rescue, environmental protection, and flood control for the Army Corps of Engineers in navigable waterways.

- COORDINATION: The Coast Guard and the Canadian Coast Guard operate under a cooperative agreement to meet icebreaking requirements in the Great Lakes and Saint Lawrence Seaway. There are very limited icebreaking capabilities provided by commercial tugs at the request of commercial carriers.

New Capital Investments to Support Strategies

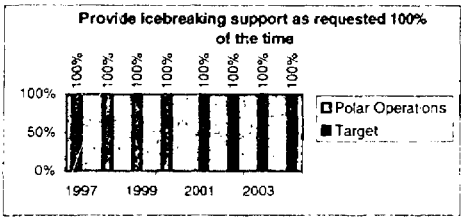
Great Lakes Icebreaker: Provides for the continuation of heavy icebreaking capabilities on the Great Lakes beyond the scheduled decommissioning of USCGC MACKINAW in 2006.

Seagoing Buoy Tender Replacement: This new class of buoy tender will replace the existing tender fleet. The new vessels should have a better icebreaking capability due to their greater horsepower and wider beam.

Polar Operations

GOAL: Provide icebreaking capability needed to support national interest in the polar regions.

TARGET: Provide icebreaking support as requested by the National Science Foundation, Department of Defense or State 100% of the time.



Why We Act

The Coast Guard conducts polar operations to facilitate the movement of critical goods and personnel in support of scientific and national security activity in the polar regions. Our icebreakers provide logistics support and clear tracks for other vessels resupplying U.S facilities in the polar regions. Without this service, these bases could not perform vital functions. The Coast Guard must maintain sufficient icebreaking capability to ensure that these missions can be reliably executed: in the remote polar frontiers, there is no backup asset to finish the task, or render assistance if the primary asset breaks down or is beset in the ice. Scientists in the Antarctic only have four months of summer in which to work – an inability to resupply science operations by ship every year would essentially shut down U.S. Antarctic research activities at McMurdo Bay.

The Coast Guard is also responsible for assuring that supplies and logistics are delivered to Thule Air Force Base in Greenland. This facility is one of three missile detection and tracking stations monitoring the skies of northern Europe. The Air Force is currently negotiating a second sea lift operation. The second supply run will require at least one Coast Guard icebreaker annually. In addition to logistics, polar icebreakers promote a U.S. presence in the polar regions and in numerous foreign port visits, serve as floating scientific laboratories to support National Science Foundation research, and conduct State Department treaty compliance inspections. The Coast Guard is the sole U.S. operator of heavy icebreaking capability.

Key Success Factors

Ice blockage reduces mobility, and delays or precludes navigation to the polar region bases. Icebreaking performance is affected by ice thickness, currents, winds, and other factors linked to the severity of winter weather patterns. Polar science research is limited by the availability of assets that can transport people and equipment through ice and serve as laboratory platforms.

2000 Results

We met our goal to provide icebreaking capability as requested by the National Science Foundation, Defense Department and State Department 100% of the time. We provided science and logistics support to the National Science Foundation in both the Arctic and Antarctic. We also assisted U.S. Fish and Wildlife Service projects focused on Arctic science.

Past Performance

While the Coast Guard has continued to meet support requests 100% of the time, in the past it has not been able to provide needed scientific research capabilities. However, this year the Coast Guard acquired the icebreaking cutter HEALY to provide a platform from which scientists can conduct research projects in the harsh landscape of the Arctic and Antarctic, in addition to providing multi-mission capability.

Strategies to Improve Performance

- **ONGOING:** The Coast Guard operates large polar icebreakers capable of establishing tracks for resupply routes in the polar regions, and transporting scientists for the purposes of conducting experiments in the polar region. The icebreakers also serve as floating laboratories for important national-level research in the polar regions. In February each year, Coast Guard icebreakers open a channel for a tanker and supply ship that bring in a year's supply of material, fuel, and food. In addition, Coast Guard helicopters embarked on the icebreakers assist in transporting scientists to remote areas of the Antarctic landmass where fixed-wing aircraft cannot

reach.

- **NEW:** We seek to improve our ability to carry out unfulfilled scientific research with the Cutter HEALY, a more research-capable polar icebreaker. Over a six-month voyage, the crew of the USCGC HEALY tested and evaluated the capabilities of the Coast Guard's newest polar icebreaker. The three phased trials program, consisting of warm water sea trials, icebreaking trials, and science systems trials, were successfully completed. The HEALY is scheduled for it's initial unrestricted science cruise in May of 2001 – an eastern Arctic deployment – during which it will be working extensively with the German heavy icebreaker POLAR STERN. The impressive success of HEALY's science trials program, which was staffed by scientists and technicians with national stature, has generated excitement in the Arctic science community and future cruises are expected to be fully subscribed HEALY is equipped with modern scientific research facilities that will be used by the National Science Foundation to carry out Arctic research. HEALY will provide 180 operational days for up to 50 embarked members of the science community.
- **NEW:** Provide more aviation resource hours in support of increased polar icebreaking operations.
- **COORDINATION:** The Department of Defense and Department of State provide requirements for security and diplomatic functions. The National Science Foundation provides scientific research requirements for icebreaking services.

New Resources to Support Strategies

Polar Icebreaker Reliability Improvement: Restore the reliability of the two existing polar class icebreakers to halt escalating maintenance problems and ensure they remain able to carry out mission requirements in the Antarctic.

Capital Investments in Support of

National Defense
Performance Goals

Integrated Deepwater System
Electro Optical Sensors for Cutters and Boats

Military Readiness

GOAL: Achieve and sustain complete military readiness for CG units as required by Department of Defense.

TARGET: Ensure the designated number of high and medium endurance cutters, patrol boats, and port security units needed to support Defense Department operational plans maintain a readiness score of 2 (1 high, 5 low scale) 100% of all days.

Performance measure: Percentage of days that the designated number of critical defense assets (high endurance cutters, patrol boats, and port security units needed to support Defense Department operational plans) maintain a Combat Readiness rating of 2 or better.

Target:	1999	2000	2001	2002
	--	100%	100%	100%
Actual:	4%			

Revised Reporting Methodology:

Target:	1999	2000	2001	2002
	-	100%	100%	100%
Actual:	N/A	51%		

Note on Revised Reporting Methodology

The Navy and Coast Guard agreed on a revised readiness reporting scheme, whereby artificially low peacetime readiness ratings for Coast Guard units can be factored out. Coast Guard units, except for Port Security Units, are not staffed in peacetime with a full wartime personnel allowance, and that has now been accounted for in the readiness reporting system. In event of a national security contingency when these units change to Combatant Command (CinC) operational control, members of the Coast Guard Reserve augment ships' crews

The Coast Guard's measure of military readiness will continue to undergo refinement to more accurately reflect the spectrum of support provided by Coast Guard forces in meeting CinC operational requirements.

Why We Act

Maintaining a high level of national security is critical to the United States' economic and social stability. This security ensures that citizens and organizations are free to carry out activities that enhance their own interests, and also promote the overall vitality of the nation. The President's National Security Strategy is a positive force in promoting stability throughout the world. The Coast Guard is an integral component in the nation's armed forces, and plays a critical role in this strategy. We must maintain a high level of readiness in order to carry out our unique military roles at a moment's notice

Key Success Factors

The Coast Guard is a multi-missioned service that must simultaneously carry out everyday missions such as drug enforcement, fisheries, searches and rescues, while maintaining a high level of readiness for military missions that we may be called upon to participate in at any time. The operational tempo of non-military missions as well as the tempo of national security operations can impact our ability to maintain readiness.

2000 Results

As the Coast Guard seeks to maintain its readiness to respond to other growing mission areas, it is strained to maintain the readiness to respond to critical military operations. The Coast Guard did not meet its target for providing the required number of 'combat ready' units, using SORTS criteria, to fill the CinC's operational requirements 100% of the time. Our units were ready only 51% of the time. Our measure of military readiness is continuing to undergo refinement to more accurately reflect the spectrum of support provided by Coast Guard forces in meeting CinC operational requirements

We were able to meet CinC requirements for patrol boats 100% of the time, with additional patrol boats available for immediate reconstitution and/or backfill.

High endurance cutters were available to meet CinC requirements only 53% of the time during FY 2000. The major reasons our cutters were not considered immediately ready were personnel and training shortfalls, followed closely by equipment casualties

Although the minimum standard for Port Security Units has not been achieved, there has been substantial progress toward attaining the minimum overall readiness rating for individual units. All major equipment has been provided, and efforts are underway to resolve persistent personnel vacancies and supply shortfalls. Training and exercise deficiencies are being eliminated

Though Port Security Units made incremental improvements, they did not meet our service objective of having all six units 'combat ready' year round. Two

units were C-2 at the same time, and a third was almost so. The remaining three units made substantial baseline training and exercise progress required to attain the minimum required readiness levels.

Though reporting a degraded operational readiness status, several Port Security Units were able to enhance skills and unit proficiency through participation in the following operations and exercises: Foal Eagle, Bright Star, Linked Seas, the International Naval Review, and the current Middle East deployment

Past Performance

The Coast Guard has not been able to meet our targets for providing the required number of 'combat ready' units, using SORTS criteria, to meet DoD CinC's contingency plan requirements 100% of the time. Our measure of military readiness continues to be refined The DoD contingency requirements used in the measure are for 'worst case' scenarios needed to support two major theater contingency plan requirements The required resources include high endurance cutters, patrol boats and port security units

The drastic change in WHEC readiness from the 4% readiness reported in 1999, was partially caused by the fact that the requirement to report the Contingency Personnel Requirements List (CPRL) (the full wartime personnel strength requirement) in the unit SORTS report was waived, pending validation of personnel requirements that have changed due to new equipment and operational procedures. The Navy has been informed of this waiver and has not objected to reporting personnel strength using Coast Guard standards that are less demanding during peacetime operations.

Strategies to Improve Performance

- ONGOING: The Coast Guard seeks to improve its readiness though better trained personnel, more efficient logistics systems, and more effective equipment and assets that improve our capability to carry out our unique responsibilities The Coast Guard also participates in military training exercises such as FOAL EAGLE that support forces in Korea. We also maintain the readiness to defend the nation's critical maritime infrastructure, and guard against terrorist threats
- NEW: The Coast Guard will assess and develop the readiness posture needed to respond to Weapons of Mass Destruction incidents We will also develop the ability to deploy 110 foot patrol boats to improve our readiness to meet national security initiatives.
- COORDINATION: The Department of Defense coordinates the assigned roles of each service. The Coast Guard and Navy have jointly established the concept of a National Fleet. Under this concept, both services will maintain their distinctive capabilities, but we will make sure that our strengths are complementary. The Navy will maintain its highly capable multi-mission surface combatants designed for the full spectrum of naval operations, while the Coast Guard will provide smaller maritime security cutters, designed for peacetime and crisis-response operations

New Capital Investments to Support Strategies

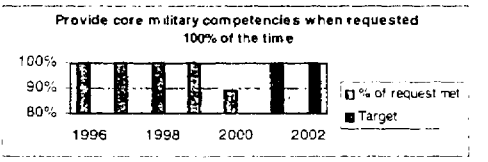
Integrated Deepwater System: Develops an integrated system of surface, air, command and control, intelligence, and logistics systems to carry out the statutory mandates in the deepwater area of responsibility Provides more effective and reliable readiness in place of aging, high-maintenance assets

Electro Optical Sensors for Cutters and Boats: Equips 210' and Mature Class medium endurance cutters, 110' and 87' patrol boats, and small boats to effectively operate at night and in adverse weather conditions.

Military Operations

GOAL: Provide core competencies (Maritime Interception Operations, Deployed Port Operations, and Environmental Defense) when requested by the Department of Defense or Department of State.

TARGET: Provide core competencies as requested or currently planned by Department of Defense or State 100% of the time.



Why We Act

The Coast Guard is a unique instrument of national security and fills a variety of roles to meet the panorama of national security issues that we face. Coast Guard active duty and reserve components provide capabilities not available from other military services: maritime interception operations, environmental defense operations, and deployed port security and defense operations. These Coast Guard capabilities were demonstrated during Operation Uphold Democracy in Haiti where Coast Guard aircraft, cutters, and port security units played a vital role. More than 40 of the world's 70 naval forces are, in essence, "coast guards." We are the best U.S. liaison to assist these forces in developing into strong, stable organizations that help maintain democratic governments throughout the world.

Key Success Factors

The Coast Guard is a multimissioned service that must simultaneously carry out everyday missions such as drug enforcement, fisheries, and rescues, while maintaining a high level of readiness for military missions that we may be called upon to participate in at any time. The operational tempo of non-military missions as well as the tempo of national security operations can impact our ability to maintain readiness.

2000 Results

We did not meet our goal for providing our core military competencies when requested by the Department of Defense or Department of State 100% of the time. Only 89% of requests were met in 2000.

Requests for scheduled employment of Coast Guard resources in support of the Defense and State Department requirements are normally negotiated in advance based upon projected resource availability. However, programmed Coast Guard support does not fully satisfy Defense Department aspirations. The Coast Guard met 370 days of 415 days requested to support CinC initiatives.

Frontline protection against many current and emerging threats to our national and maritime security begins at sea. In 2001 and beyond, the Coast Guard will continue to maintain capability to meet Department of Defense and Department of State operational needs. However, aging, and maintenance-intensive Deepwater assets that lack interoperability strain the Coast Guard's ability to meet these demands. The ability of the Coast Guard to modernize its operational assets and leverage rapidly improving technology is critical to meeting today's high tech maritime and national security challenges.

With the Deepwater acquisition project, the Coast Guard is developing an integrated system of surface, air, command and control assets; surveillance; and logistics systems to carry out operational mandates in the deepwater area of responsibility. This initiative will provide more effective capability in place of assets that are beyond or are rapidly approaching the end of their service lives to ensure the Coast Guard can provide its essential and unique contributions to the nation's maritime needs.

Past Performance

Previously, we have consistently met our goal for providing our core military competencies when requested by the Departments of Defense or State 100% of the time. The Coast Guard provided services for two ongoing military operations in 1999.

- Allied Force – Cutters BEAR and DALLAS supported military operations in Kosovo and the Mediterranean.
- Desert Storm – Cutter MIDGETT sailed as a member of the USS CONSTELLATION battle group operating in the Persian Gulf. Our Law Enforcement Detachments embarked on U.S. Navy

ships to enforce U.N. sanctions against Iraqi petroleum shipments.

We also deployed cutters and training teams for peacetime engagement operations. These included Caribbean Support Tender operations and training visits to South America.

Strategies to Improve Performance

- DIVISIONS: The Coast Guard seeks to maintain the cutter and aircraft readiness, and operational expertise needed to respond to all Department of State and Department of Defense mission requests. The Coast Guard is specifically tasked to participate in Department of Defense engagement strategies. The Coast Guard continues to play a role supporting national interests in the Persian Gulf. Coast Guard deepwater cutters have been conducting maritime intercept operations to enforce the United Nations embargo against Iraq. They have interdicted several vessels attempting to transport petroleum products in violation of the embargo. Coast Guard cutters and other forces support Peacetime Engagement and Enlargement under the National Security Strategy. Engagement will include UNITAS training and assistance cutter deployments with the U.S Navy to the Caribbean, South America, and Central America; cutter deployments to the Mediterranean and Black Seas, and training assistance to the Haitian Coast Guard and Peruvian armed forces.
- COORDINATION: The Department of Defense coordinates the assigned roles of each service. The Coast Guard may operate under the Secretary of the Navy in times of war.

New Capital Investments to Support Strategies

Integrated Deepwater System: Develops an integrated system of surface, air, command and control, intelligence, and logistics systems to carry out the defense operation mandates in the deepwater area of responsibility. Missions such as maritime interception require deepwater assets for effective execution.

Capital Investments to Support All Strategic Goals

While many of the Coast Guard's capital investments are intended to implement specific strategies and ultimately achieve specific performance outcomes, some investments will support logistical functions that impact almost all our strategies and activities, and thus contribute to all the strategic and performance goals. An effort is on-going to establish specific logistics performance goals to which these capital investments can be linked.

The investment projects listed below are separated according to PPA, or sub-appropriation. Descriptions are provided in the following pages.

Vessels
- *Survey and Design, Cutters and Boats*

Aircraft
- *Aviation Parts Sustainment*
- *C-130J Provisioning and Training Support*

Other Equipment
- *Defense Message System*
- *Commercial SATCOM Upgrade*
- *D13 Microwave Modernization Project*
- *Hawaii Rainbow Communications System*
- *HF System Modernization*
- *DOD C4I Interoperability*
- *Automatic Identification System (AIS)*
- *Readiness Management System*
- *Command Center Readiness and Modernization*
- *Minor Information Technology Projects*
- *Configuration Management System*
- *Self-Contained Breathing Apparatus*
- *Uniform National Discharge Standards (UNDS) Implementation*

Shore Facilities and Aids to Navigation
- *Shore Survey & Design*
- *Minor Shore Projects*
- *Aviation/Station Facility Consolidation, Elizabeth City, NC*
- *Modernize Group/MSO Long Island Sound*
- *Consolidate Engineering Logistics Center*
- *Construct Supply Building; Group Port Angeles, WA*
- *Aviation Support Building, ISC Kodiak, AK/C-130J Req Phase 1*
- *Building 8 Utilities; ISC Boston, MA*
- *Coast Guard Housing Station Brunswick, GA – Construct new station*
- *Rebuild Station Port Huron, MI*

AC&I Personnel and Related Support
- *Direct Personnel Costs*
- *Core Acquisition Costs*

Five Year Funding Projection

(thousands of dollars, budget year dollars)

	FY2002	FY 2003[1]	FY2004[1]	FY2005[1]	FY2006[1]
Vessels Projects	**74,990**	**39,520**	**29,000**	**18,000**	**9,540**
Survey & Design - Cutters and Boats	500	500	500	500	500
Seagoing Buoy Tender Replacement	70,000	14,000	-	-	-
Polar Class Reliability Improvement Project (RIP)	4,490	9,900	8,000	5,000	3,000
Electro-Optical Sensors for Cutters & Boats		7,120	5,500	5,000	3,000
Great Lakes Icebreaker Replacement		8,000	3,000		
TBD - Future Sustainment & Modernization Projects		-	12,000	7,500	3,040
Integrated Deepwater Systems[2]	**338,000**	**396,000**	**442,000**	**508,000**	**547,000**
Aircraft Projects	**27,500**	**20,000**	**10,000**		
Aviation Parts Sustainment	27,000	-	-	-	
C-130J Provisioning and Training Support[3]	500	20,000	10,000		
TBD - Future Sustainment & Modernization Projects					
Other Equipment	**90,371**	**87,835**	**80,075**	**59,750**	**54,500**
Ports and Waterways Safety System (PAWSS)	12,500	15,100	6,000	-	-
Marine Information for Safety and Law Enforcement	7,450	-	-		-
National Distress and Response System Modernization (NDRSM)	42,000	45,000	46,350	47,500	48,500
Defense Message System (DMS) Implementation	2,000	2,000	2,000	1,000	1,000
Commercial Satellite Communication (SATCOM) Upgrade	1,500	-	-	-	-
Global Marine Distress System	2,200	2,200	1,500	-	-
Search and Rescue Capabilities Enhancement Project	1,320	-	-	-	-
Communications	***7,930***	***12,300***	***10,500***	***3,500***	***1,000***
District 13 Microwave Modernization Project	800	3,100	2,500	-	-
Hawaii Rainbow Communications System	3,100	4,000	4,000	2,000	-
HF System Modernization	2,500	2,000	2,500	1,500	1,000
DOD C4I Interoperability	1,530	1,700	-	-	-
AIS Carriage Requirements		1,500	1,500	-	-
Information Support	***4,402***	***6,050***	***6,725***	***3,000***	***2,000***
Readiness Management System	1,675	2,000	2,000	1,000	-
Command Center Readiness & Modernization	727	2,050	2,725	1,000	1,000
Minor Information Technology Projects	2,000	2,000	2,000	1,000	1,000
Decision Support	***6,023***	-	-	-	-
Configuration Management System	6,023	-	-	-	-
Other	***3,046***	***5,185***	***7,000***	***4,750***	***2,000***
Self Contained Breathing Apparatus (SCBA)	1,000	4,000	4,000	2,750	-
P-250 Pump Replacement	2,046	-	-	-	-
Uniform National Discharge Standards (UNDS) Implementation		1,185	3,000	2,000	2,000
Shore Facilities and Aids to Navigation	**63,262**	**66,400**	**65,577**	**58,710**	**50,240**
Survey & Design - Shore Operational & Support Projects	7,000	7,000	7,000	7,000	7,000
Minor AC&I Shore Projects	7,162	7,100	7,100	7,100	7,100
Waterways Aids to Navigation Infrastructure	6,000	9,800	9,800	9,800	9,800
Coast Guard Housing	11,000	10,000	10,000	10,000	10,000
Rebuild Coast Guard Station Port Huron, MI	3,100	-	-	-	-
Operational	***14,800***	***17,600***	***25,854***	***14,410***	***7,840***
Aviation/Station Facility Consolidation Elizabeth City, NC	6,300	5,000	-	-	-
Modernize Group/Marine Safety Office Long Island Sound	4,900	-	-	-	-
Station Brunswick, GA - Construct New Station	3,600	-	-	-	-
TBD - Future Shore Operational Sustainment & Modernization Projects		12,600	25,854	14,410	7,840
Support & Logistics	***14,200***	***14,900***	***5,823***	***10,400***	***8,500***
Consolidate Engineering Logistics Center - Phase 1 CG Yard, MD	12,600	-	-	-	-
Group Port Angeles, WA - Construct Supply Bldg		2,400	-	-	-
ISC Kodiak Aviation Support Building & C 130J Req Phase 1		12,500	-	-	
ISC Boston Building 9 Utilities	1,600	-	-	-	-
TBD - Future Support & Logistics Sustainment & Modernization Projects		-	5,823	10,400	8,500

Five Year Funding Projection

(thousands of dollars, budget year dollars)

	FY2002	FY 2003[1]	FY2004[1]	FY2005[1]	FY2006[1]
Personnel and Related Support	65,200	63,245	61,348	59,540	57,720
Direct personnel costs	64,500	62,565	60,689	58,900	57,100
Core acquisition costs	700	680	660	640	620
Total AC&I Request	659,323	673,000	688,000	704,000	719,000
OMB AC&I Funding Target	659,323	673,000	688,000	704,000	719,000

GENERAL COMMENTS:

[1] *Amounts for 2003-2006 are estimates only. These amounts will be refined during the budget process*

[2] *Deepwater Industry Teams are currently working on project functional design and cost estimates. Cost estimates will be developed and updated during the FY 03 budget process*

[3] *C-130J funding requests for FY 03 and FY 04 represents the beginning of provisioning the six aircraft, which includes ground support equipment, specialized test equipment, tools and spares, such as engines, and avionics*

Vessels Projects	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Survey & Design - Cutters and Boats support of future year cutter and boat renovation and acquisition programs prior to the program receiving dedicated funding in the budget	Includes development and refinement of requirements through feasibility studies to verify the soundness and practicability of various combinations of vessel performance and payload requirements. Goal is to determine an optimum set of requirements which will lead to a balanced, integrated, and cost effective ship design. Later, more detailed design with trade off analyses identifies critical parameters and permits a more accurate look at potential acquisition budget costs	X	X	X	X	X		N/A
Seagoing Buoy Tender Replacement multi year program to replace the 26 vessel fleet of 50-year-old Seagoing Buoy Tenders	The capability to maintain short-range aids to navigation in an exposed offshore environment will be retained	X		X	X		This request funds the last two hulls and associated costs	N/A
Polar Class Reliability Improvement Project (RIP) - restore and improve the operational reliability of the two Polar Class Icebreakers, CGCs Polar Star and Polar Sea	A number of shipboard systems are nearing the end of their service lives, require extensive maintenance and are experiencing escalating support cost. This project will halt escalating maintenance and reliability problems, and will enable the Coast Guard to continue to support the nation's interests in the Polar Regions by ensuring that vessels remain serviceable and operational for the remainder of their design service lives				X		This request will fund the installation of Phase III items on one cutter. Phase III work will include ship service diesel generator with switch board, sea water cooling system modifications, and replace the standard boat davit system	N/A
ALEX HALEY Conversion Project								Removed from CIP due to overlap with Deepwater Project
Patrol Craft Conversion								Removed from CIP due to overlap with Deepwater Project
Over-the-Horizon Cutter Boats								Removed from CIP due to overlap with Deepwater Project

CAPABILITY ACQUIRED / MAINTAINED BY PROJECT	GOAL LINKAGE: Maritime Safety	Maritime Security	Protection of Living Resources	Mobility	Mission Readiness	INCREMENT	CHANGES FROM '01 CIP
Integrated Deepwater Systems							
Integrated Deepwater Systems (IDS). Recapitalizes the Coast Guard's aging and obsolete assets which execute missions in the offshore operating environment	The Deepwater Project, when completed, is planned to minimize the total ownership costs of the operating assets and increase operational effectiveness by leveraging current and future technologies to achieve requisite functional capabilities	X	X	X	X	Industry team proposals to design and construct the IDS are due in July 2001. The Coast Guard intends to award a phase II contract during the second quarter of FY 2002, to begin building the selected IDS. This request is for the 1st year of implementation of the winning team's proposed IDS.	FY02 Request is based on industry teams' function designs and estimates
Aircraft Projects							
Aviation Parts Sustainment	Provides funding for repair and replacement of critical aviation parts and equipment including replacement of life limited parts and equipment that can no longer be repaired, and the repair of other parts/support equipment to maintain adequate inventory levels and readiness at Coast Guard Air Stations	X	X	X	X	X	This project allows the Coast Guard to fund vital parts and support purchases that will hit critical inventory shortages thereby restoring operational readiness of all Coast Guard aircraft. Given the current state of aviation parts shortages and support equipment condition, this project is vital	N/A
C-130J Provisioning and Training Support: analysis of training and support requirements	Studies will lay the groundwork required to ensure that the C-130Js are operated and maintained in a way that will result in the lowest life cycle cost and yield the optimal return on investment	X	X	X	X	X	Studies to determine the best method of training pilots and aircrew to operate and maintain the C-130J aircraft. Studies will also determine the best mix of contract logistics support and active duty workforce needs to adequately maintain the C-130J fleet at our desired availability rates	This line item is required to operate and support aircraft appropriated in FY01 MILCON Readiness Supplemental
HH-65 MCU Replacement							Removed from CIP due to overlap with Deepwater Project
HH-65 Engine Life Cycle Cost Reduction							Removed from CIP due to overlap with Deepwater Project
Aviation Simulator Modernization Project							Removed from CIP due to overlap with Deepwater Project
Other Equipment							
Ports and Waterways Safety System (PAWSS). Risk of the marine/ off the shelf vessel traffic services designed to provide safe passage in high risk ports and waterways	Vessel Traffic Services facilitate timely, safe transportation of waterborne commerce. The probability of collisions, rammings and groundings, along with the associated loss of life and damage to the environment are reduced with vessel traffic systems. Low frequency, high impact events such as major oil spills are minimized through such systems. Modernization program reflects the counsel provided by the House and Senate Appropriations, reports, the General Accounting Office report and the Marine Board study	X		X	X	Implement Vessel Traffic Service (VTS) systems in three ports (Puget Sound, Houston/Galveston and San Francisco) and to perform surveys and communications analysis in two additional ports. Evaluate the most appropriate application of vessel traffic service systems to meet the maritime safety needs in major U.S. ports	N/A
Marine Information for Safety and Law Enforcement (MISLE)	MISLE will replace the obsolete Marine Safety Information System (MSIS) as the Coast Guard's cross functional information system to promote commercial vessel safety and law enforcement. Better designed and integrated software applications will improve mission effectiveness and efficiency, increase reliability, significantly reduce system response time and eliminate redundant data entry. MISLE will support more than 5000 Coast Guard users at over 550 sites	X		X		Establishes a nationwide vessel identification system and modernizes maritime commercial instruments and keels processing	Increase in request for final budget year FY07
National Distress and Response System Modernization (NDRSM)	The National Distress System (NDS) is the Coast Guard's primary asset to perform the functional tasks of detection, classification, and command and control for the Search and Rescue and Marine Safety operating programs. The existing NDS is inadequate to meet the safety requirements of growing marine traffic, and does not meet the requirements of the International Convention for the Safety of Life at Sea (SOLAS) treaty. NDRSM will expand service capability through greater area coverage, elimination of emergency access problems, compliance with the federal mandate for narrowbanding, provision of voice recorder replay, and addition of direction finding capability to improve Coast Guard emergency response	X				Validation and full scale development of the selected alternative solution for the Coast Guard's NDRSM project	N/A

		MISSION GOALS						
	CAPABILITY ACQUIRED/IMPROVED by project	Maritime Safety	Maritime Mobility	Protection of Natural Resources	National Security	Non-Defense	INCREMENT	CHANGES FROM 'O' OP
Defense Message System (DMS) Implementation	Facilitates continued messaging interoperability with DoD. Allies and other government agencies. In order to fulfill its missions, the Coast Guard must maintain military messaging interoperability with DoD and must implement DMS to ensure continued global connectivity and secure messaging capability.	X	X	X	X	X	Replaces the current military (record) messaging system, Automated Digital Network (AUTODIN), with DoD's mandated replacement (DMS). The Coast Guard is responsible for forming, starting, and implementing DMS beyond the DoD Enabling Capability for organizational users (shore based and mobile).	N/A
Commercial Satellite Communication (SATCOM) Upgrade. Multi year AC&I project to install commercial SATCOM equipment on operational platforms.	This new technology will enable the Coast Guard to adapt to an increasingly information rich environment and take advantage of competitive cost savings. Existing High Frequency (HF) radio communications infrastructure is an inadequate communications path for supporting large bandwidth data exchanges (WEB, CGDN+, SIPRNET). Additionally, HF is subjected to frequent atmospheric disruptions. The new commercial satellite communications path will make it cost effective to provide record message traffic, e-mail, and other mission essential applications, increasing efficiencies in process automation and data fusion. Pending DOD data communications interoperability is reliant on completion of this initiative.	X	X	X	X	X	Includes satellite data/voice terminal for 110 WPBs, and tailsitter voice communications for 67 CPBs. Includes automated position reporting and two way messaging capabilities for fixed and rotary wing aircraft. SATCOM equipment to be installed on surface operational platforms that currently depend on inadequate high frequency data link (HF/DL) communications. Existing SATCOM equipment to be upgraded with current technology.	FY02 Request reduced to account for impact of Deepwater proposals
Global Maritime Distress and Safety System: modernize the Coast Guard's shoreside infrastructure for high and medium frequency Digital Selective Calling (HF/MF DSC) a distress alerting system.	Facilitates U.S. implementation of the Global Maritime Distress and Safety System (GMDSS), and gives the U.S. long term capability to maintain effective Digital Selective Calling (DSC) distress communications in GMDSS Sea Area A2. Existing shore side technology platform is rapidly becoming unsupportable. Shore-based HF transmitters, supporting Maritime Public Safety and Command, Control, Communications, Computer, and Intelligence (C4I) missions, are beyond their projected end-of-life.	X					Both hardware and software will be obtained to modernize the system and improve the process of sorting incoming digital distress alerts. Funding will enable completion of shore-side high power HF transmitter replacements at the Commstas, and HF transceiver replacements at the Groups. Replaces aging High Frequency (HF) transmitters and transceivers currently supporting GMDSS at Coast Guard Communications Stations (Commstas) and at 29 selected commands slated to receive DSC.	FY02 estimate reduced
Search and Rescue Capabilities Enhancement Project	Improve search and rescue (SAR) computer decision, planning and monitoring applications. Resulting applications will ensure SAR planners have contemporary decision support tools for saving lives and property through more efficient use of on scene searching resources. Improved systems will also provide improved situational assessment through increased data sharing and interoperability between USCG and local or international SAR resources, vital to open-ocean or multi-national rescue efforts.	X					Second developmental year and annualized maintenance funding. Funding is for stabilization and further enhancement of existing software, development of additional modules for existing software and development of links between existing systems for reliable and timely exchange of information. FY02 funding will complete project development for initiatives begun in FY01. Completes the project to enhance Coast Guard Search and Rescue (SAR) capabilities through SAR computer application upgrades and an open architecture that allows for any future technological improvements.	N/A
District 13 Microwave Modernization Project	Upgrades existing Coast Guard owned and operated microwave communications network in Oregon and Washington, used for search and rescue, law enforcement, Vessel Traffic Service for Puget Sound, Coast Guard Data Network, and the National Oceanographic and Atmospheric Administration. In accordance with mandates in the Department of Commerce Spectrum Reallocation Report, the CG must abandon a large portion of the Thirteenth District communication network by CY 2004. This severely impacts ability to respond to safety emergencies, to monitor vessel mobility within ports and waterways, and to sustain military readiness.	X	X	X	X	X	Provides infrastructure upgrades, equipment purchase and installation, and the transitioning from the existing analog microwave to the hybrid microwave/leased landline solution. Project work must commence in FY02 to have the system at full operating capability prior to January 2004. The proposed combination of microwaves and leased facilities provides the necessary system and bandwidth to meet IM network needs for critical Coast Guard missions (see on and rescue, vessel traffic service, and law enforcement).	N/A
Hawaii Rainbow Communications System: provides VHF-FM connectivity throughout the Hawaiian islands for both federal and state agencies.	Upgrade modernizes short-range command and control system, provides an information network of management systems for the protection of natural resources, expands Vessel Traffic System and waterways management systems, and implements technology to reduce staff workload. The System is a unique Federal/State multi-agency partnership. Federal agencies provide funding to support the system, while State agencies provide land and facilities. USCG is the lead agency for the Hawaii Rainbow Communications System and will coordinate acquisition and installation of equipment.	X	X	X	X	X	This project will fund the Coast Guard's one third share ($7.5M) of the total system modernization cost, estimated to be $22.25M.	N/A

Investment Matrix

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
HF System Modernization Replace shore based high frequency (HF) transmitters and transceivers with state of the art HF equipment and a flexible network architecture utilizing Automatic Link Establishment (ALE)	Provides an overarching comprehensive HF ALE-enhanced communication system architecture that will integrate state-of-the art telecommunications technology into the CG's long haul, multi-mission communication system Maintains viability of the CG's ship and shore-based HF communications infrastructure and its ability to fully support Public Maritime Safety and CG C4I missions HF ALE technology automates manpower intensive operations and will increase throughput necessary to continue providing reliable service to the maritime public and ensuring interoperability as required by international agreements This modernization effort will also provide the flexibility and scalability needed to meet current and future voice and data requirements	X	X	X	X	X	A total of 732 transmitters and transceivers will be replaced during this 5-year project FY02 transmitter replacements include 30 high power (10Kw) shore side transmitters	N/A
DOD C4I interoperability Internet protocol based communications capabilities to meet US Navy IT-21 guidelines	Creates a primary pipeline for secure and unclassified data transmissions among assets Positions Coast Guard to meet impending changes in the DOD data communications environment (The Coast Guard must create an implementation plan to join DOD's transition to email based Defense Messaging System (DMS) and to deactivate the current messaging system)	X	X	X	X	X	Shoreside infrastructure to support this communications system throughout the Coast Guard and to place systems aboard three icebreaking cutters (two in FY02)	N/A
Automatic Identification System (AIS)	Provides CG ships with capability to receive/transmit situational information for situational awareness and use in operational decision making Brings selected CG vessels into compliance with IMO mandated requirements	X	X	X	X	X	Equips approximately 56 vessels	N/A
Readiness Management System (RMS)	Through coordination, connectivity and commonly accepted standards or metrics for critical information, the RMS will help identify readiness problems and support informed decision making The RMS will use an interactive computer display as the interface between user and databases , and will facilitate data entry reduce errors and create readiness messages for use throughout the CG The TYCOM Readiness Management System (TRMS) is a tool developed by the Navy to improve readiness reporting for units (WHECs, WMECs, 110 WPBs and PSUs) The system will serve the needs of all levels of the Coast Guard (units/groups, districts/areas and	X	X	X	X	X	(1) an overarching Coast Guard wide Readiness Management System (RMS) that will integrate existing databases, and (2) components for one of the databases to be integrated the U S Navy's TYCOM Readiness Management System (TRMS) which will be used by Coast Guard units reporting readiness	N/A
Command Center Readiness & Modernization	Improves and standardizes command and control tools at Area District and Section command centers Provides ability to efficiently collect, process and exchange vital information in execution of all missions Corrects shortfalls documented in the 1999 Coast Guard Command Center Study including unsupported stand alone systems, training deficiencies, and inadequate facilities as well as suboptimal hardware software and connectivity to support a complex information environment Integrates existing systems	X	X	X	X	X	Front end analysis to develop training hardware/software deployment and command control communications computer and information system integration strategies Expansion of data networking connectivity as well as deployment of robust processing hardware and integrated decision support tools	N/A
Minor Information Technology Projects	Facilitate the comprehensive design and analysis of alternatives to meet business operations, and administrative information needs and the ability to rapidly optimize emerging technology in support of program and enterprise wide information needs through the deployment of incremental system functionality	X	X	X	X	X	Supports a comprehensive information technology (IT) investment management process execute minor IT initiatives evaluate emerging technologies and develop alternatives to satisfy program and enterprise wide information requirements	N/A
Configuration Management System integrated configuration based supply and maintenance application	Configuration Management Plus (CMplus) provides automated central information storage and retrieval for inventory maintenance, requisitioning and equipment history information Single application that supports all vessel engineering and supply efforts at field units Improves configuration, maintenance and supply support at the field level to overcome system weaknesses and to conform to new governmental regulations	X	X	X	X	X	The FY02 CM Project effort will concentrate on developing a centralized Oracle database to be deployed at the CG Operations Systems Center (OSC) in Martinsburg WV Development will include installation of web application servers and a migration of localized CMplus databases to the central database	N/A
Self Contained Breathing Apparatus (SCBA)	Replacing existing OBAs with SCBAs ensures that CG cutters and personnel are equipped with up to date safe supportable and environmentally friendly personal breathing gear for fighting shipboard fires at sea	X	X	X	X	X	Replace Oxygen Breathing Apparatus (OBA) with SCBA aboard Coast Guard cutters and training commands Outfit CG cutters and training facilities with spare parts refill compressors, extra bottles storage space modifications Provide training and funding for disposal of obsolete OBA canisters (Hazmat)	N/A

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Investment Matrix

	CAPABILITY ACQUIRED / MAINTAINED (by project)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	JUSTIFICATION	CHANGE FROM [illegible] CIP
P 250 Pump Replacement	Maintains the fleet's base level of capability with respect to fire fighting and dewatering capabilities for cutters. Pump is used on cutters for emergencies and for rescue of distressed vessels. Existing pump is no longer manufactured, and the inventory of spare pumps and parts will be depleted by the end of FY02. Provides "just in time" solution to the problem of supporting obsolete pumps while reducing overall life cycle costs of portable	X					Replace the primary portable firefighting and dewatering pump on cutters	N/A
Uniform National Discharge Standards (UNDS) Implementation - standards for liquid discharges incidental to the normal operation of Coast Guard cutters and boats	UNDS regulates 39 liquid discharges into inland and coastal waters of the U S by all Armed Forces vessels. All classes of USCG cutters and boats will be impacted by this legislation. Compliance with standards will provide CG vessels with flexibility to operate in all US states	X	X	X	X	X	Phase II includes the identification of Marine Pollution Control Devices (MPCD) to meet these discharge standards. Phase II will be completed April 2003, resulting in additional enforceable rules on USCG vessels. Subsequent funding required for equipment upgrades and vessel alterations	N/A
Shore Facilities and Aids to Navigation								
Survey & Design - Shore Operational & Support Projects	Engineering design work prior to project appropriation, and contract administration/project management when construction funding has been appropriated and construction is underway. This line item also includes funds for planning, design, travel, and administrative expenses required to ensure efficient management, contract administration, and execution of the shore capitalization and investment program. Future projects supported are part of the long range plans to support operational units. Construction inspection and contract management ensure high quality construction, compliance with accepted building standards and codes, and quick resolution of construction problems	X	X	X	X	X	Advance requirements, planning and engineering studies, project design, master plans, and other architectural/engineering efforts to supplement in-house capability. Additionally, funds will be used for preliminary site surveys, property acquisition expenses, options, and real property purchases for future construction. This year's request will also provide planning and design of shore facilities to support siting requirements of new acquisitions including motor lifeboats, buoy tenders, coastal patrol boats and platforms which improve Coast Guard readiness and modernization efforts	N/A
Minor AC&I Shore Projects	Types of projects planned include: a) Upgrade facilities to achieve more energy efficient facilities. b) Renovate existing facilities to comply with habitability, fire, life safety and occupational standards. c) Modify existing facilities to meet mission/staff requirements and to comply with regulations. d) Replace deteriorating facilities which are beyond the intended service life. e) Construct new facilities to provide for changing mission requirements or new acquisitions. f) Modify existing mooring facilities for new cutters and boats	X	X	X	X	X	Continuing funds for small shore facility construction projects. These projects are less complex and require less advance planning than major projects. The overall cost for any minor shore facility project falls between $350 000 and $1 000 000. Various locations and capital plant actions are involved. Facility changes will be made at various homeports to accommodate new operational cutters and boats delivered to the field. Some of these new acquisitions include motor life boats, buoy tenders, coastal patrol boats and other platforms to increase operational and support readiness	N/A
Waterways Aids to Navigation Infrastructure	Establishes, maintains and improves transportation on U S waterways, through construction and improvements to buoys and structures which assist in navigation. Navigational markers are critical to safe and efficient marine transportation and support Coast Guard and Departmental Mobility, Environmental Protection and Safety goals and the Department's goal of Economic Growth and Trade	X		X	X		Waterways infrastructure projects require an annual base funding level to maintain an aging or damaged aids to navigation infrastructure and to respond to requirements from expanded U S Army Corps of Engineers (ACOE) activity	N/A
Coast Guard Housing - Construction of new units and improvement of existing units	Improve quality of life for members and their dependents. Many existing units require extensive renovations to meet adequacy and safety criteria. Adequacy criteria include cost, environmental safety, suitability elements (size, number of bedrooms, condition), and commuting factors (time, distance and cost). Coast Guard owned housing is acquired where other alternatives are inadequate, not available, or not cost effective	X	X	X	X	X	Provide replacement for 16 family housing units through construction in Kodiak, Alaska, and a fire protection sprinkler system in apartment buildings (in three phases) at Fort Wadsworth, NY. Conduct housing need assessments to substantiate requirements to construct or improve housing in these locations	N/A
Rebuild Coast Guard Station Port Huron, MI	Provide safe and appropriately sized shore facilities for Station Port Huron to decrease response time, repair security shortfalls, eliminate safety and environmental problems, reduce maintenance, and create a better work environment for station personnel. The station complement has increased and additional space is required to accommodate personnel. Berthing facilities must be upgraded to meet fire, life safety, or occupational health standards	X	X	X			The project will be awarded in two phases. Phase I (FY01) will fund the urgently needed waterfront facilities. Phase II (FY02) will address the shore facilities	N/A

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	CAPABILITY, ADEQUACY, PERFORMANCE DESCRIPTION						DESCRIPTION	
Aviation Station Faculty Consolidation, Elizabeth City, NC	Provide an appropriately sized, safe, energy efficient two-story building to consolidate Coast Guard Air Station Elizabeth City and Station Elizabeth City, NC administration, operations and maintenance functions. These functions are currently housed in four buildings which are well beyond their useful and economic lives	X	X	X	X	X	Administration, operations, communications and maintenance staff for the Air Station, C-130 Standardization Team and Station Elizabeth City personnel will be consolidated into a new facility. Three buildings/hulk be demolished as part of this project, the fourth will b retained as an interim facility until Hangar 48 renovations are completed.	N/A
Modernize Group/Marine Safety Office (MSO) Long Island Sound	Functionally efficient and properly configured MSO communications/ operations spaces, engineering maintenance facilities, galleymess, and berthing spaces that meet current design standards and health and safety codes. Eliminate serious health and safety violations including sprayed asbestos ceilings, vinyl asbestos floor tiles, and asbestos insulation throughout the three story building. Provide accommodations for female personnel	X	X	X	X	X	The building interior will be completely stripped and renovated/reconfigured	N/A
Station Brunswick, GA - Construct New Station	Provide new station facilities to replace original station boathouse destroyed by fire. Appropriately sized facilities (vice temporary facilities on leased land) will improve the station s capability to perform vessel maintenance, and create a better work environment for station personnel	X	X	X			Fully functional, multi-mission station building will replace the current temporary facility	N/A
Consolidate Engineering Logistics Center - Phase I CG Yard MD	Consolidate Engineering Logistics Center (ELC) functions at the Coast Guard Yard. This will allow the Coast Guard to vacate leased warehouse space located over 20 miles away, and create additional savings through fleet reductions. ELC will gain efficiency in operation. The ELC currently occupies 21 different buildings at three different sites either at the Coast Guard Yard or in leased facilities nearby	X	X	X	X	X	Phase I involves constructing an addition onto the existing warehouse. Phase 2 is planned to construct another support facility at the Yard to consolidate all the ELC organizations now scattered in leased space	N/A
Group Port Angeles, WA - Construct Supply Bldg	Efficiencies due to consolidation of all supply, storage, and warehousing functions at Group/Air Station Port Angeles, WA into one building	X	X	X	X	X	Several deteriorated buildings will be replaced by a single modern appropriately sized, energy efficient building. Upon completion of construction, existing deteriorated buildings will be demolished	N/A
Consolidation of Kodiak Aviation Support and C 130J Requirements	Modern, safe, properly sized and functional facilities for several ISC Kodiak tenants and support functions. Several deteriorated and functionally obsolete buildings will be demolished resulting in significant reductions in overall ISC Kodiak building square footage. Consolidation in a single facility will improve overall efficiency and will result in significant savings in building maintenance and energy costs at the ISC	X	X	X	X	X	Hangar II will undergo a complete renovation and seismic upgrade. Hangar II is part of the Kodiak National Historic Landmark District as such renovations will be coordinated with appropriate federal and local agencies. Following Hangar II renovations several deteriorated ISC Kodiak buildings will be demolished as part of this project	N/A
ISC Boston Building 8 Utilities	Modern, adequately sized and code compliant building utilities to properly serve the various offices and support spaces within Building 8. The 100 year old building is a former warehouse and is currently used as office and support spaces for ISC Boston. Upgrade will enable electrical, plumbing, heating, and telecommunications systems to cope with current demand, and will bring utility systems into compliance with current building codes	X	X	X	X	X	Replace existing antiquated boilers, electrical, sanitary telecommunication, ventilation, and various other systems	N/A
Personnel and Related Support								
Direct personnel costs	Human resources for ACAI planning, design, engineering, contracting, project management, quality assurance and logistics support to ensure products and services acquired through the ACAI appropriation are completed on time, on budget, and in compliance with performance requirements	X	X	X	X	X	Fund salaries, compensation and support costs (including annual pay raise and COLA) for personnel who manage, execute and administer the Acquisition, Construction and Improvements (AC&I) Program	Increase in the FY08 request to support new AC&I projects.
Core acquisition costs	Allows the Coast Guard to fully comply with appropriations law and to maintain an effective acquisition process by providing AC&I resources that are not project specific. Provides the Coast Guard with the ability to maintain core competencies and capabilities to execute assigned workload	X	X	X	X	X	Information resource management, quality assurance, human resource management, and other development funding to support major acquisition project development	N/A

Performance Targets

Goal		Measure	Actual (1995-1999)								Targets			
			1995	1996	1997	1998	1999				2001	2002	2003	2004
Search and Rescue	Save all mariners in distress	% of lives saved	85%	84%	84%	84%	87.5%	85%	82.7%	no	85%	85%	85%	85%
Maritime Worker Fatalities	Eliminate crewmember fatalities on US commercial vessels	fatalities per 100,000 workers	44	45	50	48	54	48	42	yes	44	42	40	38
Passenger Vessel Fatalities	Eliminate Passenger Vessel Fatalities	fatalities	31	16	15	28	29	23	15.4	yes	22	19	19	19
Recreational Boating Fatalities	Eliminate Recreational Boating Fatalities	fatalities	888	770	857	864	778	763	742	yes	742	742	742	742
Drug Interdiction	Reduce the flow of illegal drugs	% of cocaine seized	6.6 %	5.30%	16.30%	10.10%	12.24%	13%	10.6%	no	15%	18.70%	20.7%	22.7%
Illegal Migrant Imerdiction	Eliminate the flow of undocumented migrants entering the U.S.	% of entry attempts	25.1%	8.5%	5.8%	8.9%	13.3%	13%	11%	yes	13.0%	13.0%	13.0%	13.0%
Foreign Fishing Vessel Incursions	Eliminate illegal encroachment of the EEZ	# of incursions		213	145	216	428	202	170	yes	202	202	202	202
Oil Spills	Eliminate oil discharged into the water from maritime sources	gallons spilled/ million gal shipped	6.6	7.2	1.8	3.1	2.7	4.1	4.6	no	4	3.6	3.8	3.4
Plastic and Garbage Debris	Eliminate plastics and garbage discharged into the water from maritime sources	items per mile of shoreline surveyed	52	48	56	54	41	55	not yet available	---	50	48	46	46
Living Marine Resources	Effectively enforce federal regulations that provide stewardship of living marine resources and their environments	% of overished species	---	---	---	---	---		-8%	-9%	no	1%	5%	9%	15%
Aids to Navigation	Maximize vessel mobility within ports and waterways	navigational aid availability (% of days)	99.20%	98.30%	98.80%	98.90%	98.40%	99.7%	98.7%	no	99.70%	99.70%	99.70%	99.70%
Vessel Traffic	Eliminate vessel collisions allisions and groundings	# of collisions, allisions and groundings (all commercial vessels)	2517	2716	2456	2439	2184	2380	2164	no	2204	2183	2085	1966
Domestic Icebreaking	Maintain the navigation season in icebound areas of the Great Lakes	closures (# of days)	-	7	0	0	0	2 or 8	0	yes	2 or 8	2 or 8	2 or 8	2 or 8
Polar Operations	Provide icebreaking capability needed to support national interest in the Polar Regions	% of requested support met	-	--	100%	100%	100%	100%	100%	yes	100%	100%	100%	100%
Military Readiness	Achieve and sustain complete military readiness for CG units as required by DOD	% of days the designated # of assets are ready	--	--	--	--	4%	100%	51%	no	100%	100%	100%	100%
Military Operations	Provide core competencies when requested by DOD or Dept. of State	% of requests met	--	100%	100%	100%	100%	100%	89%	yes	100%	100%	100%	100%

= Met or exceeded target

= Concern, trend improving

= Concern, trend worsening

= Serious Concern

U.S. Department of Transportation

BUDGET ESTIMATES
FISCAL YEAR 2002

FEDERAL HIGHWAY ADMINISTRATION

SUBMITTED FOR USE OF
THE COMMITTEES ON APPROPRIATIONS

(610)

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

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DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

GENERAL STATEMENT

The FY 2002 budget request for the Federal Highway Administration (FHWA) reflects the funding levels as enacted in the Transportation Equity Act for the 21st Century (TEA-21) and provides full funding of the highway "guarantee" level. The highway system serves as the backbone to the Nation's intermodal transportation infrastructure and is an indispensable component of our economy. Our challenge is to maintain our high-quality network while achieving our goals to improve safety and mobility and protect the natural environment. The budget request for the FHWA will allow us to meet this challenge by building on TEA-21 and providing the guaranteed funding in TEA-21. The budget combines the continuation and improvement of current programs with new initiatives to meet key national transportation priorities.

Transportation safety continues to be our highest priority. The FHWA works to identify top roadway and vehicle safety issues and countermeasures. Safety construction programs will contribute in correcting unsafe roadway design, removing roadway hazards, and in funding other safety construction programs. While transportation is much safer than it was a decade ago, it still takes a terrible toll. More than 41,000 Americans die and 3.2 million are injured in motor vehicle crashes on our highways each year. We are committed to continuing to increase safety, recognizing that this requires a strong effort in the face of rapid growth in travel, as well as changing demographics, such as the increase in older drivers and the growing dispersion of housing, shopping and other services. To meet its highway safety goal, FHWA will focus safety programs on high risk areas through technical assistance, research, training, data analysis, and public information. The Intelligent Transportation Systems (ITS) program is developing and deploying technologies to help States and localities improve traffic flow and safety on streets and highways.

This budget also strongly supports achievement of our other strategic goals of mobility, economic growth and trade, human and natural environment, and national security. We are committed, along with our partners at the State and local levels, to continuing to maintain, operate and improve the transportation system to guarantee continued mobility across the Nation, which is necessary for us to compete effectively in a global marketplace and enjoy a higher standard of living. The increases requested in this budget are critical to meeting those challenges.

Summary of Budget Levels

The following is a brief summary of our budget for FY 2002 for our core business areas, as well as for our cross-cutting areas of research and technology, and salaries and administrative expenses. The FY 2002 budget includes $4.520 billion in revenue aligned budget authority (RABA), of which $45 million will be for a pilot program that promotes innovative transportation solutions for people with disabilities, $100 million will be available for a matching grant program to promote access to alternative methods of transportation, and $56.3 million will be for infrastructure improvements and new construction of state border inspection facilities. The use of every dollar in authorized funds for Research and Technology is critical to achieving our mobility and safety goals in the future. With these requested levels and with the expected investment of our partners, we will be able to move toward achievement of our strategic goals and accomplish the agency's mission.

Federal-aid Program

Our FY 2002 submission reflects a total obligation level of nearly $31.987 billion for the Federal-aid highway program for FY 2002, which includes $4.520 billion in RABA. Our Nation has been reaping the benefits of record level funding for surface transportation as authorized in TEA-21. The guaranteed funding levels tied to Highway Trust Fund receipts is providing the States with the resources to support the Nation's highway infrastructure as the Congress intended. Our FY 2002 budget reflects this guaranteed level in this fifth year of the six-year authorization to continue the commitment made to the traveling public in TEA-21, and to meet our strategic goals contained in the Department's Strategic Plan and achieve the performance measures contained in the Department's Performance Plan.

Research and Technology

The TEA-21 authorizes FY 2002 contract authority for research and technology programs, including Intelligent Transportation Systems, totaling $529 million. This includes $56 million from RABA. Our FY 2002 budget includes the full funding levels contained in TEA-21 and proposes to exclude research and technology programs from the proportionate obligation limitation reduction so that all contract authority will be available for use.

The need to maintain a strong research program was recognized in TEA-21. As a result, FHWA continues to develop and test new technologies, including ITS. The TEA-21 also launched the deployment of intelligent transportation infrastructure by clarifying ITS funding eligibilities under the National Highway System, Surface Transportation Program, and Congestion Mitigation and Air Quality program, and the creation of the ITS Integration and Commercial Vehicle ITS Infrastructure incentive programs. In keeping with the TEA-21 framework, this budget is proposed in two parts: (1) a program of research and technology transfer activities similar to those carried out under the Intermodal Surface Transportation Efficiency Act with the technical support necessary to achieve integrated deployment of ITS; and (2) an incentives program that supports the integrated deployment of metropolitan, rural, and commercial vehicle ITS infrastructure.

Salaries and Administrative Expenses
This budget requests a funding level of $318 million for the necessary salaries and benefits for 2,427 FTE, for ongoing administrative expenses, and special initiatives. The requested funds for our administrative operations in support of our Federal-aid program include modest adjustments for mandatory salary and benefit increases, other adjustments for current service levels, an increase in employee development funds to better prepare our staff as we continue to deliver a record level Federal-aid program, and an increase to support our shift in focus to technology support and technical assistance. Our upgraded mission critical application systems will enable us to deliver FHWA's programs more efficiently to our customers and partners.

10 Year History - Enacted Levels
($ in Thousands)

	FY1992	FY1993	FY1994	FY1995	FY1996	FY1997	FY1998	FY1999	FY2000	FY2001
Federal-Aid Highways										
(Obligation Limitation)	$16,055,364	$15,506,790	$17,560,000	$17,021,415	$17,532,985	$18,892,630	$21,500,000	$25,511,000	$25,873,436	$29,886,176
(Liquidation of Contract Authority)	$15,400,000	$19,000,000	$18,000,000	$17,000,000	$19,200,000	$19,800,000	$20,800,000	$24,000,000	$26,000,000	$28,000,000
(Exempt Obligations)	$1,853,864	$2,477,950	$2,534,000	$2,856,371	$1,667,281	$1,811,900	$764,460	$1,424,047	$739,000	$739,000
								$0		
Supplemental Emergency Relief Funds	$30,000	$175,000	$1,265,000	$0	$300,000	$732,000	$259,000	$0	$0	$718,416
State Infrastructure Banks	$0	$0	$0	$0	$0	$150,000	$0	$0	$0	$0
Appalachian Development Highway System	$0	$0	$0	$0	$0	$0	$300,000	$0	$0	$0
LGOE/LAE	$419,000	$398,000	$468,204	$478,050	$483,243	$519,089	$552,298	$324,767	$304,355	$284,470
Admin Expenses - LGOE	$(212,200)	($236,200)	($251,972)	($252,404)	($245,797)	($248,131)	($259,568)	($271,362)	($304,355)	($284,470)
Admin Expenses - Motor Carrier Safety	$(0)	($47,317)	($48,857)	($48,899)	($46,000)	($49,000)	($51,000)	($53,375)	($0)	($0)
GOE Contract Programs	$(206,800)	($114,483)	($168,478)	($176,747)	($201,446)	($221,958)	($241,708)	($0)	($0)	($0)
University Transportation Centers	$5,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Highway Related Safety Grants										
(Contract Authority)	$20,000	$10,000	$10,000	$10,800	$11,000	$0	$0	$0	$0	$0
(Obligation Limitation.)	$9,337	$10,000	$10,000	$10,800	$11,000	$0	$0	$0	$0	$0
Railroad Highway Crossings Demo	$12,005	$3,664	$30,262	$0	$0	$0	$0	$0	$0	$0
ROW Revolving Fund	$42,500	$42,500	$42,500	$42,500	$0	$0	$0	$0	$0	$0
Motor Carrier Safety - (Admin. Exp. & R&D)	$47,800	$0	$0	$0	$0	$0	$0	$0	$0	$0
Motor Carrier Safety Grants										
(Liquidation of Contract Authorization)	$82,000	$86,000	$88,000	$73,000	$98,000	$74,000	$86,000	$100,000	$0	$0
(Obligation Limitation)	$86,000	$86,000	$86,000	$74,000	$77,226	$78,225	$84,825	$100,000	$0	$0
Miscellaneous Appropriations	$560,574	$322,612	$148,562	$362,055	$0	$0	$0	$332,000	$0	$804,667
Orange County Toll Road	$0	$9,600	$0	$8,000	$0	$0	$0	$0	$0	$0
High Priority Corridors	$0	$0	$0	$8,000	$0	$0	$0	$0	$0	$0
Miscellaneous Highway Trust Fund	$37,800	$15,600	$7,800	$0	$0	$0	$0	$0	$0	$1,438,866
Metropolitan Planning	$3,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Highway Studies	$750	$0	$0	$0	$0	$0	$0	$0	$0	$0

FEDERAL HIGHWAY ADMINISTRATION

LIMITATION ON ADMINISTRATIVE EXPENSES
(Formerly "Limitation on General Operating Expenses", FY 1992-1999)

ESTIMATES			LIMITATION		
1992	$352,024,000		1992	$419,000,000	
1993	433,533,000	1/	1993	398,000,000	
1994	488,961,000		1994	468,856,000	
1994 Investment	[70,000,000]				
1995	598,445,000		1995	521,796,000	2/
1995 Supp. (Rescission)	0		1995 Supp. (Rescission)	-54,550,000	
1996	689,486,000	3/	1996	493,243,000	4/
1997	652,905,000		1997	519,088,910	5/
1998	494,376,000		1998	551,656,000	7/
1999	521,883,000	6/	1999	324,767,000	8/
2000	344,616,000		2000	304,355,000	9/ 10/
2001	315,834,000		2001	294,469,738	11/
2002	317,693,000		2002		

1/ Prior to FY 1993, Motor Carrier Safety (MCS) administrative expenses were funded from the General Fund. The fiscal year 1993 budget proposed to include MCS within this limitation at $56,826,000.

2/ Reflects reductions of $610,000 for working capital fund (Section 330), $474,000 for bonuses and awards (Section 331), and $2,461,000 for procurement reform (Section 323) contained in P.L. 103-331.

3/ Proposed legislation would replace this with funding through the Unified Transportation Infrastructure Investment Program.

4/ Reflects reductions of $1,658,000 for working capital fund (Section 327) and $14,003,000 for bonuses and awards (Section 349) and field office consolidation (Section 335) contained in P.L. 104-50. Also reflects reduction of $756,000 for Department-wide reduction contained in Section 30012 of P.L. 104-134.

5/ Reflects reduction of $1,883,438 for TASC (Section 321) and $141,652 for awards (Section 346) contained in P.L. 104-205.

6/ Proposal included funding for research and technology programs; however, the Transportation Equity Act for the 21st Century (P.L. 105-178) amended Section 104(a) of title 23, United States Code, so that research programs could not be funded within this limitation. Therefore, enacted limitations do not include research.

7/ Reflects reduction of $610,000 for TASC contained in Section 320 of P.L. 105-66.

8/ Reflects reduction of $2,646,000 for TASC contained in Section 320 of P.L. 105-277.

9/ Reflects reduction of $1,233,000 for across-the-board TASC reduction contained in Section 319 of P.L. 106-69.

10/ In FY 2000, the Motor Carrier Safety Improvement Act of 1999 (P.L. 106-159, signed 12/9/99) split the Office of Motor Carriers out of the Federal Highway Administration (FHWA) and created the Federal Motor Carrier Safety Administration (FMCSA). As a result, the amount shown reflects a reduction of $70,484,000 that was transferred from the FHWA to the FMCSA for the administrative expenses of the new agency.

11/ Reflects reduction of $649,262 (22%) for government-wide rescission contained in Section 1403 of P.L. 106-554.

FEDERAL-AID HIGHWAYS
(LIMITATION ON OBLIGATIONS)
(HIGHWAY TRUST FUND)

ESTIMATES		LIMITATION	
1992	$15,722,000,000	1992	$16,055,364,000 1/
1993	18,898,000,000	1993	15,506,790,201 2/
1993 Emer. Supp	2,976,250,000	1993 Emer. Supp	0
1994	18,398,000,000	1994	17,590,000,000
1994 Investment	[2,657,427,750]		
1995	19,969,078,000	1995	17,398,515,791 3/ 4/
		1995 Supp. (Rescission)	-135,040,000 5/
1996	20,254,255,000 6/	1996	17,744,307,990 7/ 8/
1997	17,714,000,000	1997	18,226,329,563 9/ 10/
		1997 Emer. Supp	694,810,534
1998	18,170,000,000	1998	21,500,000,000
1999	21,500,000,000	1999	25,511,000,000
2000	27,312,230,000 11/	2000	25,873,214,891 11/ 12/ 13/
2001	29,318,806,000 14/	2001	29,596,175,852 14/ 15/
2002	31,563,157,000 16/	2002	

1/ Reduced pursuant to Section 1004 of P.L. 102-240, Intermodal Surface Transportation Efficiency Act of 1991

2/ Includes bonus obligation limitation of $180,040,201 in accordance with Section 310(e) of P.L. 102-388

3/ Reflects reductions of $610,000 for working capital fund (Section 330), $474,000 for bonuses and awards (Section 331), and $2,461,000 for procurement reform (Section 323) under P.L. 103-331

4/ Includes bonus obligation limitation of $242,060,791 in accordance with Section 310(e) of P.L. 103-331

5/ Includes $2,850,000 for FY 1995 Department-wide reduction and reduction of $132,190,000 to programs subject to the obligation limitation contained in P.L. 104-19

6/ Proposed legislation would replace this with funding through the Unified Transportation Infrastructure Investment Program (-$20,054,255,000).

7/ Reflects reductions of $1,692,073 for working capital fund (Section 327), $4,427 for bonuses and awards (Section 349), and $14,192,000 for field office consolidation (Section 335) contained in P.L. 104-50. Also reflects reduction of $1,146,000 for Department-wide reduction contained in Section 30012 of P.L. 104-134.

8/ Includes bonus obligation limitation of $211,342,490 in accordance with Section 310(e) of P.L. 104-50

9/ Reflects reductions of $2,001,532 for TASC (Section 321) and $178,512 for bonuses/awards (Section 346) contained in P.L. 104-205

10/ Includes bonus obligation limitation of $228,509,607 in accordance with Section 310(e) of P.L. 104-205

11/ Includes $1,456,350,000 in revenue aligned budget authority in accordance with Section 8101(d) of the Transportation Equity Act for the 21st Century (P.L. 105-178)

12/ Reflects reduction of $105,260,000 (38%) for government-wide rescission contained in Section 301, Title III, Appendix E of the FY 2000 Omnibus Appropriations Act (P.L. 106-113). Also reflects reduction of $1,046,816,709 for amounts transferred to the Federal Transit Administration persuant to Section 104(k) of title 23, United States Code.

13/ In FY 2000, the Motor Carrier Safety Improvement Act of 1999 (P.L. 106-159, signed 12/9/99) split the Office of Motor Carriers out of the Federal Highway Administration (FHWA) and created the Federal Motor Carrier Safety Administration (FMCSA). As a result, the amount shown reflects a reduction of $76,058,400 that was transferred from the FHWA to the FMCSA for operations and research expenses of the new agency

14/ Includes $3,058,000,000 in revenue aligned budget authority in accordance with Section 8101(d) of the Transportation Equity Act for the 21st Century (P.L. 105-178)

15/ Reflects transfer of $375,000 to the Federal Motor Carrier Safety Administration for programs funded from the administrative takedown. Also reflects additional reduction of $65,251,148 (22%) for government-wide rescission contained in Section 1403 of P.L. 106-554.

16/ Includes $4,543,000,000 in revenue aligned budget authority in accordance with Section 8101(d) of the Transportation Equity Act for the 21st Century (P.L. 105-178), less $22,837,000 which is shown under "Motor Carrier Safety Grants" to reflect the portion going to that program under the distribution method authorized in Section 110 of title 23, United States Code

FEDERAL-AID HIGHWAYS
(LIQUIDATION OF CONTRACT AUTHORIZATION)
(HIGHWAY TRUST FUND)

ESTIMATES		APPROPRIATIONS	
1992	$14,900,000,000	1992	$15,400,000,000
1993	19,200,000,000	1993	19,000,000,000
1994	18,000,000,000	1994	18,000,000,000
1994 Investment	[500,000,000]		
1995	17,000,000,000	1995	17,000,000,000
1996	19,200,000,000	1996	19,200,000,000
1997	19,800,000,000	1997	19,800,000,000
1998	19,800,000,000	1998	20,800,000,000
1999	23,000,000,000	1999	24,000,000,000
2000	26,000,000,000	2000	26,000,000,000
2001	28,000,000,000	2001	28,000,000,000
2002	30,000,000,000	2002	

FEDERAL-AID HIGHWAYS
(HIGHWAY TRUST FUND)
RESCISSIONS

ESTIMATES		RESCISSIONS	
1992		1992	
1993		1993	
1994		1994	-$564,180
1994 Supp		1994 Supp	-11,995,612

In fiscal year 1994 (P L. 103-122), rescissions of $564,180 were made from the following projects

Interstate Route 170 (Highway Trust Fund) (P.L. 96-131)	$200,000
Federal-aid highways (Highway Trust Fund) (P.L. 100-71)	364,180
	564,180

The fiscal year 1994 supplemental (P.L. 103-211) provided for rescissions of $11,995,612 from the following projects.

Lawyersburg Road, PA (Highway Trust Fund)	$2,517,473
Bridges on Federal dams (Highway Trust Fund)	9,478,139
	11,995,612

FEDERAL-AID HIGHWAYS
(EMERGENCY FUNDING)
(HIGHWAY TRUST FUND)

ESTIMATES		APPROPRIATIONS		
1992 Dire Emergency Supp...	$0	1992 Dire Emergency Supp...	$30,000,000	1/
1993 Midwest Flood Supp. ...	175,000,000	1993 Midwest Flood Supp ...	175,000,000	2/
1994 Supp	1,665,000,000	1994 Supp	1,265,000,000	3/
		1995 Supp. (Rescission).....	-100,000,000	4/
		1996 Omnibus	300,000,000	5/
		1997 Omnibus.	82,000,000	6/
1997 Emerg. Supp.....	0	1997 Emerg. Supp.	650,000,000	1/
1998 Supp.....	259,000,000	1998 Supp	259,000,000	
1999.....	0	1999.....	0	
2000	0	2000.....	0	
2001.....	0	2001.....	718,416,000	7/
2002.....	0	2002.....		

1/ Appropriation entitled, "Emergency Relief".

2/ P.L. 103-75 contained an emergency relief appropriation for the Midwest Floods, $75,000,000 of which was apportioned in fiscal year 1994

3/ P.L. 103-211 contained emergency relief appropriations of $950,000,000 for the Southern California earthquake of January 1994 and $315,000,000 for the Loma Prieta (San Francisco, CA) earthquake of October 1989

4/ P.L. 104-19 rescinded $100,000,000 of the appropriation made available in P.L. 103-211.

5/ P.L. 104-134 contained an emergency relief appropriation of $300,000,000 for the January 1996 flooding in the Mid-Atlantic, Northeast, and Northwest States and other disasters.

6/ P.L. 104-208 contained an emergency relief appropriation of $82,000,000 for Hurricanes Fran and Hortense

7/ P.L. 106-346 contained an appropriation $720,000,000 for the "Emergency Relief Program", which was then reduced by $1,584,000 (22%) for government-wide rescission contained in Section 1403 of P.L. 106-554

MISCELLANEOUS HIGHWAY TRUST FUNDS
(HIGHWAY TRUST FUND)

ESTIMATES		APPROPRIATIONS	
1992	$0	1992	$69,103,333
1993	0	1993	325,014,667
1994	0	1994	7,800,000
		1994 Supp. (Rescission)	-1,520,000
1995	0	1995	0
		1995 Emer. Supp (Resc.)	-9,017,271
1996	0	1996	0
1997	0	1997	0
1998	0	1998	0
1999	0	1999	0
2000	0	2000	1,500,000
2001	0	2001	1,182,492,780 1/
2002	0	2002	

1/ Reflects reduction of $2,607,220 (22%) for government-wide rescission contained in Section 1403 of P.L. 106-554.

In fiscal year 1992, appropriations were provided out of the Highway Trust Fund for the following miscellaneous projects:

Intermodal Urban Demonstration Project	$9,000,000
Highway Safety and Economic Development Demonstration Projects	19,800,000
Highway-Railroad Grade Crossing Safety Demonstration Project	4,500,000
Baltimore-Washington Parkway	19,800,000
Trust Fund Share of Other Highway Programs	8,003,333
University Transportation Centers	5,000,000
Metropolitan Planning	3,000,000
	69,103,333

In fiscal year 1993, appropriations were provided out of the Highway Trust Fund for the following miscellaneous projects:

Intermodal Urban Demonstration Project	$3,200,000
Highway Safety and Economic Development Demonstration Projects	6,400,000
Trust Fund Share of Other Highway Programs	2,442,667
Highway Safety Improvement Demonstration Project	6,000,000
Highway Widening and Improvement Demonstration Project	1,344,000
Climbing Lane and Highway Safety Demonstration Project	3,840,000
Alabama Highway Bypass Demonstration Project	3,200,000
Kentucky Bridge Demonstration Project	6,400,000
Virginia HOV Safety Demonstration Project	1,600,000
Urban Highway Corridor and Bicycle Transportation Demonstration Project	3,392,000
Urban Airport Access Safety Demonstration Project	3,840,000
Pennsylvania Reconstruction Demonstration Project	6,400,000
Pennsylvania Toll Road Demonstration Project	3,200,000
Highway Projects	273,756,000
	325,014,667

In fiscal year 1994, appropriations were provided out of the Highway Trust Fund for the following miscellaneous projects:

Mineola Grade Crossing	$7,800,000
	7,800,000
Rescissions (P.L. 103-211):	
U.S. 101 scenic byway, CA	-$480,000
Northeast Dade Bikepath, 1992, FL	-400,000
Donora Park access road, PA	-640,000
	-1,520,000

The fiscal year 1995 emergency supplemental appropriations and rescissions for the Department of Defense (P.L. 104-6) provided for rescissions of $9,017,271 from the following demonstration project:

Vehicular and pedestrian safety (P.L. 100-71)	-$9,017,271
	-9,017,271

In fiscal year 2000, the FY 2001 Military Construction Appropriations Act (P.L. 106-246, signed 7/13/00) included appropriations out of the Highway Trust Fund for the following miscellaneous projects:

Highway 8, from the MN border, to Highway 51 in WI, study of improvements (Section 2607)	$500,000
Halls Mill Road in Monmouth County, NJ, construction & improvements (Section 2608)	1,000,000
	1,500,000

In fiscal year 2001, appropriations were provided out of the Highway Trust Fund for the following miscellaneous projects (amounts shown after 22% reduction).

Section 378 of P.L. 106-346:	
Bridges and other projects on the Dalton Highway, Alaska: construction & improvements	$30,133,560
Glenn Highway/George Parks Highway interchange in Alaska: construction & improvements	49,890,000
Birmingham, Alabama, Northern Beltline: design & construction	34,024,980
I-49 in the State of Arkansas: construction & improvements	93,793,200
US 63 in Jonesboro, Arkansas: construction & improvements	9,978,000
Alameda Corridor-East Gateway to American Trade corridor project, California: constr. & impr.	1,496,700
Extension of Hwy. 180 from City of Mendota to I-5 in Fresno County, California: construction	34,923,000
17th & 23rd Avenues highway ramps in Denver, Colorado: construction & improvements	8,481,300
I-95 to Transitway access project in Stamford, Connecticut: construction & improvements	7,982,400
Norwich, Connecticut intermodal facility project: construction & improvements	3,492,300
Route 7 North bypass in Brookfield, Connecticut: construction & related activities	24,945,000
John F. Kennedy Center for the Performing Arts in the District of Columbia	9,978,000
US 19 in Pinellas County, Florida: construction & improvements	39,912,000
Hamakua-Hilo corridor road and bridge projects, Hawaii: construction & improvements	4,490,100
Kahuku Bridges, Hawaii: construction & improvements	4,989,000
Kekaha, Kauai access roads, Hawaii: construction & improvements	3,991,200
Kihei Road, Hawaii: construction & improvements	2,494,500
Saddle Road, Hawaii: construction & improvements	4,989,000
Avenue G viaduct and connector roads in Council Bluffs, Iowa: construction & improvements	3,991,200
Dayton Road in Ames, Iowa: improvements	3,192,960
Hoeven Valley corridor, Sioux City, Iowa: road, intersection, and rail crossing improvements	6,385,920
I-235 in Polk County, Iowa: municipality relocation costs	6,385,920
I-35 from Des Moines to Ankeny, Iowa: environ. work, prelim. survey and design, & reconstr.	11,973,600
I-15 between milepost 0 and milepost 16, from Utah border to Deep Creek, Idaho: construction	13,470,300
US Department of Transportation structure #289-961-H at FAS Route 37 in Illinois	3,991,200
I-435 at Donahoo Road in Wyandotte County, Kansas: construction of new interchange	8,680,860

US 54 in Kansas: construction & improvements	3,991,200
US 73 from State Avenue North to Marxen Road in Wyandotte County, KS: improvements	4,989,000
US 231 from Bowling Green to Scottsville, Kentucky: construction & improvements	13,470,300
Kansas Lane Connector Road alignment project in Monroe, LA: constr. & improvements	5,487,900
Padanaram and Little River Road bridge projects in Dartmouth, Massachusetts	1,496,700
Potee Street Bridge in Baltimore, Maryland: reconstruction activities	10,975,800
Ambassador Bridge Gateway project in Detroit, Michigan: construction & improvements	14,967,000
US 53 from Minnesota Highway 169 north of Virginia, Minnesota, to Cook, Minnesota	19,956,000
Niangua Bridge on Route 5 in Camden County, Missouri: construction & improvements	2,594,280
Upgrade Highway 36 in Marion County, Missouri, to 4-lane divided highway	9,978,000
Upgrade Highway 60 in Shannon and Carter counties, Missouri, to 4-lane divided highway	9,978,000
Extension of Hwy. 44, including a bridge over the Pearl River, in Lawrence County, MS	4,989,000
I-69 Great River Bridge crossing the Mississippi at Bolivar County, Mississippi: prelim. design	7,982,400
US 82 bridge over the Mississippi River at Greenville, Mississippi: constr. & improvements	99,780,000
Intersection at 27th Street and Airport Road in Billings, Montana: constr. & improvements	14,967,000
North Shore Road in Swain County, North Carolina: construction & improvements	15,964,800
Four Bears Bridge in North Dakota: construction & improvements	34,923,000
Missouri River pedestrian crossing in Omaha, Nebraska construction & improvements	12,971,400
Broad St. Parkway in Nashua, New Hampshire: constr. of road expansion & improvements	11,973,600
Broad St. & Wyckoff Rd. intersection, including traffic light upgrades, Eatontown, New Jersey	149,670
County Route 605 in Delaware Township and West Amwell Township, Hunterdon County, NJ	1,197,360
Halls Mill Road in Freehold Township and Monmouth County, New Jersey: reconstruction	7,982,400
Lewisville Road in Lawrence Township, New Jersey: reconstruction	498,900
NJCDC Training Facility Project in Paterson, New Jersey	4,989,000
Reconstruction of Institute St., Lockwood Ave., First St., Second St., etc. in the Freehold, NJ	249,450
Rosedale Road and Provinceline Road intersection in Princeton, New Jersey: improvements	249,450
Route 35 at Clinton Avenue and other intersections in the Borough of Eatontown, New Jersey	498,900
Route 35 in the Borough of Eatontown, NJ: corridor improvements, including signal upgrades	498,900
Route 641 in Hunterdon County, New Jersey: improvements	997,800
Route 9 and Route 520 intersection in Marlboro Township, New Jersey: improvements	2,494,500
School Road East in Marlboro Township, New Jersey: reconstruction	1,197,360
Township of Princeton, New Jersey, municipal complex road improvements	498,900
Craig Road overpass between I-15 and Lossee Road in City of North Las Vegas, Nevada	4,989,000
Hoover Dam bypass four-lane bridge: environmental work, design, & construction	19,956,000
I-15 Southbound project, Nevada: construction & improvements	9,978,000
I-80/US 395 interchange in Reno, Nevada: construction & improvements	9,978,000
US 95 between Laughlin Cutoff and Railroad Pass, Nevada: construction & improvements	9,978,000
I-87 in New York: border crossing improvements	2,793,840
Midtown West intermodal ferry terminal New York City, New York: constr. & improvements	9,279,540
Route 17 in Chemung County, New York: grade crossing eliminations	1,197,360
Van Wyck Expressway, Queens County, New York: improvements	997,800
Fort Washington Way reconfiguration project, Cincinnati, Ohio: construction & improvements	9,978,000
Martin Luther King, Jr. Bridge in Toledo, Ohio: construction & improvements	3,192,960
MacArthur Boulevard in Oklahoma City, Oklahoma: relocation & related construction activities	4,190,760
US 101 in Oregon: construction & improvements	4,989,000
Intelligent transportation infrastructure program (Sec. 5117(b)(3) of TEA-21)	49,890,000
Lafayette St. access improvements from US 202 Dannehower Bridge to PA Turnpike	9,978,000
Route 309 Expressway between Limekiln Pike and SR 63 in Montgomery County, PA	4,989,000
I 195 in Rhode Island, construction & improvements	9,978,000
Cooper River Bridge in South Carolina: construction & improvements	29,934,000
Widening, relocation, and other improvements to South Carolina Highway 5	9,728,550
Southeast Connector Route between I-90 and SD 79 in South Dakota	28,936,200
US 12 between Aberdeen and I-29 in South Dakota: construction & improvements	23,548,080
I-69 in Tennessee: environmental work, preliminary survey and design	18,359,520

US 281 at FM 2812, FM 162, FM 490, SP 122, & SH 186 in Texas: construct interchanges.	9,978,000
US 77 at Business 77 North, FM 3186, FM 490, SP 122, and SP 413 in Texas.	12,472,500
Route 2 between St. Johnsbury, Vermont and the New Hampshire State Line	3,991,200
Route 9 Bennington Bypass, Vermont: construction & improvements	5,986,800
Cascade Gateway Border Project, Whatcom County, Washington	997,800
FAST Corridor in Washington: construction & improvements	23,947,200
SR 99 in Shoreline, Washington: improvements, including traffic signal system upgrades.	4,989,000
I-39/US 51/SH 29 corridor (Wausau Beltline) in and around Wausau, Wisconsin	35,920,800
Interchange at County Hwy. J & US 10 and upgrade segment of US 10 in Portage County, WI	3,991,200
US 50 Parkersburg bypass in West Virginia, construction & improvements	24,945,000
SR 789 between Lander and Hudson, Wyoming: widening and overlay/guard rail work.	12,372,720

P.L. 106-554:

Commercial Remote Sensing Products & Spacial Info. Tech. (I-10 in MS) (Section 1109).	$3,991,200
Farm-to-market roads in Tulare County, CA (Section 1121)	2,394,720
Main Street Corridor in Houston, TX (Section 1128)	1,696,260
Stillwater Lift Bridge between MN and WI (Section 1128)	4,989,000
McClung Road, etc. in the City of LaPorte, IN (Section 1128)	997,800
U.S. 36/Wadsworth Interchange in Broomfield County, CO (Section 1128)	997,800
	1,182,492,780

MISCELLANEOUS APPROPRIATIONS

ESTIMATES		APPROPRIATIONS	
1992	$0	1992	$540,725,667
1993	0	1993	16,861,333
1994	0	1994	148,562,000
		Rescission	-3,059,960
		1994 Supp. (Rescission)	-28,212,843
1995	0	1995	352,055,000
		1995 Emer. Supp (Resc.)	-2,987,179
1996	0	1996	0
1997	0	1997	0
1998	0	1998	0
1999	0	1999	200,000,000
2000	0	2000	0
2001	0	2001	604,666,800 1/
2002	0	2002	

1/ Reflects reduction of $1,333,200 (22%) for government-wide rescission contained in Section 1403 of P.L. 106-554

In fiscal year 1992, appropriations were provided out of the General Fund of the Treasury for the following miscellaneous highway projects:

Highway Widening Demonstration Project	$1,800,000
Highway Safety Improvement Demonstration Project	16,350,000
Highway Widening and Improvement Demonstration Project	7,200,000
Climbing Lane and Highway Safety Demonstration Project	6,300,000
Indiana Industrial Corridor Safety Demonstration Project	3,600,000
Alabama Highway Bypass Demonstration Project	9,000,000
Kentucky Bridge Demonstration Project	4,500,000
Virginia HOV Safety Demonstration Project	5,400,000
Urban Highway Corridor and Bicycle Transportation Demonstration Project	10,530,000
Urban Airport Access Safety Demonstration Project	9,000,000
Pennsylvania Reconstruction Demonstration Project	8,100,000
Pennsylvania Toll Road Demonstration Project	1,800,000
Highway Bypass Demonstration Project	9,000,000
Highway Demonstration Projects	249,146,000
Highway Studies -- Feasibility, Design, Environmental, Engineering	19,198,000
Corridor G Improvement Program	148,500,000
Corning Bypass Safety Demonstration Project	12,600,000
Turquoise Trail Project	2,700,000
Ottumwa Road Extension Project	7,200,000
North Carolina Connector Project	4,800,000
Railroad-Highway Crossings Demonstration Projects	4,091,667
	540,725,667

In fiscal year 1993, appropriations were provided out of the General Fund of the Treasury for the following miscellaneous highway projects:

Railroad-Highway Crossings Demonstration Projects	$1,221,333
Baltimore-Washington Parkway	15,000,000
Highway Widening Demonstration Project	640,000
	16,861,333

In fiscal year 1994, appropriations were provided out of the General Fund of the Treasury for the following miscellaneous highway projects (P L. 103-122):

Railroad-Highway Crossings Projects	$30,262,000
Baltimore-Washington Parkway	12,800,000
Kentucky Bridge Project	12,000,000
Border Highway Project	6,400,000
Appalachian Corridor Improvement Project	57,000,000
Cumberland Gap Tunnel Project	6,000,000
Lock and Dam No. 4 Bridge	4,000,000
Congestion Mitigation	1,600,000
Cross Westchester Expressway	9,800,000
Schenectady Bridge	3,200,000
Columbia Gorge Highway	2,500,000
Manassas Battlefield Bypass	3,000,000
	148,562,000
Rescission (P L 103-122)	
Intersection safety demonstration project (P L 100-457 and P L 101-516)	-$3,059,960
Rescissions (P L 103-211)	
Sky Harbor Airport access road, 1992 AZ	-$2,100,000
Route 152 improvements, CA	-1,600,000
I-65/I-10 connection study, FL	-583,939
Northeast Dade Bikepath, 1992, FL	-735,250
U.S. 20 Realignment, LA	-1,756,709
State highway 30, IA	-1,440,000
I-70 and 110th Street, KS	-3,446,600
Southeast Kansas corridor study, KS	-1,376,000
I-49/U.S. 167 extension, LA	-600,000
Blackstone River bikeway, MA	-212,032
I-20 interchange, MS	-1,620,000
Pearl River bridge, MS	-1,600,000
Telegraph Avenue/I-255 interchange, MO	-40,000
Lake Road bay outlet bridge, NY	-4,249,893
Albert Street to IR-80, OH	-3,600,000
Pondcreek Road, OK	-2,845,500
U.S. 35 relocation, WV	-406,920
	-28,212,843

In fiscal year 1995, appropriations were provided out of the General Fund of the Treasury for the following miscellaneous highway projects:

Surface Transportation Projects	$352,055,000

The fiscal year 1995 emergency supplemental appropriations and rescissions for the Department of Defense (P.L. 104-6) provided for rescissions of $2,987,179 from the following demonstration projects:

Accelerated Highway Widening (P L. 98-8)	-$1,506,806
Highway Safety Improvement (P.L. 98-473)	-1,453,376
Railroad highway crossing (P.L. 93-87)	-26,997
	-2,987,179

In fiscal year 1999, the FY 1999 Omnibus Consolidated and Emergency Supplemental Appropriations Act (P.L. 105-277) included appropriations out of the General Fund of the Treasury for the following miscellaneous highway projects:

Surface transportation projects located in Massachusetts (Section 111)	$100,000,000
Highway projects in the corridors designated by section 1105(c)(18)(C)(ii) of P.L. 102-240 (Section 114)	100,000,000
	200,000,000

In fiscal year 2001, appropriations were provided out of the General Fund of the Treasury for the following miscellaneous highway projects (amounts shown after 22% reduction).

Woodrow Wilson Memorial Bridge (Section 379 of P.L 106-346)	$598,680,000
Valley Trains and Tours, Virginia (Section 376 of P.L 106-346)	997,800
Muscle Shoals, Tuscumbia, & Sheffield, AL hwy-rail impr. (Section 375 of P L 106-346)	4,989,000
	604,666,800

APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

ESTIMATES		APPROPRIATIONS	
1992		1992	
1993		1993	
1994		1994	
1995		1995	
1996		1996	
1997		1997	
1998	$0	1998	$300,000,000
1999	0	1999	132,000,000
2000	0	2000	0
2001	0	2001	0
2002	0	2002	

In fiscal year 1999, the FY 1999 Omnibus Consolidated and Emergency Supplemental Appropriations Act (P.L. 105-277) included appropriations out of the General Fund of the Treasury for the following projects

Corridor X of the Appalachian development highway system located in Alabama (Section 112).	$100,000,000 0
Appalachian development highway system in the State of West Virginia (Section 113)	32,000,000
	132,000,000

APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM
(HIGHWAY TRUST FUND)

ESTIMATES		APPROPRIATIONS	
1992		1992	
1993		1993	
1994		1994	
1995		1995	
1996		1996	
1997		1997	
1998		1998	
1999		1999	
2000		2000	
2001	$0	2001	$254,402,081 [1/]
2002	0	2002	

[1/] Reflects reduction of $560,919 (0.22 percent) for government-wide rescission contained in Section 1403 of P L. 106-554.

In fiscal year 2001, appropriations were provided out of the Highway Trust Fund for the following projects (amounts shown after .22% reduction):

Appalachian Development Highway System (Section 326 of P L. 106-346)	$54,842,081
Corridor X in Alabama (Section 378 of P.L. 106-346)	99,780,000
Corridor D in West Virginia (Section 378 of P L. 106-346).	99,780,000
	254,402,081

STATE INFRASTRUCTURE BANKS

ESTIMATES		APPROPRIATIONS	
1997	$250,000,000 1/	1997	$150,000,000
1998	150,000,000 1/	1998	0
1999	150,000,000 1/	1999	0
		1999 Emer. Supp. (Rescission)	-6,500,000
2000	0	2000	0
2001	0	2001	0
2002	0	2002	

1/ Proposed to be funded from the Highway Trust Fund

RIGHT-OF-WAY REVOLVING FUND
(LIMITATION ON DIRECT LOANS)
(HIGHWAY TRUST FUND)

ESTIMATES		APPROPRIATIONS	
1992	$0	1992	$42,500,000
1993	42,500,000	1993	42,500,000
1994	42,500,000	1994	42,500,000
1995	42,500,000	1995	42,500,000
1996		1996	
1997		1997	
1998		1998	
1999		1999	
2000		2000	
2001		2001	
2002		2002	

RIGHT-OF-WAY REVOLVING FUND
(LIQUIDATION OF CONTRACT AUTHORIZATION)
(HIGHWAY TRUST FUND)

ESTIMATES		APPROPRIATIONS	
1992	$40,000,000	1992	$40,000,000
1993		1993	
1994		1994	
1994 Supp. (Rescission)		1994 Supp. (Rescission)	-20,000,000
1995		1995	
1996		1996	
1997		1997	
1998		1998	
1999		1999	
2000		2000	
2001		2001	
2002		2002	

HIGHWAY-RELATED SAFETY GRANTS
(LIMITATION ON OBLIGATIONS)
(HIGHWAY TRUST FUND)

ESTIMATES		LIMITATION	
1992	$35,000,000	1992	$9,337,000 1/
1993	20,000,000	1993	10,000,000
1994	10,000,000	1994	10,000,000
1995	10,000,000	1995	10,800,000
1996	10,000,000	1996	11,000,000
1997	0 2/	1997	0 3/
1998	0	1998	0
1999	0	1999	0
2000	0	2000	0
2001	0	2001	0
2002	0	2002	0

1/ Reduced pursuant to Sec. 1004 of P.L. 102-240, Intermodal Transportation Efficiency Act of 1991.

2/ Proposed legislation would transfer this program to the National Highway Traffic Safety Administration's highway-related safety grants program.

3/ P.L. 104-205 transferred this program to the National Highway Traffic Safety Administration's "Highway Traffic Safety Grants" program.

MOTOR CARRIER SAFETY

ESTIMATES			APPROPRIATIONS	
1992	$49,317,000	1/	1992	$47,600,000
1993	[56,826,000]	2/	1993	3/
1994	-	2/	1994	3/
1995		2/	1995	3/
1996	50,000,000	4/	1996	3/
1997		2/	1997	3/
1998		2/	1998	3/
1999		2/	1999	3/
2000		2/	2000	5/
2001			2001	
2002			2002	

1/ Proposed to be funded from the Highway Trust Fund

2/ Proposed to be funded under the "Limitation on General Operating Expenses" within Federal-aid Highways

3/ Included under the Limitation on General Operating Expenses beginning in FY 1993.

4/ Proposed to be funded from a separate appropriation from the Highway Trust Fund

5/ In FY 2000, the Motor Carrier Safety Improvement Act of 1999 (P.L. 106-159, signed 12/9/99) split the Office of Motor Carriers out of the Federal Highway Administration (FHWA) and created the Federal Motor Carrier Safety Administration (FMCSA)

MOTOR CARRIER SAFETY GRANTS
(LIMITATION ON OBLIGATIONS)
(HIGHWAY TRUST FUND)

	ESTIMATES		LIMITATION	
1992	$60,000,000		1992	$65,000,000
1993	76,000,000		1993	65,000,000
1994	65,000,000		1994	65,000,000
1995	83,000,000		1995	74,000,000
1996	85,000,000		1996	77,224,000 1/
1997	85,000,000		1997	77,914,106 2/
1998	100,000,000	3/	1998	84,825,000
1999	100,000,000	3/	1999	100,000,000
2000	105,000,000	3/	2000	4/
2001			2001	
2002			2002	

1/ Reflects reductions of $1,000 for Department-wide reduction contained in Section 30012 of P.L. 104-134.

2/ As a result of the reduction mandated in Section 1003(c) of ISTEA (P.L. 102-240) and the rescissions contained in P.L. 104-208, the amount of total budgetary resources available ($77,914,106) was less than the obligation limitation ($78,225,000) enacted in P.L. 104-205.

3/ The budget proposed to change the name of the program to the "National Motor Carrier Safety Program." However, Congress continued to use the "Motor Carrier Safety Grants" heading in the appropriations act.

4/ In FY 2000, the Motor Carrier Safety Improvement Act of 1999 (P.L. 106-159, signed 12/9/99) split the Office of Motor Carriers out of the Federal Highway Administration (FHWA) and created the Federal Motor Carrier Safety Administration (FMCSA). As a result, the Motor Carrier Safety Grants program was transferred from the FHWA to the FMCSA.

MOTOR CARRIER SAFETY GRANTS
(LIQUIDATION OF CONTRACT AUTHORIZATION)
(HIGHWAY TRUST FUND)

	ESTIMATES		APPROPRIATIONS	
1992	$62,000,000		1992	$62,000,000
1993	71,000,000		1993	65,000,000
1994	68,000,000		1994	68,000,000
1995	73,000,000		1995	73,000,000
1996	68,000,000		1996	68,000,000
1997	74,000,000		1997	74,000,000
			1997 Omnibus Rescission of Contract Authority	-12,300,000
1998	90,000,000	1/	1998	85,000,000
1999	100,000,000	1/	1999	100,000,000
2000	105,000,000	1/	2000	2/
2001			2001	
2002			2002	

1/ The budget proposed to change the name of the program to the "National Motor Carrier Safety Program." However, Congress continued to use the "Motor Carrier Safety Grants" heading in the appropriations act.

2/ In FY 2000, the Motor Carrier Safety Improvement Act of 1999 (P.L. 106-159, signed 12/9/99) split the Office of Motor Carriers out of the Federal Highway Administration (FHWA) and created the Federal Motor Carrier Safety Administration (FMCSA). As a result, the Motor Carrier Safety Grants program was transferred from the FHWA to the FMCSA.

FEDERAL-AID HIGHWAYS

Background

The Federal-aid Highways (FAH) program is the critical element in the development of an intermodal transportation system that is economically efficient and environmentally sound, while providing the foundation for the Nation to compete in the global economy, and moving people and goods safely.

All programs included within FAH are financed from the Highway Trust Fund and most program funds are distributed via apportionments and allocations to States. Liquidating cash appropriations are subsequently requested to fund outlays resulting from obligations incurred under contract authority.

FY 2002 Program

The Transportation Equity Act for the 21st Century (TEA-21) reauthorized surface transportation programs through FY 2003. TEA-21 provides for increased transportation infrastructure investment, strengthens transportation safety programs and environmental programs, and continues core research activities. TEA-21, along with Title 23 of the United States Code ("Highways") and other supporting legislation, provides authority for the various programs of the Federal Highway Administration (FHWA).

In FY 2002, we are proposing a $31.987 billion program level consistent with the TEA-21 guarantee to continue major programs, including the Surface Transportation Program, the National Highway System, Interstate Maintenance, the Highway Bridge Replacement and Rehabilitation Program, and the Congestion Mitigation and Air Quality Improvement Program. Other programs under TEA-21 include Transportation Infrastructure Finance Innovation, the National Corridor Planning and Border Infrastructure, and the Transportation and Community and System Preservation Pilot Programs.

Obligation Limitation and Exempt Programs

The FY 2002 budget includes an obligation limitation of $31.563 billion for the FAH programs. This includes revenue aligned budget authority (RABA) of $4.520 billion, of which $201 million is to be used to support a New Freedom Initiative and Border Infrastructure Improvements. This budget proposes to fund most FAH programs from within the obligation limitation. The Emergency Relief program and a portion of the Minimum Guarantee program will continue to be exempt from the limitation. The budget authority and outlays from these exempt programs continue to be shown as mandatory spending as these programs are not subject to the obligation limitation. The estimated obligations for exempt programs is $755 million.

Federal-aid Highway Program Goals

With the funding levels provided in this budget and the anticipated investment of our partners, the FHWA will continue to work to identify top roadway and vehicle safety issues and countermeasures. In 2002, th' safety construction programs will help to correct unsafe roadway design, remove roadway hazards, and to fund other safety construction programs. About 90 percent of the TEA-21 funds are distributed to the States by formula, primarily for highway-related projects, including the preservation and expansion of eligible roads and bridges. The FHWA will work with State and local governments to:

- Maintain 93 percent or more of National Highway System miles in a condition that meets pavement performance standards for acceptable ride quality. The NHS carries one trillion, or 43 percent, of all vehicle miles traveled. The condition of the system affects public safety, wear-and-tear on vehicles, fuel consumption, travel time, congestion, and comfort. In 1999, the estimated percentage was 93 percent.

- Hold the growth in average annual hours of extra travel time due to delays by 30 minutes, to 34 hours in 2002. In 1999, the individual urban traveler experienced an average 32 hours of extra travel time due to delays. Without intervention, this would grow to 35 hours of extra travel time.

- Reduce the percentage of bridges on the NHS that are deficient—from 21.5 percent in 2000 to 21 percent in 2002.

This level of funding--along with continuing initiatives such as the Transportation Infrastructure Finance and Innovation Act--will provide sufficient resources to meet critical program outcome goals. The benefits of these activities will be measured using the program performance goals and indicators included in the Performance Plan Section.

Highway Funding and the Economy

In addition to achieving Departmental goals for the Nation's highway system, investments in the highway infrastructure have a positive effect on private sector economic performance, productivity, and employment.

Productivity growth is key to maintaining global competitiveness and a rising standard of living. Economic analyses clearly indicate that highway capital has a direct (cost reducing) productivity effect on business and significant impact on consumer demand. Important findings from recent FHWA research are:

- About 25% of the long-term productivity growth rate in the U.S. economy over the past 40 years can be attributed to increases in the stock of U.S. highway capital.

- Rates of return to the commercial sector of the economy from highway investments averaged 16 percent per year. When returns to consumers are factored in, the rates of return are even higher.

- Rates of return on "non-local" highway investment, which apply to almost all Federal-aid highway investment, exceed returns available to private capital. The higher-order road network serves commercial interests extensively, and may contribute more to producer productivity than lower-level roads because of the nature of the demand for commercial transportation and the fact that such roads are shared by so many users over a wide geographical area.

- Increased highway capital investment reduces production costs in all manufacturing industries and for the economy as a whole. Overall, a $1.00 increase in the highway capital stock has historically generated 30 cents of producer cost savings each year over the lifetime of the underlying road improvements.

Since highway construction activities are relatively labor intensive compared to the rest of the economy, investment in highway infrastructure facilitates job expansion in both the public and private sectors. Recent FHWA research indicates that approximately 44,709 total jobs are supported nationally per $1 billion of Federal-aid highway investment. The job estimate includes: (1) direct onsite and offsite construction industry employment; (2) indirect jobs in "supplying industries," or those which provide materials and equipment to highway construction projects (e.g., stone and clay mining, lumber, steel, concrete, petroleum refining); and (3) induced jobs, or those supported throughout the economy as workers in the construction industry spend their wages on goods and services.

Federal Lands Highway Program Outcomes

Approximately 8,000 miles of park roads and parkways are under the jurisdiction of the National Park Service and serve the National Park System. About 60 percent of the roads are paved and these were deteriorating at 1 percent annually. The proposed funding level will reverse the continued deterioration of paved roads and will allow the overall condition of paved roads to improve approximately 5 percent over the next 10 years. Over 50 percent of the uncompleted segments of park roads where construction has been initiated would be completed in the next 5 years. Transportation planning and technical assistance initiatives will be initiated in accordance with the November 25, 1997, DOI/DOT Memorandum of Understanding. Also, alternative transportation will be initiated in five parks which are presently undergoing significant traffic congestion.

Approximately 25,000 miles of Bureau of Indian Affairs (BIA) plus another 25,000 miles of State and local roads are classified as Indian Reservation Roads serving the 560 Indian tribes and villages. The TEA-21 guarantee level in 2002 will allow for the maintenance of approximately

5,000 miles of paved roads in fair to good condition. Also, the percentage of unpaved roads constructed to standard will increase from 24 percent to 28 percent over the next 5 year period. Also, the percentage of deficient Indian Reservation Roads bridges owned by the BIA will be reduced to less that 10 percent over the next 5 years.

Over 29,000 miles of State and local roads are designated forest highways serving the National Forest System. Over 22,000 miles of roads are paved. The TEA-21 guarantee level in 2002 will allow construction improvements to 1,500 miles of roads over a 5-year period.

Approximately 5,900 miles of refuge roads are under the jurisdiction of the Fish and Wildlife Service and serve National Wildlife Refuges. Over 500 miles of roads are paved. The TEA-21 guarantee funding in 2002 will allow the overall condition of roads and bridges to improve 25 percent over the next five years.

Most of the discretionary public lands highway funds are allocated for projects based on applications by State transportation departments. Section 204(i) of 23 U.S.C. provides for a portion of discretionary public lands highway funds to be reserved to fund necessary Federal land agency administrative and transportation planning costs which are not funded otherwise under the Federal Lands Highway Program. This provides funding to Federal land agencies to update inventories and ratings to identify condition and safety characteristic of roads and bridges serving these Federal lands.

Border Infrastructure

To ensure that the opening of the U.S./Mexico border is done with the utmost attention paid to motor carrier safety, a total of $56 million, to be funded from RABA, is requested for southern border motor carrier safety inspection facilities construction in FY 2002. Funding for these activities is included within the Federal-aid Highways program levels.

The States will require Federal funding to support infrastructure improvements necessary to accommodate permanent facilities (i.e., property, roadways, buildings, and inspection facilities). With 23 border-crossing sites located in the four States along the U.S./Mexico border, it is anticipated that a total of $162 million, of which $54 million is requested in FY 2002, is needed to build new State motor carrier inspection facilities. Funding for these activities will be distributed on an as needed basis, with States submitting proposals that will be evaluated to qualify for Federal funding. Advancing these infrastructure projects will be the joint responsibility of the Federal Motor Carrier Safety Administration (FMCSA), FHWA, and the States.

$2.3 million is also necessary in FY 2002 for Federal construction of areas to park unsafe vehicles placed out-of-service at the border. These funds will be managed by FMCSA to ensure that paved, secured areas are constructed to fulfill immediate requirements, as the States move

toward the construction of permanent facilities. This justification is also contained within Federal Motor Carrier Safety Administration's FY 2002 budget submission.

New Freedom Initiative

The Administration believes that every American should have the opportunity to participate fully in society and engage in productive work. Unfortunately, millions of Americans with disabilities are locked out of the workplace because they are denied the tools and access necessary for success. Through the "New Freedom Initiative," the Administration plans to help integrate Americans with disabilities into the workforce and funds two programs within this budget from $145 million of revenue aligned budget authority.

The budget provides $45 million for 10 pilot programs run by State or local governments in regional, urban, and rural areas. These pilot programs will be selected on the basis of the use of innovative approaches to developing transportation plans that serve people with disabilities.

In addition, a $100 million will be used to establish a competitive matching grant program to promote access to alternative methods of transportation. This matching program will be open to Centers for Independent Living, Assistive Technology Centers, vocational rehabilitation centers, and other community-based organizations that seek to integrate Americans with disabilities into the workforce. The funds will go toward the purchase and operation of specialty vans, assisting people with down payments or costs associated with accessible vehicles, and extending the use of existing transportation resources.

FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS PROGRAM
(In thousands of dollars)

Surface Transportation Program	FY 2001	FY 2002
Contract authority	$7,235,863	$7,649,359
Obligation level	$6,721,526	$7,129,128

The Surface Transportation Program (STP) provides flexible funding to be used by States and localities for projects on any Federal-aid highway, including the NHS, bridge projects on any public road, transit capital projects, and intracity and intercity bus terminals and facilities. Prior to apportionment, funds are set aside for Railway-Highway Crossing Hazard Elimination in High Speed Rail Corridors and for Operation Lifesaver. State suballocations of apportioned funds ensure funding for transportation enhancements, safety, urbanized areas with populations over 200,000, and rural areas with less than 5,000 population. A portion of funds reserved for rural areas may be spent on rural minor collectors.

National Highway System	FY 2001	FY 2002
Contract authority	$6,179,016	$6,509,649
Obligation level	$5,751,509	$6,145,800

This program provides funding for improvements to rural and urban roads that are part of the National Highway System (NHS), including the Interstate System and designated connections to major intermodal terminals. The current system mileage of just over 161,000 miles may be modified by the Secretary in accordance with certain criteria, but is limited to a maximum mileage of 178,250. Under certain circumstances, NHS funds may also be used to fund transit improvements in NHS corridors.

Interstate Maintenance Program	FY 2001	FY 2002
Contract authority	$5,010,140	$5,353,741
Obligation level	$4,774,592	$5,162,472

The Interstate Maintenance (IM) program finances projects to rehabilitate, restore, resurface and reconstruct the Interstate System. Reconstruction that increases capacity, other than HOV lanes, is not eligible for IM funds. A portion of IM funds are set aside prior to apportionment for obligation for 4R projects on the Interstate System at the discretion of the Secretary.

Highway Bridge Replacement and Rehabilitation Program	FY 2001	FY2002
Contract Authority	$4,298,975	$4,566,350
Obligation level	$4,091,650	$4,424,976

This program assists States in responding to the problem of unsafe and inadequate bridges. The funds are available to replace or rehabilitate deficient highway bridges and to seismic retrofit bridges on any public road, including those on roads functionally classified as rural minor collectors and as local. Up to 50% of bridge apportionments may be transferred to other programs, but the transferred amount will be deducted the succeeding fiscal year from the total cost of deficient bridges in the State and in all States. A portion of Bridge funds are set aside prior to apportionment for obligation for bridge projects at the discretion of the Secretary.

Congestion Mitigation and Air Quality Improvement Program	FY 2001	FY 2002
Contract authority	$1,765,076	$1,863,745
Obligation level	$1,634,860	$1,720,824

The primary purpose of the Congestion Mitigation and Air Quality Improvement Program (CMAQ) is to fund projects and programs in air quality nonattainment and maintenance areas for ozone, carbon monoxide (CO), and small particulate matter (PM-10) which reduce transportation related emissions. A minimum ½ percent of the apportionment is guaranteed to each State.

Safety Incentive Grants for Use of Seat Belts	FY 2001	FY 2002
Contract authority	$89,658	$114,854
Obligation level	$102,461	$114,854

This new program provides incentive grants to encourage States to increase seat belt use rates. The amount of funding each State is awarded will be based on calculations by the Secretary of the annual savings to the Federal Government in medical costs (including savings under the medicare and medicaid programs). A State may use these grant funds for any project eligible for assistance under Title 23, U.S.C.

Safety Incentive to Prevent Operation of Motor Vehicles by Intoxicated Persons	FY 2001	FY 2002
Contract authority	$90,000	$100,000
Obligation level	$79,110	$ 90,000

The purpose of this new program is to provide incentive grants to encourage States to establish 0.08 percent blood alcohol concentration (BAC) as the legal limit for drunk driving offenses. Any State that has in effect and is enforcing a 0.08 percent BAC law, before the end of the fiscal year, is eligible to receive incentive funds for that fiscal year. A State may use these grant funds for any project eligible for assistance under Title 23, U.S.C.

Intelligent Transportation Systems	FY 2001	FY 2002
Contract authority	$87,900	$118,175
Obligation level	$111,707	$118,175

The Intelligent Transportation Systems (ITS) program provides for the research, development, and operational testing of intelligent vehicles and intelligent infrastructure systems aimed at solving congestion and safety problems, improving operating efficiencies in transit and commercial vehicles, and reducing the environmental impact of growing travel demand. In addition to these program funds, several of the core Federal-aid highway programs specifically include eligibility for infrastructure-based ITS capital improvements.

ITS Deployment	FY 2001	FY 2002
Contract authority	$103,722	$135,058
Obligation level	$145,494	$135,058

These funds support the nationwide deployment of proven ITS technologies that are technically feasible and highly cost effective, as a component of the Nation's surface transportation systems. Deployment incentives accelerate ITS integration and interoperability in metropolitan and rural areas, and support the deployment of ITS applications to Commercial Vehicle Operations

Federal Lands	FY 2001	FY2002
Contract authority	$635,265	$724,249
Obligation level	$725,921	$711,306

The Federal Lands Highways Program provides funding for a coordinated program of public roads and transit facilities serving Federal and Indian lands. Included are Public Lands Highways, including Forest Highways; Park Roads and Parkways; Indian Reservation Roads (a portion of funds authorized for this category are now required to be set aside for improving deficient IRR bridges), and Refuge Roads, which consists of public roads that provide access to or within the National Wildlife Refuge System.

Federal Highway Research and Technology Programs	FY 2001	FY 2002
Contract authority	$196,472	$250,419
Obligation level	$249,108	$250,419

The purpose of the research and technology program is to develop new transportation technology that can be applied nationwide. The elements of the program include surface transportation research; a national technology deployment program; University Transportation Research; training and education to develop the knowledge and skills within the transportation community needed to develop and apply new technology, and other research-related programs. It will also support the continuation of the Bureau of Transportation Statistics major programs to provide convenient access to transportation data and information, and to conduct transportation surveys and analysis. We are also requesting an additional $25 million to be funded from the administrative takedown to augment our Title 5 programs for planning and initiatives which are critical to safety and infrastructure improvements.

National Corridor Planning and Development and Coordinated Border Infrastructure Program	FY 2001	FY 2002
Contract authority	$123,060	$143,567
Obligation level	$152,789	$143,567

These two programs are funded from a single authorization. The purpose of the National Corridor Planning and Development Program is to provide allocations to States and metropolitan planning organizations for coordinated planning, design, and construction of corridors of national significance, economic growth, and international or interregional trade. The purpose of the Coordinated Border Infrastructure Program is to improve the safe movement of people and goods at or across the border between the United States and Canada and the border between the United States and Mexico. This budget also includes a request for an additional $30 million for this program to be funded out of the administrative takedown.

Administration	FY 2001	FY 2002
Contract authority	$351,684	$367,409
Obligation level	$294,470	$317,693

Section 104(a)(1)(B) of Title 23, United States Code, authorizes the Secretary of Transportation to deduct (take down), prior to apportionment, up to 1 1/6% of certain authorized sums for the administration of Federal-aid highway programs. This takedown amount is available until expended and is used to pay for virtually all salaries and administrative costs of the FHWA.

Other Programs	FY 2001	FY 2002
Contract authority	$522,636	$639,963
Obligation level	$420,963	$525,363

This category includes the following programs: Recreational Trails, Ferry Boats, National Scenic Byways, Highway Use Tax Evasion Projects, Value Pricing Pilot, the Puerto Rico Highway Program, and Miscellaneous Studies and Reports. In FY 2002, RABA provides $145 million for the New Freedom Initiative and $56.3 million for the State Border Infrastructure initiative. This additional funding is included in the FY 2002 contract authority and obligation level.

Transportation and Community and System Preservation Pilot Program	FY 2001	FY 2002
Contract authority	$21,975	$25,637
Obligation level	$21,927	$25,637

The Transportation and Community and System Preservation Pilot Program (TCSP) provides funding for planning grants, implementation grants, and research to develop and demonstrate effective strategies for States and local governments to use existing transportation systems and future transportation investments to help create livable communities. Nationwide, States and local governments are looking for strategies to ease congestion, improve road planning, strengthen existing transportation systems and expand the use of alternative transportation to enhance their economic competitiveness, protect the environment, and promote social equity. In FY 2001, 298 States, Metropolitan Planning Organizations and local governments applied for this program requesting almost $197 million.

High Priority Projects Program	FY 2001	FY 2002
Contract authority	$1,841,259	$2,001,521
Obligation level	$1,311,395	$1,490,696

The High Priority Projects Program provides designated funding for 1,850 specific projects identified by Congress, each with a specified amount of authorizations to be distributed over a six-year period according to mandated percentages The designated funding can only be used for the project as described in the law.

Woodrow Wilson Memorial Bridge	FY 2001	FY 2002
Contract authority	$218,468	$253,233
Obligation level	$194,268	$202,500

The Woodrow Wilson Memorial Bridge program provides funding for the design and construction of a new bridge where Interstate 95 crosses the Potomac River, along with related approaches and interchanges, as well as any needed interim repairs to the existing bridge. Prior to construction, an agreement concerning transfer of ownership must be executed between the Secretary and the political jurisdiction that accepts ownership of the bridge. Construction funds will not be released until the Secretary approves a financial plan that identifies resources to cover the total cost of the bridge replacement.

Transportation Infrastructure Finance and Innovation	FY 2001	FY 2002
Contract authority	$96,690	$123,058
Obligation level	$157,958	$123,270

The Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA) will provide Federal credit assistance to major transportation investments of critical national importance, such as intermodal facilities, border crossing infrastructure, expansion of multi-State highway trade corridors, and other investments with regional and national benefits. The TIFIA credit program is designed to fill market gaps and leverage substantial private co-investment by providing supplemental and subordinate capital.

Appalachian Development Highway System	FY 2001	FY 2002
Contract authority	$443,250	$441,750
Obligation level	$389,617	$397,575

The Appalachian Development Highway System (ADHS) program provides funds for the construction of the Appalachian corridor highways in 13 States to promote economic development and to establish a State-Federal framework to meet the needs of the region. More than 92 percent of the ADHS is located on the National Highway System (NHS). The ADHS is 76 percent complete.

Minimum Guarantee	FY 2001	FY 2002
Contract authority	$2,800,000	$2,800,000
Obligation level	$2,163,603	$2,448,842

The Minimum Guarantee (MG) provides funding to States based on equity considerations. These include specific shares of overall program funds and a minimum return on contributions to the Highway Account of the Highway Trust Fund; no State may receive less than $1 million per year in MG funds. The total amount made available in MG funds in FY 2001 was $6.570 billion,

with $6.674 billion estimated for FY 2002. Each State's share of the first $2.8 billion of MG funds have the same eligibilities as STP funds except that the STP setaside requirements do not apply. $639 million of this amount is exempt from the obligation limitation. Each State's share of the amount in excess of $2.8 billion is distributed among the IM, NHS, Bridge, CMAQ, and STP programs and is displayed accordingly in the numbers presented in this section.

Emergency Relief	FY 2001	FY 2002
Contract authority	$100,000	$100,000
Obligation level	$113,206	$100,000

The Emergency Relief (ER) program provides funds for the repair or reconstruction of Federal-aid highways and bridges and Federally-owned roads and bridges which have suffered serious damage as the result of natural disasters or catastrophic failures. The ER program supplements the commitment of resources by States, their political subdivisions, or Federal agencies to help pay for unusually heavy expenses resulting from extraordinary conditions.

Revenue Aligned Budget Authority

TEA-21 provides that obligations for the Federal-aid highways and highway safety programs are adjusted to reflect revised receipt estimates for the Highway Account of the Highway Trust Fund. In conjunction with this adjustment, Section 110 of Title 23, U.S.C., the Revenue Aligned Budget Authority (RABA), authorizes contract authority in an amount equal to the additional obligation limitation. In fiscal year 2002, the RABA adjustment is $4.543 billion, of which approximately $23 million is distributed by law to motor carrier safety programs. This budget proposes to reallocate a portion of the RABA to support the New Freedom Initiative and Border Infrastructure Improvements. The remaining funds will be distributed by formula across all programs as authorized in Section 110 of Title 23, U.S.C.

In order to be consistent with the presentation in the FY 2002 President's Budget, contract authority and obligation levels shown above for FY 2002 assume RABA has been distributed by formula across the programs.

FEDERAL-AID HIGHWAYS
(LIMITATION ON OBLIGATIONS)
(HIGHWAY TRUST FUND)

None of the funds in this Act shall be available for the implementation or execution of programs, the obligations for which are in excess of [$29,661,806,000] *$31,563,157,000* for Federal-aid highways and highway safety construction programs for fiscal year [2001: Provided, That within the $29,661,806,000 obligation limitation on Federal-aid highways and highway safety construction programs, not more than $437,250,00 shall be available for the implementation or execution of programs for transportation research (sections 502, 503, 504, 506, 507, and 508 of title 23, United States Code, as amended; section 5505 of title 49, United States Code, as amended; and sections 5112 and 5204-5209 of Public Law 105-178) for fiscal year 2001; not more than $25,000,000 shall be available for the implementation or execution of programs for the Magnetic Levitation Transportation Technology Deployment Program (section 1218 of Public Law 105-178) for fiscal year 2001, of which not to exceed $1,000,000 shall be available to the Federal Railroad Administration for administrative expenses and technical assistance in connection with such program, of which not to exceed $1,500,000 shall be available to the Federal Railroad Administration for ``Safety and operations'', and, notwithstanding section 1218(c)(4) of Public Law 105-178, of which $1,000,000 shall be available for low speed magnetic levitation research and development; not more than $31,000,000 shall be available for the implementation or execution of programs for the Bureau of Transportation Statistics (section 111 of title 49, United States Code) for fiscal year 2001 Provided further, That within the $218,000,000 obligation limitation on Intelligent Transportation Systems, the following sums shall be made available for Intelligent Transportation System projects in the following specified areas:

State of Alaska, $2,350,000;
Alameda-Contra Costa, California, $500,000;
Aquidneck Island, Rhode Island, $500,000;
Austin, Texas, $250,000;
Automated crash notification system, UAB, $1,000,000;
Baton Rouge, Louisiana, $1,000,000;
Bay County, Florida, $1,500,000;
Beaumont, Texas, $150,000;
Bellingham, Washington, $350,000;
Bloomington Township, Illinois, $400,000;
Calhoun County, Michigan, $750,000;
Carbondale, Pennsylvania, $2,000,000;
Cargo Mate, New Jersey, $750,000;
Charlotte, North Carolina, $625,000;
College Station, Texas, $1,800,000;
Commonwealth of Virginia, $5,500,000;
Corpus Christi, Texas (vehicle dispatching), $1,000,000;
Delaware River Port Authority, $1,250,000;
DuPage County, Illinois, $500,000;

Fargo, North Dakota, $1,000,000;
Fort Collins, Colorado, $1,250,000;
Hattiesburg, Mississippi, $500,000;
Huntington Beach, California, $1,250,000;
Huntsville, Alabama, $3,000,000;
I-70 West project, Colorado, $750,000;
Inglewood, California, $600,000;
Jackson, Mississippi, $1,000,000;
Jefferson County, Colorado, $4,250,000;
Johnsonburg, Pennsylvania, $1,500,000;
Kansas City, Missouri, $1,250,000;
Lake County, Illinois, $450,000;
Lewis & Clark Trail, Montana, $625,000;
Montgomery County, Pennsylvania, $2,000,000;
Moscow, Idaho, $875,000;
Muscle Shoals, Alabama, $1,000,000;
Nashville, Tennessee, $500,000;
New Jersey regional integration/TRANSCOM, $3,000,000;
North Central Pennsylvania, $750,000;
North Las Vegas, Nevada, $1,800,000;
Norwalk and Santa Fe Springs, California, $500,000,
Oakland and Wayne Counties, Michigan, $1,500,000;
Pennsylvania Turnpike Commission, $1,500,000;
Philadelphia, Pennsylvania, $500,000;
Puget Sound regional fare collection, Washington, $2,500,000;
Rensselaer County, New York, $500,000;
Rochester, New York, $1,500,000;
Sacramento County, California, $875,000;
Sacramento to Reno, I-80 corridor, $100,000;
Sacramento, California, $500,000;
Salt Lake City (Olympic Games), Utah, $1,000,000;
San Antonio, Texas, $100,000;
Santa Teresa, New Mexico, $500,000;
Schuylkill County, Pennsylvania, $400,000;
Seabrook, Texas, $1,200,000;
Shreveport, Louisiana, $1,000,000;
South Dakota commercial vehicle, ITS, $1,250,000;
Southeast Michigan, $500,000;
Southhaven, Mississippi, $150,000;
Spokane County, Washington, $1,000,000,
Springfield-Branson, Missouri, $750,000;
St. Louis, Missouri, $500,000,
State of Arizona, $1,000,000;
State of Connecticut, $3,000,000;

State of Delaware, $1,000,000;
State of Illinois, $1,000,000;
State of Indiana (SAFE-T), $1,000,000;
State of Iowa (traffic enforcement and transit), $2,750,000;
State of Kentucky, $1,500,000;
State of Maryland, $3,000,000;
State of Minnesota, $6,500,000;
State of Missouri (rural), $750,000;
State of Montana, $750,000;
State of Nebraska, $2,600,000;
State of New Mexico, $750,000;
State of North Carolina, $1,500,000;
State of North Dakota, $500,000;
State of Ohio, $2,000,000;
State of Oklahoma, $1,000,000;
State of Oregon, $750,000;
State of South Carolina statewide, $2,000,000;
State of Tennessee, $1,850,000;
State of Utah, $1,500,000,
State of Vermont, $500,000;
State of Wisconsin, $1,000,000;
Texas border phase I, Houston, Texas, $500,000;
Tuscaloosa, Alabama, $2,000,000;
Tuscon, Arizona, $1,250,000;
Vermont rural ITS, $1,500,000;
Washington, DC area, $1,250,000;
Washoe County, Nevada, $200,000;
Wayne County, Michigan, $5,000,000;
Williamson County/Round Rock, Texas, $250,000:

Provided further, That, notwithstanding Public Law 105-178, as amended, funds authorized under section 110 of title 23, United States Code, for fiscal year 2001 shall be apportioned based on each State's percentage share of funding provided for under section 105 of title 23, United States Code, for fiscal year 2001, except that before such apportionments are made, $156,486,491 shall be set aside for projects authorized under section 1602 of Public Law 105-178, as amended; $25,000,000 shall be set aside for the Indian Reservation Roads Program under section 204 of title 23, United States Code $18,467,857 shall be set aside for the Woodrow Wilson Memorial Bridge project authorized by section 404 of the Woodrow Wilson Memorial Bridge Authority Act of 1995, as amended; $10,000,000 shall be set aside for the commercial driver's license program under motor carrier safety grants authorized by section 31102 of title 49, United States Code; and $1,735,039 shall be set aside for the Alaska Highway authorized by section 218 of title 23, United States Code. Of the funds to be apportioned under section 110 for fiscal year 2001, the Secretary shall ensure that such funds are apportioned for the Interstate Maintenance program, the National Highway system program, the bridge program, the surface transportation program, and the congestion mitigation and air quality program in the same ratio

that each State is apportioned funds for such program in fiscal year 2001 but for this section: Provided , That, notwithstanding any other provision of law, of the funds apportioned to the State of Oklahoma under section 110 of title 23, United States Code, for fiscal year 2001, $8,000,000 shall be available only for the widening of US 177 from SH-33 to 32nd Street in Stillwater, Oklahoma; $4,300,000 shall be available only for the reconstruction of US 177 in the vicinity of Cimarron River, Oklahoma; $1,500,000 shall be available only for the reconstruction of US 70 from Broken Bow, Oklahoma to the Arkansas state line; $1,000,000 shall be available only to improve Battiest-Pickens Road between Battiest and Pickens, Oklahoma; $140,000 shall be available only to conduct a feasibility study of increasing lanes or adding passing lanes on SH 3 in McCurtain, Pushmataha and Atoka Counties, Oklahoma; and $100,000 shall be available only for the reconstruction of US 70 in Marshall and Bryan Counties, Oklahoma: Provided further , That, notwithstanding any other provision of law, of the funds apportioned to the State of Mississippi under section 110 of title 23, United States Code, for fiscal year 2001, $24,600,000 may be available for construction of an interchange for a connector road from the interchange to U.S. Highway 51, between mile markers 115 and 120 on I-55 in Mississippi: Provided further , That, notwithstanding any other provision of law, of the funds apportioned to the State of New York under section 110 of title 23, United States Code, for fiscal year 2001, $4,000,000 shall be available only to upgrade and improve the Albany to North Creek intermodal transportation corridor: Provided further , That, notwithstanding any other provision of law, of the funds apportioned to the State of Nebraska under section 110 of title 23, United States Code, for fiscal year 2001, $3,500,000 shall be available only for the construction of a pedestrian overpass in Lincoln: Provided further, That, notwithstanding any other provision of law, of the funds apportioned to the State of Alabama under section 110 of title 23, United States Code, for fiscal year 2001, $8,000,000 shall be available only for construction of the Patton Island bridge in Lauderdale County, Alabama: Provided further, That, notwithstanding any other provision of law, of the funds apportioned to the State of California under section 110 of title 23, United States Code, for fiscal year 2001, $46,000,000 shall be available only for traffic mitigation and other improvements to existing SR710 in South Pasadena, Pasadena and El Serano. Provided further , That, notwithstanding any other provision of law, the obligation limitation distributed for specific projects described herein shall remain available until expended and shall be in addition to the amount of any obligation limitation imposed on obligations for Federal-aid highway and highway safety construction programs for future fiscal years.] *2002: Provided, That the limitation on credit amounts provided in section 188(c) of title 23, United States Code, shall remain available until expended*

(LIQUIDATION OF CONTRACT AUTHORIZATION)
(HIGHWAY TRUST FUND)

Notwithstanding any other provision of law, for carrying out the provisions of title 23, United States Code, that are attributable to Federal-aid highways, including the National Scenic and Recreational Highway as authorized by 23 U.S.C. 148, not otherwise provided, including reimbursement for sums expended pursuant to the provisions of 23 U.S.C. 308, [$28,000,000,000] *$30,000,000,000* or so much thereof as may be available in and derived from the Highway Trust Fund, to remain available until expended.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

Program and Financing (in millions of dollars)

Identification code 69-8083-0-7-401		FY2000 Actuals	FY2001 Estimates	FY 2002 Estimates
	Program by activities			
	Direct program			
00 01	Direct loan subsidy [TIFIA]	35	136	101
00 02	Guarantee loan subsidy [TIFIA]		10	10
00 03	Line of credit [TIFIA]	2	10	10
00 09	Administrative expenses [TIFIA]	2	2	2
00 11	Surface transportation program	6,360	6,722	7,129
00 12	National highway system	5,009	5,752	6,146
00 13	Interstate maintenance	3,853	4,775	5,162
00 14	Bridge program	2,643	4,092	4,425
00 15	Congestion mitigation and air quality improvement	860	1,635	1,721
00 16	Minimum guarantee	2,151	1,504	1,802
00 21	ITS standards, research and development	75	112	118
00 22	ITS deployment	143	145	135
00 23	Transportation research	204	249	250
00 24	Federal lands highways	646	726	711
00 26	National corridor planning and coordinated border infrastructure	98	153	144
00 27	Administration [FAH]	304	294	318
00 28	Other programs	658	522	641
00 29	High priority projects	969	1,311	1,491
00 30	Woodrow Wilson memorial bridge	43	194	203
00 31	Appalachian development highway system	373	390	398
00 32	Safety incentive grants for use of seat belts	86	102	115
00 91	Programs subject to obligation limitation	24,794	26,836	31,032
	Programs exempt from obligation limitation			
02 11	Emergency relief program	98	113	100
02 13	Minimum allocation/guarantee	711	659	648
02 14	Demonstration projects	324	296	207
02 15	Reestimates on direct loans subsidy		18	
02 16	Interest on reestimates of direct loan subsidy		1	
02 91	Programs exempt from obligation limitation	1,133	1,087	955
03 01	Emergency relief supplemental	8	729	
06 00	Total direct program	25,935	30,652	31,987
09 01	Reimbursable program	92	92	92
10 00	Total obligations	26,027	30,744	32,079
	Financing			
	Unobligated balance, start of year			
21 40	Unobligated balance carried forward, start of year	19	11	
21 49	Unobligated balance carried forward, start of year	20,081	24,103	27,735
21 99	Total unobligated balance, start of year	20,100	24,114	27,735
22 00	New budget authority (gross)	30,056	34,373	35,425
22 21	Unobligated balance transferred to other accounts [69-8055]		-8	
23 90	Total budgetary resource available for obligation	50,156	58,479	63,160
23 95	Total new obligations	-26,027	-30,744	-32,079
	Unobligated balance, end of year			
23 98	Unobligated balance expiring or withdrawn	-15		
24 40	Unobligated balance carried forward, end of year	11		
24 49	Contract authority	24,103	27,735	31,081
24 99	Total unobligated balance, end of year	24,114	27,735	31,081

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

Program and Financing (in millions of dollars)

Identification code 69-8083-0-7-401		FY2000 Actuals	FY2001 Estimates	FY 2002 Estimates
Budget authority				
Current				
40 26	Appropriation	26,000	28,000	30,000
40 26	Appropriation (Emergency Relief)		720	
40 49	Portion applied to liquidate contract authority	-24,353	-28,000	-30,000
40 77	Reduction pursuant to P L 106-554 (0 22 percent)		-2	
41 00	Transferred to other accounts [69-8350]	-1,647		
43 00	Appropriation (total)		718	
Permanent				
60 05	Appropriation (indefinite)		19	
66 10	Contract authority	30,231	30,358	30,813
66 15	Contract authority indefinite	1,456	3,186	4,520
66 15	Transferred to other accounts [69-8048]	-75		
66 15	Transferred to other accounts [69-8350]	-1,647		
66 90	Contract authority (total)	29,964	33,544	35,333
68 00	Spending authority from offsetting collections	92	92	92
70 00	Total new budget authority (gross)	30,056	34,373	35,425
Relation of obligations to outlays				
Obligated balance, start of year				
72 40	Unpaid obligations, start of year	35,565	36,564	40,541
72 99	Obligated balance, start of year	35,565	36,564	40,541
73 10	Total new obligations	26,027	30,744	32,079
73 20	Total outlays (gross)	-25,028	-26,767	-29,043
Obligated balance, end of year				
74 40	Unpaid obligations, end of year	36,564	40,541	43,577
74 99	Obligated balance, end of year	36,564	40,541	43,577
75 01	Obligated balance, Start of year Contract Authority	35,040	36,629	38,541
75 02	Obligated balance, End of year Contract Authority	36,629	38,541	40,528
Outlays (gross), detail				
86 90	Outlays from new discretionary authority	7,115	8,277	8,614
86 93	Outlays from discretionary balances	16,596	17,091	19,161
86 97	Outlays from new mandatory authority	304	219	200
86 98	Outlays from mandatory balances	913	1,180	1,048
Adjustments to budget authority and outlays				
87 00	Total outlays (gross)	25,028	26,767	29,043
Deductions for offsetting collections				
88 40	Non-Federal sources	-10	-10	-10
88 45	Offsetting governmental collections from the public	-82	-82	-82
88 90	Total offsetting collections	-92	-92	-92
89 00	Budget authority (net)	29,964	34,281	35,333
90 00	Outlays (net)	24,936	26,675	28,951

Status of Unfunded Contract Authority (in thousands of dollars)

Unfunded balance, start of year	55,121	60,732	66,276
Contract authority	29,964	33,544	35,333
Appropriation from highway trust fund to liquidate contract authority	-24,353	-28,000	-30,000
Unfunded balance, end of year	60,732	66,276	71,609

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

Credit Subsidy Data (in millions of dollars)

Identification code 69-8083-0-7-401	2000 Actual	2001 Estimate	2002 Estimate
Direct loan levels supportable by subsidy budget authority			
11 50 Direct loan levels	702	1,370	2,000
11 50 Line of credit	63	105	200
11 59 Total direct loan levels	765	1,475	2,200
Direct loan subsidy (in percent)			
13 20 Subsidy rate - direct loan	6 49	5 40	4 96
13 20 Subsidy rate - line of credit	8 93	9 50	5 11
13 29 Weighted average subsidy rate	5 74	5 69	4 97
Direct loan subsidy budget authority			
13 30 Subsidy budget authority - direct loan	46	74	99
13 30 Subsidy budget authority - line of credit	6	10	10
13 30 Subsidy reestimate		19	
13 39 Total subsidy budget authority	52	103	109
Direct loan subsidy outlays			
13 40 Subsidy outlays - direct loan	8	12	40
13 40 Subsidy outlays - direct loan		2	10
13 40 reestimate of subsidy		19	
13 49 Total subsidy outlays	8	33	50
Guaranteed loan levels supportable by subsidy budget authority			
21 59 Total loan guarantee levels		200	200
Guaranteed loan subsidy (in percent)			
23 29 Weighted average subsidy rate		3 78	3 76
Guaranteed loan subsidy budget authority			
23 39 Total subsidy budget authority		8	8
Guaranteed loan subsidy outlays			
23 49 Total subsidy outlays			10
Administrative expense data			
35 10 Budget authority	2	2	2
35 80 Outlays from balances	1		
35 90 Outlays from new authority	2	2	2

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

Object Classification (In millions of dollars)

Identification code: 69-8083-0-7-401		2000 Actual	2001 Estimate	2002 Estimate
Direct obligations:				
	Personnel compensation:			
11.11	Full-time permanent	14	16	14
11.13	Other than full-time permanent	....	1	1
11.15	Other personnel compensation	1	1	1
11.19	Total personnel compensation	15	18	16
11.21	Civilian personnel benefits	3	4	4
12.10	Travel and transportation of persons	3	4	3
12.52	Other services	64	61	51
12.60	Supplies and materials	1	1	1
13.20	Land and structures	213	230	244
14.10	Grants, subsidies, and contributions	24,903	29,446	30,866
19.30	Limitation on general operating expenses (see separate schedule)	304	294	318
19.90	Subtotal, direct obligations	25,506	30,058	31,503

FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

Object Classification (in millions of dollars)

Identification code: 69-8083-0-7-401		2000 Actual	2001 Estimate	2002 Estimate
Reimbursable obligations:				
	Personnel compensation:			
21.11	Personnel compensation: Full-time permanent	8	6	6
21.21	Civilian personnel benefits	2	1	1
22.10	Travel and transportation of persons	2	1	2
22.52	Other services	74	69	69
22.60	Supplies and materials	3	2	2
23.10	Equipment	2	1	1
23.20	Land and structures	1	12	11
29.90	Subtotal, reimbursable obligations	92	92	92

FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

Object Classification (in millions of dollars)

Identification code: 69-8083-0-7-401		2000 Actual	2001 Estimate	2002 Estimate
Obligations resulting from allocations out:				
	Personnel compensation:			
31.11	Full-time permanent	36	49	40
31.13	Other than full-time permanent	7	8	5
31.15	Other personnel compensation	2	2	2
31.19	Total personnel compensation	45	59	47
31.21	Civilian personnel benefits	10	14	11
32.10	Travel and transportation of persons	4	6	4
32.20	Transportation of things	2	2	2
32.31	Rental payments to GSA	1	1	2
32.33	Communications, utilities, and miscellaneous charges	6	6	6
32.40	Printing and reproduction	1	1	1
32.52	Other services	225	330	219
32.53	Purchases of goods and services from government accounts	11	18	12
32.54	Operation and maintenance of facilities	1	1	...
32.57	Operation and maintenance of equipment	1	1	....
32.60	Supplies and materials	7	8	6
33.10	Equipment	2	5	2
33.20	Land and structures	25	26	23
34.10	Grants, subsidies, and contributions	88	116	149
39.90	Subtotal, obligations from allocations	429	594	484

FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

Personnel Summary

Identification code: 69-8083-0-7-401	2000 Actual	2001 Estimate	2002 Estimate
Total compensable workyears:			
Direct:			
Full-time equivalent employment	376	433	412
Reimbursable:			
Full-time equivalent employment	7	7	5
Allocation account:			
Full-time equivalent employment	80	135	162
Limitation account-direct			
Full-time equivalent employment	2,222	2,422	2,427

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

LIMITATION ON ADMINISTRATIVE EXPENSES

Necessary expenses for administration and operation of the Federal Highway Administration, not to exceed [$295,119,000] *$317,693,000* shall be paid in accordance with law from appropriations made available by this Act to the Federal Highway Administration together with advances and reimbursements received by the Federal Highway Administration: *Provided*, That of the funds available under section 104(a)(1)(A) of title 23, United States Code: $25,000,000 shall be available for planning and technology research and deployment and initiatives critical to safety and infrastructure improvements; an additional $30,000,000 shall be for the implementation of the National Corridor Planning and Development and the Coordinated Border Infrastructure Programs. *Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101(a) of Public Law 106-346)*

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

LIMITATION ON ADMINISTRATIVE EXPENSES

GENERAL STATEMENT

The Limitation on Administrative Expenses (LAE) controls spending for virtually all of the salaries and expenses of the Federal Highway Administration. The resources for this account are derived solely from reimbursements and transfers from other accounts.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

LIMITATION ON ADMINISTRATIVE EXPENSES

SOURCE OF FUNDING

(in thousands of dollars)

	Funds Available for FY 2001	Funds Available for FY 2002
Lim. on Administrative Exp.	$295,119	$317,693
Rescission	-649	
Prior Year Unobligated Balance	4,408	
Estimated reimbursable	3,655	3,655
Total Obligations	$302,533	$321,348

LIMITATION ON ADMINISTRATIVE EXPENSES
FINANCIAL REQUIREMENTS

A Limitation on Administrative Expenses of $317.693 million for FY 2002 is proposed, which represents a net increase of $23.223 million when compared to the enacted FY 2001 limitation level of $294.470 million. Increases are requested for adjustments to base and built-in changes of $16.051 million and program increases of $7.172 million.

Analysis of changes from FY 2001 to FY 2002		
Limitation on Administrative Expenses, FY 2001		$295,119
Less: .22% Rescission (Sec. 1403, P.L. 106-554)		-649
Limitation (revised)		$294,470
Adjustments to base		
Personnel Cost Adjustments	$10,781	
Transit Benefits	442	
Rent	4,084	
TASC	404	
Mandatory Contract adjustments	717	
Employee Comp. Fund	-377	
Subtotal, Adjustments to Base		+16,051
Program Changes		+7,172
Salaries and Benefits:	500	
Joint TIFIA Program Office - 5FTEs	(500)	
Other Services:	4,143	
Training	(4,330)	
Office Of Intermodalism	(222)	
Environmental Streamlining/NEPA	(2,585)	
Congestion Mitigation and Sub. Mob. Init.	(-1,996)	
Corporate Average Fuel Economy	(-998)	
IT Infrastructure	2,529	
Total FY 2002 Requirements		**$317,693**

LIMITATION ON ADMINISTRATIVE EXPENSES
FY 2002 CONGRESSIONAL BUDGET SUBMISSION

	FY 2001 Enacted Level	PERSONNEL COST ADJUSTMENTS	GSA RENT	MANDATORY CONTRACT ADJUSTMENTS	TASC	TRANSIT BENEFITS	EMPLOYEE COMP. FUND	FY 2001 ADJUSTED BASE	PROGRAM CHANGES	FY 2002 REQUEST
PERSONNEL RESOURCES:										
Full-time Permanent Pos.	2,864							2,864	5	2,869
Total FTE	2,422							2,422	5	2,427
FINANCIAL RESOURCES:										
Salaries and Benefits	$210,748	10,781		0		442	-377	$221,594	500	$222,094
Travel	8,473			0				8,473	0	8,473
Transportation	465			0				465	0	465
GSA Rent	16,537		4,084	0				20,621	0	20,621
Comm.,Rent, & Util.	9,867			0				9,867	0	9,867
Printing	1,512			0				1,512	0	1,512
Other Services:	39,142			717	404			40,263	4,143	44,406
TASC	6,821			0	404			7,025	0	7,025
Other	32,621			717	0			33,238	4,143	37,381
Supplies	2,000			0				2,000	0	2,000
Equipment	4,736			0				4,736	2,529	7,265
Total, Limitation- Administrative Expenses	$294,479	$10,781	$4,084	$717	$404	$442	-$377	$310,821	$7,172	$317,993

GENERAL OPERATING EXPENSES
NARRATIVE EXPLANATION
($000)

ADJUSTMENTS TO BASE: **($16,051)**

Personnel Cost Adjustments +10,781

The increase in personnel compensation and benefits is composed of: $6.346 million to fund the FY 2002 pay raise, $2.174 to annualize the January 2001 pay raise, and $2.261 for mandatory within-grade increases required for those employees having spent the required time period at their present step-in grade while maintaining at least a satisfactory work performance rating.

Transit Benefits +442

This increase is required by Section 9010 (c), of P.L. 105-85, which increases employer provided transit benefits from $65 to $100.

GSA Rent +4,084

This adjustment to base reflects GSA increases for GSA rent adjustments, rate escalations, rent increases due to lease expirations, and lease extension of Nassif building.

Mandatory Contract Adjustments +717

An adjustment was made to certain items in our base to account for those direct service contracts that require adjustments to reflect mandatory Service Act wage adjustments. These include service contracts for facility maintenance and upkeep at FHWA owned facilities, and for long-term multi-million dollar IRM systems and program analyst support.

TASC +404

This requested adjustment to base will enable us to cover Transportation Administrative Service Center (TASC) charges as estimated by the Department for common services for FY 2002.

-377

Employee Compensation Fund

This decrease reflects a reduction in the cost to cover compensation costs for injuries and deaths incurred by DOT employees as billed by the U.S. Department of Labor.

Program Changes **($7,172)**

Salaries and Benefits: +$500

The Federal Highway Administration is requesting $500,000 and an additional 5 FTE in FY 2002 to operate a Joint Program Office to oversee the Federal credit program authorized by the Transportation Infrastructure Finance and Innovation Act (TIFIA). The new office is necessary to effectively manage a complex credit program contributing to the development of up to $10.6 billion in highway, transit, and rail projects of national significance. The TIFIA program has been managed by a multi-agency working group with heavy contractor support. As more projects are approved, management by the working group has become more difficult. The Joint Program Office would consolidate the expertise into one office resulting in more timely execution of credit agreements, more consistent policy interpretations, better administration of resources, and improved communication with project sponsors and other interested parties. The TEA-21 Conference Report, in discussing TIFIA, encouraged the Secretary to establish an organizational structure to assure that the program is closely coordinated and monitored.

Other Services: +$4,143

Training +$4,330

This request will provide a level of funding for employee development opportunities to meet ever-changing customer needs and requirements. These funds will enable the FHWA to ensure that learning and development activities of all its employees fully support both organizational goals and individual career goals.

FHWA's overarching goal and mission is to be a leader in transportation technology. We are continuously emphasizing the importance of improved customer service and the need to be more responsive to our customer/partner needs. To accomplish this goal requires both leadership and technical expertise. One of the core elements of the FHWA corporate management strategies is the development of our human resources - our people - to assure that

we are fully prepared and able to deliver the business results which our customers expect. This and all of FHWA's initiatives are critical to our mission of providing leadership, expertise, resources and information to the transportation community. The impact is the continuing need for a variety of learning and development activities that support the development and progressive enhancement of leadership competencies and technical skills.

The Department faces new challenges as never before due to changing workforce demographics, as well as rapidly changing technologies. Strategic planning efforts of the FHWA Workforce Planning and Professional Development Task Force point toward a very different FHWA in the near future. Approximately 45% of the current FHWA workforce, and 92% of the current executives, will be eligible to retire by 2010. A comparison of the agency's future workforce needs to its current state e.g., the talents, skills, and competencies of the workforce, highlights gaps that must be closed. To close these gaps, it is essential to have programs, processes and employees who can adapt to continually changing needs. Employees must continue to learn as technology/program changes occur. All employees must also have leadership competencies to contribute to the success of the agency in the future. The Task Force outlines 37 action items to address the gaps between the future and current state of the Agency.

The history of employee development resources in FHWA and the agency's recent restructuring activities have presented challenges and the need for elevating the expertise of the staff; establishing an environment of continuous learning and professional growth; and providing transportation education. To advance our strategic plan and the goals of our restructuring, the agency needs to place a heavy emphasis on the development of our technical, leadership and business expertise. We must not only maintain and replace our current level of expertise, but build more depth in skills and expertise to meet our charge as a leader in transportation technology and program expertise-"to provide leadership, expertise, resources and information" to the transportation community.

Office of Intermodalism +$222

A funding increase of $222,000 is requested in FY 2002 for the Office of Intermodalism primarily to cover added salary and administrative expenses to support an ES-1 DOT Hazmat Coordinator position as recommended by the Office of the Inspector General.

Environmental Streamlining/NEPA +$2,585

This request will provide funds for activities to test promising pilot efforts and institutionalize processes that reduce project delays and protect and enhance the environment.

Rising societal environmental expectations, a complex set of environmental laws, and a large number of agencies charged with administering these laws contribute to lower than anticipated environmental performance and less than satisfactory timeliness in advancing highway projects. Efforts to better manage environmental responsibilities on transportation projects in this complex interagency setting have not yet been fully implemented throughout the U.S. by FHWA and our transportation partners. Field offices of other Federal agencies have not yet embraced on a consistent basis promising new ways of doing business. Most of the funding increase would finance the incremental costs of developing, evaluating, and disseminating information about pilot efforts proposed by State departments of transportation and Federal and State resource agencies to address specific environmental and program management challenges that exist at the State level. For example, the listing of the salmon as an endangered species in Washington State introduces more stringent requirements upon the highway program. If administered using conventional processes, adherence with these requirements would severely delay the delivery of important highway projects, even those not materially affecting the salmon. This initiative would provide financial assistance for developing streamlined procedures and processes to address the new environmental responsibilities and for exporting the lesson learned.

Program evaluations that indicate the shortcomings of current approaches and/or the potential effectiveness of this initiative:

Data for 1998 and 1999 indicates that half of the FHWA projects advanced with environmental impact statements (EIS) take almost six years or longer to advance through the EIS preparation phase of project development.

Congestion Mitigation and Suburban mobility initiative -$1,996

No funding is requested for FY 2002.

Corporate Average Fuel Economy -$998

No funding is requested for FY 2002.

Equipment: +$2,529

Information Technology Infra. Maintenance +$2,529

Federal Highway Administration (FHWA) needs to increase funding for upgrading its mission critical systems because old and outdated equipment will not run applications required for customers and partners. Internal and external studies have concluded that making piecemeal purchases when funding is available leads to buying the "cheapest available" or substandard equipment. This ultimately leads to premature obsolescence, poor performance, and increased costs for overall systems management. It in turn leads to increased development and support costs for internal information systems due to the variety of end-user computing systems that must be supported. The additional funding will allow the FHWA to upgrade its mission critical systems in a planned, orderly and systematic, rather than ad hoc, manner.

FHWA's cadre of geographically dispersed technical and professional staff performs a very diverse set of functions including planning, construction, maintenance, and management of the highway and related transportation systems. The size of FHWA's highway program has grown substantially over the past decade, but without a corresponding increase in staff. Without a reliable and modern technology infrastructure the agency will be hard pressed to continue effective delivery of funds and services to the States and public.

Pursuant to the House Report, H.R. 106-622, the DOT CIO is currently reviewing this proposed increase.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
LIMITATION ON GENERAL OPERATING EXPENSES

Object Classification (in millions of dollars)

	2000 ACTUAL	2001 BUDGET	2002 ESTIMATE
Personnel compensation:			
11.1 Full-time permanent	142	163	174
11.3 Other than full-time permanent	2	2	3
11.5 Other personnel compensation	2	2	2
11.9 Total personnel compensation	146	167	179
12.1 Personnel benefits: Civilian	38	43	46
21.0 Travel and transportation of persons	11	9	9
22.0 Transportation of things	2	.....	.....
23.1 Rental Payments to GSA	20	17	21
23.3 Communications, utilities and miscellaneous charges	9	10	10
24.0 Printing and reproduction	3	2	2
25.2 Other services	55	39	42
26.0 Supplies and materials	4	2	2
31.0 Equipment	11	5	7
33.0 Investments and Loans	5	.....	.....
93.0 Administrative expenses included in schedule as a whole	304	294	318
99.0 Total obligations	...	...	...

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

LIMITATION ON ADMINISTRATIVE EXPENSES
Total Limitation on Administrative Expenses

Program and Financing (in millions of dollars)

	FY 2000 Actual	FY 2001 Est.	FY 2002 Est.
Program by activities:			
Program direction and coordination:			
Executive direction	2	2	2
Corporate management	1	1	2
Legal services	6	7	8
Public affairs	1	1	1
Civil rights	2	2	2
General program support:			
Policy	8	9	10
Research and development	9	13	13
Administrative support	111	99	101
Professional development	2	2	2
Career development programs	2	1	1
Highway programs:			
Infrastructure	10	11	12
Planning and environment	10	10	12
Operations	7	7	8
Federal lands highway office	11	12	14
Other highway programs	15	8	8
Field operations and resource centers	106	115	126
Total obligations	**303**	**300**	**322**
Financing:			
Reimbursable programs	-1	-4	-4
Unobligated balance available, start of year	-4	-2	0
Unobligated balance available, end of year	6	0	0
Limitation	**304**	**294**	**318**
Relation of obligations to outlays:			
Total obligations	303	300	322
Obligated balance, start of year	403	402	408
Obligated balance, end of year	-402	-408	-412
Outlays from limitations	**304**	**294**	**318**

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

LIMITATION ON ADMINISTRATIVE EXPENSES

Personnel Summary

	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Total Compensable Workyears:			
Full-time equivalent employment.....	2,222	2,422	2,427
Full-time equivalent of overtime and holiday hours.....	19	19	19

RESEARCH AND TECHNOLOGY PROGRAMS
FEDERAL HIGHWAY ADMINISTRATION

Dollars in thousands ($000)

	Transportation Research	FY 2000 Authorized	FY 2001 Authorized	FY 2002 Authorized	FY 2002 RABA Request	FY 2002 Request	FY 2002 Other Initiatives Request 1/	FY 2002 Request
I.	Surface Transportation Research	$96,000	$96,000	$101,000	$12,673	$113,673	$0	$113,673
II.	Technology Deployment Program	40,000	45,000	45,000	5,647	50,647	0	50,647
III.	Training and Education	19,000	19,000	19,000	2,384	21,384	0	21,384
IV.	Intelligent Transportation Systems (ITS)	98,200	100,000	105,000	13,175	118,175	0	118,175
V.	ITS Deployment	113,000	118,000	120,000	15,058	135,058	0	135,058
VI.	University Transportation Research	27,250	27,250	26,500	3,326	29,826	0	29,826
VII.	Bureau of Transportation Statistics	31,000	31,000	31,000	3,890	34,890	0	34,890
VIII.	Planning, Technology Research and Deployment Programs	0	0	0	0	0	26,000	26,000
	GRAND TOTAL	$423,450	$437,250	$447,500	$56,152	$503,652	$26,000	$529,652

FY 2002 R&T Program Funds:Total Requested- Summary by Line Item			
(Dollars in Thousands $000)			
Line Item/Program	**STR**	**Tech. Deploy.**	**TOTAL**
Safety	$14,619	$3,950	**$18,569**
Pavements	$12,753	$500	**$13,253**
LTPP	$10,000	$0	**$10,000**
Structures	$9,449	$25,076	**$34,525**
Env., Planning &Real Estate	$15,527	$6,400	**$21,927**
Policy	$8,330	$0	**$8,330**
International	$1,200	$0	**$1,200**
Advanced Research	$1,000	$0	**$1,000**
Operations	$12,209	$3,367	**$15,576**
Asset Management	$2,373	$1,252	**$3,625**
R&T Tech. & Prog. Support	$9,260	$2,755	**$12,015**
Field Services R&T Delivery	$3,220	$1,700	**$4,920**
R&T Strat. Plan./Perf.Meas.	$1,060	$0	**$1,060**
Totals	**$101,000**	**$45,000**	**$146,000**

FY 2002 R&T Program Funds:Total Requested					
(Dollars in Thousands $000)					
Line item	PROGRAM (Str. Goal)	Priority Area	STR	TDIPP	Totals
Safety			**$14,619**	**$3,950**	**$18,569**
	HIGHWAY SAFETY (Safety)		$14,619	$3,950	$18,569
		Run-Off-Road	$5,740	$0	$5,740
		Pedestrian and Bicycle Safety	$1,949	$0	$1,949
		Intersections	$850	$0	$850
		Human Centered	$550	$0	$550
		Safety Management	$2,230	$0	$2,230
		Speed Management	$2,275	$0	$2,275
		Work Zones/RR Crossing & Other	$1,025	$0	$1,025
		Designated Programs	$0	$3,950	$3,950

SURFACE TRANSPORTATION RESEARCH and TECHNOLOGY DEPLOYMENT

Program Area: Highway Safety

Strategic Goal: Safety

Amount Requested for FY 2002: $18,569,000 ($14,619,000 STR; $3,950,000 TD1PP)

GOAL:

In 1999 there were 41,345 highway fatalities and about 3.2 million injuries on our roadways. FHWA's strategic safety goal calls for a 20-percent reduction in the number of highway-related fatalities and injuries by 2008 and a 50 percent reduction in commercial vehicle fatalities and injuries. FHWA's Plan focuses on deployment of lifesaving technologies (i.e., engineering practices, analysis tools, equipment, and roadside hardware) and technical assistance, training and public awareness programs. The Safety CBU has responsibility to provide leadership in the development of a national technology program and to provide support and assistance in advancing and integrating high priority and innovative technologies into routine use in highway safety areas. The accelerated deployment of technologies and processes is vital to ensure the safe and efficient movement of goods and people on our nation's roadways.

Strategic and tactical safety roadmaps based on the FHWA Strategic and Performance Plans were developed as part of a coordinated effort involving staff of the Office of Safety, RD&T and other offices. The primary focus areas for the FY 2002 budget request are: run-off-road safety, pedestrian and bicyclist safety, speed management, intersections, and work zones. Human centered and safety management are essential supporting areas. In addition to agency funded research, development and technology transfer, the FHWA will continue to coordinate with the National Cooperative Highway Research Program (NCHRP) Project 17-18, Implementation of the AASHTO Strategic Highway Safety Plan..

RUN-OFF-ROAD SAFETY FOCUS AREA

FHWA's 1998 National Strategic Plan identifies run-off-road incidents as one of the high priority areas for deploying lifesaving technologies on the highways. Single vehicle run-off-road crashes result in approximately one-third of all highway fatalities and one-half million people injured annually, with a societal cost of $80 billion each year.

AASHTO's *Strategic Highway Safety Plan* identifies two strategies for reducing run-off-road crashes and the severity of their consequences: "keeping vehicles on the roadway," and "minimizing the consequences of leaving the roadway." FHWA's strategic roadmap for run-off-road safety includes three major research thrusts. Two of the research thrusts (the Interactive Highway Safety Design Model and Enhanced Driver Visibility) are aimed at developing tools and techniques for keeping vehicles on the roadway, and one (Roadside Safety) is aimed at minimizing the consequences of leaving the roadway.

Details of the major research thrusts are presented below. In addition, the FY 2002 program request includes technology deployment, such as increased use of retroreflective traffic control devices, improved road geometrics, skid-resistant pavements, rumble strips, and the "clear" roadside concept including crash worthy roadside safety hardware. Professional development activities include: Eisenhower graduate fellowships, university grants for innovative highway safety research, and Transportation Research Board conferences and international scanning tours. Extensive public outreach is also planned to educate the traveling public and motivate them to avoid drowsy driving and to be alert to traffic, roadway and environmental conditions, and traffic control devices such as signs, pavement markings, and traffic signals.

FY 2002 PROGRAM REQUEST: $5,740,000 (STR)

Interactive Highway Safety Design Model:

Background and Objectives

The present highway design process assumes compliance with design guidelines equates with safety. The process lacks effective systematic methods to consider safety explicitly and to compare the safety of various design alternatives. This assumption limits flexibility in highway design. Failure to consider safety explicitly reduces the potential safety cost effectiveness of highway investments. The Interactive Highway Safety Design Model (IHSDM) will be a suite of evaluation tools for assessing the safety effects of specific geometric design decisions. The IHSDM will provide planners and designers information to maximize the safety benefits of highway projects within the constraints of cost, environmental and other considerations.

Status

Research on all components of the two-lane rural highway version of IHSDM will be completed during FY 2002. Research to add evaluation capabilities for multilane design alternatives was initiated during FY 2000 and will continue during FY 2002.

Where appropriate, research funds are being leveraged by jointly conducting research in conjunction with the National Cooperative Highway Research Program (NCHRP). Cooperative research and development agreements are being established with vendors of computer-aided roadway design software to facilitate distribution of IHSDM to users.

The status and accomplishments (FY 2001 and prior) of IHSDM development are as follows:

- *Crash Prediction Module*: This module has been completed for two-lane rural highways.
- *Design Consistency Module*: This module has been completed for two-lane rural highways.
- *Driver/Vehicle Module*. The driver performance model is under development, and the vehicle-dynamics model for two-lane rural highways is being enhanced. Specifically "*Data on Driver Characteristics for Incorporation into the IHSDM Highway Design Software Model*" will be supplied to the IHSDM behavioral model to allow a more realistic manipulation of roadway geometry parameters.
- *Policy Review Module*: This module has been completed for two-lane rural highways.
- *Intersection Diagnostic Review Module*: This module will undergo beta-testing by selected State DOTs during FY 2001.
- *Traffic Analysis Module*: Guidance will be completed for interpreting the safety implications of operational performance measures produced by this module.

Expected FY 2002 Products and Milestones

- *Intersection Diagnostic Review Module* - This module will be completed for two-lane rural highways.
- *Traffic Analysis Module* -Integration of this module into the two-lane rural highway version of IHSDM will be completed.
- *Driver/Vehicle Module*: Development of this module will be completed for two-lane rural highways and beta testing will be undertaken by selected State DOTs.

New Initiatives

No new initiatives are planned during FY 2002

Ongoing Initiatives

Research and Development

- *Rural Multi-Lane Crash Prediction Model* This research will develop base models and accident modification factors for predicting crash frequency and severity on multilane rural highways. The resulting algorithm will be incorporated into the IHSDM Crash Prediction Module. This added capability will enable planners and designers to evaluate the safety impacts of the full range of rural two-lane and multilane design alternatives.

- *Beta Testing of IHSDM* State DOTs will test IHSDM by applying it to real-world design projects. Feedback from the States will be used to finalize the software implementation of the analysis modules.

- *IHSDM Driver Performance Module* Test and validation work is being conducted on the IHSDM driver-performance module using a combination of a human factors field research vehicle and simulation.

- *Vehicle Performance for Operational Situations--Data Collection and Algorithm Enhancement* This research will enhance IHSDM's capabilities to evaluate vehicle performance issues in the design of upgrades and downgrades, including climbing lanes and emergency escape ramps.

- *Safety Evaluation Measures from TWOPAS* This research will define surrogate accident measures that can be generated by the TWOPAS traffic simulation model. TWOPAS outputs will be modified to provide safety measures such as conflicts, time to collision, large speed differentials, forced lane changes, and aborted passes.

- *IHSDM Software Development.* This study provides the software development support required to produce the public-release version of IHSDM for two-lane rural highways.

- *Geometric Design Laboratory.* The Geometric Design Laboratory supports the development of the IHDSM. The Laboratory serves as the integrator of results from IHSDM research contracts, provides software engineering support, and interfaces with software vendors to facilitate the transfer of research into highway design practice.

- *Policy Review Module for Multilane Rural Highways.* This research will develop functional specifications for software to check designs for multilane rural highways against the relevant AASHTO and State DOT design policies.

Safety Core Business Unit

- *Interactive Highway Safety Design Model Training Course* This training course will explain the IHSDM engineering concepts used and provide case studies illustrating the use and benefits of the model.

- *Interactive Highway Safety Design Model Promotional Activities* Promotion of the IHSDM as a tool to assist in the evaluation of safety impacts of highway geometric design decisions for State and local DOT agencies.

Enhanced Driver Visibility:

Background and Objectives

Motorists driving at night are more likely to be involved in an accident than during the daytime. About half of the motor-vehicle deaths occur at night, however, death rates based on travel are about four times higher at night than during the day. A large proportion of the annual 7,000 fatal single crashes, particularly those where the vehicle leaves the roadway, are likely due in part to lack of necessary guidance information. In addition, poor visibility of pedestrians at night is an important contributing factor in some 2,400 annual fatalities. One of the largest problems with the current delineation systems is the fact that retroreflective pavement markings are rendered invisible when covered with only a small amount of water.

The Enhanced Driver Visibility Program is directed at reducing the number of crashes related to poor visibility, which is often aggravated by glare, wet roadways, fog, dust storms, adverse weather, and traffic control devices in poor condition. While this is a problem for all drivers, it is exceedingly difficult for the increasing number of older drivers, who are expected to constitute 20 percent of the population by the year 2030. The American Association of Retired Persons surveyed 1,400 of their members, and over half of the respondents indicated that they drive less at night due to reduced visibility and problems with glare. The program is also dedicated to reducing driver stress caused by poor visibility. Countermeasures include technology deployment and marketing of more visible signs and pavement markings (e.g. activities associated with retroreflective materials).

Status

One major focus of the Enhanced Driver Visibility Program has been the evaluation of ultraviolet headlamps. This technology uses invisible UV light which reacts with fluorescent signs or pavement markings and pedestrian clothing to produce visible light without glare. The results of the initial studies indicated that fluorescent traffic control devices stimulated by UV headlights could be seen 30-40% further than conventional headlights. Recent field studies completed in Quantico, VA have again indicated a 40% increase in the visibility of pavement markings and a two-fold increase in the visibility of pedestrians. Participants used in the study expressed very positive opinions of the UV technology. The principal research efforts were undertaken between 1997 and 1999 and field assessment studies are planned for 2000 and 2001. The program will involve the use of an industry-government cooperative team approach. Research directions will include a broad-based assessment and concept demonstration to understand the highway design and traffic control implication of future directions for headlamp technology in the United States.

Several years worth of research will soon result in the development of minimum retroreflectivity guidelines for both signs and markings. FHWA R&D has already made a recommendations for minimum retroreflectivities for signs and for pavement markings. A 1998 validation study of the sign retroreflectivity values has indicated that the minimum values are adequate and an AASHTO panel is now reviewing implementation guidelines for possible adoption or modification. Efforts are underway to synthesize recently completed research on pavement marking retroreflectivity to validate proposed minimum requirements.

Two SBIR efforts associated with the weather program have led to new prototype devices to detect fog and ice. A successful, low cost fog sensor has been developed and was field tested. A prototype wide area ice detection system has been developed and will undergo further field testing in 2000.

The Arens Photometric and Visibility Laboratory (APVL) staff has concentrated on establishing the laboratory as a control source, allowing the States to check their photometric instruments against carefully calibrated standards. The APVL staff was also instrumental in designing a variable lighting system for the Virginia Tech Smart Road facility to serve present and future lighting studies. One current lighting study will use the variable lighting features of the Smart Road to determine the lighting needs of older drivers.

Four Mobile Sign Retroreflectometer vans have been deployed to the Resource Centers. The mobile vans greatly increase operator productivity and safety. These vans will demonstrate retroreflectometer technology and provide a mobile source of information on sign and pavement marking retroreflectivity / guidelines for the highway community.

Expected FY 2002 Products and Milestones

- *Large-scale demonstration of UV technology.* The evaluation of field tests of vehicles equipped with UV and other innovative headlamps will be completed. The results will be used to help assess the feasibility of working with the automotive and lamp industry to develop a production UV headlamp to improve night visibility on the highway.

- *Special retroreflective guidelines.* Retroreflective guidelines will have been completed for overhead signs and street name signs.

- *Workshop materials on Retroreflectivity Guidelines*

New Initiatives

Research and Development

- *Emerging pavement marking technologies* - Research will be initiated to determine if there are means to enhance the retroreflectivity performance and service lives of pavement markings. The efforts will consider marking material specifications, nature of the retroreflective media, application practices, and new materials.

- *Retroreflective guidelines for blue and brown signs.* Retroreflective guidelines will be developed for blue and brown signs to compliment the guidelines already developed for white, red, green, and yellow signs.

- *Retroreflective for work zone traffic control devices.* Retroreflective guidelines will be developed for the various types of work zone traffic control devices.

- *Effects of improved delineation on driver behavior.* A research effort will be initiated to determine the effects of improved visibility on driver behavior. This effort will attempt to determine how drivers use the information relative to visibility, speed selection, lateral placement, etc. during adverse conditions.

- *Improved guidelines for roadway lighting systems.* Research will be initiated to update the Roadway Lighting Handbook and develop tools to be used in conjunction with it to promote the implementation of the insights learned from research on driver lighting needs.

Safety Core Business Unit

- *Retroreflectivity Guidelines Train the Trainers Workshop.* The developed "Retroreflectivity Guidelines Train the Trainers" workshop materials in FY 2001 will be used to conduct workshops to train the trainers in FY 2002. This will include training the FHWA Resource Centers(RC) and the Local Technical Assistance Program (LTAP) centers. Four workshops will be held to train approximately 80 trainers who will instruct State and local highway agencies and the highway community on the retroreflective technologies and guidelines for signs and pavement markings.

Ongoing Initiatives

Research and Development

- A SBIR study will assess the economic practicality and likelihood of being able to develop and manufacture a UV headlamp that can be used in highway vehicles.

- *Night Visibility Enhancement.* This cost-sharing contract requires the contractor to identify UV/fluorescent performance and design objectives and generate associated measures of effectiveness and performance. An extensive installation will be put into place to test a fleet of prototype test vehicles containing UV headlamps and roads with fluorescent pavement markings and post mounted delineators. Road testing is expected to be completed in FY02.

- *Night Driving and Highway Lighting Requirements for the Older Driver.* The variable lighting system installed on the Virginia Tech Smart Road will be used to investigate the effects of varying brightness and uniformity of lighting systems. Field studies will be completed and the data analyzed to establish lighting guidelines which emphasize the capabilities and requirements of older drivers.

- *Development of Fog and Ice Detection Systems.* SBIR grants for the development of an in-expensive fog detection system and a wide area ice detection system have led to functional prototypes. Field evaluation efforts will be completed.

- *Service Support for the Photometric and Visibility Facility.* This effort is to provide on-site support for the operation and maintenance of the photometric and visibility laboratory. This will involve operating and maintaining the visibility equipment to measure light, color, and retroreflectivity and visibility of traffic control devices and to conduct the necessary tests and evaluation of existing and new products.

Safety Core Business Unit

- *Deliver Retroreflectivity Technology and Implement Guidelines.* RC will showcase, demonstrate and conduct workshops to deliver and implement retroreflectivity technologies and guidelines for signs and pavement markings to State and local highway agencies.

Roadside Safety:

In 1998, more than one out of every three (14,000 about 35 %) fatal crashes was a single vehicle run-off-road (SVROR) crash. A SVROR crash is one involving a single vehicle in which the first harmful event takes place on the shoulder, median, gore, roadside, etc. – anyplace but the traveled way. The most common objects struck were trees, embankments, utility poles and guardrails. Collision with a fixed object was the first harmful event for 73% of all SVROR fatal crashes. An overturned vehicle was the first harmful event in 19% of the SVROR traffic fatalities. Two out of three SVROR fatal crashes occur in rural areas, 80% occur on dry pavement, and 60 % occur during dark or reduced light conditions.

In order to achieve the goal of reducing the numbers of fatalities and serious injuries resulting from run-off-road crashes, research will be conducted to improve crash barriers and other roadside hardware (through actual crash testing and simulation) to better understand and prevent vehicle rollover/overturning. Outreach to the general public to improve the level of highway safety knowledge for the average driver is planned. Road safety audits will be promoted as a tool for states to identify problems; best roadside safety practices will be promoted on a FHWA web site. Partners and customers include State and local highway agencies that design, select and locate safety hardware.

Expected FY '02 Products and Milestones

The following will be available:

- An operating accreditation program for crash-test facilities used by the FHWA. This product will insure a higher level of consistency and accuracy between test centers and thus those roadside hardware systems installed on the U.S. highways.

- Completed research for understanding the behavior of roadside safety structures on non-level terrain. Crash results are very sensitive to changes in non-level terrain and states need to know how roadside hardware safety systems should be installed in non-level terrain situations to obtain the best occupant protection.

- Results from a two-year program of dynamic testing of posts in soil. These results will be integrated into the simulation model, LSDYNA3D Finite element Program, so tests will better represent candidate vehicle-roadside hardware system performance in the real-world.

- Conduct a workshop on LSDYNA3D Finite element Program so engineers can learn how to use this simulation tool to assess candidate vehicle-roadside hardware systems for occupant safety prior to more costly field testing.

- The NCAC will develop a finite element model of a tractor-trailer for use by both NHTSA and FHWA in various types of impact simulations, i.e., large vehicle to small vehicle impacts and large vehicle to barrier impacts.

New Initiatives

Research and Development

- None

Safety Core Business Unit

- *Utility Pole Safety - Outreach.* The Utility Safety Task Group working under the auspices of the Transportation Research Board Committee on Utilities is developing a report to encourage programs within utility companies and State and local DOT's to identify potentially hazardous utility pole locations and implement corrective measures. The report will include information on the scope of the problem, policies, programs and remedial measures currently in force, and economic and legal considerations. TRB will publish the final report. A follow-up video needs to be developed to highlight the contents of the report and serve as a stand-alone supplement to the report and/or a tool to be used as part of presentations on the report to utility companies and State and local DOT's.

- *Preventing Run-Off-Road Crashes – An Awareness Campaign* Develop a campaign to include video tape, CD Rom, other promotional materials and use of alternate media (e.g. internet) to address the run - off road crash problem. The goal is to increase the public awareness and promote measures to mitigate this problem.

Ongoing Initiatives

Research and Development

- *Simulation Centers of Excellence.* Four universities will be funded to maintain Centers of Excellence for the DYNA3D analysis of vehicle collisions with roadside safety structures. The Centers are jointly funded by State DOT's and/or universities. Products from these Centers will include roadside safety structures of interest to both the FHWA and the States. Because of the joint funding arrangements by the FHWA, the States, and the universities, a win-win situation results for all funding parties. Development of higher levels of DYNA3D expertise and experience among both students and faculty members is also a primary objective.

- *Cooperative Research, Maintenance and Operation of the FHWA/NHTSA NCAC.* This is a cooperative research agreement between the Federal Highway Administration, the National Highway Traffic Safety Administration, and the George Washington University to use finite element analysis to study crash events at the National Crash Analysis Center FHWA/NHTSA NCAC. This agreement will cover maintenance and operation of FHWA/ NHTSA computer models and provide technical assistance to FHWA, States and research community in the application of finite element modeling and analysis for the development of improved roadside safety hardware. It will develop simulation models and explore new modeling methods with potential to improve roadside safety structures, such as the application of Inverse Analysis Methods, which help design optimum solutions. The agreement also includes the operations of the FHWA/NHTSA NCAC film library.

- *Development of DYNA3D Analysis Tools for Roadside Hardware Applications II.* Many of the roadside structures commonly used on our Nation's highways are fabricated either partially or entirely from wood and concrete and all are mounted in soil. Currently available DYNA3D material models for wood, soil, and concrete do not accurately model these materials. This procurement is intended to develop accurate wood, soil, and concrete material models for DYNA3D which can be used for roadside safety hardware applications.

- *Vehicle Tripping and Rollover Mechanisms.* Rollover is cited as the single most harmful event that can occur in roadside crashes. It is the most harmful event in 33 percent of the roadside crashes, accounting for 4,820 fatalities per year. A thorough analysis of specific causes of rollover events will be undertaken which will include both simulation and crash data collection and interpretation. Countermeasures to mitigate the frequency and severity of rollover collisions will be assessed. Many of these rollover events involve man-made features, such as ditches and side slopes. This effort will build upon the FY00 study, "Effects of Roadside Design on Rollover -- Experimental Design.." Guidelines will be developed for practitioners on the identification of site features with high rollover potential and the implementation of countermeasures to minimize such problems.

- *Federal Outdoor Impact Laboratory (FOIL).* The FOIL crash test facility provides support for the FHWA Offices of R&D, Safety, and Engineering as well as NHTSA. Data obtained from crash tests with instrumented vehicles are used to improve vehicle design, occupant protection, and roadside safety hardware consistent with the strategic and tactical roadmaps developed for the Run-off-Road Safety Program.

- *Safety Hardware Performance on Non-level Terrain* Most roadside safety hardware tests are performed on level terrain. However, many field conditions dictate that safety devices be installed in non-ideal configurations. These conditions obviously affect the degree of safeness that the devices can provide. This new three year study will assess these effects for the case of non-level terrain. The information will be provided to the states for use in real world design decision-making. It is anticipated that many other forms of critical conditions will be identified during this study and future efforts will address these topics.

- *Side-impact Relevance Study:* Each year approximately 2,250 fatalities result from run-off-road side-impact accidents. These accidents are predominately from vehicles striking narrow roadside objects and structures. This procurement will deal with such issues as the effect of narrow roadside structures on vehicle side-impact performance. Since a large percentage of the side-impact fatalities result from impacts into trees and utility poles, crash results will be provided to NHTSA for consideration in vehicle side structure and side-impact air bag programs.

- *Accommodation Policy for "Secure" and "Vandal-Proof" Mailboxes.* The report "Trends in Mailbox Designs and Their Potential Impact on Highway Safety" identified three types of mailboxes that had not previously been evaluated for crashworthiness. They are the secure, the "bat -proof" (vandal resistant), and the plastic mailbox. It appears that the use of these new types of mailboxes is growing. This is cause for concern because the first two types are substantially heavier than either conventional mailboxes or plastic ones, and may be more hazardous. To address this potential hazard, it is proposed that guidance be developed on the appropriate locations for placing heavy and multi-unit mailboxes.

- *Development of Optimal Portable Concrete Barrier (PCB) Design.* The FHWA/AASHTO Agreement on NCHRP Report 350 Implementation requires the use of Report 350 temporary concrete barrier after October 1, 2002. Several States and some private companies have successfully tested different designs. There is an expressed need, however, for some uniformity in design. Through a combination of computer simulation and full scale crash testing, it is possible to develop a "universal design" that meets crash test requirements, addresses contractors' and States' transportability concerns, and optimizes manufacturing and installation costs.

- *Discretionary Funding for Crashworthiness Evaluation* The Office of Safety sets policy for the design of safe roadside terrain and roadside hardware. It is also the national clearinghouse of information on roadside safety hardware that has met the crash test criteria contained in National Cooperative Highway Research Program Report 350 "Recommended Procedures for the Safety Performance Evaluation of Highway Features." Much of the crash testing has been sponsored by private industry or by states pooling their funds to address defined problems. Frequently, however, we are faced with situations or hardware combinations that are in widespread use, or have the potential for application on a broad basis, but have not been evaluated and/or tested by others. Funding is needed to evaluate, simulate through computer modeling, and/or conduct physical crash tests of safety hardware or terrain features to assess their crashworthiness.

Safety Core Business Unit

- *Lab Accreditation/ Inter-laboratory Comparison* The purpose of the accreditation program is to improve the confidence in crash test results because of the trend to more for profit crash test labs and more proprietary road safety appurtenances. This effort was deferred because the industry is considering options for implementation of lab accreditation. There is also interest in participating in interlaboratory comparisons as part of reducing uncertainty and reducing error.

PEDESTRIAN AND BICYCLIST SAFETY FOCUS AREA

Background and Objectives

On average, motor-vehicle crashes involving pedestrians and bicyclists continue to result in 15 percent of motor vehicle fatalities annually in the United States Approximately 6,000 pedestrians and bicyclists are killed and 145,000 are injured in motor-vehicle crashes each year. In fact, the number of pedestrian and bicyclist fatalities exceeds the combined total of Americans killed in air, sea, and train crashes each year. Pedestrian safety will continue to receive attention since every trip begins and ends with walking. In addition to the initiative in the Enhanced Visibility program, the pedestrian and bicyclist safety research program focuses on identifying problem areas for pedestrians and bicycles, developing analysis tools that allow planners and engineers to better understand and target these problem areas, and evaluating countermeasures to reduce the number of crashes involving pedestrians and bicycles. FHWA policy is to take a strong leadership role in promoting the use and safety of all modes of travel including walking and bicycling

Status

The research in this area continues to integrate and enhance the results from recently completed activities under the high priority area, Pedestrian and Bicycle Safety. FHWA will continue to take the leadership role in the evaluation and deployment of pedestrian and bicyclist safety countermeasures, related technologies, and in raising the awareness of States and local communities on pedestrian and bicyclist issues Deployment efforts will include products being developed by Safety Research and Development, as well as tailoring those products to meet the particular customers needs

Expected FY 2002 Products and Milestones

- Guidelines on the evaluation of safety, design and operations of shared use paths will be competed

FY 2002 PROGRAM REQUEST: $1,949,000 (STR)

New Initiative

Research and Development

- *Evaluation of Safety, Design and Operation of Shared Use Path (SUP) Intersections with Roadways.* This study identifies conflicts between path users and motor vehicles at the intersections of shared use paths and roadways. This effort will develop an evaluation tool regarding SUP/roadway intersection safety, capacity, and quality of service The results of this study will be incorporated into guidelines for the design and operation of shared-use path intersections with roadways

Safety Core Business Unit

- *Bicycle Safety Countermeasure Selection System (BSCSS).* This will provide needed guidance as to which treatment is most appropriate to be implemented under numerous combinations of traffic, roadway, and pedestrian related conditions. It will also provide bicyclist treatment "success stories," so agencies may review similar past projects in terms of the outcomes, costs, and technical specifications, contact local officials who implemented similar treatments, and make more-informed choices on which treatment(s) should be implemented. This activity will be incorporated into Pedestrian Bicycle Crash Analysis Tool (PBCAT) in 2003

- *Promotion of Pedestrian Safety Technologies/Processes to the field.* From 2002 a number of workshops are planned to raise the awareness of the safety and pedestrian/bicyclist engineers. Pedestrian/Bicyclist accommodation issues are still an "afterthought," although in many cities more than 50 percent of all traffic related fatalities are pedestrians, e.g., New York City, San Francisco, Boston, Rochester, Grand Rapids, etc.

Ongoing Initiatives

Research and Development

- *Automatic Pedestrian and Bicycle Counting Devices.* This effort will involve a cooperative effort between FHWA and manufacturers to develop and/or refine devices which automate pedestrian and bicycle data collection. This effort will include a synthesis of existing practices and innovations for collection of data.

- *Evaluation of Safety, Design and Operations of Shared Use Paths.* This comprehensive study investigates (1) identify conflicts among path users; (2) determine path capacity and quality of service; (3) develop geometric design details; and (4) determine path maintenance requirements. The results of this study will be used to develop guidelines for the design and operation of shared use paths.

- *Effects of Intersection Design on Pedestrian and Bicycle Safety.* This effort will research the effects of various geometric and operational design features of intersections on pedestrian and bicyclist mobility and safety. These features include turn lanes, right turn-channelization, turning radii, sight distance, and signalization.

- *Enhancement of PBCAT.* Suggested enhancements to the pedestrian and bicycle crash analysis software are being incorporated into the software. User support for the software also is provided.

Safety Core Business Unit

- *Pedestrian Safety Countermeasure Selection System (PSCSS).* Many products came from this Emphasis Area. The user guidelines and documents contain technical information on approximately 50 different pedestrian treatments, "good practice" examples, and an "expert system" computer program. This effort will provide guidance on treatments to select, expected on outcomes, and costs so users can make more-informed choices on which treatment(s) are to be implemented.

- *Pedestrian/Bicyclist Engineering Outreach.* This program is for safety practitioners, the roadway user, and other safety groups. Information and outreach materials will focus on highway safety engineering countermeasures (tools, technologies, and processes). The campaign will be tested in up to 20 local sites (starting in FY'02) so that the results are statistically credible, and will serve as a case study for future outreach efforts.

- *Pedestrian/Bicyclist Reference Set* (Update/Delivery). This reference set is designed for engineering, planning and other safety practitioners. The reference set will be interactive and be available in June 2000. Included will be facility design and evaluation information, guidelines, good practices and interactive tools. This tool fills a gap in pedestrian/bicyclist information as identified by our customers at the State and local level. Updates to include new products from R&D and other FHWA partners will begin in early FY'02.

- *In-Service Trials/Technologies and Partnerships for Pedestrian Safety.* This program partners with state and local communities to identify potential crash types that can be addressed through the deployment of pedestrian safety countermeasures and ITS technologies (e.g., raised crosswalks, bulb-outs, new signing, other intersection improvements, in-pavement lighting, and infra red pedestrian detection). Operational tests of these safety countermeasures will be undertaken in partnership with cities starting in FY'00. The evaluation of before/after data will help answer many questions about the performance of these countermeasures.

- *Pedestrian Safety Interactive Journey.* This is an interactive CD-Rom that uses multimedia to bring important pedestrian safety issues to the attention of the safety practitioner and the roadway user. Users can interact with and experience various decisions a pedestrian faces in real life as they travel the roadway system (e.g., multiple threat, intersection issues, accessibility, push button issues, and mid-block crossing). Technologies are presented that can assist the pedestrian in making a more informed decision, and assist the practitioner in creating a safer environment. Delivery will take place in FY'01/02.

INTERSECTION SAFETY FOCUS AREA

Background and Objectives

FHWA is initiating a new research focus area on intersection safety. Intersection and intersection-related crashes consistently make up a high proportion of total fatal crashes, up to 23 percent. More than 50 percent of the combined fatal and injury crashes occur at intersections. AASHTO's *Strategic Highway Safety Plan* identifies "improving the design and operation of highway intersections" as one of its 22 strategies reducing highway deaths and injuries.

The objectives are to facilitate implementation of shorter-term strategies and define and evaluate longer-term, higher-payoff strategies to improve intersection safety. FHWA will identify the most common and severe problems and compile information on the applications and design of innovative infrastructure configurations and treatments at both signalized and unsignalized intersections and at interchanges. This initial effort should reveal strategic research opportunities to further intersection safety.

Status

Although intersections are a new research focus area, FHWA has made efforts to improve intersection safety. Three notable previous efforts are: a smart intersection collision warning system advising drivers of potential vehicle conflicts, the red-light-running prevention program, and the development of an informational guide on roundabouts. After initiating the red light running prevention program, FHWA expanded the number of partners and refined the program by recommending traffic engineering studies as a pre-requisite to any red light running project. The roundabout guide is the state-of-the-art practice on roundabouts, and it encompass almost all applications: policy considerations, planning, traffic analysis, safety, traffic control devices, design and special situations. The guide facilitates appropriate application of roundabouts in the U.S.

Expected FY 2002 Products and Milestones

- *Surrogate Safety Measures for Intersections.* Beginning in FY01 surrogate measures of safety will be investigated to develop a prospective safety evaluation of both conventional and innovative intersection treatments. The objective is to develop or add a micro simulation technique with safety implications.

FY 2002 PROGRAM REQUEST **$850,000 (STR)**

New Initiatives

Research and Development

- *Synthesis and Work Plan on Innovative Intersections/Interchanges*. This synthesis will be conducted for existing unconventional intersection treatments. The synthesis will also document their known benefits and recommend work plans for evaluating safety and traffic flow performance.

- *Surrogate Safety Measures for Intersections*. Surrogate measures of safety will be investigated to develop a prospective safety evaluation of both conventional and innovative intersection treatments. The objective is to develop or add a micro simulation technique with safety implications.

- *Safety Analysis and Traffic Models for Modern Roundabouts*. The first objective is to conduct a safety evaluation of roundabouts and analyze safety impacts of design factors. The second objective of this project will develop traffic models for single and multilane roundabouts.

- *Alternative Design Configurations for Intersections*. Guidelines will be developed for the application and design of innovative configurations and treatments that are beneficial to safety and traffic operations.

Safety Core Business Unit

- *Determining the safety benefits of intersection automated enforcement technologies*

- *Intersection Safety Campaign*. Develop and implement a safety campaign focusing on the particular problems at intersections.

HUMAN CENTERED TECHNICAL SUPPORT

Background and Objectives

The interaction of drivers, pedestrians and bicyclists with the highway environment and roadway vehicles is the foundation of the highway safety research program of the Human Centered Systems Team. Many current highway and traffic engineering standards do not sufficiently accommodate the present population of drivers, their abilities and needs. Research indicates that inappropriate driver perceptions and behaviors are implicated in 80 to 90 percent of highway accidents. To reduce driver errors, highway design and operational practices must be consistent with the perceptions, capabilities, and responses of the entire driving population, including younger and older drivers, as well as other highway and roadway users.

Human-centered safety research focuses on understanding users' visual, perceptual and decision-making capabilities for demanding, complicated, and hazardous geometric and traffic environments. By emphasizing these user-related factors, significant enhancements can be made to critical highway design features, traffic control systems, and the tools that highway designers and transportation engineers use, such as analytic and simulation models. These improvements can lead to safer driving and a reduction in crashes.

Research in this program area focuses on driver and other user behavior in response to highway, roadway, bicycle path and sidewalk design, as well as in response to the use of traffic control devices and other safety countermeasures. Driver behavior includes driver decision and control processes and their relationship to driver characteristics and the roadway/traffic environment. Studies have been conducted in driver perception of roadway hazards, in driver errors, in driver speed selection and management and in driver reactions to construction and maintenance zones. Similar studies are being designed and conducted for pedestrian and bicyclist interactions with the roadway environment. Investigations will provide an increased understanding and analytic description of the needs of both drivers and other roadway users in the population, as a function of roadway classification and operating condition, including bicycle paths, sidewalks and crosswalks. Emphasis is also directed to identifying and

quantifying driver decision processes for use in developing realistic driver and pedestrian components for simulation models, and in developing better, user-based highway design and operational guidelines for designers and engineers.

Status

Research and Development

Recent research has concentrated on investigating various roadway and roadside treatments that can be implemented with the goal of improving safety for drivers, pedestrians and bicyclists. The status of the primary research program areas follows:

- *Improved Highway Travel for an Aging Population.* A revised Older Driver handbook is scheduled for delivery in FY01. This revised edition will be promoted in FY02 and feedback will be gathered for further improvements in the future.

- *Reducing Driver Tendency to Select Unsafe Speeds.* Studies will continue on the effects of various infrastructure elements on drivers' selection of speed. In FY01 such studies concentrated on the effects of already existing roadway elements. These studies will progress in FY02 to investigate infrastructure-based countermeasures that can reduce unsafe speeds in a variety of situations.

- *Integrating the Driver, Pedestrian and Bicyclist into a Safe Roadway Environment.* Begun in FY01, investigations will continue on how driving speed affects the use of roadways by pedestrians and bicyclists. These studies will progress to the next phase of discovering how roadway infrastructure elements (trees, barriers, delineation, etc.) can be used to protect pedestrians and bicyclists and to increase the perception of safety and thereby the use of these alternate transportation modalities.

- *Reducing Run-Off-Road Crashes on Curved Roadways.* This type of crash produces a very high rate of highway fatalities. Studies will continue on driver perception of curve sharpness and selection of negotiating speed. This work will lead to developing infrastructure countermeasures that will improve the identification of curve sharpness and reduce selected driving speed. This program will also contribute to developing driver models for incorporation into software used to improve highway design and reduce run-off-road crashes.

Safety Core Business Unit

- *Safety Goals and Activities.* Coordination with SCBU and Safety R&D Teams on goals and activities for speed management, traffic modeling for IHSDM, visibility, ped/bike, cross cutting issues, work zones, and highway safety human factors outreach areas.

- *Older Driver Highway Design Workshop.* Identified states requesting workshop and in delivering workshop to over 20 states so far.

- *MUTCD Signage Evaluation.* Identified research needs in area of MUTCD related signage. A behavioral study concerning electric vehicle signs has been conducted; a study concerning hump signs is in progress.

Expected FY 2002 Products and Milestones

- *Highway Design Recommendations on the Effects of Driver Expectancy Violations in Tangent-to-Curve Geometries* - Recommendations will be made to delimit the effects of roadway geometry on providing erroneous information to drivers as they transition from tangent segment to curve segments of the roadway.

- *Technical Report and Recommendations on How Driving Speed Affects the Use of Pedestrian and Bicycle Paths* - Countermeasures will be proposed based on objective and subjective speed factors which discourage pedestrians and bicyclists from using ped and bike paths.

FY 2002 PROGRAM REQUEST: $550,000 (STR)

New Initiatives

- *Preliminary Examination of Human Factors Highway Safety Design Guideline* - This effort will survey the human factors highway safety studies at TFHRC as well as other research organizations and make recommendations for the content and structure of a Human Factors Highway Safety Design Guideline. The recommendations for the content and structure of the guideline will also be based on interactions with those identified as likely users.

- *Effects of Novel Pavement Markings on Driver Identification of Curve Sharpness (In-House)* - Several novel pavement marking systems will be selected from a variety of techniques which are in current use or which are proposed. These systems will be subjected to empirical testing using a driver-in-the-loop simulation methodology to determine promising applications to be subsequently tested in naturalistic, on-the-road settings.

- *Effects of Infrastructure Protective Elements on Pedestrian and Bicyclist Path Use (In-House)* - This research will analyze the various types of protective infrastructure elements and select several which show promise in protecting pedestrians and bicyclists. These protective elements will be subjected to empirical investigation(s) to determine their effect on pedestrian and bicycle safety in a variety of typical scenarios.

- *Driver Use of Delineation Devices for Speed Selection During Curve Negotiation (In-House)* - This research will analyze the various types of delineation techniques in current usage and select several which show promise in assisting drivers to select the proper speed upon entering and negotiating a curve. The selected techniques will be utilized in a simulation environment to determine drivers' behavioral responses to the application of the techniques to a variety of curves.

- *Driver Response Components in Intersection Design Evaluation (In-House)* - Intersection designs as well as the associated situational and environmental conditions which are involved in the most crashes will be identified. These designs and their associated conditions will be replicated in simulated environment using drivers in all age groups to determine the specific factors of the design and conditions which are related to high crash rates and/or which lead to unsafe driver practices.

- *Testing and Validation of Prototype Driver Models for Highway Design (In-House)* - This project will calibrate and validate the ped/bike model that relates how pedestrians and bicyclists interact with each other as well as with motor vehicles. The basic objective of this project is to compare model predictions with empirical data. If differences between the two exist, suggestions for adjusting the model will be provided.

- *Driver Behavior As A Function of Roadway Delineation Treatments (In-House)* - A new NCHRP study will study crash rates before and after the installation of raised pavement markings and other treatments. This study will complement the NCHRP study and investigate whether drivers increase their speed as a function of roadway visibility, condition/age of the retroreflective devices, and where the devices are located on the centerline or edgeline.

On-Going Activities

Research and Development

- *Signing and Marking for Selected Traffic Calming Measures* This effort represents the evaluation of signs and marking to be used in conjunction with several traffic calming methods.

- *Driver Behavior Handbook for Highway Designers and Traffic Engineers.* This project will develop and maintain a compendium of human factors related information of use to highway and traffic engineering. This handbook is envisioned as a living document that can serve as a repository for results and data generated by the Human Centered Systems Team, as well as by others.

- *Resident Research Studies.* Resident research studies are being conducted in a variety of areas. Included are studies focusing on driver speed perception and selection, perception of curves, sign recognition distance and comprehension, pedestrian crossing signals and studies addressing special requests from the CBUs and other FHWA offices.

- *Support Services for HYSIM.* This effort provides on-site programming and maintenance support for the HYSIM Interactive Highway Driving Simulator. Activities include simulator scenario development, programming for data acquisition, storage, reduction and analysis, as well as ongoing maintenance and upgrade tasks.

- *Support Services for FHWA Human Factors Program.* Contract human factors resident experts provide ongoing technical and administrative support to the safety research program of the FHWA Human Centered Systems Team. The support provides technical review of contract research documents, on-site resident research activity, program plan development, support for the human factors laboratories, outreach and implementation activities, and assistance with technical conferences and meetings.

Safety Core Business Unit

- *Human Factors and Traffic Engineering Workshop.* Presentation of workshops to state and local agencies on how to accommodate/consider human factor issues in highway design and traffic operations.

- *Outreach and Awareness Campaign.* Develop and implement a safety campaign for the driving public, to increase awareness about the roadway and its safety features, and help drivers understand their workload - with the objective of reducing driver errors.

SAFETY MANAGEMENT FOCUS AREA

Background and Objectives

Improving highway safety requires: (1) a proper identification of the most important problems to address, (2) an understanding of the nature of these problems, (3) use of analysis tools, and (4) knowledge of the effectiveness of potential solutions. The FY 2002 Safety Management program will conduct research and develop tools to assist with these elements. The primary objective of this program is to ensure that limited highway safety resources are appropriately allocated so maximum returns are achieved in reducing the frequency and severity of all types of highway crashes. There is a logical link between the work being performed in this program and the strategic safety objectives outlined by FHWA. The outputs of this program will include research findings on various safety topics packaged in a form best suited for practitioners, a new model for highway safety improvement programs, new safety analysis tools, and integrated safety data to be used in all of FHWA's safety and operations focus areas. Workshops and seminars will promote the concept that safety and safety data must be integrated into all aspects of planning. Best practices from Road Safety Audits will be promoted.

Status

The accomplishments to date (FY' 01 and prior) of Safety Management include:

- *Highway Safety Information System (HSIS).* The HSIS continued to be a key resource in providing input to policy and program decisions, for identifying and scoping needed safety research, and by researchers nationwide as a cost-effective data source to study current and emerging highway safety issues. The eight state safety data base has recently been used to study issues such as red light running, car/truck proximity issues, towaway crash reporting threshold, safety effects of narrow lanes/shoulders on freeways, and "road diets." Reports have been published and distributed from these HSIS studies.

- *Implementation of New Methodologies for Identifying and Ranking of Locations with Potential for Accident Reduction.* The innovative statistical techniques and software developed under a cooperative research

project with Colorado Department of Transportation formed the beginning of the Comprehensive Highway Safety Improvement Model.

Safety Core Business Unit

- *Archived Data User Plan (ADUS).* A 5-year ADUS Safety Program Plan was developed to include the highway safety elements and participation in the 5-year DOT ADUS Program Plan.

- *Safe/Livable Communities.* In an effort to promote Safe/Livable Communities, eleven Regional Community Building Forums were held to address local quality of life issues and provide information on how to build safe, livable and sustainable communities. FHWA sponsored the forum that was held on December 9, 1999 in Denver.

- *National Model.* To date, over 50 presentations have been made to public safety agencies throughout the United States and a series of scanning tours are scheduled to have officials visit Iowa to observe and experience technologies in use. A software package has been developed for free distribution to public agencies who wish to upgrade existing and new data collection forms.

- *International Scan Tour.* A scan tour was completed to assess the practices and innovations of selected European highway safety improvement programs. The results of this tour were used to advance the development of the Comprehensive Highway Safety Improvement Model.

Expected FY '02 Products and Milestones

- *HSIS Summary Reports.* Results from recent HSIS studies on national safety issues will be summarized and distributed.

- *Interim Products from the Comprehensive Highway Safety Improvement Model Project.* These interim products will contain key pieces of knowledge to deliver to the safety community to help create the future market for the Comprehensive Highway Safety Improvement Model.

FY 2002 PROGRAM REQUEST: $2,230,000 (STR)

Ongoing Initiatives

Research and Development

- *Comprehenstve Highway Safety Improvement Model (CHSIM).* The CHSIM is being developed as a set of analytical tools for use in improving certain steps of the highway safety improvement process. The goal of CHSIM is to optimize allocation of resources to achieve the greatest effect in terms of accident frequency and severity reduction on existing highways. The steps being addressed by CHSIM in the highway safety improvement process are: 1) identifying "sites with promise" (locations which hold promise for accident reduction), 2) diagnosing the safety problems at these locations, 3) selecting countermeasures aimed at reducing the frequency and severity of accidents based on the investigation conducted in step 2, and 4) economic appraisal and development of priorities to establish the measure of worth of undertaking remedial work at each site.

- *Highway Safety Information System (HSIS).* The HSIS continues to be maintained and operated to study safety issues of national significance. The fourth generation of the system is being developed with the focus on enhancing the data to ensure it meets the emerging needs of the FHWA and the highway safety community.

- *Highway Safety Manual (HSM).* The HSM is being developed to provide the best factual information and tools in a useful and widely accepted form, to facilitate roadway design and operational decisions, based

upon explicit consideration of their safety consequences. The FHWA is contributing resources to this effort led by the National Academy of Sciences.

- *Advanced Research for Unique Data Analysis and Algorithm Development.* This effort is developing advanced software technologies for automatically identifying and recording the location of safety objects (i.e., signs, roadside hardware, utility poles, etc.) and features (i.e., driveways, alignment, etc.) from photolog images. Highway agencies will be able to use the technologies from this effort to automate the development of safety inventory systems.

Safety Core Business Unit

- *Promotion of Safety Management Processes* – This project will support continued efforts to promote effective safety management process by providing assistance to States and localities. It will also support Department-wide efforts to promote Safe/Livable Communities and other programs designed to increase the involvement of communities and citizens in identifying and implementing safety practices.

- *Promotion of Road Safety Audits* – A road safety audit is a systematic and independent review of highway-related projects at various stages that is designed to identify potential problems that may contribute to crashes. Road safety audits have been piloted in 10 States and a number of these States have formally adopted their use. FHWA would like to expand the use of road safety audits by increasing the awareness and understanding of the road safety audit process. This is being accomplished through the development of a training course and by maintaining a web site for road safety audits in conjunction with the Institute of Transportation Engineers. These and other efforts to promote the use of road safety audits will continue in FY 2002.

- *Safety Leadership Training* – Training is currently being developed to provide the fundamentals of highway safety analysis techniques for FHWA field and headquarters staff. It will include techniques to identify and locate the sources of State highway safety data and information, and the analytical tools to use that data to identify highway safety problems for resolutions. The development of this training is to be completed in FY 2001 and deployment will continue into FY 2002.

- *Transportation Safety Information Management Systems (TSIMS)* – TSIMS was initiated by AASHTO, with funding support from FHWA and NHTSA, to develop a software system to facilitate the capture, storage, management, retrieval and analysis of data at the State and/or local level that comprise a comprehensive traffic records system. Fifteen States will be participating in TSIMS, and AASHTO plans to award a contract this summer to design the system. Efforts to promote the use of TSIMS will continue in FY 2002.

- *ITS Archived Data User Service (ADUS) for Highway Safety* – Guidance, training, technical assistance, field operational testing, and ADUS research needs and standards development will be provided to determine and disseminate ITS ADUS programs and technologies that can generate and archive data useful for safety purposes. These tasks are in the 5 year ADUS Program Plan which addresses ADUS technical and institutional issues and also develops ADUS awareness, standards, research, deployment and testing programs for highway safety purposes.

- *National Model* - The National Model effort in Iowa resulted in the elimination of paper-based, labor intensive, redundant, and unresponsive processes in favor of new approaches to shorten data collection time, minimize disruption to traffic, increase officer safety and efficiency, and improve data quality. Iowa created a model public safety information system through public agency, university, and private sector partners working together in integrating various technologies (pen-based computers, GIS, GPS receivers, digital cameras, bar code readers, etc) for data collection and management.

- *International Association of Chiefs of police (IACP) Clearinghouse* - An Internet-based nationwide clearinghouse for the sharing of information on traffic crash data collection technology has been established and maintained by IACP. The Clearinghouse provides agency managers with information on automation projects to help them make more informed decisions on what technology to purchase and use

for the collection and distribution of crash data. To date, the clearinghouse has received approximately 1.8 million inquiries. In order to maintain and expand this free service to the law enforcement and transportation communities, plans are being formulated to expand the catalogue of offerings in 2002 and 2003 to include a variety of transportation safety programmatic resources.

- *Training Course for Highway Safety Design and Operations* – An updated course is scheduled for development in FY 2001 and offered in FY 2002.

SPEED MANAGEMENT FOCUS AREA

Background and Objectives

Travel at reasonable speeds helps promote productivity and safety. In America, most highways and motor vehicles are designed and built for safe operation at the speeds traveled by most motorists. Yet, speeding—traveling too fast for conditions or in excess of the posted speed limit—currently is cited as a factor in approximately 12 percent of all police-reported crashes and in about one-third of all fatal traffic crashes. In recent years, 1994-1998, the percent of fatal crashes which are speed-related has remained static (between 32-34%), despite the increases in posted speeds following the repeal of the National Maximum Speed Limit (NMSL) in 1995. Inappropriate travel speeds continue to be a safety issue.

Speed limit signs are now viewed by many motorists as advisory in nature, reflecting the erosion of public respect which occurred during the 20 years the United States was under the NMSL. The safety problem is further compounded by: speed limits posted far below the design speed of the highway or prevailing traffic speed, enforcement agencies unable, or unwilling, to issue speeding violations, and courts unwilling to penalize offenders adequately.

With the repeal of the NMSL, responsibility for setting speed limits once more returned to states and local communities, and there is renewed interest on the part of the safety, engineering and political communities on how best to set and enforce speed limits. Speed management is a complex issue. It involves many factors including public attitudes, personal behavior, vehicle performance, roadway characteristics, enforcement strategies, court sanctions, and speed zoning. The relationship between road design, driver behavior, roadside environment, operating speed, and safety is not widely understood.

FHWA's speed management program is part of a comprehensive, multi-faceted, multi-modal DOT plan. The speed-related activities of this plan supports the Department of Transportation's strategic plan to reduce deaths and injuries on our highways. The aim of FHWA's speed management program is to identify, develop and test engineering measures and applications of technologies to manage speeds and encourage wider adoption of travel speeds appropriate for the class of road, roadway design, and travel conditions. FHWA speed management activities (including research) are focused around the following areas which will provide a rational basis of achieving reasonable and safe speeds consistent with the function and use of different road facilities:

- *Speed Zoning*: Rational criteria for setting speed limits will be developed and implemented for various road environments. A particular challenge will be to find an objective method for setting speed limits in built-up areas that best strikes a balance between the speed, flow, and safety of all road users including pedestrians. An important component will be demonstrating the benefits of this speed setting methodology to law enforcement, highway engineers and the general public.

- *Speed Variance*: Variable speed limits (VSL) that automatically change with road and traffic conditions (as well as other technology techniques) to smooth traffic flow and reduce conflicts associated with large differences in travel speeds will be researched, tested, and evaluated. FHWA activities in this arena will be coordinated with a recently awarded NCHRP VSL project (Project # 3-59), as well as the ITS Joint Program Office which is planning work in this area.

- *Speed Countermeasures*: This area will investigate engineering measures that can be used collectively to achieve the desired speeds in urban areas, at high crash locations, and in transition zones entering built-up

areas along rural roads. Innovative roadway design features, traffic control devices, and perceptual measures will be included. Models for estimating operating speed will be developed based on street design, type and spacing of traffic calming measures, traffic characteristics, and roadside environment.

Status

Many of the speed management activities have their origin in the 1998 publication of TRB Special Report 254, "Managing Speed." This study was funded by FHWA, NHTSA, and CDC as part of the USDOT speed management plan and provided a review of current practice for setting and enforcing speed limits. In FY 2001, FHWA/ NHTSA held a series of workshops focused on the findings of the TRB report. ITS America and TRB were partners in these workshops, which started with an all-day workshop as part of TRB Annual Meeting in January 2000, and continued into FY 2001. Workshops explored the report's conclusions regarding how best to set and enforce reasonable speed limits. Building on TRB's recommendations, the USDOT Speed Team (NHTSA and FHWA) selected a general contractor to oversee and evaluate a series of speed setting demonstrations in small communities, using the TRB Report's general guidelines for speed zones. Demos will begin in FY 2001 and run through FY2005.

The same TRB Report also encouraged use of advanced technologies to provide limits that respond to conditions and address the problem of unsafe speeding. As a first step, FHWA worked with ITS Joint Program Office (JPO) to produce a publication providing examples of VSL applications here and aboard in FY 2000. FHWA has initiated in conjunction with AASHTO, a project to address variable speed limit implementation issues (NCHRP Project 03-59). The project includes a work zone VSL test to learn first hand some of the implementation issues. Planning and coordination with the JPO is underway for field operational tests of variable speed limits on urban and rural freeways.

In FY 2000, a series of information resources on traffic calming was developed in cooperation with the Institute of Transportation Engineers and marketed throughout FY 2001. (Resources included a state-of-the-art report on current traffic calming practices, a traffic calming Internet site, a CD-ROM with a collection of traffic calming information, and a one-day workshop and train-the-trainer tool kit on traffic calming.) In-house research has been carried out on driver understanding of signs and markings for selected traffic calming measures.

Expected FY 2002 Products and Milestones

- *Speed Zoning Demonstrations.* Preliminary results available from the first phase of demonstration projects establishing realistic speed limits coupled with strict enforcement and public education and information campaigns. Second phase of demos are underway.

- *Acceptable Speeds from the Non-Motorists' Perspective.* An in-house study to determine the speed and volume levels that are considered safe and acceptable to vulnerable road users such as pedestrians and bicyclists will be completed. Study results will be useful in design speed selection for urban streets and main roads through rural towns.

- *Variable Speed Limit Implementation Issues.* Research to identify legal, liability, enforcement and other issues related to variable speed limits and ways of overcoming these barriers will be concluded. The possible safety benefits and productivity gains of different types of variable speed systems and enforcement scenarios will be estimated. Detailed, comprehensive plan for field operational tests (some using pooled funds) will be developed and tests begun.

- *Work Zone Variable Speed Limit Application.* The results from implementation of a prototype variable speed limit and various enforcement approaches in a work zone will be disseminated.

FY 2002 PROGRAM REQUEST: **$2,275,000 (STR)**

New Initiatives

- *Perceptual Measures for Controlling Speed and Crashes.* Human factors studies will be carried out to identify low cost perceptual and tactile measures (e.g. marking schemes, feedback signs, surface treatments) to reduce traffic speeds. The most promising measures will be field tested and evaluated in terms of speed and safety.

- *Speed Management on Main Roads Through Rural Built-up Areas.* Engineering measures to control speeds and enhance the safety of main rural roads passing through towns and other built-up areas will be tested in cooperation with State and local agencies.

- *Variable Speed Limit Operational Test.* Speed limits that automatically change with road and traffic conditions will be installed on extended road sections in various environments and evaluated in terms of safety, speed, and economic impacts. (Partner participation in these tests will be sought.)

Ongoing Activities

Research and Development

- *Speed -Setting and Enforcement Demonstrations.* Demonstrations continue in small communities of realistic speed setting, vigorous enforcement, and public information and education campaigns. Evaluated in terms of practicality, compliance, acceptance, and safety.

- *Effects of Street Design and Roadside Environment on Traffic Speed.* Speed data are being collected for developing models for estimating operating speeds for various functional road classes in lower speed urban environments based on alignment, grade, street width, traffic mix, pedestrian and bicycle traffic, intersection spacing and roadside environment (e.g. parking, setbacks, landscaping, access points). The incorporation of operating speed models in the design process will provide planners and engineers with guidance in selecting street designs that result in actual operating speeds more consistent with road function and speeds intended.

- *Expert System for Setting Speed Limits.* An expert system approach is being used to develop a computer based tool to advise and assist the practitioners in setting credible speed limits within speed zones. The expert speed advisor will provide an objective, quantifiable, and systematic method to assist highway agencies in establishing consistent and safe speed zones.

- *Traffic Calming Impacts.* Before and after tests are being carried out in cooperation with local agencies to evaluate and assess the effects of various engineering measures that have been implemented to control speeds on local and surrounding roads. The impacts of these measures on speeds, crashes, pedestrian and bicycle accommodation, environment, and emergency vehicle access will be evaluated.

- *Public Information & Education* As part of the speed setting and enforcement demos, model campaigns to inform the public, engineers, police, and judiciary on the how and why of setting speed limits and the dangers of driving too fast or too slow will be developed and refined for possible use by participating communities.

Safety Core Business Unit

- *Realistic Speed Zone Demonstration Project.* Deploy speed zone demonstration and technologies in selected local jurisdictions.

- *Awareness and outreach.* Implement safety campaign and promote the benefits of "managing speed" at conferences, trade show and to safety practitioners in general.

WORK ZONE FOCUS AREA

Background and Objectives

Over 700 people are killed in work zones every year. Improved safety through work zones is an element of FHWA's 1998 strategic safety objective to reduce by 20 percent during the next 10 years highway-related fatalities and serious injuries on Federal-aid highways. The Work Zone Safety research program focuses on addressing the needs identified in FHWA's quality improvement review report on "Meeting the Customer's Needs for Mobility and Safety During Construction and Maintenance Operations" and the recommendations of the follow-up Integrated Product Team on work zones.

Status

Research initiatives to carry out the recommendations on FHWA's Integrated Product Team on work zones began during Fiscal Year 2000. The goal is to develop and evaluate improved work zone methods and technologies to reduce the number of crashes in work zones. Products will include a nationwide definition of work zones and other techniques to improve the quality of work zone crash data, recommendations for designing work zones to accommodate older drivers, and new software visualization and analysis tools for improved work zone planning and design.

Expected FY 2002 Products and Milestones

- *Recommendations on work-zone treatments to improve the safety of drivers* Recommendations about work zone treatments that will improve safety for drivers will be compiled based upon findings from a literature review, lab study, and field studies.

- Development and distribution of work zone safety materials including placement on the internet.

FY2002 PROGRAM REQUEST: $100,000 (STR)

New Initiatives - None

Ongoing Research

- *Work Zone Clearinghouse.* The clearinghouse provides valuable information for state and local agencies.

- *Work Zone Safety Promotion.* This effort provides for the development and distribution of safety materials and literature to the states and local agencies to help alert users and workers of the special hazards within work zones.

SAFETY CORE BUSINESS UNIT FOCUS AREA (OTHER ACTIVITIES)

Background and Objectives

This section addresses may important areas that are critical to FHWA's strategic safety goal - 20-percent reduction in the number of highway-related fatalities and injuries by 2008. The activities to follow contribute to FHWA's strategic safety objective to reduce the number of highway-related fatalities and injuries by developing and deploying lifesaving technologies (i.e., engineering practices, analysis tools, equipment, and roadside hardware) and technical assistance, training and public awareness programs.

At highway-rail intersections, there are about 400 persons are killed each year. Information is needed to study the geometry of closely spaced highway intersections and highway-rail grade crossings nationwide and develop recommendations on a process to mitigate the insufficient storage distance

The activities listed are designed to address these problem areas.

Status

Recent notable Highway-Rail Grade Crossing crashes have been partially attributed to insufficient storage distance between highway intersections (signalized or STOP-controlled) and the railroad tracks. The development of many products to raise the awareness of safety issues, including new technologies to address the problem have been completed or are being done. Information are being distributed using different mediums, example, internet, brochures, CD Rom, video, and demonstration/showcasing. The goal is to develop new and improved technologies, evaluate and disseminate to the state and local agencies.

FY 2002 PROGRAM REQUEST: $425,000 (STR)

New Initiatives

- *Geometry of Highway Intersections and Highway-Rail Grade Crossings.* This would provide a range of possible solutions rather than focusing only on one possible solution (i.e., developing a signal warrant for those intersections.)

Ongoing Initiatives

- *Highway-Rail Grade Crossing Traffic Control Devices.* As a result of a recent NTSB recommendation to the Secretary of Transportation, a DOT Highway-Rail Grade Crossing Technical Working Group (TWG) was formed to develop guidance on the use of traffic control devices at highway-rail grade crossings. The TWG guidance will assist traffic engineers making a decision on the appropriate traffic control devices to use at highway-rail grade crossings. The TWG will provide guidance on both traditional and non-traditional devices, including those using ITS technology, to optimize the performance of the highway-rail grade crossing. Optimization of the performance of the crossing is critical to reduce the number of violations of flashing lights and gates. Reducing the violations at crossings correlates to reducing the fatalities and injuries at highway-rail grade crossings, one of the Department's goals. Before incorporating these new devices in the MUTCD, research should be done on the safety and effectiveness of these devices.

SAFETY CORE BUSINESS UNIT - OUTREACH AND AWARENESS FOCUS AREA

Background and Objectives

Improved safety is an element of FHWA's 1998 strategic safety objective to reduce by 20 percent during the next 10 years highway-related fatalities and serious injuries on Federal-aid highways. The Safety Core Business Unit program focuses on addressing the needs identified, raising awareness and accelerating the technology transfer process to the States and local government. This particular activity focuses on general outreach and awareness for the Safety Core Business Unit

Status

The development of many products to raise the awareness of safety issues have been completed and are being distributed (e.g. Interactive tools - Moving Safety Across America CD, rumble strip brochure, etc). Information are being distributed using different media, example, internet, brochures, CD Rom, and video. The goal is to develop, implement and evaluate improved methods for safety outreach with respect to the ultimate impact on highway related fatalities and injuries

Expected FY' 02 Products and Milestones

- Continue exhibiting safety process, tools and technologies at conferences and other trade shows

FY 2002 PROGRAM REQUEST $500,000 (STR)

New Initiatives

- *Interactive tools (e g MSAA)* - helps FHWA communicate important safety information to the general public in a format that is suitable for FHWA's audience.

Ongoing Initiatives

- *Exhibits (graphic displays, production, shipping, etc) and promotional materials (brochures, videos, "giveways")* FHWA develops exhibit display materials in order to participate at National Trade Shows

  and Conferences Our participation is part of the overall marketing effort to promote FHWA's various safety programs and also supports our safety partners. Brochures and "giveaways" are part of the overall communication strategy. Brochures help promote products, programs, and provide outreach to the driving public. "Giveaways" are promotional tools to promote safety concepts, programs, and web sites.

- *Interactive tools (e g MSAA).* FHWA communicate important safety information to the general public in a format that is suitable for today's audience.

- *General marketing support for SCBU focus areas* This includes developing and customizing marketing materials for each focus area - pedestrian, run-off-road, and speed management.

- *Internet Related Activities* Web site development and maintenance - both the technical and general audience.

Program: Highway Research, Development, and Technology - Safety
(Surface Transportation Research)

Focus Areas and Major Activities	FY2001 Budget ($000)	FY 2002 Request ($000)
Run-Off-Road Safety	3,445	5,740
Pedestrian and Bicycle Safety	1,796	1,949
Intersections	1,115	850
Human Centered *	658	550
Safety Management	1,879	2,230
Speed Management	2,119	2,275
Work Zones/RR Crossing and Other	585	1,025
Earmark	2,720	0
Totals	**14,317**	**14,619**

NOTE: FY 2001 request does incorporate TAD funds in the above focus areas and major activities.

*Some Human Centered Activities are included with the other Focus Area Activities.

RELATED PROGRAMS: Safety R&D is coordinated with NHTSA, FMCSA, NTSB, NCHRP, the AASHTO Strategic Highway Safety Plan, and State DOTs.

Program: Highway Research, Development, and Technology - Safety (TDIPP)

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY2002 Request ($000)
Run-Off-Road Safety	0	0
Pedestrian and Bicycle Safety	0	0
Intersections	0	0
Human Centered Technical Support	0	0
Safety Management	0	0
Speed Management	0	0
Work Zones/RR Crossing and Other	0	0
Designated Programs (Study of Advanced Trauma Care, Center for Transportation Injury Research, Head and Spinal Cord Injury Research)	3,624	3,950
Totals	**3,624**	**3,950**

Composite Table of RD and TDIPP, FY2002

Focus Areas and Major Activities	R&D Request ($000)	TDIPP Request ($000)	Total Request ($000)
Run-Off-Road Safety	5,740	0	5,740
Pedestrian and Bicycle Safety	1,949	0	1,949
Intersections	850	0	850
Human Centered	550	0	550
Safety Management	2,230	0	2,230
Speed Management	2,275	0	2,275
Work Zones/RR Crossing and Other	1,025	0	1,025
Designated Programs (Study of Advanced Trauma Care, Center for Transportation Injury Research, Head and Spinal Cord Injury Research)	0	3,950	3,950
Totals	**14,619**	**3,950**	**18,569**

FY 2002 R&T Program Funds:Total Requested					
(Dollars in Thousands $000)					
Line Item	PROGRAM (Str. Goal)	Priority Area	STR	TDIPP	Totals
Pavements			**$12,753**	**$500**	**$13,253**
	PAVEMENTS (Mobility)		$12,753	$500	$13,253
		Asphalt Concrete Pavements	$6,253	$0	$6,253
		PCC Pavements	$5,000	$0	$5,000
		Pavement Technology Tools	$100	$400	$500
		Recycled Materials	$1,400	$100	$1,500
LTPP (Mobility)			**$10,000**	**$0**	**$10,000**

SURFACE TRANSPORTATION RESEARCH and TECHNOLOGY DEPLOYMENT

Program Areas: Pavements
Long Term Pavement Performance (LTPP)

Strategic Goal: Mobility

Amount Requested for FY 2002: Pavements: $13,253,000 ($12,753,000 STR; $500,000 TDIPP)
LTPP: $10,000,000 STR

ASPHALT CONCRETE PAVEMENTS _

Background and Objectives

The goals of the asphalt pavement technology program are to improve the performance of asphalt pavements, to decrease the life-cycle-cost of asphalt pavements, and to be responsive to our customer needs. The asphalt pavement technology program outlines the research, development, and technology of asphalt pavements conducted by FHWA - specifically in the areas of asphalt binder rheology/chemistry, mixture design, mixture analysis, pavement design, performance related specifications, and quality assurance and control. Our focus is to improve the materials, selection, design, construction, maintenance, repair, and rehabilitation of flexible pavements.

These new and/or improved technologies include the refinement of the Superpave system and incorporation of Superpave into a generic national asphalt system, development of asphalt mixture performance testing procedures and equipment, completion of materials characterization and performance models, and technical support and assistance to States and industry to implement new asphalt technology. It also includes basic and applied research into asphalt chemistry and effects of modifiers and additives on performance, and it addresses development and test/evaluation of performance- related specifications.

Ultimately, the nationwide asphalt system would be comprised of an integrated system of materials design, pavement design, and construction. This system would provide complete performance-based guidance to optimize design, construction, and rehabilitation.

Status
Starting in 1998, through 2000 and anticipated in 2001, much of the FHWA's asphalt pavement technology program effort needed to be funded through alternative sources, due to a shortfall in available funding. Consequently, limited activities supporting the Superpave mix design system, aggregate selection criteria/tests, and binder/mixture technical support were conducted through support of State DOTs under NCHRP/TRB. Development and validation of a simple performance test and pavement performance modeling were delayed. Development of new/revised asphalt materials & pavement training courses was also delayed.

Expected FY 2002 Products and Milestones

- Support of implementation of Superpave mix specifications in remaining undecided States.
- Refine asphalt binder specification for modified binders
- Refine mixture specification to include a simple performance tester.
- Implement QC/QA asphalt specifications encompassing all of Superpave
- Develop acceptance criterion for asphalt PRS to allow agencies to evaluate how deviations in materials/construction properties affect long-term pavement performance.
- Develop guidelines/test procedures for minimizing construction variability

FY 2002 Program Request: $6,253,000

New Initiatives

- $600,000 - Field support /validation of simple performance tester
- $250,000 - Develop a training course in Mechanistic Design of New & Reconstructed Pavements to include state-of-the-art techniques.
- $250,000 - Develop a training course demonstrating the use of new laboratory and field testing equipment, such as the simple performance tester, binder test equipment, pavement density devices, etc.

Ongoing Research and Initiatives

- $750,000 - Support of field QC/QA, PRS validation, equipment evaluation, Superpave mixture design, and construction through the use of DP90 mobile lab.
- $303,000 - Support of Superpave binder development/evaluation/Binder ETG.
- $600,000 - Validate Superpave models and design concepts through ALF testing.
- $500,000 - Refine PRS criteria for asphalt pavements.
- $3,000,000 - WRI (TEA-21 sec5117(b)(5)) development of fundamental asphalt chemistry.

PORTLAND CEMENT CONCRETE PAVEMENTS

Background and Objectives

The goal of Portland Cement Concrete (PCC) Pavement technology program is to provide the operating characteristics that the highway users demand: pavement durability; ride smoothness; safe, wet-weather operations, minimized surface noise characteristics; and surface appearance. This goal will be accomplished through the identification, research, development, delivery and deployment of enhanced pavement technologies for pavement design, construction, maintenance and rehabilitation to improve pavement operating characteristics. These efforts will support the FHWA Strategic Goal on Mobility by helping to preserve and enhance pavements on the Federal-aid highway system, and by helping to increase user satisfaction with the system.

This program will address a broad, coordinated suite of technology and training activities associated with new and recycled materials; the design system and selection of design features; and the construction process.

The PCC Pavement technology program is divided into three elements for consideration of the factors which influence pavement performance. These are:

*Mix Design and Material Characterization
*Structural Design Components and Performance Evaluation
*Construction Procedures and Performance Specifications

The mix design and material characterization element has the objective of extending Portland cement concrete pavement life through enhanced equipment and procedures for material selection, distress potential prediction, and mix design optimization. This element also fosters the development of new improved pavement materials from sources such as waste materials.

The structural design components and performance evaluation element has as its objective minimizing the life-cycle costs of Portland cement concrete pavements through enhanced design procedures based on a better understanding of the relationships among pavement design, response, and performance.

The construction procedures and performance specifications element has as its objective to consistently build HPCP (High Performance Portland Cement Concrete Pavements) which can be opened to traffic sooner, through enhanced equipment and procedures; performance-related specifications; advanced traffic management; and construction planning strategies.

Status

For the PCC Pavement technology program, a number of technology projects are already underway to address the elements and their objectives outlined above.

- Work will continue on a project to optimize acceptance criteria and establish cost-effective procedures for PRS.
- A project on the development of user-friendly computer based guidelines (HIPERPAV II) to predict the longer- term behavior of JPCP and early-age behavior of CRCP will continue. The ability to predict and control the initial crack spacing in CRCP should greatly improve the performance reliability of these pavements.
- A study to investigate concrete permeability will continue. Permeability is being studied as a means of determining the overall quality of paving concrete. Alternative tests to the rapid chloride permeability test will be considered for ability to accurately predict durability.
- As part of a ongoing cooperative agreement with the Innovative Pavement Research Foundation(IPRF), conduct studies related to longer-lived, better performing concrete pavements. Ongoing studies include, Investigation of Materials Compatibility, and Cost Benefit of PCC Pavement Components.

Expected FY 2002 Products and Milestones

- Design Guidelines for Ultra Thin White Topping

- Workshop on rigid pavement design and construction
- Guidelines on corrosion resistant dowels
- Results of field trials in two States of level 1 PRS for concrete pavements will be available.
- Demonstrations of using precast concrete panels for highway pavements
- Workshops on petrographic analysis of concrete will be held
- Field/laboratory test for workability of concrete equipment will be available for loan
- Workshops on concrete durability will be held

FY 2002 Program Request: $5,000,000

New Initiatives

- $300,000 - *Precast concrete panels for highway pavements* Demonstrate applicability of using precast concrete panels for high-volume urban reconstruction projects
- $100,000 - *Hot-weather concrete paving practices* Deliver guidelines on hot-weather concrete pavement practices through workshop or training course.
- $300,000 - *Alkali-Silica Reactivity*. Develop and deliver tests and guidelines on mix- specific ASR Potential and remaining ASR distress potential in concrete
- $600,000 - *Interaction of Admixtures and effect on PCC Properties*. Investigate the interaction of concrete admixtures and concrete components, and the effect on the properties and behavior of the concrete, in both the plastic and hardened states
- $500,000 - *Nondestructive Testing*. Demonstrate the use of techniques through workshops and hands-on training.
- $500,000 - *Materials Selection and Mixture Design*. A project to synthesize the results of previous studies in order to develop guidelines for optimizing materials selection and mixture design for PCC for pavements will begin. These user-friendly guidelines will be computer based.

Ongoing Research and Initiatives

- $200,000 - *Optimizing Smoothness for High-Performance Concrete Pavements* This study will synthesize and build on available information in order to develop guidelines for the optimal levels of smoothness to attain during construction of PCCP. Consideration will be given to properties of the concrete as well as vehicle-pavement interaction.
- $100,000 - *Performance-Related Specification Training*. This project will develop executive-level and working-level training courses to educate State highway agencies and private industry on PRS concepts.
- $500,000 - *Repair and Rehabilitation Materials and Techniques for PCC*. This project will synthesize the finding of several previous studies and result in comprehensive guidelines to allow the engineer to select the appropriate strategy between repair or rehabilitation and the most appropriate repair or rehabilitation technique.
- $400,000 - *Computer-Based Guidelines for Concrete Pavements*. This project will extend the current HIPERPAV I computer program to include longer-term performance of PCC pavement and early-age behavior of CRCP. Result of other studies will be utilized including joint sawing and recycling
- $500,000 - *Test and Evaluation of High Performance Concrete Pavement (HPCP)* This project will test and evaluate innovative concrete pavement feature that will lead to high performance
- $1,000,000 - *Field Management of Concrete Mixes* This project will demonstrate the latest concrete materials testing equipment and techniques using field demonstrations.

LONG TERM PAVEMENT PERFORMANCE (LTPP)

Background and Objectives

The LTPP program is a 20-year project initiated under the Strategic Highway Research Program to develop improved tools to aid in the design and rehabilitation of better-performing and more cost-effective pavements It includes data collection and analysis of nearly 2400 pavement sections at over 900 locations throughout the U.S. and Canada, and the development of improved pavement technology. Its goal is to extend the life of highway pavements through achievement of the following:

- Evaluate existing design methods.

- Develop improved pavement design methodologies and strategies for the rehabilitation of existing pavements.
- Develop improved design equations for new and reconstructed pavements.
- Determine the effects of loading, environment, materials properties and variability, construction quality, and maintenance levels on pavement distress performance.
- Determine the effects of loading, environment, material properties and variability,
- Establish a national long-term pavement data base to support SHRP objectives and future needs.

Status

The LTPP is the largest pavement performance research project ever undertaken, it includes two sets of experiments: the General Pavement Studies (GPS) and the Specific Pavement Studies (SPS). The GPS experiments focus on existing pavements and the designs most commonly used in the United States and Canada. Individual test sections offer a wide range of values for key study variables and selected covariates. The SPS experiments involve test sections constructed specifically for the LTPP research and focus on the efficacy of specific pavement design factors involved in new pavement construction, the application of maintenance treatments to existing pavements, and pavement rehabilitation. Highways selected for inclusion in the GPS and SPS experiments cover the full range of environmental conditions found in the United States and Canada and, by virtue of being on in service highways, are subjected to "real," non-idealized traffic loadings.

The results of the LTPP research are already evident in the form of new or improved test methods, equipment, and procedures that are being used by highway agencies, industry and academia. One product of the program is LTPPBind software. This software enables highway agencies and industry to select the most cost effective Superpave binders. In order to facilitate and encourage the use of the LTPP data by highway agencies, FHWA has made a portion of this data available on a two CD-ROM set. The CDs provide the LTPP data in an easy to understand and use format. More than two thousand sets of the CDs have been distributed in the U.S. and internationally. LTPP data and procedures play a critical role in the development, validation, calibration and as working elements of the 2002 Pavement Design Guide being developed by NCHRP for adoption by AASHTO.

Expected FY 2002 Products and Milestones

- The LTPP database accessible through the world wide web.
- The LTPP data used to validate and calibrate of the 2002 Pavement Design Guide.
- The LTPP data and procedures as working elements of the 2002 Pavement Design Guide.
- The LTPP guidelines for the temperature adjustment of falling weight deflectometer data to enable better evaluation of the structural strength of pavements.
- The LTPP guidelines for determining soil resilient modulus values for use in pavement design.
- The LTPP based guidelines for the design and construction of better performing concrete pavements.

FY 2002 Program Request: $10,000,000

New Initiatives

- $2,500,000 - Award new contracts for LTPP data analysis and technical support services.
- $200,000 - Begin a new study of the effectiveness of the SPS projects' pavement drainage systems.

Ongoing Research and Initiatives

- $6,000,000 - Continue the collection, processing, and release of all required LTPP data (profile, deflection, materials characteristics, and traffic).
- $600,000 - Continue analysis of LTPP data.
- $145,000 - Continue the development and delivery of the LTPP data base as a product for use by the highway community.
- $155,000 - Continue customer service and technical assistance to users of the LTPP data.
- $400,000 - Continue coordination and communication activities with States, Provinces, industry and FHWA field offices.

PAVEMENT TECHNOLOGY TOOLS

Background and Objectives

This priority area is directed at developing and delivering improved tools in the areas of pavement structural design, performance evaluation/prediction, and selection of strategies for rehabilitation and preservation. It includes development and delivery of a "pavement knowledge system" to gather best practices knowledge and more effectively share it. It also includes important work to support development of the AASHTO 2002 Pavement Design Guide on interaction of heavy vehicles, climate, and pavement performance

Status

Formulation of initial framework for Pavement Knowledge System. Due to restrictions on available funding the activites in this priority area have been focused on development of a technology tools for the design, construction and preservation of smoother pavements.

Expected FY 2002 Products and Milestones

- Framework for Pavement Knowledge System
- Model Specification on pavement smoothness construction
- Development of a Pavement Knowledge System, including efforts such as putting the existing FHWA Pavement Notebook on the web and updating critical parts to make access to this and other major information sources more accessible.
- Construction Guidelines for continuously reinforced concrete pavements
- Provide support as necessary for the development of the 2002 Pavement Design Guide.

FY 2002 Program Request: $500,000

New Initiatives

- $75,000 - Construction Guidelines for Superpave Pavements
- $200,000 - Smoother Pavements workshops on benefits and "best practices."
- $50,000 - Mixture Type Selection Guidelines for Asphalt Pavement
- $75,000 - Superpave Mixture Design for Hot Mix Asphalt

Ongoing Research and Initiatives

- $100,000 - Development and delivery of best practices for building and measuring smoother pavements

USE OF INNOVATIVE RECYCLED MATERIALS

Background and Objectives

The primary purpose of efforts in the recycled materials area is to encourage the widespread use and promote the engineering, economic and environmental benefits of recycled materials and technologies by disseminating information and practical knowledge for current technically sound technologies, providing technical assistance and support services to promote increased technology adoption and recycled materials use, supporting the further adoption of recycled materials and product technologies now being tested or expected to be researched, and outlining long-term recycled materials potentials and product strategies. This work is a combination of in-house activity, university coordinated activities and work with state DOT's and environmental agencies.

Status

A viable recycled materials program is active. FHWA plays a predominant role in coordination of recycled materials activities. Work is being done primarily through a cooperative agreement with the Recycled Materials Resource Center (RMRC) at the University of New Hampshire as established by TEA-21. Center activities continue in research and outreach working with a variety of partners from both the private and public sectors. The strategic plan continues to be followed as augmented by yearly updates and input from a center advisory board and coordination with other groups ands programs such as the NCHRP, the SP&R program. Work focus is on testing and evaluation guidelines, material-specific research studies, fields trials of recycled materials, new materials and innovative materials, economics of recycled materials and technology deployment and delivery.

Expected FY 2002 Products and Milestones

- International Symposium on Beneficial Use of Recycled Materials in the Highway Environment
- Complete series of regional forums on beneficial uses of recycled materials
- Online database of information for recycled materials uses and case studies
- Continued expansion of outreach activities (website, newsletter) and client base

FY 2002 Program Request: $1,500,000

New Initiatives

- $300,000 - Initiate research studies in recycled materials safety and health issues.
- $250,000 - Initiate studies on guidelines for recycled material cost-benefit analysis
- $150,000 - Implement field trials in validating long term environmental monitoring using predictive approaches.
- $100,000 - Conduct scientific exchanges of State, local and international personnel at the RMRC

Ongoing Research and Initiatives

- $150,000 - Continued research in development of specifications for recycled materials in highway applications
- $200,000 - Continued research in engineering and environmental testing of granular wastes
- $150,000 - Continued field trials and demonstration of innovative recycled materials
- $200,000 - Continued development of academic study program in recycled materials

Program Areas: Pavements/LTPP

Strategic Goal: Mobility

Activity: Surface Transportation Research

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
Asphalt Concrete Pavements	7,418	6,253
Portland Cement Concrete Pavements	4,715	5,000
Long Term Pavement Performance	8,781	10,000
Pavement Technology Tools	130	100
Use of Recycled Materials	1,648	1,400
Total Budget Authority	$22,692	$22,753

Program Areas: Pavements
LTPP

Strategic Goal: Mobility

Activity: Technology Deployment Initiatives and Partnership Program

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
Pavement Technology Tools	$110	$400
Use of Recycled Materials	0	100
Total Budget Authority	$110	$500

FY 2002 R&T Program Funds:Total Requested					
(Dollars in Thousands $000)					
Line Item	PROGRAM (Str. Goal	Priority Area	STR	TDIPP	Totals
Structures			**$9,449**	**$25,076**	**$34,525**
	STRUCTURES (Mobility)		$9,449	$25,076	$34,525
		Bridge Inspection	$2,875	$1,000	$3,875
		High Performance Materials	$3,750	$21,000	$24,750
		Engineering Applications	$2,824	$3,076	$5,900

SURFACE TRANSPORTATION RESEARCH and TECHNOLOGY DEPLOYMENT

Program Area: Structures

Strategic Goal: Mobility

Amount Requested for FY 2002: $34,525,000 ($9,449,000 STR; $25,076,000 TDIPP)

Background and Objectives

Bridge asset management is beginning to be embraced by bridge owners. Although an ISTEA mandate that originally required states to adopt a formal bridge management practice was lifted, all states chose to pursue the development and refinement of some form of bridge management system. Bridge management is highly dependent on being able to accurately assess the physical condition of large numbers of bridges, and based on a systematic approach, develop budgets and plans to effectively maintain the existing bridge inventory. The accuracy of bridge inspection information, coupled with how best to incorporate the inspection information into the management system itself is a recognized need in order to optimize the management system. Bridge engineers, managers and owners have historically relied upon visual inspection as an important element in the construction of bridges. Nondestructive evaluation (NDE) has always been a part of this inspection. While usually associated with quality control of materials or fabrication, it was occasionally used to resolve doubts about existing structures. With the collapse of the Silver Bridge in 1967, a new focus was given to bridge inspection: SAFETY. The most common type of NDE is a visual inspection, but it may not be adequate for safety inspections. It is also time consuming and subjective. More scientific and reliable types of NDE, e.g. ultrasonic, radiographic, or magnetic particle, are very localized.; i.e., they cover a very small area. By their nature, they are slow. This has led to the need for much faster and more reliable types of NDE.

The focus of the national bridge program has shifted from building new bridges to the maintenance, rehabilitation and upgrading of existing ones. An outreach effort with the public and private sectors has shown a need for rapidly "finding" the deficiencies within the inventory of existing bridges. This calls for a systems approach, and FHWA is vigorously pursuing the use of Bridge Management Systems (BMS). The use of NDE provides the technology to support States' implementation and enhancement of their systems. Such systems require more reliable technical data than can be obtained by visual inspection to indicate what and where the problems are. Therefore, new technologies which provide quantitative estimates of bridge condition must be developed so that dollar resources can be properly directed.

In support of advancing bridge management systems, the objectives of this part of the program are to "find" the problems associated with the nation's existing bridge inventory. More specifically issues to be addressed will: (1) Improve the reliability, speed, and user-friendliness of local NDE methods for quality control during construction; (2) Improve the ability to detect hazardous conditions during bridge inspections; (3) Develop reliable, fast and efficient global NDE for bridge monitoring; (4) Develop new technologies and techniques for integrating quantitative, nondestructive bridge evaluations into bridge management systems; and (5) Advance bridge management systems for allocating resources to effectively improve the efficiency of the highway system.

Status

A number of contracts for developing improved local NDE and inspection devices have been awarded, but very few are completed. So far, the emphasis has been on enhancing and developing local NDE for bridge inspection. As the prototypes have been developed, they are being tested and evaluated, and then their development completed. The accomplishments to date (FY 2001 and prior) for this program are:

- *NDE Development.* The NDE needs for bridge asset management have been established. The New Ultrasonic and Magnetic Analyzer for Cracks (NUMAC) has been successfully developed, demonstrated and delivered to FHWA. Global bridge deflections or vibrations are measurable by a coherent laser radar system. The measurement can be used to detect changes in the condition of the bridge and also for modal analysis as an inspection device. It is currently in use at TFHRC's Structures Laboratory to measure deflections of the curved steel bridge test frame. The Precision Electromagnetic Roadway Evaluation System (PERES) for detailed high-resolution bridge deck inspection is fully operational and available for use. Likewise, the High Speed Electromagnetic Roadway Mapping & Evaluation System (HERMES) has been fully developed and is being field tested around the country.

- *NDE Calibration Facility.* Testing, evaluation and calibration of NDE systems are continuing at TFHRC's NDE validation facility. This facility is being used by and is providing considerable help to State and municipal highway agencies.

- *Ground Penetrating Radar.* A research prototype for a high speed technique to quickly, safely and accurately assess the structural condition and rehabilitation needs of bridge decks (as well as pavements) has been developed, along with a well-understood method for States to assess the condition of a deteriorating infrastructure.

Expected FY 2002 Products and Milestones

- *NDE Development* An alternating current field measurement (AFCM) prototype system, related to the eddy-current method, will be available for detection of fatigue cracks in steel members. A second generation of HERMES (funded by the States) featuring a theromographic crack detection system will be delivered.
- *NDE Calibration Facility*. A large study on the state-of-the -practice of various bridge inspection systems will be completed. X-ray tomography will be used to study the material properties of concrete and asphalt. A comprehensive qualitative comparison of NDE (including X-ray tomography) inspection procedures will conclude.
- *Bridge Management Systems*. A much needed methodology for incorporating NDE data into bridge management systems such as PONTIS will be developed and ready for implementation.

FY 2002 Program Request: $3,800,000

New Initiatives

- $500,000 - *NDE Development*. A device is being developed that will measure the cumulative fatigue loading of a highway bridge by using an innovative strain measurement technology. A forced vibration response will be used to determine the existence of piles and to evaluate the condition of bridge substructures.
- $750,000 - *New and High-Tech Inspection Systems*. Monitoring systems for major structures, that will detect scour problems, will be studied; and technology for evaluating bridge foundations after earthquakes will be developed. Rapid and economical means of load-testing bridges will be investigated.
- $250,000 - *Demonstration Project on High-Tech Inspection Systems*. Develop and conduct a demonstration project to assist States with deployment of high-tech inspection equipment and to integrate inspection data into bridge management systems.

Ongoing Research and Initiatives

- $500,000 - *NDE Development*. A device is being developed that will measure the cumulative fatigue loading of a highway bridge by using an innovative strain measurement technology. A forced vibration response will be used to determine the existence of piles and to evaluate the condition of bridge substructures.
- $1,050,000 - *New and Hi-Tech Inspection Systems* Research into new ways to improve visual inspection of bridges and new methods for defining the physical condition of members will be started. Work will continue on the outdoor validation center. This will permit testing of large full-size bridge members (up to 70' spans) and systems will be feasible.
- $500,000 - *Geothermal Heat Pump/Smart Bridge Program* Research, develop, and field test a bridge deck heating system designed to detect and to eliminate preferential icing.
- $250,000 - *Safety Inspection of Bridges* Complete the revision of the 2-week bridge inspector's training course and begin teaching courses.

HIGH PERFORMANCE MATERIALS

Background and Objectives

The objective of this portion of the program is to develop high performance structural materials to "fix" the problems found in deteriorating structures and to improve the longevity of new or replacement construction. High performance material (HPM) R&D is further supported because of the numerous inquiries and congressional requests for research that are received and the fact that HPM R&D is fully supportive of the Office of Science and Technology Policy (OSTP) and the National Science and Technology Council's (NSTC) program for material research. This focus area is also aligned with one of the major thrust areas of the Strategic Plan for Bridge Engineering Research recently developed under NCHRP project 20-07.

High performance materials, including variations of the more familiar construction materials such as steel and concrete and the more exotic materials such as fiber reinforced polymer (FRP) composites and aluminum each have outstanding individual properties which when integrated into the design of new bridges, or the repair or rehabilitation of existing bridges, will significantly enhance mobility, productivity and ultimately, safety. Substantial reductions in construction time and initial cost are provided; work zone duration is limited and , with improved durability life cycle costs are minimized. This has been clearly demonstrated with the use of high performance concrete with better durability and higher strength in the San Angelo, Texas bridge where first costs were about the same when compared to using "standard" concrete. High performance steel, which has greater toughness and improved weldability and durability, was used in the Martin Creek, Tennessee bridge and resulted in a reduction of the fabricated steel costs of 11%. Studies conducted by the Civil Engineering Research Foundation (CERF) acknowledged that the newer FRP's and aluminum will have higher first cost whose use must be justified on an as yet developed life cycle cost model basis. However, FRP's are being used for bridge repairs in over 20

states and have demonstrated that the time required for repair can be significantly reduced, although no cost savings have been reported from the reduction in time to repair. FRP's are also being looked at to extend by a few years the service life of bridges which are nearing the end of their utility thus providing owners a window to plan, design, and allocate funding to replace those deficient bridges which have been given a reprieve through HPM repair. R&D activities conducted within the scope of this area will: characterize high performance material behavior; develop technical guidance and pre-specifications for their use; demonstrate incentives to owners for their use based on quantification of life cycle cost models; demonstrate extended service life and reduction of maintenance requirements; and highlight reduced construction times resulting from HPM use.

Status

The FHWA is working on applications for high-performance materials including: FRP composites, high-performance steel and concrete, stainless steel and aluminum. FRP research contracts for bridge deck panels, adhesives and accelerated durability testing are nearing completion, and the work on high-performance steel and concrete is making good progress. About 25 HPC bridge projects are currently underway through States working with FHWA and other States are working on HPC bridges on their own and through projects under the TEA-21 Innovative Bridge Research & Construction (IBRC) program. Development and deployment of HPS is a true success story as FHWA, working with the Navy and the steel industry, has developed an affordable new steel which possesses increased strength and toughness and improved durability. HPS steel is now in use, under design or planned for bridges in over 15 states. The IBRC program is a major new initiative to deploy and demonstrate the application of high performance materials in high bridges and other structures. Under this program, FHWA is providing grants to the States to build or repair bridges with innovative materials.

The accomplishments to date (FY 2001 and prior) for all the high-performance materials include:

- *High-Performance Concrete.* A formal definition of HPC was developed; and a guide instrumentation plan for testing and evaluating HPC bridges was produced. Showcases highlighting HPC bridges have been held in Texas, Nebraska, Washington, Colorado, Virginia, New Hampshire, Alabama and Ohio as a means of transferring this technology. The report on the new transfer and development length equation for prestressing strand was published in early FY 1999. A pooled-fund study is now underway to incorporate the HPC knowledge into the AASHTO LRFD specifications and the AASHTO materials specifications. Two international symposiums on HPC were co-sponsored in 1997 and 2000 by FHWA and industry.

- *High-Performance Steel.* HPS bridges are in service in Tennessee and Nebraska and others are planned under construction/planned in Washington, North Carolina, Maine, Massachusetts and Pennsylvania as well as New York where the New York State Thruway is building six HPS bridges. This new steel, tougher and more readily weldable than the earlier high-strength steels, is now commercially available. Two national workshops on HPS were co-sponsored in 1999 and 2000 by FHWA and industry.

- *Advanced Composites and Adhesives:* Applications of FRP composites in new bridges and in retrofit/rehabilitation projects are gaining wide acceptance. The feasibility study for an advanced FRP composite, cable-stayed bridge in San Diego is finished and the design of the bridge is underway. The retrofitting of existing bridge piers and columns by wrapping with FRP is gaining acceptance, as is the repair and strengthening of beams and slabs with bonded sheets of FRP laminates. Several competing designs of full depth bridge decks are being evaluated in-service on bridges. The development of design criteria for building advanced composite-reinforced concrete bridge decks and modular FRP bridge decks is well underway, and an improved method of analyzing FRP decks has also been developed. The first stage development of accelerated test methods to predict long term performance of advanced composite materials is now finished and is being implemented.

- *Aluminum.* Recently completed research on aluminum deck panels has verified the strength and fatigue resistance of this material for use in bridge decks. An aluminum deck has been installed and tested on a bridge in Virginia. The aluminum industry is working on a business model for extruding, fabricating and installing these lightweight, durable sections in situations where cost of the decks is outweighed by the fast installation and long lasting service.

- *Stainless Steel and Stainless Steel Cladding.* These materials are being tested in over twelve experimental installations of concrete reinforcing bars which provide protection against future deterioration because of the highly corrosion resistant nature of the stainless steel.

- *Innovative Bridge Research & Construction Program*: Over 160 projects in over 45 States are funded and underway. Several different high performance materials are being deployed and a several different structural applications are being evaluated, particularly those using FRP composites - approximately 55% of the projects utilize FRP composites. Documented results of several projects confirm the expectation that the advanced materials can be deployed in a manner that positively impacts mobility, productivity and safety.

Expected FY 2002 Products and Milestones

- *High-Performance Concrete.* Completion of additional HPC bridges and the evaluation report on the data obtained from monitoring the first set of experimental HPC bridges will be published. This new knowledge will be reflected by changes in the AASHTO LRFD Bridge specs and the AASHTO materials specs. An HPC bridge will be in design, under construction or completed in every one of the 50 States.

- *High Performance Steel:* An improved version of the existing HPS steel will be developed to go with the higher strength HPS steel that will have just become commercially available. The final report on the fatigue characteristics of HPS will be published.

- *Advanced Composite Materials:*. Completion of field-monitoring procedures for FRP structures and retrofit applications. The final report for the test of an FRP bridge deck test section in Virginia will be published. A framework for a comprehensive bridge design specification will be developed and a database of FRP bridge applications will be available.

FY 2002 PROGRAM REQUEST: $24,750,000

New Initiatives

- $750,000 - *High Performance Concrete.* New studies will continue to identify the necessary changes in material properties and testing for HPC. Innovations in ultra-high strength concrete, in fiber reinforced concrete and in self-compacted concrete will be researched.

- $500,000 - *High-Performance Steel.* A new study of the needed changes in the fabrication and construction procedures that accompany the development of these enhanced steels. Further study of the fatigue and fracture behavior of HPS, especially for the higher strength HPS. New design criteria for incorporation in LRFD will also be developed. New details will be devised for steel structures to enhance their corrosion resistance and reduce maintenance needs.

- $1,250,000 - Advanced Composite Materials. Studies will begin in materials characterization to predict damage accumulation from accelerated material test data. In product development, there will be studies of field-joining methods for several types of FRP structures, as well as techniques for steel bridge rehabilitation using composite plates, adhesives and tendons. FHWA support for long-term monitoring of earlier field projects in short span bridges, bonded plate repair of concrete structures, seismic retrofit, and light-weight deck replacement will be firmly established. This last step is necessary to begin building broad based support among structural designers and builders for implementing the use of composites and adhesives in bridge construction.

- $21,000,000 - *Innovative Bridge Research & Construction Program*. The fourth, of five, solicitations for projects will completed and additional high performance material deployment projects will be underway.

Ongoing Research and Initiatives

- $250,000 - *High-Performance Concrete* HPC research and the HPC showcase and demonstration bridge program will continue. The evaluation and accompanying usage of the data gained from monitoring the HPC bridges will continue, as will the study of lightweight HPC.

- $500,000 - *High-Performance Steel.* The research, development and implementation of HPS will continue.

- $500,000 - *Advanced Composite Materials* Structural details, design specs and design guidelines will be developed for connections for FRP composite elements such as deck panels.

ENGINEERING APPLICATIONS

Background and Objectives

Engineering applications provides R&D results in support of the nation's $8 billion a year bridge program. FHWA is routinely called upon by other bridge owners, private sector consultants, and other technical staff to contribute to the technical core of the federal-aid program.

The area of engineering applications focus on specific areas of technology and needs to efficiently design, repair, rehabilitate, or retrofit bridges. Natural hazards represent the leading cause for bridge collapse and failure. Corrosion mitigation is the number one issue related to the long term behavior of the nations bridge inventory. And approximately one third of a bridge cost is invested below ground. Any improvement in the conservativeness associated with foundation design or ground stabilization methods will result in significant project cost savings. The objective of this third activity of the Structures R&D program supplements the two initiatives discussed above. It extends to the more traditional aspects of bridges engineering.

For example, Congress has recognized that the reliability of the nation's highway system is essential for national security and the reliability of the system is principally determined by the reliability of the bridges on the highway network. TEA-21 legislation provides direction to continue R&D to improve the seismic resistance of the transportation network. A modern bridge asset management approach to ensure system reliability requires a systematic process to maintain and upgrade the reliability of the nation's highway bridges. This involves not only an identification of the predominant factors which determine reliability and vulnerability, but an understanding of the nature of hazards, an understanding of the structural response to those hazards including interaction processes, thorough knowledge of the mechanisms of failure, and a knowledge of the cost-effective strategies and methods to minimize or eliminate these failure mechanisms.

Natural hazard R&D will: (1) Ensure emergency preparedness and minimize the time needed to return highways to full service following natural disasters by reducing the vulnerability of the highway system; (2) Increase national security by providing the reliability of the highway system by reduction of vulnerability to natural hazards; (3) Increase user satisfaction and confidence with the nation's highway system by increasing the reliability and reducing the vulnerability of the system to natural hazards, and; (4) Reduce the life-cycle cost of highway systems by reducing user costs associated with system failures due to natural hazards.

Congress, through TEA-21 legislation, has also recognized the need to perform R&D in the area of structural corrosion control. Steel is one of the principle construction materials, along with concrete and asphalt. The degradation of bridges and structures by the environment is well established. Developing technology for the mitigation and prevention of the corrosion of structural elements while simultaneously avoiding the potential detrimental environmental impact is pivotal in maintaining the transportation infrastructure in serviceable condition. Bridge deck deterioration resulting from the corrosion of reinforcing steel demonstrated the need for corrosion protection, hence the development and use of coated reinforcing steel. The use of prestressed concrete (PS/C) in bridge construction is relatively new. Hence, corrosion problems and concrete deterioration are just beginning to surface.

The National Bridge Inventory indicates that there are approximately 203,796 steel bridges in the United States. Of these, 54,804 are listed as deficient, and many require major refurbishment or replacement. The problem is exacerbated by the fact that the majority of the structures requiring coating maintenance have been protected by materials that are now considered hazardous to the environment, thus, requiring expensive methods of removal, containment, and disposal. These operations must be carefully controlled to ensure compliance with regulatory standards, preservation of the environment, and the worker's health and safety. These operations have become a primary cost driver in steel bridge maintenance programs. The development of economically safe methods of removal and containment as well as the need for the development of new, effective, compliant corrosion control materials and methods is required.

Additionally, there are 239,576 reinforced concrete bridges of which 19,555 are structurally deficient and 110,066 prestressed concrete bridges of which 9,036 are structurally deficient. The use of epoxy coated reinforcing steel, corrosion inhibitors, silica fume, flyash, low water cement ratio mixes and adequate concrete cover has provided significant corrosion protection to over 20,000 concrete bridge decks constructed since about 1980. Still, over 300,000 concrete bridges will eventually require replacement or major rehabilitation. Innovative corrosion resistant materials such as stainless steel clad reinforcing bars, alloyed rebars, and combinations with high performance concrete need to be studied in order to find the most cost-effective solutions.

Geotechnical engineering for foundations and earth structures has lagged behind other highway engineering disciplines. Many commonly used design techniques suffer from a lack of precise definitions and an imperfect understanding of fundamental behavioral mechanisms that govern the behavior of geotechnical structures. The difficulty and expense associated with defining soil behavior under foundation loads has impeded the development of theoretical solutions, and fostered the growth of overly conservative empirical methods of design and analysis.

The objective of foundation R&D is to reduce bridge support costs by 15% through the development of new and/or improved support systems for bridge foundations and deep excavations for highway construction projects. By improving the efficiency and reducing the cost of foundations and excavations, more bridges and roadway segments (which will last longer) can be constructed. Improving the efficiency and reliability, reducing the overall vulnerability of the nation's bridges, and retaining wall systems to documented geotechnical failures also supports the R&D area of bridge management.

Status

The two major contracts for studying seismic vulnerability and retrofitting of existing bridges and seismic design and construction standards for new bridges have been completed. A program of scour research has produced significant results. Aerodynamic research will continue as a low-intensity staff research program primarily to assist States and consultants. Corrosion protection methods for structural elements has improved the longevity of selected bridge members. Foundations data bases are being accessed on-line by the states to help designers. The accomplishments to date (FY 2001 and prior) for the main areas of research are:

- *Seismic Vulnerability of Bridges*. An interim bridge retrofitting manual has been published and widely disseminated. FHWA personnel have cooperated with the Japanese in a comparative study of seismic bridge design methods. The final report from the Seismic Research Program contract at MCEER (formerly NCEER) has been completed and furnished to NCHRP for use in preparing the revised provisions for seismic design in the AASHTO LRFD specification.

- *Hydraulic Engineering Circulars*. Three Hydraulic Engineering Circulars and the associated NHI training materials have been updated to incorporate findings from two scanning tours and recent R&D results.

- *2D Finite Element Surface Water Modeling System*. The model, FESWMS-2DH, enhanced by including sediment capabilities, routines to utilize Digital Elevation Maps and other modeling expedients for developing grid information and improved graphics routines.

- *Bridge Sediment Transport Model*. For alluvial river systems, the BRI-STARS model will be distributed as a downloadable web document for use by highway agencies to investigate degradation problems at stream crossings.

- *Woodrow Wilson Bridge Hydraulic Design*. Flume experiments and numerical model studies were conducted to assist design engineers in determining required foundation depths for the proposed

replacement for the Woodrow Wilson Bridge. It represents the first full scale application of a recently developed 3D sediment transport numerical model for a bridge scour investigation. The erodibility index method for cohesive soils was also used for this bridge to determine where subsoil properties were dominate considerations in the bridge scour investigation.

- *Curved Steel Bridges*. The first stage of testing on the curved steel bridge test frame has been completed at TFHRC. Testing of an existing curved steel bridge on I-15 in Salt lake City Lake City was completed.
- *Jointless Bridges*. A major study on this subject has been completed, and the final report was distributed to the States. Jointless bridge construction has been undertaken by at least one-quarter of the States.
- *Culverts*. A study on the design and construction of backfill envelopes was completed and a report published.
- *Aerodynamics*. Bridge retrofit concepts to provide aerodynamic stability on suspension bridges have been identified.
- *Coatings Development*: Developed a knowledge-based system for coatings. Researched the lead based paint problem exhaustively , and established an FHWA Bridge Coatings Team to accelerate implementation of key results. A report on worker health and safety programs to protect them from lead-based paint hazards has been completed and is available on the TFHRC Web Page via the Internet . Improved techniques for covering and encapsulating lead based paint on bridge rehabilitation projects. Implementation of training for field personnel to disseminate research results. Worked cooperatively with state departments of transportation to develop uniform protocol for qualification testing of coating materials.
- *Corrosion Protection*: Development of cement grout (with admixtures) mix designs to prevent or resist the corrosion of prestressing steel in post-tensioned bridge members. Completion of research on sacrificial anode cathodic protection and conductive polymer anodes for cathodic protection (CP). A report on corrosion-resistant reinforcing bars has been published. This includes solid stainless steel bars and epoxy-coated rebars as well as black steel clad with protective alloys. A study on durability of corrugated metal culvert pipe has been completed and the report printed. A 20-year study on the use of corrosion inhibitors as a protective system has also been published.
- *Cost-Effective Foundations*: Completed data-bases for the design of deep bridge foundations and for foundations in general. Studies on composite piles are complete and reports published.
- *Improved Bridge Welding Processes*. The improved processes for electroslag welding in bridge fabrication of steel highway bridges were demonstrated to engineers and fabricators in 20 States
- *Heat Straightening of Steel Girders*. A new demonstration project will provide States with the ability and skills to repair steel bridge girders which have been damaged by truck impact.
- *International Scanning for Innovative Technology*. Expert teams from FHWA, the States and industry were sent to several countries to investigate and assess innovative technology for scour, steel fabrication and protection of prestressed concrete tendons; implementable findings were disseminated to engineers throughout the US. Findings of the scanning tours were disseminated in regional workshops and also in national conferences.

Expected FY 2002 Products and Milestones

- *Hydraulic Engineering Circular 18*. Erodibility index procedure, cohesive soil scour rate procedures and complex pier procedures included in the fourth edition of (HEC-18).
- *Bridge Scour Countermeasures*. Guidelines for partially grouted riprap, nonwoven geotech sand bags and other bridge scour countermeasure techniques discovered during the scanning tours included in the third edition of HEC-23.
- *Seismic Vulnerability*. Volume III of the final report for the landmark study on Seismic Vulnerability of Bridges at MCEER will be available to AASHTO. This manual will complete the 3 volume set, Volumes I and II having been published in FY 2000. The seismic instrumentation and monitoring of the Cape Girardeau Bridge will be completed.
- *Coatings Development*: The guidelines and procedures developed in the FY 1999 report on abatement of lead-based paint hazards in bridge rehabilitation will be extended and implemented. A Nationwide Task Force on Coatings will be established. Training to disseminate research results will be fully implemented.
- *Corrosion Protection*. A congressionally mandated study on cost impacts of corrosion in highway bridges (especially decks) will be completed and published.
- *Cost-Effective Foundations*: An integrated set of comprehensive geotechnical data bases for interactive use by researchers, designers and engineers will be operational. Guidelines for improved design and application of deep-soil mixing will distributed and in use by highway engineers.
- *Load & Resistance Factor Design Code*. The majority of States will have the capability to design routine bridges using this modern, rational bridge design code for superstructure design. A comprehensive LRFD design course will be available.
- *Seismic Engineering for Bridges*. A National Seismic Engineering Conference will be conducted in order to quickly disseminate the latest technology for seismic design and retrofit of bridges.

- *Ground Improvement Techniques.* The demonstration projects on soil nail wall and mechanically stabilized earth walls including comprehensive computer design programs have dramatically altered the manner in which earth retaining walls and cut slopes are designed and constructed.

FY 2002 PROGRAM REQUEST: $5,900,000

New Initiatives

- $250,000 - *Aerodynamics.* A major study on fatigue effects from wind loading and vibration of stay cable anchorages of cable-stayed bridges will be started.

- $300,000 - *Risk based evaluation of alternatives for bridges with unknown foundations.* The recently completed NCHRP study of methods for determining the depth and integrity of unknown bridge foundations has shown that the most reliable techniques are very expensive. That leads bridge owners to consider other alternatives including taking a risk with less reliable techniques, taking more risk by not investigating the foundation at all or eliminating the risk by installing countermeasures that may or may not be needed. FHWA did develop a risk analysis model for strategizing bridges with unknown foundations several years ago, but that effort preceded our current knowledge about the reliability and cost of foundation investigations and the model is based on general information that could be obtained from the National Bridge Inventory Database rather than more site specific data that a bridge owner could provide to improve the decision process for a specific bridge. There is an urgent need to build on this earlier effort by partnering with practicing bridge engineers to utilize more accurate data that bridge engineers could reasonably provide and to identify the potential risks associated with practical alternatives.

- $250,000 - *Coatings Development* Multiple research contracts are planned to cover optimization of maintenance coating operations, improved laboratory and field forensic analysis of coating systems, and improved standards for quality assurance.

- $300,000 - *Corrosion Protection* Research of multiple corrosive protection systems used together with emphasis on optimizing HPC by adding other corrosion protection systems is found effective. The development of new materials and approaches to protect the steel cables used in cable-stayed bridges from corrosion. Evaluate the possibility of using titanium arc-sprayed anodes for CP on both new bridges and for rehabilitation of existing CP systems and materials.

- $300,000 - *Cost-Effective Foundations.* The effect of earthquakes on micropiles will be investigated. Resistance factors for piles to be added to the LRFD specs will be developed,. Other research topics include spread footings, ground movements due to excavations, and geosynthetic reinforcement for reinforced soils.

Ongoing Research and Initiatives

- $3,000,000 - *Seismic Vulnerability.* The new directed study at MCEER (formerly NCEER), which started in FY 1998, will continue FHWA will continue in-house seismic research in partnership with Japan. Likewise, the seismic research at UCSD (which started in FY 1999) will be ongoing.

- $100,000 - *Scour at Complex Pier Geometries.* Independent lab studies conducted at the FHWA Hydraulics lab and at the University of Florida being compared to develop a unified evaluation procedure.

- $100,000 - *Scour Prediction.* Large scale lab studies being conducted at the USGS Biological Research Division lab in Massachusetts to develop better guidelines for predicting scour at very wide piers in fine grain bed materials

- $250,000 - *Coatings Development* OSHA and EPA compliant techniques for covering and encapsulating lead-based paint on bridge rehabilitation projects will be under development in cooperation with state highway authorities. Cooperative efforts to improve coatings performance and qualification testing. Analysis and implementation of promising alternative surface preparation techniques for bridge maintenance.

- $300,000 - *Corrosion Protection.* The corrosive effects of the environment on bridge steels will be quantified. The performance of epoxy-coated rebars (ECR) will continue to be monitored as will performance of alternative rebars including FRP composite rebars, stainless steel and stainless steel clad rebars and galvanized rebars.

- $300,000 - *Cost-Effective foundations* New methods for load-testing foundation systems will be evaluated.

- $200,000 - *Culverts* Development of recommended specifications for backfilling pipes and culverts.

- $250,000 - *Engineering Circulars.* Work will continue on development and updating of comprehensive Hydraulic Engineering Circulars (HECs) and Geotechnical Engineering Circulars (GECs).

Program Area: Structures

Strategic Goal: Mobility

Activity: Surface Transportation Research

Focus Areas and Major Activities	FY2001 Budget ($000)	FY 2002 Request ($000)
Bridge Inspection (BI)	$2,479	$2,875
High Performance Materials (HPM)	3,114	3,750
Engineering Applications (EA)	8,328	2,824
Total	**$13,921**	**$9,449**

Program Area: Structures

Strategic Goal: Mobility

Activity: Technology Deployment Initiatives and Partnership Program

Focus Areas and Major Activities	FY2001 Budget ($000)	FY 2002 Request ($000)
Bridge Inspection (BI)	$0	$1,000
High Performance Materials (HPM)	18,459	21,000
Engineering Applications (EA)	1,316	3,076
Total	**$19,775**	**$25,076**

FY 2002 R&T Program Funds:Total Requested					
(Dollars in Thousands $000)					
Line Item	PROGRAM (Str. Goal)	Priority Area	STR	TDIPP	Totals
Environment, Planning & Real Estate			**$15,527**	**$6,400**	**$21,927**
	E, P & REAL ESTATE	**(Human and Natural Environment)**	$15,527	$6,400	$21,927
		Planning Research	$5,527	$0	$5,527
		Environment Research	$9,350	$0	$9,350
		Real Estate Services Research	$650	$0	$650
		Lo-Speed Mag Lev Pilot	$0	$5,000	$5,000
		Advanced Vehicle Research	$0	$400	$400
		NJ Institute of Technology	$0	$1,000	$1,000

SURFACE TRANSPORTATION RESEARCH and TECHNOLOGY DEPLOYMENT

Program Area: Environment, Planning and Real Estate

Strategic Goal: Human and Natural Environment

Amount Requested for FY 2002: $21.927 million ($15.527 million STR; $6.4 million TDIPP)

PLANNING AND ENVIRONMENT RESEARCH PROGRAM

Background and Objectives

The Planning and Environment (P&E) Research Program supports program and policy objectives that will help the FHWA create the best transportation system in the world. The P&E Research Program primarily addresses research needs associated with the Human and Natural Environment strategic goal which seeks to protect and enhance the natural environment and communities affected by highway transportation. The P&E Research Program covers: Real Estate Services, and Environment and Planning initiatives. High priority research needs in FY 2002 include:

- Environmental Streamlining/NEPA
- Air Quality and Climate
- Wetlands, Water Quality and Ecosystems
- Indian Consultation/Coordination
- Environmental Justice
- Metropolitan Planning Capacity Building
- Rural Planning Capacity Building
- Real Estate Services

Funding these and other initiatives at a total of $21.93 million in FY 2002 will enable the FHWA to meet Congressional directives; to continue work with our partners to balance local, regional, and national concerns regarding the environment; and to add value to the community through improved planning, environment and real estate services.

Environment Research: Amount Requested for FY 2002: $9.75 million ($9.35 million, includes $0.2 million earmark for Global Climate Change Research STR; $0.4 million TDIPP)

ENVIRONMENTAL STREAMLINING/NEPA FY 2002 PROGRAM REQUEST: $2.0 million

Background and Objectives

Applied research in Environmental Streamlining/NEPA identifies and develops techniques to redesign, integrate, and balance environmental and transportation decision-making at the Federal, State, tribal, and local levels that achieves the best overall public interest decisions. Performance Reviews, Congressional concerns, and TEA-21 (Section 1309). Such research responds to recommendations of the National Performance Reviews, Congressional concerns, and TEA-21 (Section 1309), which directs the FHWA to streamline and integrate the transportation and environmental decision-making processes. The environmental streamlining provisions of the TEA-21 have elevated the Administrative initiatives to a legislative level. The law requires the Secretary to establish a coordinated environmental review process for the DOT to work with other Federal agencies to ensure that major highway projects are advanced according to cooperatively determined time frames.

Status

- Initiated an intensive work with other Federal agencies, transportation partners, and interested stakeholders to detail what environmental streamlining means in operational terms and to develop a plan for institutionalizing it in all parts of the country.
- Successful implementation of environmental streamlining depends more on effective field deployment than on successful interagency collaboration because the affected highway and transit projects are reviewed by field units of each Federal agency.
- A systematic performance evaluation system is needed to replace the anecdotally-based reporting that influenced the TEA-21 language
- The DOT must be in a position to assess not only the timeliness but also the environment acceptability of the environmentally streamlined process so that we can manage the program the most cost-effectively.

Expected FY 2002 Products and Milestones

- Refines the evaluation of the performance of streamlined environmental processes. This will involve the continuing development and implementation of streamlining performance measures for evaluating the timeliness and environmental quality of project decisions, determining baseline values for these performance measures, and evaluation of changes in performance resulting from the implementation of environmental streamlining processes.
- Support demonstrations by State DOTs to integrate and enhance environmental and transportation decision-making at the Federal, State, local, and tribal levels. Examples of innovative efforts at the State, regional, and/or metropolitan levels to integrate transportation planning and the FHWA/NEPA process will be showcased.
- Develop innovative approaches to enhance public and interagency communication during the FHWA/NEPA process, as well as environmental documentation by means of video and related visualization technologies.

ENVIRONMENTAL STREAMLINING/NEPA

New Initiatives

- Disseminate alternative dispute resolution methods via training and application on individual projects. Formation of a network of qualified dispute mediators.
- Continue development of environmental streamlining information-sharing between Headquarters to Federal agencies' field offices through web-sites, videos, publications, and toolkits for users.
- Continue workshops and other outreach events to reinforce interagency cooperation at the field office level.
- Showcase methods and examples of collaborative, integrated decision-making processes that have been successfully applied to transportation planning and project development efforts.

Ongoing Research

- Develop expert decision systems that will assist local and State decision makers to analyze specific issues required under NEPA and other environmental regulations.
- Institutionalize environmental streamlining within State DOTs, as well as Federal and State environmental agencies, through training, workshops, and improved communication.
- Demonstrate and evaluate the application of advanced technologies, such as interactive technology, to provide training on environmental and transportation decision-making.

AIR QUALITY AND CLIMATE **FY 2002 PROGRAM REQUEST:** **$3.6 million**

Background and Objectives

Air Quality and Climate research develops analytical techniques and cost-effective mitigation strategies to: (1) reduce transportation-related emissions, and (2) permit development of viable transportation programs. Meeting this objective is challenging in light of the myriad of legislation and regulation associated with implementation of new air quality standards promulgated in 1997. This research is essential to achieve FHWA's performance indicator for the Environment Goal: "reduce on-road mobile source emissions by 20 percent in 10 years". More research is critical for the transportation community to assist Congress in assessing transportation's contribution to greenhouse gases and climate change and to determine how climate change might affect transportation infrastructure and programs.

Status

Research on particulate matter is ongoing that includes an overall work program for the transportation community as a whole. The research required will take many years, substantial cooperation and coordination, and considerable resources. Research must be implemented stepwise to ensure effectiveness, though much is known about the effectiveness of transportation control measures. State and local governments continue to address their transportation and air quality problems in highly creative ways. Research is necessary to inform congressional debates on these measures as well as the effectiveness overall of the CMAQ program.

AIR QUALITY AND CLIMATE

Expected FY 2002 Products and Milestones

- Reports on transportation's contribution to particulate matter pollution and the characterization of that pollution by species and formation.
- A compilation of transportation control measures and project information under the CMAQ program.
- Analysis of the status of integrating transportation and air quality planning.
- Preliminary analyses of how transportation may be affected by rising sea level and increasing storms, and potential mitigation measures.
- Report on temperature discrepancies in the upper atmosphere and on land, and transportation's contribution to climate change.
- Materials for State and local stakeholders on the connection between transportation choices, congestion, and air quality.
- A compilation of information on travel demand factors as required under TEA-21.

New Initiatives

- Develop new analytical approach to analyze transportation PM emissions along with more detailed, multi-location data with selected States to determine differences in PM pollution from transportation sources.
- Begin research on the role of transportation in air toxics and regional haze to address Clean Air Act requirements.
- Begin dissemination and testing of the second generation of public information on the connection between transportation choices, congestion and air quality.
- Research impacts on transportation infrastructure of potential rising sea levels, and increased frequency and severity of storms.
- Conduct cooperative research on new air standards, air toxics and emerging issues to inform metropolitan planning organizations and States of critical transportation/air quality issues

Ongoing Research

- Implement transportation research program for particulate matter, including Congressional earmarks. Complete PM efforts under including projects on PM species related to transportation, transportation source-related semi-volatiles, re-entrained dust, and heavy duty vehicles
- Analyze implications of new air quality standards and implications of new models (including modal emissions models) on transportation and air quality planning.
- Research effectiveness, analytical methods, and projects funded under the CMAQ program to inform congressional debate.

AIR QUALITY AND CLIMATE

- Continue research on the relationship between transportation and climate change including the uncertainty and discrepancies in satellite versus land-based temperature readings and implications for global warming (required under TEA-21).
- Continue advanced vehicle research on vehicle technologies, including fuel cell and electric vehicle technology (required under TEA-21)

WETLANDS, WATER QUALITY AND ECOSYSTEMS FY 2002 PROGRAM REQUEST: $1.7 million

Background and Objectives

This research enables State DOTs to meet Clean Water Act National Pollutant Discharge Elimination System (NPDES) and Section 404 requirements for highway projects; and enables FHWA to support the Clean Water Action Plan. This research is necessary to achieve FHWA's performance indicator to "increase net wetland hectare area (acreage) resulting from Federal-aid highway projects by 50 percent in 10 years." In addition, TEA-21 requires the FHWA to study and develop an assessment methodology to predict the relationship between ecosystem integrity and highway density. Thus, the development of new methods to assess impacts and strategies on a watershed and ecosystem level is needed. New technologies will have been developed for watershed-based assessment and management of water quality and habitat impacts due to highway development programs. These innovative technologies will be identified and assessed, and information on best practices provided to practitioners. Manuals and other materials will provide guidance and information for implementing various control and management strategies.

Expected FY 2002 Products and Milestones

- Additional Hydrogeomorphic (HGM) regional manuals for functional assessment of wetlands (with the U.S. Army Corps of Engineers).
- Additional models for stakeholder involvement in wetland/watershed issues in transportation.
- Analysis of results of national forum and watershed management.
- Wetlands and watershed restoration techniques and effective mitigation alternatives.
- Ecosystem linkage model and techniques for large carnivores in mountain ecosystems.
- Ecosystem management in highway environments: proceedings of a Fourth International Conference on Wildlife Ecology and Transportation.
- Analyses of ecosystem impacts of highway development: indicators and parameters.
- Published data used to validate or revise existing baseline figures used in the current highway runoff predictive methodology.
- Report on investigation of the interaction of native plants with roadside ecotypes.
- Report on national survey of streams and rivers impacted by highway development.

WETLANDS, WATER QUALITY AND ECOSYSTEMS

- Report on highway density and ecosystem integrity study and development of rapid assessment methodology (TEA-21 directed research).
- Training program on erosion and sediment control and nonpoint source water quality issues
- Roadside vegetation management brochure.
- Invasive species field guide and roadsides management handbook.

New Initiatives

- Integrated water quality and water runoff study to produce effective and ecologically sound storm water management strategies for watershed-wide applications.
- Documenting the ecotypic characteristics of roadside vegetation uses.
- Refined wetland assessment methods for use on highway projects.
- Ecosystem-based management programs to reduce the impact of transportation systems on wildlife habitats.

Ongoing Research

- Course on integrating watershed management planning with highway project development pilot program.
- Restoration techniques for aquatic resources: construction and retrofitting designs for fish passage and stream stability.
- Monitor and evaluate highway storm water runoff data gathered from various types of facilities and climatic regimes as will be applied to TMDL allocations.
- Study impacts to receiving waters caused by highway storm water runoff.
- Synthesize techniques and management programs for using native species in roadside vegetation and control the introduction and spread of invasive species by transportation systems.

ENVIRONMENTAL JUSTICE **FY 2002 PROGRAM REQUEST: $400,000**

Background and Objectives

The FHWA is committed to preventing potential discriminatory effects and disproportionately high and adverse health and environmental effects of transportation decisions on low-income and minority populations. The Environmental Justice area develops tools and techniques and disseminates information to assess, prevent, and address these potential discriminatory effects. The emphasis will be to improve, test and deploy tools and techniques that can apply at the highway system level both in metropolitan and in non-urbanized areas.

Status

State DOTs and MPOs lack sufficient information to adequately analyze the potential benefits and burdens for highway systems and projects on under-served populations and communities. The resulting lack of knowledge and techniques has contributed to costly project delays and conflicts. New tools are available to identify and assess the impacts of transportation on low-income and minority populations.

Among the near term efforts to be completed in FY 2001 are:

- Develop and disseminate available analytic techniques to address environmental justice issues
- Document and disseminate case studies and effective practices to address environmental justice both in metropolitan areas and non-urban areas.
- Develop teaching tools, workshops, and course material to assist State and local partners.

Expected FY 2002 Products and Milestones

- Develop and test predictive models to assist with consideration of environmental justice in transportation planning.
- Develop and test new methodologies to assess community impacts and health and risk burdens on low income and minority populations.

New Initiatives

- Advance analytic tools that can address potential benefits and burdens of the highway system and projects.
- Focus on tools, techniques and skills for smaller metropolitan and non-metropolitan areas.
- Create and distribute updated training modules, CD-ROMs, videos, manuals, and other related materials for partners and customers.
- Deliver and conduct conferences and seminars.

Ongoing Research

- Develop and implement training and outreach efforts to improve skills and expertise.
- Identify and determine practical ways to provide low-income and minority populations with effective access to the transportation decision-making process and its products.
- Showcase success stories, best practices, and model community initiatives to exemplify principles of effective incorporation of Environmental Justice principles in decision-making.
- Implement outreach on Environmental Justice with a diverse set of stakeholders to facilitate their involvement in decision-making.
- Evaluate and enhance project level analytic tools.

INDIAN CONSULTATION/COORDINATION **FY 2002 PROGRAM REQUEST: $500,000**

Background and Objectives

This research will support development and dissemination of practices and techniques for coordination of transportation programs with native populations and governments.

Status

- This is a new research area. Previously, research related to coordination with native peoples and governments was includes in several different areas including Communities, Neighborhood and People and in Cultural, Historic and Archeological Resources.
- This research area will focus on developing and enhancing techniques to improve consideration and understanding of native cultural and government practices in the transportation decision making.

Expected FY 2002 Products and Milestones

- Convene meetings and conferences to develop, document and test effective methods for considering tribal rights and practices in transportation decision making.
- Create communities of practice to build and support knowledge, skills and understanding tribal practices.
- Publish methods, techniques, and guidance to improve working relationships with federally recognized tribes and incorporate Native American ethnic cultural traditions into project planning.

New Initiatives

- Develop partnerships with community-based groups and transportation agencies to encourage communities to define their cultural/historic values, as they relate to transportation planning.
- Synthesize and disseminate successful efforts by public agencies to inform the public of the results of historic and archaeological investigations.
- Develop guidelines for trails along active rail.

Ongoing Research

- Initial consultation and investigation of tribal practices to assist in highway planning and project development.

NOISE **FY 2002 PROGRAM REQUEST: $500,000**

Background and Objectives

Noise levels affect the quality of life in neighborhoods and communities and, therefore, affect the degree of public satisfaction with the transportation system. Research is needed to develop analysis techniques, abatement methods, and effective noise compatible land use planning tools to evaluate the effects of highway traffic and construction noise and, thus, reduce the adverse impacts on communities. Major issues include: (1) ways atmospheric conditions impact traffic noise prediction; (2) relationship of pavement type and texture to noise; and (3) multi-modal transportation noise prediction methodology. Existing traffic noise prediction models, including the FHWA Highway Traffic Noise Model (FHWA TNM), do not account for atmospheric variations.

Status

Past research on highway traffic noise has improved the capability of transportation agencies to manage the impacts of traffic noise on communities. The FHWA TNM promotes the state-of-the-art of highway traffic noise prediction by incorporating advancements in acoustical and computer technology. Use of a CD-ROM for the FHWA TNM facilitates the technology and innovation States and metropolitan planning offices (MPOs) need to advance highway traffic noise analysis and abatement techniques. Current materials related to the problems of highway construction noise, and the consideration of visual quality during noise barrier design, need to be updated and enhanced.

Expected FY 2002 Products and Milestones

- Additional validation of the FHWA TNM to improve its accuracy and operation.
- Develop an updated version of the FHWA TNM will be developed to incorporate the results of continued model validation and additional graphical user interface improvements.

New Initiatives

- Continue to validate and improve the FHWA TNM.

Ongoing Research

- Develop further improvements, including validation, for the FHWA TNM

COMMUNITIES, NEIGHBORHOODS AND PEOPLE FY 2002 PROGRAM REQUEST: $430,000

Background and Objectives

Research in this area develops tools, techniques and methodologies to identify and collect accurate data and to analyze, avoid and reduce the direct, indirect and cumulative impacts of highway system and projects on communities and people; including social, economic, and quality of life effects. The tools and techniques developed help our partners assess community resources and impacts throughout the transportation decision-making process to increase community satisfaction with transportation actions. Research will identify techniques to show how transportation projects enhance communities, increase social benefits, and encourage creative solutions and context-sensitive design, while meeting goals of community residents and businesses.

Status

Among the near term efforts to be completed in FY 2001 are:

- New techniques to identify, measure, predict, and assess benefits and impacts of the highway system are in the early stages of development.
- Public information tools designed to improve involvement in transportation decision making. Such tools can lead to better analysis of potential impacts on the human environment from highway systems and projects.
- Initial efforts identified successful transportation enhancement techniques, e.g., development of a Transportation Enhancement Clearinghouse and a visual database of transportation enhancement projects on CD-ROM.
- Current state of the art practices and case studies synthesized on the use of context sensitive design concepts and traffic calming for community friendly design.
- Small-scale project examples developed for assessment of community impacts.
- National practitioner conference conducted to identify needed tools to assess community and neighborhood impacts of transportation facilities.
- Visual Database of transportation enhancement projects updated (CD-ROM).

Expected FY 2002 Products and Milestones

- Community Impact Assessment Training.
- Evaluation of program response to community needs and preferences.
- Develop social, economic, and environmental performance indicators of transportation system performance.
- Update and disseminate training, CD-ROMs, case studies and other related materials.
- Deliver and conduct conferences and seminars to distribute guidance, information-sharing, and develop case studies.

Ongoing research

- Develop technical outreach module to advance practitioner knowledge of tools for effective community impact assessment.
- Deploy and disseminate effective practices for public participation.
- Develop, test and evaluate of tools and techniques for public involvement process evaluation.
- Evaluate of program delivery from planning through project completion for enhancements.
- Share advanced practitioner tools to assess community and neighborhood level transportation benefits and impacts.
- Deliver technology, innovation and training through the Transportation Enhancement Clearinghouse.

PEDESTRIANS AND BICYCLES **FY 2002 PROGRAM REQUEST: $120,000**

Background and Objectives

ISTEA and TEA-21 call for planning for nonmotorized projects at State and MPO levels. Concomitant with the increase in numbers of bicycle and pedestrian projects, there is growing demand for technical information for planning and operation of these facilities, and for their safety. Research provides planning methodologies for localities to use to decide whether investments in non-motorized projects meet their community's needs.

Status

Among the near term efforts to be completed in FY 2001 are:

- Provided program support and guidance on integrating bicycle and pedestrian interests into the planning process.
- Continue to develop and deliver training in universal pedestrian facility and bicycle facility needs assessment and cost-effective design.

Expected FY 2002 Products and Milestones

- Research to integrate consideration of bicycle and pedestrians into traditional planning models and methodologies.
- Evaluation of program integration at the Statewide, metropolitan and regional level.

New Initiatives

- Develop benefit cost analysis procedure for non-motorized projects.
- Review effectiveness of bicycle and pedestrian planning by State and MPO.
- Study travel behavior of pedestrians and bicyclists, and quantify the needs for particular facilities.
- Develop sketch planning methodologies to allow planners to quickly assess the need for and projected use of particular facilities and inter-regional networks needs assessments.

Ongoing Research

- Promote pedestrian safety awareness in association with Partnership for Walkable America.
- Promote pedestrian and bicycle safety and use at national conferences.
- Distribute pedestrian and bicycle information through the Pedestrian/Bicycle Clearinghouse.

CULTURAL, HISTORIC AND ARCHEOLOGICAL RESOURCES
FY 2002 PROGRAM REQUEST: $50,000

Background and Objectives

Research in Cultural and Historic resources develops data management techniques and predictive tools to assess direct, indirect, and cumulative impacts of highway development, reconstruction, and maintenance on historic and cultural resources. It also supports links between trail use, public access to historic and cultural resources and sites and the relationship between transportation, economic development and preservation of historic and cultural resources.

Status

Among the near term efforts to be completed in FY 2001 are:

- Identify and assess highway design features which affect historic and cultural values of areas near a proposed transportation facility and develop standards for the rehabilitation of historic bridges.
- Initiate research strategies to provide tools and techniques needed by practitioners to identify, evaluate, and protect historic and archaeological resources and scenic quality in their States and local communities
- Enable planners to assess cultural and historic resources at broader geographic levels and to develop more cost-effective approaches to preserve, rehabilitate, restore, and reconstruct these resources.

Expected FY 2002 Products and Milestones

- Disseminate database of cultural, historic, and archeological resources to improve project planning, review, and approval process.
- Provide second generation historic and archaeological preservation training.

New Initiatives

- Synthesize efforts to model the location of cultural, historic, and archaeological properties and evaluate their effectiveness for planning purposes.
- Develop partnerships with community-based groups and transportation agencies to encourage communities to define their cultural/historic values.
- Synthesize and disseminate successful efforts to inform the public of results of historic and archaeological investigations.
- Develop design guidelines for trails along active rail.

Ongoing Research

- Construct database of cultural, historic, and archaeological resources to improve decisions.
- Synthesize and disseminate of models to help communities use information from transportation investigations and historic properties in their historic tourism plans.
- Develop tools, guidance and training to improve understanding of indirect and long-term impacts of highway development on cultural, historic, and archaeological resources.

LIVABILITY **FY 2002 PROGRAM REQUEST:** **$450,000**

Background and Objectives

Livability research recognizes the need to plan, design and operate transportation facilities and services in the context of the linkages among transportation and the other factors defining the quality of life. The livability initiative will conduct research, develop performance measures for livability, develop tools and methods and provide educational materials to inform the public of livability issues. It will also be a forum to coordinate research among federal agencies. This initiative has evolved through ongoing work and discussions with other Federal agencies, including the National Science and Technology Council (NSTC), Environmental Protection Agency and the Department of Housing and Urban Development and will be coordinated with the "Transportation and Land Use" research focus area under the Planning Program research area. One study on, " the development of social, economic, and environmental performance indicators of transportation system performance" is specifically required by TEA-21 (Section 5107 (b) (3)).

Status

FHWA's work in transportation modeling, institutional issues, planning and community outreach provides a framework to address transportation, land development patterns and livability. The research agenda for livability and transportation will be developed in coordination with these existing efforts. Research will evaluate and showcase effective livability strategies of the Transportation and Community System Preservation program as well as other FHWA programs that support livability. The livability research will build and enhance FHWA's programs that support livable strategies including traffic calming, CMAQ, Transportation Enhancements, context sensitive design.

The accomplishments to date (FY 2001 and prior) for this research focus area include:

- Case studies of best practices and model initiatives for transportation investments to create livable communities in urban, suburban, and rural communities.
- Outreach and awareness presentations, materials and training for public decision makers, the public and interest groups on effective transportation strategies to support livability goals.

Expected FY 2002 Products and Milestones

- Disseminate enhanced tools and techniques that show how transportation improves quality of life and public satisfaction.
- Develop, enhance and test transportation performance measures in cooperation with State and local partners.
- Develop training, manuals, CD-ROMs and other means to disseminate information to land use, transportation, and community development practitioners.

New Initiatives

- Synthesize regional policy analysis strategies, institutional barriers, and land use and transportation forecasting tools to identify techniques for regions to quickly conduct alterative analysis, support the decision making process and communication with the public.

Ongoing Research

- Program evaluation of the Transportation and Community and System Preservation (TCSP) pilot program and other FHWA programs that support livability of individual projects and an overall assessment of the results and priorities for TCSP in the coming years.
- Measure public satisfaction with the highway system and projects as a beneficial part of their community and testing what can improve the level of public satisfaction both for the population as a whole and for significant market segments such as urban/rural or low income travelers.
- Identify and test ways existing land use forecasting procedures can be integrated into transportation modeling to link land use decisions and transportation planning.
- Provide technical assistance, evaluation processes and performance measures of transportation projects impact on livability.

- Maintain network of transportation and community development leaders involved in TCSP and other DOT programs to share best practices, innovations, and effective strategies.

Enhancement of the Planning Research Process: Amount Requested for FY 2002: $11.427 million ($5.427 million STR; $6.0 million TDIPP)
Note: $5.0 million in FY 2002 is earmarked for a pilot of Lo-speed Mag Lev technology which the FHWA must transfer to the FTA.

METROPOLITAN PLANNING CAPACITY BUILDING FY 2002 PROGRAM REQUEST: $2.7 million

Background and Objectives

Metropolitan planning agencies need assistance with ways to consider multi-modal investment options, congestion relief measures, transportation and land use interactions, environmental issues, system management and operation, air quality conformity in their planning processes. This will be accomplished through outreach, training, education, technical assistance, marketing and technology transfer activities. Activities will support delivery of products on such topics as: Transportation and Land Use and Forecasting, Transport Demand and System Changes, and Safety Integration.

Status

Among the near term efforts to be completed in FY 2001 are:

- Synthesize 1999 research program outreach into a ten year planning research plan in 2001.
- Produce brochure on travel forecasting training and technical assistance.
- Continue outreach for the Travel Model Improvement Program (TMIP).
- Continue technical assistance centers at the University of California, Berkeley, the University of Minnesota and the Texas Transportation Institute to provide assistance in applying new planning methodologies.
- Develop new training courses on land use forecasting techniques, developing mobile source emissions estimates, and ITS in the planning process.

Expected FY 2002 Products and Milestones

- Create additional partnerships for regional technical assistance centers.
- Deploy ongoing safety analysis techniques, information clearinghouse and training and technical assistance.
- Deliver training on using the 2000 Census Transportation Planning Package.

New Initiatives

- Develop and implement marketing plan.
- Perform scanning and outreach to get input on customer capabilities and needs, including needs related to new technologies such as TRANSIMS.
- Establish peer-to-peer technical assistance networks.
- Develop new training for safety analysis techniques and travel simulation.
- Redesign existing training to take advantage of web-based training and self-paced learning technology.

Ongoing Research

- Continue one-day transportation and land use forecasting, travel demand model calibration and validation seminars.
- Develop case study applications of new technology, such as TRANSIMS.
- Continue ongoing TMIP, safety integration, system management and operations, and transportation and land use training and technical support.
- Continue to disseminate institutional and analytical approaches for use by MPOs in integrating environmental issues, safety, and systems operations and management concerns into their planning processes.
- Continue to develop and deploy TELUS. ($1.0 million TDIPP funding is earmarked of which $0.9 million is used for Metropolitan Capacity Building)

RURAL PLANNING CAPACITY BUILDING FY 2002 PROGRAM REQUEST: $800,000

Background and Objectives

The new planning and environmental regulations make it imperative that states and non-metropolitan planning agencies consider impacts of multi-modal investments, transportation and land use interactions, environmental issues, system management and operation, air quality conformity, and safety on Rural America in their planning processes. Their capacity to do so will be built through outreach, training, education, technical assistance, marketing and technology transfer activities.

Status

Among the near-term efforts to be completed in FY 2001 are:

- Ten year planning research plan from Research program outreach done in 1999.
- Update course on statewide transportation planning.
- Publish a Rural Planning Handbook.
- Continual website updates on rural transportation planning and how current issues impact rural areas.
- Provide technical assistance to State and local officials in the area of rural transportation planning.

Expected FY 2002 Products and Milestones

- Build existing partnerships and create new ones for rural planning technical assistance centers and information exchange.
- Provide training on rural transportation planning.
- Convene a national conference on rural transportation planning.

New Initiatives

- Develop and implement plan for training and technical assistance services. Develop new ways to share transportation planning information - including brochures, flyers and web publishing.
- Hold information exchange workshops among peers involved in rural transportation planning.
- Establish a community of practice for rural planning practitioners.
- Identify and develop new training and technical assistance mechanisms for safety analysis, rural conformity, and other identified tools for use in rural transportation planning.
- Sponsor a National Conference on Rural Transportation Planning with other interested sponsoring organizations.

Ongoing Research

- Continue Statewide Planning and Travel Forecasting training.
- Continue efforts to integrate safety, system management and operations, land use, etc. into transportation planning for Rural America, primarily through the statewide transportation planning process.

STATEWIDE PLANNING CAPACITY BUILDING FY 2002 PROGRAM REQUEST: $330,000

Background and Objectives

The State DOT's will need to enhance the statewide planning capacity building process considering environmental issues, multi-modal investment options, transportation and land uses interaction, system management and operation, views of local officials, safety, air quality conformity and environmental justice. This will be accomplished through outreach, education, workshops, technical assistance, marketing and technology assistance. The activities will support delivery of products on such topics as: Intermodal Transportation Planning, Safety Integration, Planning Process and Decision-Making.

Status

Examples of near term efforts to be completed in FY2001 are:

- Update of training course for statewide planning and develop more detailed curriculum.
- Update existing course on Travel Forecasting for Statewide Planning, and Geographic Information Systems.
- Develop training courses on freight planning, Safety Planning, and Rural Planning.

- Enhance web access to information on statewide planning programs.
- Continue the peer-to-peer technical assistance.
- Synthesize 1999 research program outreach into a ten year planning research plan.

Expected FY 2002 Products and Milestones

- Deploy training and technical assistance.
- Deploy freight planning and safety analysis techniques.

New Initiatives

- Develop and implement plan for training and technical assistance with a focus on development of a web clearing house on information and best practices on statewide and intermodal planning.
- Perform scanning and outreach to identify customer and research needs for capacity building.
- Develop new training for Freight Planning and Intermodal Systems.
- Provide training course on application of 2000 Census Data.

Ongoing Research

- Develop case studies of best practices.
- Continue delivery of the Statewide Planning course.
- Continue to disseminate information and tools for use by the states in the integration of environmental issues including air quality and environmental justice, intermodal, freight, safety, ITS, system management and others.
- Continue peer-to-peer technical assistance.

PLANNING PROCESSES AND DECISION-MAKING FY 2002 PROGRAM REQUEST: $700,000

Background and Objectives

This area develops tools and techniques to ensure that federal legislative mandates relating to financial reasonableness of transportation plans and programs, development of the National Highway System, cost-effectiveness, early consideration of environmental issues, integrating ITS, air quality, multi-modal planning and intermodalism are met. It provides tools, techniques and training to consider alternative land use strategies, pricing, demand management, congestion relief strategies, capacity expansion, ITS, etc. in the planning process.

Increased focus is on using innovative ways to finance federal-aid highway projects. Special emphasis will be placed on developing financial analysis tools to support MPOs, State DOTs and local governments in their transportation analysis and investment decisions.

Status

Examples of accomplishments in FY 2001 are:

- Studies are ongoing to develop cost and impact analysis methodologies for the use by MPOs, State DOTs and others.
- Training courses to disseminate information on innovative financing and financial planning.
- Research on usefulness of financial planning to MPO staff and to MPO decision makers is completed.
- Efforts are underway to support multi-state development of investment recommendations for adoption by regional State DOT Associations or regional Governors Associations.
- A model was developed to account for costs of alternative land development patterns.

Expected FY 2002 Products and Milestones

- Case studies on early integration of environmental considerations into the planning process.
- Additional information for the statewide planning handbook on the following:
  -Statewide financial planning;
  -Transportation planning in rural areas;
  -Land use and economic development in statewide planning;
  -Statewide travel forecasting;
  -Coordinating statewide transportation planning with other planning;
  -ITS and statewide transportation planning; and
  -Environmental Considerations in statewide transportation planning.

- Develop and present updated statewide transportation planning courses.

New Initiatives

- Create new volumes in the statewide planning handbook series on:
  -Coordinating statewide transportation planning with other planning;
  -ITS and statewide planning; and
  -Environmental considerations in statewide planning.
- Synthesize good programming practices.

Ongoing Research

- Cooperative studies with multi-state associations.
- Guidelines on involvement of rural officials in statewide planning.
- Refinement of intermodal transportation planning in rural areas.
- Development of methods to evaluate and enhance the performance of the NHS.

TRANSPORTATION AND LAND USE
FY 2002 PROGRAM REQUEST: $650,000STR; ($100,000TDIPP)

Background and Objectives

Transportation, land use and development decisions are interrelated and best addressed in a comprehensive planning process as envisioned by ISTEA and TEA-21. While States and MPOs are progressing towards the goal of coordinated metropolitan transportation and land use planning through initiation of policies such as "smart growth" and growth management, many need better ways to overcome barriers and State, local and regional planners need better, more fully integrated transportation and land use modeling tools.

The FHWA will conduct basic research on the interactions between transportation and land development and develop analytical tools to support MPOs, State DOTs and local governments in their transportation analysis. The FHWA will document best practices in areas where transportation and land use planning and forecasting is successful and develop case study policy tools and methods for bringing about such coordination.

Status

Among the near term research to be completed in FY 2001 are:

- Identification and assessments of effectiveness of metropolitan land use planning and regulation policies and their effect on transportation. Techniques, regulations, and policies to be addressed include land use controls, urban growth boundaries, regional tax sharing, open space purchasing and watershed and habitat management areas.
- Documentation of best practices and needs assessment of techniques used in addressing environmental impacts and land development in the planning process.

Expected FY 2002 Products and Milestones

- Produce guidebook highlighting use of existing techniques to test potential travel demand and air quality impacts of alternative urban development patterns, urban forms, and neighborhood designs.

New Initiatives:

- Conduct research on interactions between transportation and land development, studies on decision making hierarchies for residential and business location.
- Develop and/or improve existing land use and transportation analytical methods to evaluate potential impacts (travel, energy, economic, environmental) of land development or redevelopment and innovative land use planning to inform the transportation planning processes.
- Develop and deploy transportation and land use forecasting and analyses.

Ongoing Research

- Continue development and deployment of land use components of the Transportation Economic and Land Use System ($1,000,000 TDIPP funds earmarked for New Jersey Institute of Technology, of which $100,000 is used for land use research).
- Extend ongoing work to investigate impacts of site design on travel behavior and mode choice to system-wide application, select pilot sites and develop case studies.
- Studies on decision-making hierarchies for residential and business location.
- Improve existing land use forecasting procedures.

INTERMODAL TRANSPORTATION PLANNING FY 2002: PROGRAM REQUEST:$600,000

Background and Objectives

ISTEA established the need for statewide intermodal transportation planning. The state of the practice indicates need for technical assistance, training, technology transfer and guidance in the intermodal analysis. Research will support existing efforts to work with the states and MPOs to improve their intermodal analyses and maximize effective and efficient use of limited financial resources.

Efforts will provide the basis for intermodal analysis training, education and improved technologies. Critical research areas identified through interactions with customers include integrated information systems to support intermodal planning, freight planning procedures, databases and intermodal technology transfer. A significant multi-year effort has been devoted to developing a FHWA Geographic Information System to support analyses involving the NHS and to provide a planning tool to support intermodal analysis and environmental activities. The GIS will serve as a planning tool for the NHS.

Status

Among the near term research to be completed in FY 2001 are:

- Research projects that address (1) improved state and metropolitan intermodal transportation plans and programs; (2) improved communications and understanding with FHWA customers; (3) improved consideration of the NHS and its connections to intermodal facilities within the transportation planning process; (4) more efficient use of existing data for intermodal analysis; and (5) implementation of the ITS concepts related to intermodal issues.
- Research efforts to improve communications with customers through reports, handbooks, guides, improved procedures and intermodal databases.
- Case studies conducted of effective intermodal planning efforts.

Expected FY 2002 Products and Milestones

- Development of intermodal NHS databases for state DOTs and MPOs.
- Enhanced GIS applications to support NHS intermodal analysis.
- Promote improved information management and data exchange in intermodal analysis through the implementation of integrated transportation information systems.
- Develop applications of innovative technology for intermodal analysis
- Improve communications and understanding with FHWA customers.
- Produce guidance on improved investment in NHS intermodal connectors
- Provide technical assistance in intermodal analysis.
- Evaluate uses of intermodal planning and development of intermodal projects by state DOTs and MPOs
- Develop interfaces between analytical tools and GIS to support intermodal analyses/freight planning.
- Develop and demonstrate innovative technology applications.
- Inventory of transportation infrastructure investments planned in the border region
- Develop tools to forecast cross border traffic both commercial and non-commercial.
- Support the creation of national organizations to address transportation issues.

New Initiatives

- Report on innovative financing of intermodal projects.
- Develop improved freight forecasting tools.
- Develop guidance on planning for passenger ferries.
- Develop an inventory of transportation infrastructure investments planned in the border regions.
- Develop an integrated tri-national transportation GIS/date base for the border regions to address border wide transportation issues.
- Develop tools and data to forecast cross border traffic both commercial and noncommercial

Ongoing Research

- Evaluate uses of intermodal planning and development of intermodal projects by state DOTs and MPOs.
- Develop interface between analytical tools and GIS to support intermodal analyses/freight planning.

- Develop and demonstrate innovative technology applications.
- Development of case studies of best practices.
- Continue to provide technical support to states and MPOs.
- Continue to work with other Federal agency to coordinate transportation infrastructure investments.

FORECASTING TRANSPORT DEMAND AND SYSTEM CHANGES
FY 2002 PROGRAM REQUEST: $300,000

Background and Objectives

Decision-makers need integrated, multi-faceted understanding of future transport scenarios and the resulting mobility, productivity, and environmental consequences to debate and make informed policy and investment trade-offs. This effort will deliver integrated planning analysis capabilities that (1) can evaluate the mobility, productivity, and human and natural environment outcomes of future transport systems scenarios; (2) meet the planning analysis requirements identified in TEA-21, CAAA 1991, ISTEA, and recent Executive Orders; and (3) can be tailored to meet the diverse requirements of our partners.

The Travel Model Improvement Program (TMIP) is a cornerstone of this effort.

Status

Among the near term research to be completed in FY 2001 are:

- Case study of regional automated data collection and dissemination will be completed in 2001.
- Report to investigate the travel behavior of zero-car households will be completed.

Expected FY 2002 Products and Milestones

- Continue research to improve existing forecasting, multi-modal travel demand analysis and travel data collection procedures.
- Continue case studies of innovative travel demand and regional policy analyses using tools such as GIS and advanced travel models.

New Initiatives:

- Investigate quantitative interactions between transport, economic and energy sectors.
- Develop methods for prioritizing multi-modal projects.

Ongoing Research

- Ongoing deployment of TMIP case studies, technologies and techniques, delivered through technology transfer and information clearinghouse efforts.
- Continued development of "best practices" and of improvements for existing metropolitan travel forecasting, multi-modal analytical techniques, and travel data collection procedures for vehicles, freight, and persons.
- Development of guidebook on creation of comprehensive performance indicators (transportation, environment, energy, economic) and evaluate potential for integration of existing technical analysis procedures for policy testing.

SAFETY INTEGRATION **FY 2002 PROGRAM REQUEST:** **$347,000**

Background and Objectives

Traveler safety is one of the top priorities of the USDOT and the FHWA. Safety for all transportation users (both motorized and non-motorized) is also included in the Transportation Equity Act for the 21st Century (TEA-21) as one of the planning factors that MPOs and DOTs should be considering at a system-wide level as part of the transportation planning process. FHWA will research ways to integrate safety into the planning process and develop analytical tools to support MPOs, State DOTs and local governments. Institutional issues and barriers will be identified with potential solutions, spatial and statistical analysis and data collection needs. FHWA will accomplish this by highlighting best practices in areas where safety has been integrated as a part of the planning process.

Status

Among the near term research to be completed in FY 2001 are:

- Complete case studies in MPO and Statewide applications of spatial and statistical analysis tools in addressing system-wide safety analysis.
- Complete case studies of planning processes that fully integrate safety considerations in the transportation planning process.
- Assess and develop additional technical analysis needs to include safety in the planning process.

Expected FY 2002 Products and Milestones

- Produce Guidebook on Safety Analysis Techniques for Transportation Planning, including institutional issues, data availability and regional analysis methods.

New Initiatives

- Develop incident characteristics and prediction tools.
- Develop a planning level understanding of typical incident characteristics, such as duration, location and causal factors by incident type; develop tools to assist planners in identifying incident risks in future plans and programs.

Ongoing Research

- Continue to assess and develop technical analyses to support safety consideration in the planning process.

Real Estate Services Research : Amount Requested for FY 2002: $650,000 (STR)

Background and Objectives:

The Office of Real Estate Services (HEPR) implements the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) as amended, the Highway Beautification Act of 1965 (HBA), as amended; and the right-of-way and real estate acquisition and management provisions provided by 23 U.S.C. and related regulations as in CFR 710, promotes effective real property acquisition and management practices to preserve public investment; and is a resource for realty program information and training.

Status

The HEPR Research Program focuses on three major programs: case study analysis and documentation of best practices, data collection and inventories for outdoor advertising, and business relocation practices. For the Uniform Act, videos to demonstrate proper procedures and a range of technology is used to enhance access to information and training. Initiatives are underway to improve project delivery through corridor management and innovative acquisition and relocation practices. Research related to the HBA continues to identify ways to best control the view from the road.

Among the near term efforts to be completed in FY 2001 are:

- Reports distributed to all States on data collection practices for improving "effective control" of outdoor advertising.
- Reports prepared and distributed addressing quality improvement concepts applied to right-of-way program administration.
- Synthesis and studies advanced to identify program improvement potential under the Uniform Act, highway program administration or the HBA.
- Development of on-line learning opportunities through coordination with NHI to expand access to technical assistance and training related to realty programs.

Real Estate Services Research

Expected FY 2002 Products and Milestones

- Complete studies initiated in FY 2001. Many of these studies will require distribution and follow-on analysis. Begin two new initiatives to address program changes effected during FY 2001.

New Initiatives

- Uniform Act - Consequence of Changes in Compensable Participation
  Assess administrative effects of changes in Federal regulations on the type and extent of compensation for relocation to determine changes to other regulations.

- Uniform Act - Negotiating in Difficult Situations
  Develop and provide techniques for Federal, State, and LPA personnel in negotiating in difficult situations.

Ongoing Research

- Uniform Act - Appraisal Review
  Synthesize State appraisal review practices.

- Uniform Act - Appraisal Report Given to Owners
  Examine the integrated appraisal process, owner reactions, and administrator responses to improve the appraisal and acquisition processes.

- Uniform Act - Alternative Compensation to Businesses
  Analyze and demonstrate potential modification to existing regulations. Test implementation of recommendations from the prior study; evaluate feedback from participants (State administrators and businesses); prepare rationale for changes in legislation.

- Right of Way Program Management - Private Management Firms
  Survey States with sub-contracting programs in place; evaluate the programs for adaptability to other States; and provide contracting recommendations.

- Right of Way Program Management - Acquisition Process Videos
  Create up to four video tapes with regional application to explain the acquisition process.

- Real Property Management
  Provide Corridor Preservation Case Studies of examples relevant to the broader issues covered in the prior report.

- Real Property Management
  Develop required techniques to determine optimum transportation development which can accommodate private development designs, and community livability desires. This study would follow a multi-state project in development through completion to assess beneficial corridor management techniques. Recommendations and techniques for other projects will be a beneficial outcome.

Goal: HUMAN AND NATURAL ENVIRONMENT

Program Area: Planning, Environment and Real Estate Services Research Activity

Activity: SURFACE TRANSPORTATION RESEARCH (STR)

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
Planning Research	$3,596*	$5,527
Environment Research	$5,438	$9,350**
Real Estate Services Research	$0	$650
Total	**$9,034**	**$15,527**

Note:
*Includes Real Estate Services Research
** Includes $0.2M earmark for Global Climate Change Research.

Goal: HUMAN AND NATURAL ENVIRONMENT

Program Area: Planning, Environment and Real Estate Services

Activity: TECHNOLOGY DEPLOYMENT INITIATIVES & PARTNERSHIP PROGRAM (TDIPP)

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
Lo-Speed Mag Lev Pilot	$5,000	$5,000
Advanced Vehicle Research	$400	$400
New Jersey Institute of Technology	$1,000	$1,000
Total	**$6,400**	**$6,400**

Note:

The following write-up reflects TDIPP amounts that have been incorporated into the amounts requested for each program area. These TDIPP amounts are existing earmarks per Congressional directives.

FY 2002 R&T Program Funds:Total Requested					
(Dollars in Thousands $000)					
Line Item	PROGRAM (Str. Goal)	Priority Area	STR	TDIPP	Totals
Policy			$8,330	$0	$8,330
	POLICY (Mobility)		$1,555	$0	$1,555
		Characteristics & Impacts	$305	$0	$305
		Highway Pricing	$400	$0	$400
		Highway Needs/Investment Anal.	$850	$0	$850
	POLICY (Safety)		$1,650	$0	$1,650
		Travel Monitoring Analysis System	$200	$0	$200
		NPTS	$1,450	$0	$1,450
	POLICY (Productivity)		$1,250	$0	$1,250
		Economic Relationships	$300	$0	$300
		International Tech. Assist. Program	$650	$0	$650
		Emerging Issues	$300	$0	$300
	Policy (CGI)		$2,725	$0	$2,725
		Characteristics & Impacts	$600	$0	$600
		Reauthorization	$400	$0	$400
		Highway Needs/Investment Anal.	$1,275	$0	$1,275
		Innovative Financing	$450	$0	$450
	Policy (CDB)		$1,150	$0	$1,150
		HPMS	$600	$0	$600
		Data Fusion	$125	$0	$125
		Highway Finance/Fuels	$425	$0	$425
International (CDB)			$1,200	$0	$1,200

SURFACE TRANSPORTATION RESEARCH and TECHNOLOGY DEPLOYMENT

Program Areas: Policy
International

Strategic Goals: Mobility, Safety, Productivity

Amount Requested for FY 2002: Policy: $8,330,000 (STR)
International: $1,2000,000 (STR)

CHARACTERISTICS AND IMPACTS OF HIGHWAY SYSTEM USE

Background and Objectives:

This research assesses trends in the use of highway and related transportation systems by different groups of users and potential implications of changing trends for transportation programs and policies. Among the characteristics considered are travel on different highway systems by different types of vehicles at different weights, impacts of vehicles with different weights and dimensions on pavements and bridges, infrastructure, safety, environmental, and other costs resulting from the operation of different types of vehicles, and characteristics of the movements of different types of commodities by different modes. Previous work in this area has focused primarily on issues related to highway cost allocation and truck size and weight analysis, but the applicability of research into the characteristics and impacts of highway system use extends to many other program and policy areas. In particular highway network analyses are being conducted to evaluate options for improving mobility, operational efficiency, and safety. Work is closely coordinated with other elements of FHWA and other modal administrations within the Department.

Status and Accomplishments

Basic data characterizing the use of the highway system by different types of users have been developed, drawing from a variety of data sources including the Vehicle Inventory and Use Survey, the 1997 Commodity Flow Survey, vehicle classification and weight data report to FHWA by the States, and other special studies. Revised data on total travel by different vehicle classes by State, highway type, and weight will be completed in 2000. Development of a database of commodity flows for use in truck size and weight and other commercial vehicle analysis will be completed in 2001. This work is closely coordinated with the Office of Freight Management and Operations. Work is underway to refine tools used to estimate impacts of highway use by different groups of users on pavements, bridges, air quality, fuel consumption, greenhouse gas emissions, and other factors.

Preliminary work has begun to update both the Federal highway cost allocation study and the comprehensive truck size and weight study. A key part of both studies is work in this area to update characteristics and impacts of highway system use.

Work is underway to investigate the feasibility of constructing exclusive truck lanes and to evaluate other potential strategies to improve mobility, productivity, and safety. This work is being closely coordinated with other FHWA offices and the Federal Motor Carrier Safety Administration.

Expected FY2001 Products and Milestones

- Development of databases on highway system use needed for updates of the highway cost allocation study and the truck size and weight study will be completed in 2001. Refinement of tools that will be used in the cost allocation and truck size and weight study updates to estimate impacts of highway system use should be nearly complete in 2001. Development of these data and tools is closely coordinated with other offices within FHWA.
- A preliminary study assessing issues surrounding construction and operation of exclusive truck lanes will be completed in 2001. This will include software that can be used by State and local government agencies to evaluate the costs and benefits of exclusive truck lanes in their jurisdictions, taking into account local conditions. A major component of that study is identifying safety benefits that might result from construction and operation of exclusive truck lanes.

FY 2002 PROGRAM REQUEST: $305,000 (STR)

New Initiatives

Ongoing Research

- Additional work will likely be required to assess institutional and other issues surrounding the construction and operation of exclusive truck lanes.
- Evaluation of other network alternatives to enhance mobility, productivity, and safety will be continued
- Further refinement of tools to assess impacts of highway system use will continue, building on advances in the state-of-the-art.

HIGHWAY NEEDS AND INVESTMENT ANALYSIS

Background and Objectives

The highway and bridge needs and investment analysis is the primary set of tools that support the Conditions and Performance Report to the Congress and other FHWA policy analysis and development, strategic planning, and performance measurement activities. Highway investment analysis includes a variety of projects targeted at improving our understanding of relationships between highway investment and broad measures of transportation conditions and performance. This research develops means to estimate how congestion, delay, vehicle operating costs, safety, air quality, infrastructure conditions and other key indicators of highway system performance will change in the future under alternative investment strategies. Performance measurement and related research directly support requirements of the Government Performance and Results Act.

The Highway Economic Requirements System (HERS) is a tool to provide investment/ performance analysis for roadway sections that incorporates economic as well as engineering criteria. Development of a comparable tool for investment/ performance analysis of bridges is now under development. The continuation of this research effort will enable FHWA and the Department to provide analysis results for bridges that can estimate the benefits as well as the costs of bridge rehabilitation and replacement.

To maintain current and credible analysis results, the values and parameters that support the analysis must be kept current and credible. The level of funding requested will provide adequate support for maintaining updated values for agency costs, user costs, and societal costs for use in the analytical procedures.

State use of program planning tools such as HERS is being promoted by FHWA. The Policy SBU has developed HERS and will play an essential role in redevelopment of HERS for State or local use. Implementation in HERS of state-of-the-art congestion measures are required to enable the analytic process to provide the most accurate portrayal of congestion in the present and to project funding to alleviate congestion in the future. It is anticipated that the Office of Asset Management will continue to develop asset management tools, some of which will be jointly developed with the Office of Policy.

Status

- Pavement model enhancements are underway to include a wider range of improvement and rehabilitation types into the analysis process and to incorporate climate data into the HERS pavement deterioration model.
- Enhancements to the (Highway Economic Requirements System) HERS procedures include improved benefit/cost analysis assumptions and updating of improvement types and costs.
- Development of the National Bridge Investment Analysis System (NBIAS) is underway in order to bring an economic dimension to bridge investment analysis.

Expected FY 2002 Products and Milestones

- Enhancements to the HERS procedures will include incorporation of an improved pavement deterioration model that will include consideration of longer lived pavement designs and updated vehicle parameters.
- The NBIAS model will be improved to incorporate a wider range of costs and benefits into the economic criteria, specifically a more complete range of user costs and greater consideration of the benefits to the user of bridge deck improvements.
- Further development of procedures and tools that can be used by the States and local jurisdictions as well as FHWA for analysis of alternative highway capital funding strategies.

FY 2002 PROGRAM REQUEST: $850,000 (STR)

New Initiatives

- Work toward developing life-cycle cost analysis procedures that can be incorporated into the HERS model. This will enable the analysis to evaluate alternative pavement investment strategies, to determine when the use of longer-lived pavement will be more cost/ beneficial that less costly pavement. This type of analysis will consider the costs of delay caused by interim pavement rehabilitation actions.

Ongoing Research

- Continued updating of costs, benefits, values, and other parameters used in the highway and bridge investment analysis will continue.

HIGHWAY PRICING

Background and Objectives

Highway pricing strategies provide FHWA with the ability to address one of transportation's most critical issues: congestion. Value pricing is a market-based demand management strategy that brings the concept of price as an efficient allocating device to road transportation. This research activity enables the abstract concept to be implemented, tested, monitored, and evaluated under the Value Pricing Pilot Program (VPPP). Highway pricing strategies should help to reduce congestion and improve mobility by providing incentives for consolidating trips, or shifting some trips to off-peak times, to less congested routes, or to alternative modes of transport, including car pools and transit.

The Value Pricing Pilot Program directly supports FHWA's mobility and productivity goals and will provide fact-based information in the development of pricing proposals for the next reauthorization. FHWA must report to Congress biennially on the VPPP, discussing the success of the Pilot Program in achieving program goals relating to congestion relief, transit ridership, air quality, availability of funds for transportation programs, and the Program's financial effects on low-income drivers.

An important aspect of FHWA's highway pricing program is getting the message out to the transportation community about the valuable role that pricing can play in addressing metropolitan problems such as air quality, transportation financing, sprawl, and induced travel. Increasing the level of understanding about value pricing concepts and increasing the public's experience with such projects will lead to an increased likelihood of public and governmental acceptance of pricing.

The requested funding will provide for: (1) ***outreach*** to increase interest and participation in the program, and (2) ***technical assistance*** for implementation of the program.

The ***outreach*** effort is designed to:

- increase the number of localities that consider the use of market-based approaches;
- expand the diversity of pricing strategies for funding under the Value Pricing Pilot Program as well as other non-Value Pricing Pilot Program sources; and
- bring value pricing strategies into the mainstream of area-wide decision-making processes and program development processes

Outreach objectives will be achieved through face-to-face and written communications, development of tools to assist in evaluating value pricing strategies, and development of presentation materials to assist in presenting value pricing issues and concerns to a variety of audiences.

The ***technical assistance*** component of this activity provides technical support to States, local governments and toll authorities for development of value pricing proposals, for carrying out feasibility studies, for implementation of projects, and for evaluation of implemented projects. It also includes technical assistance to FHWA headquarters and field staff in review and evaluation of proposals and products from VPPP projects.

Expected FY 2002 Products and Milestones

- *Outreach* A Regional Workshop will be held. Two Value Pricing Newsletters will be published. "Lessons Learned" reports and articles will be prepared for publication in professional journals, and newsletters Briefing materials, Power Point slides, talking points and other materials targeting various types of audiences will be developed and disseminated. These activities will be jointly supported by and coordinated with the Operations Core Business Unit. It is anticipated that the "lessons learned" from value pricing projects integrated into existing and new courses and seminars for planners and operators For example, depending on resources provided by the responsible CBUs, value pricing modules could be incorporated into FHWA courses and seminars on high occupancy vehicle lanes, travel demand management, events management, urban transportation planning and urban travel demand forecasting.

- *Technical Assistance* Assistance will be provided in improving each grant proposal to ensure that it will achieve the objectives of the Value Pricing Pilot Program. Assistance will also be provided in monitoring and improving each project to ensure that it will achieve the objectives of the Value Pricing Pilot Program and have well-documented results. A Project Partners Forum will be sponsored. Value pricing will also be incorporated into the FHWA-FTA Peer-to-Peer Technical Assistance Program - enabling on-site technical assistance to be delivered to agencies in need of help from peers with actual experience

FY 2002 PROGRAM REQUEST: $400,000 (Additional $100,000 will be provided by Operations CBU)

New Initiatives

- **$100,000** ***(from the Operations CBU's budget allocation)*** - *Written Communications.* Develop briefs and handbooks addressing specific issues and types of Value Pricing (e.g., enforcement, institutional issues, outreach, planning/modeling, technologies, operations, administration, cost and revenue estimation, etc.).

Ongoing research

$300,000 - *Technical Assistance* FHWA will continue to undertake the following project assistance activities:

- Assistance in Proposal Development. All proposals received by FHWA will be reviewed and assistance provided in improving each proposal to ensure that it will achieve the objectives of the Value Pricing Pilot Program.

- Assistance in Project Execution. All projects awarded grants by FHWA (both feasibility studies and implementation projects) will be monitored and assistance will be provided in improving each project to ensure that it will achieve the objectives of the Value Pricing Pilot Program and have well-documented results

- Project Partners Forum. FHWA will sponsor one forum in order to: (a) provide project partners with opportunities to meet with peers and acquire and exchange information about Value Pricing, and (b) to help FHWA shape and implement the Value Pricing Pilot Program.

$100,000 - *Outreach:* FHWA will continue efforts in the following areas.

- Face-to-face communication: Sponsor Regional Workshop.
- Written communication: Update Web site continue sponsorship of and list serve, and distribute 2 Value Pricing Newsletters, write "Lessons Learned" reports and articles for publication in professional journals, and newsletters
- Tools and Presentation materials: Support STEAM. Disseminate reports produced by project partners for use by others considering value pricing.

Program Area: POLICY

Strategic Goal: MOBILITY

Activity: SURFACE TRANSPORTATION RESEARCH (STR)

Focus Areas and Major Activities	FY2001 Budget ($000)	FY 2002 Request ($000)
Characteristics & Impacts of Highway System Use	$100	$305
Highway Pricing	$400	$400
Highway Needs and Investment Analysis	$950	$850
Total	**$1,675**	**$1,555**

TRAVEL MONITORING ANALYSIS SYSTEM

Background and Objectives

The Travel Monitoring Analysis System (TMAS) in conjunction with the Highway Performance Monitoring System is the source for estimates of both total travel and travel by heavy trucks for use in FHWA and Departmental end-of-year performance reports. The Travel Volume Trends (TVT) sub-system produces early year-end VMT estimates of total travel while the Vehicle Travel Information Sub-System (VTRIS) provides data on the traffic stream's vehicle mix. The vehicle miles of travel (VMT) estimates from the TVT are used in performance measures used by USDOT and FHWA. The VTRIS provides vehicle classification data used to develop estimates of travel by heavy trucks for use in the FHWA performance measurement process. Enhancements to the TMAS are necessary in order to assure that an increasingly robust data base is maintained, to support timely reporting of the collected data and to apply statistical and operations research techniques to enhance the data processing algorithms.

Status

TMAS is supported by a number of research and programmatic activities:

- The State version of the Traffic Volume Trends sub-system software is being enhanced to provide data editing prior to submission to FHWA as well as simplifying the process of migrating data from State legacy systems to the TVT environment.
- Preparations are underway for the North American Travel Monitoring Exposition and Conference (NATMEC) 2002.
- Outreach to the States continues on applications of the new *Traffic Monitoring Guide*.

Expected FY 2002 Products and Milestones

- Planning and coordination of NATMEC 2002 continues in conjunction with the Florida DOT, the TRB data committees, and the PIARC freight committee. to be hosted by the Florida DOT in May, 2002.
- End of month and end of year estimates of total travel will be provided by the TVT sub-system.

FY 2002 PROGRAM REQUEST: $200,000 (STR)

New Initiatives

- None

Ongoing research

- $200,000 - Refinement of the TVT and VTRIS analysis procedures continue as well as enhancements to the data input interface used by the reporting States.

NATIONWIDE PERSONAL TRANSPORTATION SURVEY (NPTS)

Background and Objectives

The NPTS is the Department's source of authoritative data on daily personal travel behavior and changes in personal travel over time, particularly as linked to demographic and societal changes. It provides critical Safety related estimates of exposure to assess crash risk by age, gender, ethnicity and race. The NPTS also supports other performance measures:

- *Mobility* - travel patterns of the elderly, people of color, and other subgroups that may have mobility issues, use of the Internet and e-commerce;
- *Economic productivity* - the volume and nature of trips and travel by purpose, e.g., as a wage-earner (work and work-related purposes), as a consumer (shopping trips, social & recreational activities);
- *Human and natural environment* - analysis of time spent in travel, vehicle ownership and use, travel by time of day and month of year, volume of personal travel by age of vehicle, telecommuting patterns.

Status

Various activities specific to the 2000 survey effort as well as to earlier years of data collection are underway:

- The final phase of Transferability Project will modify the prototype model for estimating trip making at the local level and develop it into an operational tool for States and MPOs in support of the TRANSIMS effort.
- The 2000 NPTS data will be edited and reviewed in preparation for release of the Public Use data set.
- The web-based NPTS analysis engine will begin to be modified to support analysis of the 2000 NPTS data.

Expected FY 2002 Products and Milestones

- final Public Use and US DOT data sets from the 2000 data collection will be produced,
- provide access to the survey data through the Web-based analysis engine,
- produce the early results report from the 2000-2001 data,
- develop and publish the report *Our Nation's Travel -2000*,
- respond to queries on timely personal travel issues.

FY 2002 PROGRAM REQUEST: $1,450,000 (STR)

New Initiatives

- None

Ongoing research

- $1,450,000 - Finalize the 2000 survey deliverables including the various edited data sets, a report of the trends over the 31 year period of the NPTS data series, and dissemination of the data series and analyses over the Web and through other media.

Program Area: POLICY

Strategic Goal: SAFETY

Activity: SURFACE TRANSPORTATION RESEARCH (STR)

Focus Areas and Major Activities	FY2001 Budget ($000)	FY 2002 Request ($000)
Travel Monitoring Analysis System	$270	$200
Nationwide Personal Transportation Survey	1,000	1,450
Total	**$1,270**	**$1,650**

ECONOMIC RELATIONSHIPS WITH TRANSPORTATION

Background and Objectives

This research provides quantitative assessments of the effects of transportation infrastructure and transport policy on the economy. Economic studies compliment traditional investment evaluation methodologies and provide an empirical frame of reference for transportation policy analysis. Research products directly support the FHWA Productivity Strategic Goal. Studies also inform cross-cutting issues bearing on Federal-aid reauthorization and management of transport system resources. Research topics reflect contemporary concerns of Core Business Units (CBUs), state and local transportation officials, Congress, and other decision-makers. Recent studies have produced groundbreaking empirical estimates of the benefits of highway infrastructure to the private sector, assessments of the employment and income effects of highway construction spending, and improved approaches for valuing publicly supplied infrastructure capital.

Status and Accomplishments

Econometric studies:

Although the linkage between transportation infrastructure and economic vitality is intuitively obvious, empirical assessments of the relationship are needed for informed decision-making. Macro-econometric studies document the positive contributions of highway capital to lowering industry production costs, promoting productivity growth, and increasing output in almost all sectors of the U.S. economy. Research results indicate that the overall rate of return on public highway investment is competitive with private sector capital spending and strongly suggest that highway capital plays an important role in fostering investment led economic expansions and sustainable economic growth. Quantitative assessments from this line of research contribute to a growing awareness of the importance of highway infrastructure in meeting national social and economic objectives. Studies of the commercial benefits of highway investment have provided persuasive scientific evidence supporting increased public spending on roads, and generated significant international interest and academic acclaim. A forthcoming study will provide much needed macroeconomic estimates of the benefits of highway capital to the consumption sector of the economy.

Future work in this area will combine production and consumption benefit models to assess the overall social rate of return on road infrastructure investment. This will provide a unique economic policy analysis tool of considerable interest to economists, analysts and policy-makers within and beyond the transportation community.

Logistics Studies:

Although considerable progress has been made in measuring the economic benefits of infrastructure investment, researchers have not rigorously identified the sources of economic gain or the specific mechanisms through which benefits of infrastructure investment are realized by the business community. Relationships between transport system performance and business logistics costs are not the main focus of most economic studies. Nevertheless, economists and transportation opinion-leaders frequently suggest that effects of transport system investment on carrier/shipper costs, logistics system tradeoffs, transit times, and delivery time reliability are important factors explaining observed productivity benefits.

A preliminary study based on an inventory theoretic total logistics cost model has been done to assess the feasibility of establishing a clear causal link between business logistics costs and transportation system investments. Evidence of a sizable rate of return from highway investments for selected industries and during certain time periods has been found. Preliminary results imply inventory and other logistics system benefits of highway improvements explain approximately half the total commercial benefits measured by macro-econometric studies. A draft report for the pilot study is now undergoing peer review. It is expected that an expanded economic model investigating the incidence and magnitude of total logistics cost and inventory savings at the industry level will be undertaken. Accordingly, efforts in FY 2001 will focus on extending the logistics cost savings approach to measuring economic benefits to all industry sectors, generate contemporary rather than historical assessments, and attempt to identify the specific categories of highway investment and system performance outcomes that contribute most to logistics system efficiency gains. In FY 2002, analysis tools for state and local governments will be developed. Sub-national modeling will permit estimation of logistics benefits based on Commodity Flow Survey (CFS) data and other information resources.

Employment Studies:

Expansion, renewal and improvement of the Nation's highway system generates employment and income benefits. Employment impacts are a perennial concern of transportation decision-makers, but are not traditionally considered in project evaluation studies. Previous research produced a statistical model of the direct "on-site" employment effects of federal-aid highway construction spending. To estimate the total employment impact, on-site construction jobs (which vary with program composition and location) were combined with direct and indirect employment estimates obtained from a general (national) economic model. While this approach meets FHWA needs and accurately calculates national level employment and income effects, only about one- third of the total employment estimate is linked specifically to factors unique to highway construction spending.

Since a majority of employment and income effects occur not in the construction sector itself but in industries supplying equipment and materials for highway projects, and because demand for construction materials and equipment also varies with program composition and location, a comprehensive economic model specific to road construction at the national and sub-national level would be a significant improvement. Work is now underway to update on-site construction employment estimates and extend analysis to materials and equipment supplying industries as well as other sectors of the economy. A comprehensive employment model of direct, indirect and induced jobs, based entirely on highway program variables and also providing measures that would allow tracking productivity changes in federal-aid construction activities, is anticipated before the beginning of FY 2001. However, additional work is needed to make data and methods more accessible to potential users. To realize the full benefits of the research, it is important that a broad range of users are able to access, understand and utilize the capabilities the employment model. Follow on research in 2001 and 2002 will therefore provide user-friendly software, investigate trends in highway construction productivity (including changes in materials intensities), evaluate the reasonableness of modeling results in the context of a full employment economy, and assess capacity constraints in the construction industry and other sectors which might affect employment estimates.

Expected FY2002 Products and Milestones

- *Consumer Benefits of Highway Capital.* Many transportation studies measure specific types of direct benefits to consumers (passenger vehicle users) such as travel time saving, accident reduction, and vehicle operating costs. But little or no evidence currently exists about the magnitude of highway benefits in general to the consumption sector of the economy. This research estimates aggregate consumer demand (willingness-to-pay) for highway capital services. Nadiri formulates an indirect benefit estimation econometric of the consumer sector in which the demand for consumption goods depends, aside from relative prices and disposable income, on the level of highway capital. Under this approach, the demand for public goods is revealed by the consumers' demand for private goods. Although this methodology has been applied to a diverse set of economic problems, it has not been applied to the demand for highway capital services. An optimal demand model for public highway capital is being estimated using NIPA consumption expenditures for the period 1960 to 1997. Preliminary results indicate highway capital significantly influences the demand for durable and non-durable consumer goods. There is a clear pattern of substitution and complementarities among consumption goods and labor supply decisions of households with respect to highway capital. The sum of the marginal benefits of highway capital is significant and positive. The gross rate of return on investment in the highway network is high and the net rate of return is greater than the long-run rate of return on alternative public investments or the cost of capital to government.

- *Jobs Model.* National and regional tools to assess income and employment impacts of construction spending on the highway construction industry, materials supplying industries, and other business sectors will be made available to customers. Initial assessments of long-run trends in construction sector productivity will be made.
- *Effects of Highway Improvements on Total Logistics Costs.* Empirical evaluations of the effects of changes in transportation system performance on private sector distribution systems and business logistics costs will be done at the industry level. Understanding the industries that benefit most from good transportation system performance, and are hurt the most if performance is allowed to erode, is important in understanding economic impacts of transportation investment

FY 2002 PROGRAM REQUEST: **$230,000 (STR)**

New Initiatives for FY 2002

- *Contributions of Highway Investment to Sustainable Economic Growth.* A general equilibrium economic framework is required to model the complex interrelationship between government infrastructure investment and private economic performance and behavior.

- *Trade and Competitiveness.* Objective of the research is to quantify the relationship between transport infrastructure provision and the overall level of international trade activity in the U S. economy. Trade level is defined to include both goods and services exported by U.S. producers as well as imported intermediate and final goods consumed by U.S. producers and consumers

- *Transportation Policy Implications of e-Commerce.* Research will examine the effects of information technology in general and e-commerce between shippers and carriers in particular on the demand for transportation services, shipper-carrier relationships, and organizational behavior in transport markets.

INTERNATIONAL TECHNICAL ASSISTANCE PROGRAM

Background and Objectives

Since there is a direct relationship between transport and economic development, the objective of this program is to spur investment and greater economic growth in developing nations in support of the Administrations' foreign policies for specific geographic regions. A second objective is to promote U.S. technology and expertise through these programs which can later develop into a preference for U.S. goods and services.

The FHWA's primary mechanism for providing technical assistance is through technology transfer centers (T2 Centers) and technology transfer networks (T2 Networks). Presently, the FHWA supports the establishment and maintenance of networks in Russia, the Baltic countries, the Americas, Turkey and Sub Sahara Africa These centers highlight U.S. technology and expertise, provide links to the U S. highway community, and serve as focal points for larger, specific initiatives such as training programs and information exchanges The FHWA also provides technical assistance through the exchange of technical and policy experts. Such exchanges have been coordinated with Africa, Russia, Turkey, and Latin America

The *Pan American Institute of Highways* (PIH) was established by the Pan American Highway Congress to act as a network linking roads and transportation organizations in the Americas. The PIH headquarters are housed in the offices of the FHWA under the Office of International Programs, and the PIH executive director is a FHWA employee. The Office of International Programs in the FHWA's representative to the PIH. The PIH transfers innovative and traditional technology to the highway community of the Western Hemisphere through a network of more than 90 technology transfer centers in 21 countries.

The FHWA leverages funds from USAID, the World Bank, and the FHWA's international counterparts in implementing these programs. Additionally, the FHWA leverages in-kind contributions of staff time and technical information provided by AASHTO, State DOTs, and LTAP Centers in conduction technical assistance activities. The PIH receives annual dues from its members which partially cover the operating costs of the PIH Headquarters located at FHWA Headquarters The FHWA presently has firm commitments with several foreign countries and PIARC to continue supporting the development of T2 Centers and T2 Networks.

Status and Accomplishments

Continued cooperation with the World Bank, USAID and others to support technology transfer activities in Sub-Sahara Africa. Cooperation includes focusing on the Southern African Development Community as they establish an association of national road agencies with a technology transfer element.

Continue exchanges with Russian transport officials and Duma members aimed at strengthening Russian policies in the environmental, planning and road safety areas. Continue providing guidance to Russia on highway financing, program and organizational structure, and environmental protection. These programs will be advanced with cooperation with State highway agencies.

Continued cooperation with the technology transfer network of Eastern Europe, the Baltic countries and Turkey

Continued technology transfer cooperation with Latin America with a focus on Argentina, Brazil and Mexico

Expected FY 2002 Products and Milestones

- Assist in establishment of an association of national road agencies in the SADC region of Africa.
- Assist in establishing technology transfer center in the Caspian region of Russia.
- Continue cooperation with the PIH, consolidate the number of centers, and link them to their respective ministries of transport.

FY 2002 PROGRAM REQUEST $650,000 (STR)

New and On-Going Initiatives

- Continued cooperation with the World Bank, USAID and others to support technology transfer activities in Sub-Sahara Africa. Cooperation includes focusing on the Southern African Development Community (SADC) as they establish an association of national road agencies with a technology transfer element
- Continue exchanges with Russian transport officials and Duma members aimed at strengthening Russian policies in the environmental, planning and road safety areas
- Continue providing guidance to Russia on highway financing, program and organizational structure, and environmental protection. These programs will be advanced with cooperation with State highway agencies.
- Continue cooperation with the technology transfer network of Eastern Europe, the Baltic countries and Turkey.
- Continue technology transfer cooperation with Latin America with a focus on Argentina, Brazil and Mexico

EMERGING ISSUES

Background and Objectives

An important function of the Office of Policy is to identify cross-cutting issues that will have significant impacts on future highway transportation requirements or the delivery of the Federal-aid Highway Program in the future. Examples of emerging issues include changes in demographics, domestic and international economic conditions, energy costs and availability, environmental concerns, and institutional issues surrounding financing and program delivery that may affect the highway program. This activity involves substantial interaction with other CBUs and SBUs within FHWA, other modal administrations within DOT, and a wide variety of partners outside the Department. Specifically this research involves:

FY 2002 PROGRAM REQUEST $300,000 (STR)

New Initiatives

- Outreach and scanning activities to identify and discuss emerging issues that have been recognized by other organizations
- Coordination and discussions with other CBUs/SBUs, each of which have issue identification activities geared toward their own program areas
- Synthesis of issue areas raised by others to identify a limited set of key cross-cutting issues that may have important implications for the highway program.
- Analysis of potential Federal, State, local, and private sector responses to these issue areas, the time-frame in which action will be required, and institutional issues that may affect the ability of one or more groups to respond

This research is important to the agency because it identifies issues that may have fundamental impacts on future transportation requirements or program delivery in time to influence the course of events or at least to begin identifying responses to external changes that cannot be influenced by FHWA or its partners.

This research directly supports FHWA's ability to anticipate and build the groundwork for future legislative, regulatory, or other programmatic changes necessitated by external changes that will affect future highway transportation or institutional relationships key to the program delivery process. This research builds upon and is

coordinated with other issue identification efforts, but focuses on those cross-cutting issues that potentially have significant impacts for the highway program. Since factors that affect highway transportation are dynamic, this is a continuing Office of Policy activity. Funding requirements generally would be about the same from year to year.

Program Area: POLICY

Strategic Goal: PRODUCTIVITY

Activity: SURFACE TRANSPORTATION RESEARCH (STR)

Focus Areas and Major Activities	FY2000 Budget ($000)	FY 2001 Request ($000)
Economic Relationships with Transportation	$200	$300
International Technical Assistance Program	$400	$650
Emerging Issues	$70	$300
Total	$670	$1,250

Policy/Innovative Finance

Category: Cross-Goal Initiatives

Amount Requested for FY 2002: $2,725,000 (STR)

Policy research analyses are undertaken to provide a unique and crucial perspective not found in any one program area as a means of informing decisions in the public interest. We use information on economics, demographics, highway travel and spending trends to provide an understanding of the interrelationships between highway programs, systems, services, and institutional relationships. In turn, these analyses provide a framework for assessment of the stewardship of the highway systems as a component of the overall transportation system. The understandings are further used to identify issues, evaluate the effectiveness of current programs and policies, and to evaluate alternative programs and policies.

1. Characteristics and Impacts of Highway System Use $600,000

This research is key to FHWA's capability to understand and address basic questions regarding the distribution of impacts and costs across classes of highway users and highway systems. Models are constructed and maintained to capture:

- characteristics of the use of different highway systems by different types of users and vehicles
- costs imposed by different vehicles/ configurations including those on the infrastructure
- equity and efficiency considerations for financing and for user fee policies under a variety of use and cost scenarios
- potential impacts of legislative changes affecting highway use including changes in highway user taxes and fees

Continued research is necessary to:

1. incorporate recent research data on commodity flows, pavement and bridge performance, traffic characteristics on different highway systems, and highway expenditure patterns
2. incorporate data on characteristics of use by different types of users
3. expand the analytical tools themselves to examine economic, institutional, and other issues surrounding the use of tolls and other mechanisms for highway finance
4. respond to the changing economic and institutional environment in which legislative changes are considered. Priority and immediacy of these analyses are triggered by expected reauthorization debates associated with cost allocation policies, truck size and weight limits, user fees, toll policies, and NAFTA harmonization.

2. Reauthorization and Strategic Planning Activities $400,000

(a) Strategic Planning – $150,000 from Agency-Wide funding in FY02
Strategic planning is the process of setting the goals of our highway program. It establishes criteria to determine whether FHWA is meeting its program goals. Strategic planning is essential to setting goals for what can be accomplished by a given highway program in a given time frame. Analysis is required to estimate the investment required to accomplish a given goal. Strategic planning is required by the GPRA, and is used to develop agency goals and to evaluate progress toward these goals. This is a continuing process.

(b) Legislative Support – $250,000 from Agency-Wide funding in FY02
By the time TEA-21 expires in 2003, FHWA and the Department must have specific proposals for moving forward with the next reauthorization draft legislation. What should the next reauthorization look like? What should the Federal-aid programs look like? What should they do for the people? These are questions to be answered by outreach, analysis, and careful thinking. The agency proposals for reauthorization of the Federal-aid highway program in 2003 will be developed in consultation with the partners, customers, and stakeholders. This is a cyclic process that is required for each reauthorization of the Federal-aid highway program. FY 2002 is a very critical year, being just before the next legislation is required. The minimum amount to attain this capability is $175,000.

3. Highway Needs and Investment Analysis $1,275,000

Highway performance/ investment analysis is essential to the evaluation of the current highway systems and alternative investment levels. These analyses are relied upon by the Congress and the Department, as well as a full range of external constituencies. These analyses address pavement conditions, bridge conditions, and traffic flow (congestion). Included are estimates of future highway investment requirements to achieve specific goals, and estimates of what will be achieved with a specified level of funding.

The analyses begin to answer the following questions: Are our highway systems getting better or worse? What level of investment is needed to achieve better traffic service? What level of capital investment is required to maintain our highways at an acceptable level of condition and operational performance? What investment is required to improve conditions and performance?

The results of these analyses are used directly in the biennial Conditions and Performance Report to the Congress. This legislatively mandated report contains estimates of future highway investment requirements, providing information to the Congress for developing the legislation funding level implications for the Federal-aid highway programs. The report also contains the results of past funding in terms of pavement condition and congestion measures.

(a) Performance Analysis (Direct Support) -- $775,000 from Agency-Wide funding
This component of funding provides direct support for the HERS and BIAS models used for highway and bridge investment/ performance analysis. The funding level allows for current data to be incorporated into the analytical process and tools to maintain minimum levels of credibility with the Congress and the transportation community.

(b) Advanced Capabilities -- $500,000 from Agency-Wide funding
The results of past "Needs Analyses" have been accepted in the legislative arena because they represented an advancing state-of-the-art in system thinking. As our knowledge about best practices in system management have evolved, so have the expectations incorporating that knowledge into our national assessments. This rising standard comes from highway critics and supporters alike. Two specific capabilities which will take about 5 years at these annual funding levels have not yet been funded. Key improvements in the capabilities for the existing analytical tools are in the areas of Life Cycle Cost Analysis and modal tradeoff considerations.

- To consider fully the total life cycle cost of a highway facility, the tools currently used in highway investment/ performance analysis must be modified, for example, to consider the cost to the highway traveler of frequent pavement rehabilitation or resurfacing and need to be implemented efficiently on the latest computer platforms. Currently, the models used in investment / performance analysis do not have these capabilities. The benefit of such upgrades, for example, would address the costs and benefits of more durable pavement designs.
- As a first step to incorporating evacuations of investment in various modes, the highway and transit analytical procedures will be analyzed and revised in an effort to make them more consistent and comparable

Office of Policy SBU: The amount required in FY 2002: **$2,275,000(STR)**

Office of Policy SBU

Focus Area or Major Activity	FY 2001 Budget ($000)	FY 2002 Request ($000)
Cross-Goal Initiatives		
Characteristics & Impacts of Hwy System Use	$200	$600
Reauthorization & Strategic Planning Initiatives	$800	$400
Highway Needs and Investment Analysis	$950	$1,275
Totals	$1,950	$2,275

Innovative Finance $450,000 (STR)

The foundation for FHWA's finance research has been the test and evaluation project, TE-045, initiated in 1994. The purpose of this project and the objectives of the ongoing innovative finance research program (IFRP) are to evaluate new finance-related policies and techniques to accomplish the following objectives: (1) expedite completion of surface transportation projects, (2) reduce project costs, and (3) leverage non-federal funds. These objectives most directly relate to the FHWA goals of mobility (by increasing resources available to improve and expand the highway transportation system and enhance its operation, efficiency, and intermodal connectors) and productivity (by providing new financial tools that will improve the economic efficiency of the transportation system).

By studying test projects, we have been able to determine which techniques are effective in particular circumstances. However, some concepts could not be tested through TE-045, in which case we have relied on research studies, e.g., credit programs and shadow tolls. The IFRP has enjoyed tremendous success over the past few years providing new finance options to State, local and private project sponsors. These options, some of which have resulted in significant changes to FHWA and DOT's finance policies, include State Infrastructure Banks, Federal credit programs such as TIFIA, donation credits for Federal project match, tapered match, partial conversion of advance construction, and GARVEE bonds.

Continuing our efforts to leverage Federal funds and expedite completion of much-needed transportation improvements will remain a critical component of FHWA's mission for the foreseeable future. The IFRP proposed for FY 2002 and beyond will continue to study new project finance options while delivering the currently available finance "technology" to project sponsors through workshops, conferences, published materials, and the Internet.

The level of funding proposed for FY 2002 maintains the relative level of support which has been available over the past three years.

The Amount of funding required in FY 2002: **$450,000 (STR)**

Innovative Finance

Focus Area or Major Activity	FY 2001 Budget ($000)	FY 2002 Request ($000)
Innovative Finance	$400	$450

Policy

Category: Cost of Doing Business

Amount Requested for FY 2002: $1,150,000 (STR)

A significant portion of Policy research is best characterized as a cost of doing business because, in a very real sense, it provides a key portion of the agency's information infrastructure. The design and management of data flow between FHWA and our various partners is executed in a manner almost invisible to front line business units. The value of these data systems and international partnerships must take advantage of leading edge research in order to keep their state-of-the-art qualities. Since FHWA has begun to acknowledge that our business really is knowledge sharing, to be frugal with our basic input mechanisms (both foreign and domestic) would be shortsighted at best.

1. Highway Performance Monitoring System (HPPI) $600,000

The Highway Performance Monitoring System (HPMS) is a key information system in support of the overall agency mission. The HPMS provides annual apportionment factors (miles, lane-miles, VMT); it provides GPRA related performance information to several CBU goal managers (pavement roughness (IRI), delay, VMT for determination of crash rates); it is a basic input to the Condition and Performance Reports to Congress, and Truck Size and Weight and Cost Allocation study activities. Although data are provided to specific CBU and SBU organizations and goal managers in support of their individual responsibilities, in the broadest context the HPMS contributes to the accomplishment of the overall agency mission through activities such as fund apportionment, performance measurement, legislation and budget, and meeting congressional requirements.

The proposed research support is required to keep the system current with changing practice and technology and to implement the recommendations of the recently completed HPMS Strategic Reassessment. Enhancing provider and user interface capabilities increases HPMS partner, stakeholder, and customer value and buy-in, an important element in keeping HPMS credible and in meeting our HPMS data quality objectives. Thus the research focus activities for FY 2002 are:

- Develop GIS Analysis Tools for HPMS
- Develop HPMS Web-based Analysis Engine
- Enhance Data Submittal and Evaluation Software
- Conduct HPMS Subject Area Workshops
- Move HPMS Analytical Process to a Windows Environment

HPMS research support is principally directed at enhancing the HPMS data submittal software package now in use by the States by improving: (1) the quality of these data by providing training and consultation on emerging HPMS data issues and needs in workshop format, (2) utility and accessibility to the data base through the development and dissemination of GIS analysis tools, an Internet-based ad-hoc query capability, and moving the HPMS Analytical Process software into a Windows environment.

2. Data Fusion (HPPI) $125,000

The data fusion project will provide an automated knowledge system to FHWA and its customers in support of a real-time response to queries through a single point of access to HPPI data archives. The project captures the expert knowledge of staff through documentation of analysis processes and mapping these processes into the automated subsystems. Ultimately, it will minimize rework and reinterpretation of data reported to HPPI by State and local data providers and enable spatial and trend analyses across HPPI's databases. Prior to the data fusion activity, HPPI data series were handled in a distributed fashion but without rigorous coordination. The data fusion activity develops a distributed database architecture and design across separate databases, with control processes to assure consistent definitions and domain value sets. This approach to data distribution will allow staff to access data from all major data series whether current or archived. A significant new element of the data architecture will allow the reporting and display of data by roadway links, States and metropolitan areas. The requested level for the FY 2002 activity is considered to be the minimum needed to field test the system in a limited number of Division and HQ offices, with an additional $125,000 coming from HIN in support of agency data automation efforts.

3. Highway Finance/Fuels Research Support: $425,000

Compilation of motor fuel and highway finance data sets provide basic information on the overall agency mission. This information includes:

(1) Update/develop motor-fuel models - $175,000
(2) Deploy improved highway finance data collection tools - $75,000
(3) Continue to develop motor-fuel training modules - $50,000
(4) Continue to make highway finance data series more customer friendly" - $125,000
(5) Evaluate cost/benefits of collecting more detailed highway finance data for CBU's/SBU's - $75,000.

Most importantly, the motor-fuel data series provides a significant portion of annual apportionment factors for NHS, Interstate Maintenance, Surface Transportation Program, and Minimum Guarantee (more than $11 billion annually) As a result of its Motor Fuel Reassessment, FHWA committed to update current motor-fuel models, develop new models and develop training modules for States and FHWA staff where needed to achieve quality data The highway finance research support will bring that key, yet out-dated, reporting system in line with changing technology and will implement the anticipated changes resulting from the Highway Finance Reassessment. This will ensure that highway finance data adequately supports key agency efforts such as Conditions and Performance Report, legislative development, and Strategic Planning support.

In both cases, the research will improve these data series for FHWA and the States, and increases stakeholder buy-in, an important element in keeping both data series credible and in meeting FHWA data quality objectives.

Office of Policy SBU: The amount required in FY 2002: $1,150,000 (STR)

Office of Policy SBU		
Focus Area or Major Activity	FY 2001 Budget ($000)	FY 2002 Request ($000)
Cost of Doing Business		
Highway Performance Monitoring System	$475	$600
(HPMS)	$90	$125
Data Fusion		
	$650	$425
Highway Finance/ Fuels		
Totals	$1,215	$1,150

International $1,200,000 (STR)

Sections 502 and 506 of Title 23 U.S.C. gives the FHWA the mandate to "..engage in activities to inform the domestic highway community of technological innovations abroad that could significantly improve high way transport in the United States, to promote U.S. highway transportation expertise internationally, and to increase transfers of U S. highway transportation technology to foreign countries..."

To accomplish this mission, the Office of International Programs performs a broad range of activities which enable domestic partners to gain easier access to technology, information, and markets beyond U S. borders, and facilitate international partners' access to information and contacts in the U S. public and private sectors, and provide better access to U S. technology and practices for developing countries and countries in transition

(a) International Technical (Scanning) Exchange Program – $750,000 from Agency-Wide funding

The FHWA's international technical exchange programs focus on meeting the growing demands of its partners at the Federal, State, and local levels for access to information on state-of-the-art technology and the best practices used worldwide. The domestic highway community is very interested in the advanced technologies being developed by other countries as well as innovative organizational and financing techniques used by the FHWA's international counterparts $200,000 will be used for an increased number of implementation events for the jointly-funded AASHTO FHWA International Technology Scanning Program as a result of a greater emphasis on this program by AASHTO and the U S highway community. AASHTO increased its funding for this program in FY 2001 Joint AASHTO FHWA International Technology Scanning Program assesses and imports foreign technologies and innovations which significantly benefit the U.S highway community Within the DOT, this program leverages funding from FHWA Core Business Units and the Federal Motor Carrier Administration This program is also jointly funded by AASHTO through NCHRP Panel 20-36 The FHWA has firm commitments with AASHTO for the continued funding of this program This approach allows for advanced technology to be adapted and put into practice much more efficiently without spending scarce research funds to recreate technology already developed by other countries. To date, the FHWA has undertaken over 36 of these reviews and disseminated results nationwide. Our access to foreign innovations is strengthened by U S participation in the technical committees of international organizations, such as PIARC, OECD, and APEC, and through bilateral technical exchange agreements with selected developed countries

(b) NAFTA and the Border Technology Exchange Program -- $350,000 from Agency-Wide funding
This program area focuses on supporting the North American Free Trade Agreement (NAFTA) and facilitating cross-border and international surface transportation issues with Canada, Mexico, and other countries Programs are designed to address increased trade and travel across the borders The Border Technology Exchange Program (BTEP) was created by FHWA in 1995 to provide opportunities for sharing transportation information and technology among the U S. border States and their counterparts in Mexico The BTEP is designed to enhance and expand the binational working relationships of the border State DOTs Through this program, the FHWA is cooperatively working with U S and Mexican border states to develop T^2 Centers along the border These centers are being jointly funded by the Mexican Government with U S states providing in-kind contributions

(c) International Marketing Activities and Studies -- $100,000 from Agency-Wide funding

The FHWA promotes U.S technology and highway transportation expertise abroad to assist the U S private sector in competing globally with foreign firms that receive support from their own governments The Office of International Programs coordinates export promotion activities with the 19 other U S government agencies involved in foreign trade, as well as the multi-lateral financing institutions like the World Bank and the Inter-American Development Bank The FHWA's International Visitor Program is also funded through this program. Annually, the FHWA hosts approximately 500 foreign visitors who request programs highlighting U S technology and technical expertise

Program Area: INTERNATIONAL

Strategic Goal: PRODUCTIVITY

Activity: SURFACE TRANSPORTATION RESEARCH (STR)

Focus Area or Major Activity	FY 2001 Budget ($000)	FY 2002 Request ($000)
Cost of Doing Business		
International	$970	$1,200
Totals	$970	$1,200

FY 2002 R&T Program Funds:Total Requested				
(Dollars in Thousands $000)				
Line Item	PROGRAM (Str. Goal) / Priority Area	STR	TDIPP	Totals
Advanced Research (CGI)		$1,000	$0	$1,000

Advanced Research

Category: Cross-Goal Initiatives

Amount Requested for FY 2002: $1,000,000 (STR)

Advanced research is FHWA's information highway for tomorrow. This small program of exploratory and high risk research is dedicated to the investigation of new, emerging or advanced technologies which have potential for long range applications in areas of highway engineering, safety, traffic operations and environment. FHWA's Advanced Research Program was established to ensure that there is central focus and continual surveillance of emerging and advanced technologies. Over the past several years, the Advanced Research Program has concentrated on current and future needs in the specific areas of:

- Diagnostic methods
- Materials characterization
- Modeling and simulation technologies
- Artificial intelligence and mathematics
- Advanced sensor and communications technologies

Advanced research is a very important part of the Federal R&T mission as it can provide a continuing look "over the horizon" at innovation from all technical disciplines. TRB's Research and Technology Coordinating Committee, for example, has recently recognized the unique role FHWA plays in this arena. Money must be invested wisely in advanced research topics and we must be able to clearly articulate what ultimate practical uses it will serve. RD&T and the CBUs will soon go through the process of re-evaluating the Advanced Research Program to determine if the present arrangement is working or if a fresh approach is needed to energize the program under existing staffing and budget constraints. An "options" White Paper will be prepared. A "re-engineered" Advanced Research Program for FY2002 and the future would engage all of FHWA in decisions regarding advanced research and assure that agency goals are addressed throughout the process. It will also ensure that funds and other resources dedicated to advanced research are used wisely.

The Amount of funding required in FY 2002: $1,000,000 (STR)

Advanced Research

Focus Area or Major Activity	FY 2001 Budget ($000)	FY 2002 Request ($000)
Advanced Research	$779	$1,000

FY 2002 R&T Program Funds:Total Requested					
(Dollars in Thousands $000)					
Line Item	PROGRAM (Str. Goal)	Priority Area	STR	TDIPP	Totals
Operations			**$12,209**	**$3,367**	**$15,576**
	OPERATIONS (Productivity)		$2,600	$0	$2,600
		Conduct Analyses	$1,875	$0	$1,875
		Invest in Corridor&Border Improve.	$200	$0	$200
		Multi-State Freight Trade	$125	$0	$125
		Develop&Test ITS Technology	$0	$0	$0
		Min. Req. for NHS Infrastructure	$200	$0	$200
		Technology and Training	$200	$0	$200
	OPERATIONS (Mobility)		$9,009	$3,367	$12,376
		Operations Performance Measures	$2,200	$0	$2,200
		Transportation Operations	$2,350	$0	$2,350
		Travel Management	$3,000	$0	$3,000
		Operations Outreach	$1,459	$0	$1,459
		Intelligent Trans. Infra. Program	$0	$1,700	$1,700
		Advanced Traffic Monitoring	$0	$1,667	$1,667
	OPERATIONS (National Security)		$600	$0	$600
		Operations Planning	$0	$0	$0
		Training Exercises/Military Deploy.	$200	$0	$200
		Coordination with FEMA	$400	$0	$400

SURFACE TRANSPORTATION RESEARCH and TECHNOLOGY DEPLOYMENT

Program Area: Operations

Strategic Goals: Productivity, Mobility, National Security

Amount Requested for FY 2002: $15,576,000 ($12,209,000 STR; $3,367,000 TDIPP)

FREIGHT MANAGEMENT AND OPERATIONS

Background and Objectives

Efficient transportation of goods is increasingly recognized as a key contributor to U.S. economic productivity and to the overall competitiveness of the U.S. in the global economy. Transportation has historically defined the geographic breath and therefore complexity (depth) of an economy. Yet, today, manufacturing is becoming globally mobile, logistical systems are rapidly evolving, and economies that were once national in conception are beginning to merge into a world market Thus, we recognized in the FHWA the need to focus on the adequacy of our freight transportation system to meet these demands and the need to consciously examine how we could make the use of the highway system more productive for shippers who are competing in an ever more competitive market. A special freight group was formed in early Calendar Year 1999 and charged with this responsibility. While the core is housed in the Operations Core Business Unit, the group works with others across core business units in FHWA , and across the other agencies in DOT and the Federal government to address the issues of goods movement productivity and mobility in the United States The FHWA further established a Freight research program to support its strategic plan, specifically its productivity goal. This goal is to continuously improve the economic efficiency of the national transportation system in order to enhance America's position in the global economy.

The Freight research program was created to focus, at the national level, on the adequacy of the freight system and to determine appropriate public policy and program responses. This work has focused on a number of important research initiatives that fall within four major categories of issues: institutional, infrastructure, operations and safety, and regulatory A primary effort has been the development of a freight analytical/decision framework that will enable us to evaluate alternative public investments and their impact on a national integrated system. We also have been engaged in developing appropriate measures of highway performance that may be monitored and used to identify appropriate freight system investments and partnership opportunities. We are working with our public and private partners to improve the efficiency of U.S. border and corridor operations, and are actively supporting projects that will shed light on new financial, institutional, and technological opportunities to make national freight operations more productive and efficient. These and other research projects are delineated below.

The arrival of FY 2002 brings the FHWA freight management research initiatives to an important juncture. A number of first-phase, freight-related research activities will have been completed, and the results will now facilitate national policy analysis in support of reauthorization. While FHWA will continue to seek out new information and technologies to enhance freight, we shall allocate proportionately less of our resources in 2002 to new research and more to national policy and investment option analysis and sharing the results of our initial efforts with our partners and stakeholders. We will seek to raise the level of national dialogue on contemporary freight transportation issues and policy options through a variety of distributions, contacts and presentations through the National Freight Roundtable and other mechanisms in preparation for reauthorization.

Accomplishments to date (FY 2001 and before)

- *Intermodal Freight Decision Analysis Framework:* We have developed the initial national freight analysis framework to analyze critical intermodal freight corridors and facilities in the U. S. and North America. We have conducted forecasts and scenario analysis of future freight flows nationally, at load centers, and along key corridors.

- *NHS Connector Study* We have provided Congress with the required report on the adequacy of NHS intermodal connectors.

- *Institutional Barriers:* We have identified institutional impediments to freight planning and development.
- *Freight Financing.* We have synthesized current freight financing mechanisms at all levels of government
- *Intermodal Analysis:* We have completed end-to-end process analyses of intermodal shipments
- *Best Practices in Multi-State Partnerships.* We have determined initially "what works" in forging multi-state partnerships
- *Truck Size and Weight:* We have completed analyses of various size and weight regulatory issues.

Expected FY 2002 products and milestones

- *Intermodal Freight Decision Analysis Framework:* Drawing on completed portions of the Intermodal Freight Decision Analysis Framework, an in-depth, multi-State assessment of the needs of specific corridors, gateways and international border crossings will be completed. With our partners, we will evaluate the current condition of freight transportation, pinpoint opportunities for improvement, consider needed public policies, and develop appropriate investment mechanisms to foster better freight performance and mobility on NHS connectors, gateways, and freight corridors. Also, in 2002, we will begin to present, as available, to our partners a tested set of analysis tools and forecasting strategies.
- *Borders and Corridors Program Evaluation:* Evaluation of the borders and corridors program (Section 1118 and 1119)will be reported with particular emphasis on multi-jurisdictional relationships (cooperative effort with FHWA Planning).
- *Multi-State Partnerships.* Our multi-year support of multi-state coalitions will culminate in an evaluation and development of policy recommendations to help institutionalize multi-jurisdictional decision-making.
- *NHS "Infostructure":* Initial minimum requirements for an information architecture to monitor freight movement along NHS corridors and at connectors, ports, and terminals will be reported.
- *Outreach and Technology Transfer.* Training and technology dissemination on freight-related issues will be initiated to State and local practitioners. Conferences and workshops will be sponsored to broaden knowledge of freight and intermodal freight transportation issues and available tools.
- *Performance Measurement:* Having pursued national efforts to ascertain workable freight performance measurements, we will be poised in 2002 to assess initial performance data collection results. These will be provided to both Departmental and other officials with information on national and potentially corridor-level freight trends.
- *Border Delay:* Working with international, national, State, and private sector stakeholders, we will report on commercial travel times and delays at selected international borders
- *Legislative Analyses:* Based on the results of these various assessments, we will develop policy and legislative recommendations for national freight improvement strategies for reauthorization of the highway program.
- *Costs and Benefits of Freight Investments:* We will provide a national report on the benefits of freight investment, including an analysis of return on investment. As an adjunct, we also will begin providing State and local agencies with initial tools to measure the costs and benefits of highway-related freight improvement investments.

FY 2002 Program Request: $2,600,000 ($2,600,000, STR; $ 0 TDIPP)

New Initiatives:

- **$300,000** -- *Minimum Information Requirements for an NHS Freight "Infostructure":* Building on our newly acquired ability to assess the entire freight movement, efforts in 2002 will be directed toward identifying and formulating practical "Infostructure" technologies and technical support information that can be used by our partners to enhance the movement of intermodal freight. We will report the initial considerations of an information architecture, in cooperation with our stakeholders, to actively monitor movement and report on real-time conditions along significant NHS corridors and through important connectors.
- **$200,000** -- *Technology and Training:* Several research contracts will provide training development, conferences, and technology dissemination to State and local agencies on freight issues, data, planning tools, and financing methods. These

efforts will be conducted in partnership with the U.S. Merchant Marine Academy, Intermodal Association of North America, and the FHWA's National Highway Institute.

Ongoing Research

- **$850,000** – *Intermodal Freight Analysis Decision Framework* By the end of Fiscal Year 2001, the Framework program will have completed 8 of its 10 business plan quarters. By this time, we anticipate completion of our North American analysis activity, with key problem areas identified and a systematic analysis of significant corridors and gateways undertaken. We will draw on the results of the program to perform more in-depth assessments, at the multi-State level, on the needs of specific regional corridors, gateways, international border crossings, and NHS connectors. These assessments will focus on specific problems and develop workable strategies for problem correction. We will examine whether these are unique or represent a pattern, and from these analyses begin to develop a set of options and policy strategies to enhance freight mobility and productivity, including reauthorization strategies. Elements to be addressed include all aspects of the Transportation Development Process Strategies (e.g., planning, decision making, environmental review, financing). These options will be developed and refined through a series of public-private outreach sessions. We will be working closely with the FHWA Planning and Environment Core Business Unit and the Budget and Finance Office as we conduct this effort.

  On a limited basis, we will begin in 2002 to disseminate tested modeling tools and seek to provide enhanced training packages on analytical forecasting to our stakeholders (i.e., State agencies and MPOs). We will coordinate this work with the FHWA Policy Support Business Unit as well as other modal agencies of the Department.

- **$75,000** -- *Emerging Environmental Issues* In 2002, we will complete two years of work to evaluate environmental requirements, trends and issues that influence national freight productivity. This work will include analysis of emerging policy and regulatory issues (e.g., diesel fuel and engine regulation), as well as the streamlining of current environmental processes. The results will be used in the development of policy options and reauthorization recommendations on transportation-related environmental issues that best address their multiple -- and occasionally conflicting -- goals and objectives. The results of this evaluation also will help us to further refine the Freight Analysis Framework described above. This work will be coordinated with the Planning and Environment Core Business Unit.

- **$300,000** -- *Costs & Benefits of Freight Enhancements* Completing 2 years of work to analyze the national economic benefits of freight system investment and the specific costs and benefits of freight-highway-related improvement investments, we will in 2002 be positioned to: (1) support national and regional analysis regarding return on investment and application of cost-benefit strategies; (2) market for our stakeholders a report on the national and regional benefits of freight system investments; and (3), secondarily, begin to provide stakeholders the "tools" that may be put to use to demonstrate and justify the benefits of multi-State, State, local or MPO investment in the national system. This work will be coordinated with the FHWA Policy Support Business Unit.

- **$600,000** -- *Mobility & Performance Measurements* By 2002, the FHWA anticipates having in place its validated, initial benchmark measurement(s) of freight performance and mobility across the U.S. Baseline data on which the agency may begin reporting will be available. An annual reporting procedure will be in place, through the support and assistance of the Bureau of Transportation Statistics, to disseminate to Departmental and other interested officials the results of our analysis of current trends. The FHWA also will continue measurement and simulation of border performance, using procedures and tools developed in 2000 and 2001. Information on border travel and delay will be provided, reflecting the results of direct observation, using manual and automated procedures, at numerous border locations, as well as our initial work with border simulation software at several sites. This work will be coordinated with the FHWA Policy Support Business Unit and the Bureau of Transportation Statistics.

- **$50,000** -- *International Freight Initiatives* Work in 2002 will complete an assessment of global trends in trade, supply chain management, logistics, and freight transport challenges identified in several fora, including the international freight scan conducted with AASHTO in 2001. The FHWA will complete its assessment of freight transportation analysis and the potential application of new technology products (e.g., the application of bench marking to evaluating ports of entry and international trade route performance), using them to compare the freight-enhancing initiatives of the United States with those practiced in Europe and Asia. Work will also culminate in the development of related analyses of emerging trends in international trade and implications for the intermodal freight system. We will recommend policy and program options and strategies to facilitate North American trade, in preparation for reauthorization.

- **$200,000** -- *Corridor & Border Improvements:* In 2002, support will continue for on-going border and corridor improvements, in cooperation with the FHWA Office of Intermodal and Statewide Programs and the ITS program office. The results of 1118/1119 project investments will be assessed for freight improvement implications (e.g., the effort to

develop multi-State planning for specific corridor improvements, such as the Interstate 35 initiative). Specifically, a comprehensive program evaluation will be completed to help develop our plan for reauthorization, with a report evaluating the progress of the borders and corridors program being developed in cooperation with the FHWA Office of Planning and Environment.

- **$ 125,000** – *Multi-State Freight/Trade Institutional Partnerships*: We will complete an institutional evaluation report that includes an assessment of multi-State legal issues and financing mechanisms, building on several of the multi-State trade/transportation regional efforts like the Western Trade Transport Study and the Southern State's Latin American Trade Study. This assessment will be comprehensive, drawing on the experience gained from the 1118 multi-State corridor analysis mentioned above. Ultimately, this work will support the development of reauthorization recommendations to facilitate multi-State trade regions or corridor planning and implementation.

Program Area: OPERATIONS

Strategic Goal: PRODUCTIVITY

Activity: SURFACE TRANSPORTATION RESEARCH (STR)

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
1. Conduct Analyses	1,725	1,875
A. Freight Analysis Decision Framework	1,000	850
B. NHS Connector Study Follow-on	150	0
C. Evaluation of Emerging Environmental Issues	0	75
D. Costs & Benefits of Freight Enhancements	300	300
E. Measures of Freight Productivity/Mobility	150	600
F. International Activities	125	50
2. Invest in Corridor & Border Improvements	0	20*
3. Continue to Nurture Multi-State Freight/ Trade Institutional Partnerships	150	125
4. Develop & Test Key Elements of ITS Technology	0	0
5. Minimum Requirements for an NHS Infostructure	0	200
6. Technology and Training	100	200
Total	**1,975**	**2,600**

* - Funding provided by 1118/1119 program. These are not ITS funds.

Program Area: OPERATIONS

Strategic Goal: PRODUCTIVITY

Activity: **TECHNOLOGY DEPLOYMENT INITIATIVES & PARTNERSHIP PROGRAM (TDIPP)**

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
1. Conduct Analyses		
A. Freight Analysis Decision Framework	0	0
B. Policy/Program Freight Options Analysis (formerly NHS Connector Study)	0	0
C. Evaluation of Emerging Environmental Issues	0	0
D. Costs & Benefits of Freight Enhancements	0	0
E. Measures of Freight Productivity/Mobility	0	0
F. International Activities		
2. Invest in Corridor & Border Improvements	0	0
3. Continue to Nurture Multi-State Freight/ Trade Institutional Partnerships	0	0
4. Develop & Test Key Elements of ITS Technology	0	0
5. Minimum Requirements for an NHS Infrastructure	0	0
6. Technology and Training	0	0
Total	**0**	**0**

OPERATIONS PERFORMANCE MEASURES

Background and Objectives

The saying, 'what gets measured is what gets done' has proven true for highways. For the last three decades, the FHWA and the transportation community have focused on building, rebuilding, and maintaining the Interstate System. Our measures of success have been the number of miles of highways constructed, the smoothness of pavement, and the structural soundness of bridges. We measured it and it got done -- the Interstate System is one of the best and most extensive in the world. Now that the Interstate System is generally complete, FHWA and State and local transportation agencies are increasing their focus on operating the surface transportation system. New measures are needed to monitor how well the transportation system is being operated. These new operational metrics will measure customer satisfaction with their travel rather than just the physical characteristics of the infrastructure. Working with our State and local partners, FHWA is leading an effort to develop consensus on appropriate national and local measures for overall system operations, as well as, appropriate measures for individual components of operations such as arterial management, incident management, work zone operations, weather response and so forth. As part of this effort, we are testing alternative data collection methodologies and various experimental designs to develop measures that are meaningful, yet cost-effective to collect.

Consensus is forming around two general measures of system performance: 1) customer satisfaction; and 2) travel time and travel time reliability. Travel time measures hold a great deal of promise for use at local and regional levels and, perhaps, at a national level. Research, currently underway and proposed for FY 2002, addresses both levels of application

Customer Satisfaction. In late FY 2000, we conducted a national survey to establish a baseline of consumer satisfaction with system operation. In FY 2001, we will repeat the survey and gain an understanding of how effective it is in relation to the performance measurement results determined through our mobility monitoring pilot program. The next annual survey will continue measurement on a national basis and provide enough validation to make recommendations for use on a local basis.

Travel time and reliability. While there is a general consensus that travel time and travel time reliability are some of the most effective measures of system performance from a user's perspective, the costs associated with collecting such data system-wide on a continuous basis were prohibitive. In addition, current measures of user delay derived from the HPMS have not been effective in reflecting the actual performance of the system.

ITS technology offers the potential of collecting continuous travel time data on highways that have been instrumented. In FY 2000, we initiated a pilot program to experiment with ITS travel data from 5-10 metropolitan areas to derive measures of system performance. These first 5-10 cities in the pilot program were chosen because they were already collecting sufficient travel data through ITS and other local systems. In FY 2002, we will expand this pilot effort to additional metropolitan systems that are instrumented with ITS technology. Our plan is to expand this data collection effort annually, consistent with the deployment of ITS technology, and to gradually develop a comprehensive measure of how well we are doing as a nation in operating our surface transportation system.

The research underway will measure and assess the travel time and the reliability of travel times in the pilot cities. The research program will test the concept of using this data to construct performance measures that will be useful for State and local transportation managers as well as provide a national measure of the performance of the transportation system. The pilot program lays the foundation for: defining the best analytical processes for using ITS data in constructing mobility measures; developing institutional and data sharing partnerships with local and state agencies; and expanding the program by adding more cities, roadways, and modes

Accomplishments to date (FY 2001 and before)

- *Customer/Traveler Satisfaction Survey:* The results of the nationwide survey that was completed late in FY2000 will be analyzed and published. The survey will measure and establish baseline trends in the public's satisfaction with travel time and travel time reliability. Customer perceptions of transportation trends will then be compared to the actual trends as discovered through the Pilot Mobility Monitoring Program.

- *Pilot Mobility Monitoring Program:* Data collection and analysis will be completed on freeways for the first 5 to 10 cities participating in the pilot program. A report on the travel rate index, average annual hours of delay per driver, and percent congested freeway travel for these cites will be published. Plans and requirements to include additional cities in the pilot program will be completed. By the end of FY 2001, the results from the Pilot Program's Final Report will provide a basis for the program in future years. Recommendations will address: problems and solutions related to data acquisition, quality, integration, and analysis; ability of the private sector to be a supplier of archived data for mobility monitoring; usefulness of the data in local applications, including documenting how the data are used by local agencies; practitioners'

acceptance or rejection of the performance measures, especially the reliability measures; the structure of the program in the out years; and lessons learned in recruiting additional urban areas to participate and how to improve it. Consistent reporting of data among the pilot cities is a primary component of this program. Consensus on a consistent format for reporting national trends will be developed and a composite data base with consistent definitions will be used to develop the performance reports.

- *Performance Monitoring Requirements:* A technical report documenting experimental design and analytical practices and procedures for creating mobility performance measures from ITS and other locally collected data will be published. Testing and proof of concept for wireless technologies (cell phones) for transportation data collection and cooperating with the private sector to gain additional knowledge of the transportation system's performance are key components of the Pilot Program.

Expected FY 2002 products and milestones

- *Pilot Mobility Monitoring Program*: Another 15 to 20 cities will be included in the Pilot Program and they will collect ITS and other local monitoring data for the national program. This will bring the total number of participating cities to 20-30. This second group of cities will have less data available and the pilot program will assist them in collection. New technologies and concepts that have proven successful, such as cellular phones for travel time data, will be included. As a result of the 20-30-city effort, recommended performance measures will be developed. The data that is gathered through the program will begin to provide a national picture of trends in traffic congestion. With these measures, the transportation community can better assess the impacts of various strategies and techniques to improve transportation operations. This data will also be used to update and refine traffic and performance data in the FARS and the HPMS.

FY 2002 Program Request **$2,200,000 ($2,200,000 STR; $0 TDIPP)**

Ongoing Research

- $2,000,000 – *Pilot Mobility Monitoring Program*: Traffic information is gathered and processed for validation of the three key performance measures: travel rate index, average annual hours of delay per driver, and percent congested freeway travel. Assistance and incentives are provided to additional cities to participate in the pilot program to collect traffic data in a manner consistent with the input needed for the performance measures. These performance measures will be used to guide and evaluate the development of Federal, State and local operational improvements. The data will also satisfy the GPRA requirements to measure outcomes. Information and best practices will be developed to assist State and local transportation agencies in using these measures and developing and using other appropriate local measures.

- $200,000 – *Traveler Satisfaction Survey:* The third annual nationwide survey will be completed and will measure trends in public satisfaction with changes in their travel time and its reliability. This survey will include questions to guide Federal, State and local transportation management decisions on congestion, incident management, public safety and work zones.

TRANSPORTATION OPERATIONS

Background and Objectives

State and local transportation agencies have been conducting operations for years but often as a lower priority and with out-dated technologies and stove-piped strategies. Much progress has been made in recent years to identify and improve operational practices in work zones, traffic controls, weather response, incident management, and demand management strategies to name a few. FHWA's research program seeks to raise the bar on the state-of-the-practice in transportation operations by identifying, testing and sharing best practices and advanced technologies. FHWA's initiatives in Transportation Operations supports the Mobility Goal through three key program areas: 1) signing and traffic control standards that are published in the Manual on Uniform Traffic Control Devices (MUTCD), 2) improved work zone operations and 3) road weather management. Each of these program areas plays a key role in ensuring adequate performance of the transportation system under varying conditions.

MUTCD

The MUTCD is the national standard for traffic control devices and is used by all state and local transportation agencies. However, the MUTCD has not undergone a major revision in over 20 years. During that time, operational strategies have changed and new technologies have emerged. Innovative traffic control devices using new technology and computer applications continue to develop and must be reflected in the MUTCD to ensure consistent application nationwide and to promote driver understanding and compliance. In addition, the driving public is changing to include more older drivers and

non-English speakers. These drivers will, at a minimum, require longer lead times for comprehension as well as larger and more understandable signing. There is also an increasing need to focus on adapting system operations to the requirements of people with disabilities.

During the late 1990's FHWA began a major effort to update and simplify the MUTCD to reflect and incorporate. Based on research, evaluations of effectiveness, and close coordination with State and local partners, FHWA circulated numerous draft traffic control device standards via the *Federal Register* for public comment. This intensive effort culminated with the publication of the millennium edition of the MUTCD in FY2001. Attention now shifts to educating state and local transportation agencies on the considerable revisions. This effort begins in FY2001and continues in FY2002 with the focus of the MUTCD program in two key areas. The first is to implement the revised traffic control device standards through accompanying guidance and an accelerated outreach and educational effort with FHWA field offices, State and local traffic engineers and their contractors, and professional organizations. Secondly, the FY 2002 program will continue research activities by evaluating new traffic control devices, including state-of-the-art technologies and applications specific to key groups such as older drivers and foreign drivers. Following research and evaluation, the MUTCD will continue to be revised to reflect relevant changes.

Work Zone Operations

The National Personal Transportation Survey indicated that of all types of congestion frustration that Americans experience, that related to work zones is the most frustrating. TEA-21, with its 40% increase in funding, has the potential of increasing this national frustration by an equivalent amount. Other surveys and focus groups suggest that the nature of the frustration stems from surprise factor (not planning the delay into the trip time and suffering personal consequences from the surprise), the length of time construction takes (A recent report suggested that the travel time lost in work zones exceeds the travel time benefits from the improvements), and the perception that often there is no work going on in the work zone. The frustration plays out in aggressive driving, speeding through work zones, and other behavior that annually results in 800 fatalities and 37,000 injuries due to work zone accidents.

The Work Zone Initiative, begun by FHWA in 1999, focuses on reducing driver exposure to work zones through longer wearing materials (hence, fewer times the road is shut down for maintenance) shorter construction times, and better traffic management and consumer information when work zones occur. The pay off is improved safety and improved customer satisfaction. The Work Zone Operations Program is managed through a multi-disciplinary team within FHWA. In FY 2000, the program focused on development of a best practices guide, increased awareness of work zone safety and operations, and initiation of decision support system development. In 2001, the program focused on advancing the state of the art with the development of models that would more accurately value user const vs the additional cost of longer lived construction materials, more aggressive construction techniques, and more expensive traffic management operations. In addition, a number of technologies were evaluated for their application to improved work zone operations. In 2002, the focus will shift to technology transfer -- encouraging state and local governments to use better techniques, technology and decision making practices in work zone operations. This includes development of performance-based measurement training to enable local decision makers to measure and share the effectiveness of the strategies that they deploy and development of a suite of training and educational materials to improve safety and operations of work zones and reduce construction times..

Road Weather Management

Annually about 7,000 highway fatalities and 450,000 injuries occur during adverse weather. A one-day highway shutdown due to snow can cost from $15 million to $76 million in lost time, productivity, and wages in a metropolitan area. In FY 1999, FHWA initiated a focused effort to address weather impacts on the performance of the system. Over the course of FY 2000 and FY 2001 the program developed, and will continue to pursue solutions that address the impacts of adverse weather on all users and operators of the surface transportation system. By the beginning of FY 2002, the program is expected to have made significant inroads in the documentation of Surface Transportation Weather Decision Support Requirements, and the prototyping, testing and evaluating of advanced road weather decisions support systems that are built upon these requirements. This work has formed the basis of our coordination with the weather community (e.g., the National Weather Service), and has enabled us to work together to pursue new avenues for meeting the weather information needs of the highway community. Additionally, work has been initiated to develop tools that enable traffic managers and maintenance staff to be more effective during weather events.

With respect to the requirements-definition process, the program first focused on winter road maintenance then quickly turned its attention to travelers, and traffic and emergency managers. The approach has been to involve stakeholder groups, which is then followed by prototyping and operational testing of advanced decision support systems. FY 2002 projects will continue to expand requirements, promote the deployment of advanced decision support, and enhance the working relations between the National Weather Service and the surface transportation sector. In addition, other program staples will

continue, such as the development of tools and technologies to equip the operators with effective resources, as well as aggressive program outreach.

Accomplishments to date (FY 2001 and before)

MUTCD

- *Public Comments on the MUTCD* Nine draft standards were distributed for comments through the *Federal Register* from January 1997 to December 1999. Comments were incorporated in the millennium edition of the MUTCD in FY2001.

- *Technical Guidance:* Technical and non-technical MUTCD materials were developed to communicate and educate public agencies, private industry, associations and the highway users on the new traffic control devices Other strategies to educate motorist, through department of motor vehicles, insurance companies, and automobile associations, will be developed. Technical guidance for application of the new traffic control device standards and strategies were developed for the FHWA field offices, LTAP centers, private industry and other customers.

- *Research and Human Factors:* Research and human factors evaluations were conducted on new technology and innovative traffic control devices utilizing advance testing methods were conducted and the results included in the new MUTCD.

Work Zone Operations

- *Model Programs:* The report, *Meeting the Customer's Needs for Mobility and Safety During Construction and Maintenance Operations* was completed. This report presents the State-of-the-Practice, State-of-the-Art, and a Model Traffic Management program, and provides a program for measuring the effectiveness of a highway agencies work zone traffic management program.

- *Work Zone Best Practices Guidebook:* This guidebook was created in partnership with the American Association of State Highway Transportation Officials (AASHTO). The Guidebook is a living document, which presents best practices for improving mobility and safety in work zones. With the guidebook, a process is established which ensures that its contents contain the latest State-of-the-Practice.

- *Best Practices Workshop*: A workshop was developed and implemented based on work zone best practices. Approximately 50 federal division office staff and 150 stakeholders will participate in FY 01.

- *Training:* A training course on work zone operations and practices was developed.

- *Decision Analysis:* QuickZone, an impact analysis decision making tool used to identify the true economic impact of alternative mitigation measures for construction and maintenance work zone impacts was created. Through recognition of the true traffic impacts, managers will be able to more clearly present work zone traffic management decisions.

- *Driver's Education:* A New Driver's Education program was developed to augment existing driver education programs. The new driver is greatly over represented in highway crashes and fatalities, and through training modules directed at this audience, awareness for the dangers encountered when entering a construction or maintenance work zone can be heightened.

- *Technology Scan:* A technology scan was conducted to identify, demonstrate, evaluate, and share new and emerging technologies which contribute to improving mobility and safety through work zones.

- *Performance Measures:* Benchmarking of state highway agency traffic management programs including 30 self assessments was completed and the results will guide the development of future emphasis areas. Through the measurement of performance, bench marking, and clearly defining the problem, FHWA will continue to lead continuous quality initiatives to improve work zone operations.

- *National Work Zone Safety & Mobility Awareness Week:* The National Work Zone Safety & Mobility Awareness Week was created to establish a platform form from which national programs are launched and traveler and worker awareness of mobility and safety is promoted. Over the past 10 years, more than 8000 fatalities have occurred in work zones. Through a combined effort with our partners in the highway community a difference can be made.

Road Weather Management.

- *Weather Decision Support Requirements:* The Surface Transportation Weather Decision Support Requirements documentation effort will have completed two new versions of the software which will (1) respond to feedback from the Federal meteorological community on the earlier version; and (2) expand on requirements for travelers, emergency mangers, and traffic managers. This supports our objective to coordinate with the meteorological community, and expand the requirements beyond winter maintenance to other users, operators, and weather events (e.g. hurricanes, etc.).

- *Winter Maintenance Decision Support System:* Based on the requirements work, testing and evaluation of a maintenance decision support system will have been initiated. The systems focuses on the fusion of multiple weather data sources based on varying weather products and targeted end user requirements.

- *Travel Decisions Support System:* Initiate development of a prototype of a traveler decision support system based on similar principles as the system for winter maintenance personnel.

- *Road Weather Information System Training:* An effort led by the AASHTO Snow & Ice Cooperative Program, and supported by the FHWA, will result in a training program for Road Weather Information Systems (RWIS) and anti-icing that can be tailored to the policies and practices of individual states and municipalities.

Expected FY 2002 products and milestones

MUTCD

- *Implementation of the Millennium Edition of the MUTCD:* The FHWA will develop additional technical and non-technical materials that can be used to implement the operational and safety concepts addressed in the millennium edition of the MUTCD. Partnering relationships with AARP, AAA, insurance companies, and other organizations to develop educational material about new provisions in the millennium edition MUTCD will be established to assist highway users for safe and efficient travel. A computer program for the Standard Highway Signs book will be completed that will allow the jurisdictions to make changes to their sign layout.

- *Training:* Train-the-trainer materials will be developed to enable FHWA field offices to support implementation of the new MUTCD technical information with the State agencies, LTAP centers, and local highway agencies.

- *New Technologies and Strategies:* Research, testing and evaluation of new technology applications for traffic control devices and concepts will continue. There continues to be new advanced technology, computer applications, and control strategies to improve transportation operations. The FHWA, in conjunction with our customers and partners, will continue to develop new standards and guidance for the design, application, and placement of traffic control devices (i.e., guidelines for minimum retroreflectivity).

- *Americans with Disability Issues:* Research will be conduct on the effectiveness of symbol signs, placement of signs and the application of traffic control devices to optimize traffic operations and for ADA compliance. A needs assessment will be undertaken to determine the actions required to achieve compliance with ADA provisions for traffic signs. Symbol sign research is needed to improve and develop new symbol signs that drivers, including older drivers and foreign drivers, can more easily understand.

- *Rail Grade Crossings:* Research will be conducted on the effectiveness of traffic control devices at railroad grade crossings and the impact of geometry on railroad grade crossing safety. This study will analyze and implement applicable recommendations from the DOT Highway-Rail Grade Crossing Technical Working Group on non-traditional devices, including the use of ITS technologies, to optimize the performance and safety of the highway-rail grade crossing.

Work Zone Operations.

- *Strategic Work Zone Analysis:* Cost analysis, expert systems, and simulations tool as part of the Strategic Work Zone Analysis Tools program to assist in impact analysis through analysis of alternative solutions will be developed. This effort will build upon the Quick Zone tool previously developed. Tools will provide national focus, eliminate redundant activities, and ensure recognition of mobility and safety needs. Evaluation of highway agency traffic

management principles, as well as, develop and implement performance measurements for work zone related delays will be completed.

- *Best Practices Guidebook:* An update and supplement to the Best Practices Guidebook will provide practitioners with best practice information from across the nation.

- *National Work Zones Safety and Mobility Awareness*: Week National Work Zones Safety and Mobility Awareness Week will be conducted to promote the national partnership with the highway community. With this activity, workers and highway users will be exposed to the safety and mobility issues through construction and maintenance work zones.

- *Performance Measurement Training:* A Work Zone Traffic Management Performance Requirements training course will be developed to present techniques for measuring safety and mobility requirements.

- *Education and Training*: Continue development and delivery of a suite of training and educational material that will focus on methods to improve work zones operations and safety and reduction in construction times. The education effort will reach 70 federal field staff and 200 stakeholders in FY 02.

Weather and Winter Mobility

- *Decision Support-- Managers:* A prototype weather decision support system for traffic and emergency managers will be developed.

- *Decision Support – Travelers:* The prototype road weather decision support system for travelers will be developed.

- *Military Traffic Control:* Testing of a management system that integrates civilian and military traffic control based on current and predicted weather will be initiated.

- *Automated Anti-Icing Systems*: Fully automated anti-icing systems will be evaluated for road segments with varying features.

- *Outreach on Road Weather Information Systems:* The value of advanced road weather information systems and other weather products will be promoted to encourage further implementation.

- *State and Local Training:* State and local winter maintenance staff will be trained about improved methods and materials through an interactive training package developed in coordination with AASHTO.

FY 2002 Program Request **$2,350,000 ($2,350,000 STR; $0 TDIPP)**

New Initiatives

- $250,000 - *Work Zone Operations*: For development of metrics and performance-based measurement training

- $175,000 - *Weather and Winter Mobility*: To support testing and evaluation of anti-icing and other technologies. ITS funds also support this effort.

Ongoing Research

- $600,000 - *MUTCD* Several initiatives are planned to provide information and education through web-based materials .... publications, workshops and training on the millennium edition of the MUTCD to State and local practitioners, as well as the traveling public.

- $200,000 - *MUTCD*. Several research projects will be conducted to improve sign messages, traffic control devices that comply with ADA requirements, and railroad grade crossings, and to identify and test potential new technology applications.

- $1,000,000 - *Work Zone Operations*.. Multiple research contracts are planned to develop decision-making tools, delay measurement metrics and information sharing.

- $125,000 - *Weather and Winter Mobility:* Research will continue the requirements definitions by incorporating them into products and models.

The MUTCD is an ongoing effort with increasing need for external communication of revisions in FY2002 (FY 01: $450,000; FY 02: $800,000) Work Zone Operations is an ongoing effort with a continuing emphasis on modes and technology transfer to improve work zone practices. (FY 01: $1,450,000; FY 02: $1,250,000)
Weather and Winter Mobility began in FY1999. Efforts focus on application and training of technology applications to winter weather conditions. ITS funds also support this research. (FY 01: $100,000; FY 02: $300,000)

TRAVEL MANAGEMENT

Background and Objectives

The focus of the travel management program is four fold:

1. Advancing the Deployment of the ITS Infrastructure. Advancing ITS deployment will enable more advanced and integrated operations in the future. This involves providing technology transfer for use of the national ITS architecture and ITS standards, as well as training and other support for ITS infrastructure deployment. Where the focus of this effort has been primarily on the 78 largest cities, in FY 2002 we will expand the focus to the next tier of some 400 smaller cities. Further, we expect that where architecture compliance has been a primary focus of these efforts to date, this year will see a maturing of standards to the point that efforts will be equally divided between teaching and supporting both architecture and standards compliance. *All aspects of this program component are funded with ITS research funds.*

2. Institutionalization of Operations. One of the critical hurdles to improved, integrated operations is a lack of "institutionalization" of operations planning and the management of the system itself. FHWA, in partnership with the Institute of Transportation Engineers (ITE), has engaged in an extensive national dialogue on this issue and in FY2000 has developed a national strategy and road map for both improving the state of the art in operations as well as developing the necessary supporting institutions, policy and culture. This effort continued in FY2001 with a range of initiatives including: Internet based forums on both technical and policy issues; regional forums and listening sessions designed to elicit best practices on operations planning from which guidelines will be developed; and the development and testing of an operations self assessment tool designed to help senior transportation managers and local elected officials diagnose how well they are operating their surface transportation systems. In FY2002, we will focus on carrying out at least 30 of these assessments in metropolitan areas as a way of focusing attention on what can be done in each area with the technology, state of the practice, and funding currently available. We will follow-up many of these assessments with regional forums that bring the various "operators" together to develop consensus and commitment on a "next level of improvement" and solidifying (or institutionalizing) relationships and protocols that are key to effective operations. Finally, we will have completed developing and gaining consensus on a minimum set of standard information requirements for the National Highway System that we believe will begin to standardize the operational infrastructure and ensure its inclusion in the design process.

3. "Raising the Bar" on Regional Traffic Management Practices. This part of the program will work to advance the state of the practice — "raise the bar" — of transportation operations including incident and freeway management, arterial management, demand management, value pricing, etc. The advanced research and development associated with this part of the program (such as development of simulation models and advanced traffic control) *is covered in the ITS budget*. Nevertheless, it is an integral part of the Travel Management Program.

Beyond the research and development activities covered in the ITS program, we have made a major effort to benchmark the state of the art and state of the practice in FY 2000. In FY 2001 those results are, in some instances, being packaged into guidelines (such as an update of the Incident Management Handbook, a new Access Management Manual, and guidelines for managing traffic in smaller communities). These results are also being used to help us develop a regular cycle for developing and updating key operations guidance materials that serve as standards for the operations profession (including the Traffic Control Systems Control Handbook, the Freeway Management Handbook, the operations portions of the Highway Capacity Manual, etc). To date, keeping these materials current has been sporadic at best, often leaving published standard practices seriously out-of-date.

In FY 2002, we will continue our effort to update key operations guidelines, focusing specifically on a comprehensive operations manual for small communities (building on the small community traffic management guidelines produced in 2001), a tool-box of performance measures practices for helping communities measure performance of individual systems

(i.e. arterial traffic signals, freeway management, emergency response, etc.), and guidelines for integration of operations practices across jurisdictional boundaries in metropolitan areas.

4. Travel Information. The explosion of wireless communication and the potential availability of a universal transportation information telephone number will be key drivers in this component of the travel management program over the next two years. We anticipate launching the conversion of existing travel information telephone numbers to the common N11 number in FY2001 with four pilot conversions, 20 small grants to assist other conversions (*ITS funded*) and development of a set of N11 conversion guidelines. In FY2002 we will continue the conversion process with 50 additional conversion grants (*ITS funded*) We also anticipate the need for grappling with several issues relating to the public private partnerships associated with wireless travel information through development of guidelines, case studies, and policy analyses.

Accomplishments to date (FY 2001 and before)

- *ITS Infrastructure Deployment:* FHWA has implemented ITS Service Plans in 55 of the 78 largest metropolitan areas and has launched service plans for all of the largest metropolitan areas in the "low" ITS deployment class. Service plans have also been launched in 25 smaller metropolitan areas. At least 56 of the 78 largest metropolitan areas will be in the "medium" or "high" deployment class. The final US DOT policy on architecture consistency will be issued and we have fully trained the FHWA Resource Center and Division Office staff in the National ITS Architecture, ITS Standards, and the architecture consistency policy. At least 40 Tier I/II architecture development workshops will be completed around the country.

- *Institutionalization of Operations:* FHWA, in partnership with the Institute of Transportation Engineers (ITE), convened a national forum of transportation practitioners at the ITE annual conference in FY 2000 to develop a national strategy and road map for Operations. Communication and feedback continues with the participants in this forum through newsletters, web-based communications and regional meetings. As part of the outreach on the new planning and NEPA regulations, FHWA's regional sessions on operations and planning guidelines include input on how to better incorporate operational planning in the metropolitan transportation planning process. A metropolitan area operations self assessment tool to allow local officials to evaluate their operations practices and explore what more could be done has been developed and tested in up to five metropolitan areas. A web-based communications mechanism for the exchange of technical information and technical support on various operations issues, such as transportation management centers and high occupancy vehicle facilities, has been developed.

- *Raising the Bar on Regional Traffic Management Practices:* The benchmarking work performed in FY 2000 has been packaged into best practices guidelines and used to develop research, policy, and technology transfer roadmaps. In addition, performance measures are being developed that serve local operations in predicting conditions, diagnosing problems and monitoring system performance and the effectiveness of operating strategies, sometimes on a second by second basis. Updated technical guidance on incident management, new guidelines on traffic management in small communities, and case studies on HOV lane conversion and development of HOT lanes have been published and distributed. A video designed to encourage local agencies to perform regular retiming of traffic signals has been developed and distributed.

- *Traveler Information:* The facilitation of a nationwide deployment of Traveler Information Services has been initiated, including establishment of minimum levels of traveler information service provided for the National Highway System. N11 conversion guidelines have been developed, four N11 pilot projects have been completed, and N11 conversion is underway in at least 20 areas. A model regional deployment project has also been initiated.

Expected FY 2002 products and milestones

- *ITS Infrastructure Deployment.* Guidance and instructional materials for Federal staff and funding recipients for complying with the provisions of policies related to the National ITS Architecture and Standards will be completed. Sixty Service Plans will be developed for the larger metropolitan areas (top 78), 40 for smaller metropolitan areas and communities, and 5 for rural areas (statewide or multiple state). Sixty one of the 78 largest metropolitan areas will be in the "medium" or "high" deployment class.

- *Institutionalization of Operations:* Operations planning guidelines will be completed, disseminated, and training will be developed. We will continue to sponsor regional forums begun in FY 2001 to explore actions that metropolitan areas might pursue to improve transportation system operations and develop a web-based virtual transportation operations user community and continue web-based technology transfer. Based on previous work on systems performance benchmarking

and compilation of successful practices, we will work to establish consensus on recommended levels of monitoring and performance measurement for the National Highway System.

- *"Raising the Bar" on Regional Traffic Management Practices:* We will complete a "toolbox" of strategies and techniques for state and local transportation system agencies to improve their use of system performance measures in planning the operations of their travel management systems; complete operations guidance for small communities, building on the small communities traffic management manual completed in FY 2001; develop various tools to help public agencies provide for interjurisdictional traffic signal timing, incident response (alternate and detour routing), and area wide traveler information; develop instructional and supporting materials for convening the many agencies and organizations within a region to establish a regional incident management program; and complete updates of other critical traffic management guidance publications, such as the Freeway Management Handbook and Traffic Control Systems Handbook.

- *Traveler Information:* We will begin conversion of all traveler information telephone numbers to the common, nationwide 3-digit telephone number. Fifty N11 conversion grants will be issued and at least 15 agencies with N11will be fully operational. National multi-jurisdictional traveler information system showcase project will be established and guidelines for use of public sector traveler information by the private sector will be completed.

FY 2002 Program Request **$6,367,000 (3,000,000 STR; 3,367,000 TDIPP)**

New Initiatives

None

Ongoing Research

- *(ITS funded) -ITS Infrastructure Deployment:* This program provides supporting services as identified in Service Plans developed for large metropolitan areas, smaller communities, and rural areas. These efforts also continue to develop and provide training and other developmental opportunities to federal field staff and key stakeholders on the use of the National ITS Architecture and ITS Standards, and on implementing related policies. Products of this effort include advanced training for FHWA field staff, as well as workshops for local stakeholders.

- *(ITS funded) Traveler Information:* USDOT and FHWA will complete the 3-year effort to provide funding to help off-set the costs for conversion of traveler information telephone numbers to common, nationwide 3-digit number. This program will develop case studies, implementation guides, and other training materials to provide assistance to locations in implementing regional traveler information services. A "model deployment" of an integrated, state and metropolitan 3-digit traveler information system will be implemented, and lessons learned related to its implementation will be developed.

- $500,000 - *Institutionalization of Operations - Self-Assessments:* Self assessments piloted in FY 2001 will be facilitated in 30 metropolitan areas over an 18-month period. This effort will bring together agencies and organizations involved in transportation operations and review their local activities against a tableau of good practices. This will be a 1-year funding effort (FY 02: $500,000).

- $350,000 - *Institutionalization of Operations – Forums and Workshops:* In addition to those held in FY 2001, we will convene 15-20 regional forums targeted to elected and appointed officials and managers at the city, county, and State levels to focus attention on commitment to use sound transportation operations practices. Locations for these forums will be selected from those areas participating in an operations self assessment. We will conduct additional listening sessions and workshops with a variety of public sector transportation groups to gain consensus on a minimum set of information requirements for the National Highway System necessary to support proactive operations practices. This will be the 2nd year of a 2-year effort (FY 01: $150,000; FY 02: $350,000).

- $350,000 - *Institutionalization of Operations – Planning:* To assist areas incorporate transportation systems operations considerations into transportation planning processes, we will develop outreach materials (case studies, implementation guides, etc.). This effort will also develop materials for agencies to use in improving their planning for system operations (freeway, arterial, HOV, etc.). This is the 2nd year of a 2-year effort (FY 01: $150,000; FY 02: $350,000).

- $200,000 - *Institutionalization of Operations - Internet-based Information Maintenance and Support:* We will continue to provide web-based communications forums on operations technical issues. A virtual transportation operations user community will be created. This is the 2nd year of a 3-year effort (FY 01: $100,000; FY 02: $200,000; FY 03: $200,000)

- $500,000 - *Raising the Bar on Regional Traffic Management Practices – Data Collection and Performance Measures:* Through case studies, awareness, and supporting field operational tests for integrated archiving systems, Archived Data User Service (ADUS) will be incorporated into regional operations programs, including regional operations plans. A toolbox of performance measures practices for helping communities measure performance of both individual and integrated systems will be completed. This will be the 2nd year of a 3-year effort (FY 01: $100,000; FY 02: $500,000; FY 03: $250,000).

- $150,000 -*Raising the Bar on Regional Traffic Management Practices - Small Metropolitan Area and Rural Operations Guidance*: FHWA will develop guidance and other materials that demonstrate the benefits to small communities, inter-urban areas, and rural areas of implementing integrated transportation services. This effort will build on the small communities traffic management manual developed in FY 2001 and will focus on using incident and emergency response, together with traveler information, as the base upon which to build integrated services. This is the 1st year of a 2-year effort (FY 02: $150,000: FY 03: $150,000).

- $300,000 - *Raising the Bar on Regional Traffic Management Practices – Regional Arterial Management Programs:* Awareness and instructional materials related to the cooperative planning and operational efforts needed for seamless boundary transitions across jurisdictions will be developed. These products will include investigating and developing "low-tech" tools to provide for interjurisdictional traffic signal timing, incident response (alternate and detour routing), and area wide traveler information. This is the 3rd year of a 3-year effort (FY 00: $100,000; FY 01: $100,000; FY 02: $300,000).

- $300,000 - *Raising the Bar on Regional Traffic Management Practices – Regional Incident Management and Emergency Services Program*: FHWA will continue awareness efforts begun in fiscal year 2001 to provide information to state and local transportation and incident response agencies on establishing regionwide incident management programs, especially strengthening ties to the public safety constituency and traveler information. These efforts build from the "Liability Issues in Incident Clearance" materials and from the "On-scene Incident Command and Control Procedures for Transportation Agencies" developed in fiscal year 2001. This is the 2nd year of a 3-year effort (FY 01: $200,000; FY 02: $300,000; FY 03: $200,000).

- $350,000 - *Raising the Bar on Regional Traffic Management Practices – Updating Technical Materials* A number of Travel Management related technical documents and other resources for State and local agencies, such as the Freeway Management Handbook and the Traffic Control Systems Handbook, will be updated and reissued to reflect changing technologies, techniques, and state-of-the-art developments. This is the 2nd year of a 3-year effort (FY 01: $100,000; FY 02: $350,000; FY 03: $350,000).

Congressionally Mandated Studies:

- $1,700,000 - *Intelligent Transportation Infrastructure*: Authorized in TEA-21, Section 5117(b)(3), advances the deployment of operational ITS infrastructure for the measurement of various transportation system activities related to transportation planning and analysis. The program was begun as pilots in Pittsburgh and Philadelphia, Pennsylvania. This is the 5th year of a 6 year effort (FY 98: $1,514,700; FY 99: $1,501,100; FY 00: $1,480,700; FY 01: $1,700,000; FY 02: $1,700,000; FY 03: $1,700,000).

- $1,667,000 - *Advanced Traffic Monitoring and Response Center*: Authorized in TEA-21, Section 5117(b)(6), establishes an advanced traffic monitoring and emergency response center at Letterkenny Army Depot in Chambersburg, Pennsylvania. The center coordinates traffic monitoring and ITS systems on the Pennsylvania Turnpike and I-81, and coordinate emergency response with Commonwealth and local governments. This is the 5th year of a 6 year effort (FY 98: $1,485,297; FY 99: $1,471,961; FY 00: $1,451,957; FY 01: $1,667,000; FY 02: $1,667,000; FY 03: $1,667,000).

OPERATIONS OUTREACH

Background and Objectives

The objectives of this portion of the Operations research program is to conduct policy research, strategic planning, and communications and outreach to foster national consensus on operations. The other portions of the research program identify, develop, evaluate, and share innovative practices and technologies. This portion of the program conducts the cross-cutting policy analysis to bring all of the pieces together into a coordinated strategic research program. The committees, forums and other outreach activities provide a means for the other operations research initiatives to vet new research and

program concepts with our customers and partners. This program also conducts communications and technology transfer to promote nationwide consensus on operations and leads the development of the legislative agenda for 'next TEA-21.'

Accomplishments to date (FY 2001 and before)

- *National Steering Committee on Operations:* The FHWA established a National Committee on Operations which included leaders and experts in transportation operations to begin a national dialogue with our customers and partners on the vision, scope, and barriers to optimizing surface transportation operations. The Committee is developing a national strategy and action plan (road map) for Operations. The Committee (1) established consensus on the mission and identify the constituency; (2) provided assistance in initiating research on bench marking and performance measurement; (3) identified initial legislative and policy issues; and (4) participated in developing the TRB Partnership research agenda.

- *National Association Task Forces:* FHWA supports task forces with a number of State and local associations and interest groups to begin to define the operations issues and barriers. Each task force is developing initial legislative and research issues on operations that reflects key issues for their membership

- *National Summit on Operations:* The initial work of the National Committee on Operations and the National Association Task Forces will culminate in a summit of key State and local officials, and business leaders on Operations. Key groups will share their legislative and research issues on Operations and the participants will form a national collation to promote a common operations agenda.

- *Operations Research Agenda:* Building on the results of the TRB Partnerships effort and the outreach efforts conducted throughout FHWA's operations programs, we will publish an Operations research agenda for FHWA.

- *Operations Communications Materials:* FHWA developed an Internet web site, displays, and publications for distribution and conferences, workshops, and meetings to share the results of research and outreach with our customers and partners.

Expected FY 2002 products and milestones

- *National Steering Committee and Conference on Operations:* The National Steering Committee will be expanded to include a broader range of operations stakeholders and emerging 'Champions' in operations. A plan will be created to transition the National Steering Committee to an ongoing coalition. This effort will include a national conference to bring together the participants in the workshops, forums, and regional conferences conducted in FY 2001 to identify policy, program, legislative, and research issues in operations.

- *Operations Forums:* We will conduct policy working sessions with the task forces established in FY2001 and at a number of national association conferences. These sessions will focus on operations to vet and share perspectives on research and legislative agenda issues, to gather feedback on the development of travel time performance measures, and to maintain working relationships with national associations.

- *Operations Strategic Planning:* In conjunction with the other parts of FHWA, we will conduct research, outreach, and analysis to update and issue a new FHWA Strategic Plan. This effort will synthesize the results of the operations forums and other outreach to support development of the next strategic plan.

- *Operations Legislative Agenda:* White papers on policy, program, and funding issues will be developed from the outreach efforts and the national conferences to support development of the reauthorization of TEA-21.

FY 2002 Program Request: **$1,459,000 (1,459,000 STR; $0 TDIPP)**

New Initiatives
None

Ongoing Research

- $200,000 - *National Committee on Operations and National Conference:* The National outreach efforts will continue through convening National Committee Meetings, supporting task forces, and national conferences of various associations that have an operations theme. Follow-on activities from the National Summit and Regional forums will be conducted.

- $200,000 - *Analysis of National Operations Spending and Decisionmaking:* This research will build on what has been learned in workshops and forums to identify and evaluate institutional barriers, State and local decisionmaking processes, and funding issues in transportation operations. This research effort will assist in the development of planning guidelines for operations, bench marking and performance measurement, and cost/benefit analysis of operational improvements.

- $200,000 - *Legislative Agenda Development:* We will synthesize the input from the Operations Outreach program including the National Committee on Operations, conferences, forums and listening sessions, and other outreach, to identify, refine and analyze policy, program and funding issues that are being considered. This research will also analyze emerging legislative issues in innovative finance, planning, infrastructure, etc. to determine the impacts on transportation operations. We will coordinate and vet these analyses with our customers and partners to foster an informed debate on operations issues in the reauthorization of TEA-21.

- $400,000 - *Communications:* Several contracts will support ongoing activities for communications. This will include evaluating and enhancing the operations communications strategy; developing and supporting national conference displays, supporting printing and publishing, and continuing web site design.

- $150,000 - *Strategic and Performance Planning:* Create an FHWA Operations research agenda that reflects the TRB Partnership Initiative. It will also provide customer and stakeholder input into the development of FHWA's strategic plan.

- $309,000 - *Research Program Coordination and Support:* Several contracts will continue to support research contract administration, as well as support for operations computer maintenance and web site maintenance. These efforts provide crosscutting support and coordination for operations research and technology programs.

Program Area: OPERATIONS

Strategic Goal: MOBILITY

Activity: **SURFACE TRANSPORTATION RESEARCH (STR)**

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
Operations Performance Measures	**0**	**2,200**
Pilot Mobility Monitoring Program	0	2,000
Traveler Satisfaction Survey	0	200
Transportation Operations	**1,441**	**2,350**
MUTCD	366	800
Work Zone Operations	980	1,250
Weather and Winter Mobility	95	300
Travel Management	**835**	**3,000**
ITS Infrastructure Deployment	*	*
Traveler Information	*	*
Institutionalization of Operations	100	1,400
Raising the Bar on Traffic Management Practices	735	1,600
Operations Outreach		**1,459**
National Committee on Operations and Conference	**1,075**	200
Analysis and Legislative Agenda	500	400
Communications	170	150
Strategic and Performance Planning	218	400
Research Program Coordination and Support	0	309
	198	
Total	**3,354**	**9,009**

* Total funding from the ITS Program170/218

Program Area: OPERATIONS

Strategic Goal: MOBILITY

Activity: **TECHNOLOGY DEPLOYMENT INITIATIVES & PARTNERSHIP PROGRAM (TDIPP)**

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
Intelligent Transportation Infrastructure Program [TEA-21, 5117(b)(3)]	1,491	1,700
Advanced Traffic Monitoring and Response Center [TEA-21, 5117(b)(6)]	1,462	1,667
Center for Advanced Systems Tech (Dowling College and Auburn)	799	
Innovative Infrastructure Financing (USC)	319	
ROADLIFE Research (New Mexico Hway 44)	399	
Total	4,470	3,367

* - Total funding from the ITS Program

EMERGENCY MANAGEMENT

Background and Objectives

Executive Order 12656 requires the Secretary of Transportation to Develop plans to promulgate and manage overall national policies, programs, procedures, and systems to meet essential civil and military transportation needs in national security emergencies. This Executive Order also states that the head of each Federal department and agency shall ensure the continuity of essential functions in any national security emergency. The FHWA's Operations' Emergency Preparedness Program supports the National Security Goal through emergency management during emergencies, natural disasters, significant highway incidents, special events, and military deployments.

During emergencies, the operation of the highway is often the 'life line' for communities. Natural disasters such as hurricanes cause major disruptions to lives and commerce. The highways are used as the primary evacuation routes, if this is necessary, and are also essential to rebuild communities and to help return them to normal. FHWA works cooperatively with key Federal, State and local partners to ensure mobility in the event of emergencies. The goals are to return highways to full service following disasters as soon as possible and to optimize the operation of highways during the disaster to facilitate evacuations and the movement of relief material and personnel. The principal partners include the Department of Defense (DOD), The Federal Emergency Management Agency (FEMA), State departments of transportation, and security and emergency transportation offices within the Department of Transportation. FHWA will continue working with key partners to improve evacuation transportation operations management through planning, data collection, information sharing for decision makers and travelers, inter-agency procedures, technology applications, and route operations during hurricanes, floods and other emergencies. Another key component of emergency response is the availability of functioning communications equipment during emergencies. FHWA provides state-of-the-art emergency communications equipment to its field offices and conducts tests to ensure it's operational readiness for emergency situations.

Accomplishments to date (FY 2001 and before)

- *Emergency Preparedness Training:* All FHWA Division emergency coordinators have been trained on the Emergency Preparedness Program.
- *Continuity of Operations Planning:* Continuity of Operations (COOP) Plans for FHWA Headquarters and all field offices have been developed and training exercises for FHWA Headquarters has been developed and implemented.
- *Military Deployment Exercises* A pilot training exercise to assess the effectiveness of procedures for deployment at key military installations has been developed and implemented for at least one military installation
- *Emergency Travel Demand Forecasting System:* A FEMA developed Travel Demand Forecasting System, to provide decision makers with an estimate of the congestion on highways during hurricane evacuations for the States of Florida, Georgia, South Carolina, and North Carolina, has been implemented.
- Evacuation Liaison Team: Initiate an Evacuation Liaison Team in Liaison coordination with other Department of Transportation (DOT) offices and the Federal Emergency Management Agency (FEMA) for hurricane response.

Expected FY 2002 products and milestones

- *Military Deployment Exercises:* Exercises to assess the effectiveness of procedures for deployment at sixteen additional key military installations will continue. Working with civilian agencies, the existing plans will be enhanced to optimize the operations of the highways and major arterial roadways along these routes. These evaluations will include an assessment of opportunities to use advanced technologies to improve military deployments.
- *Travel Demand Forecasting System:* Information technology requirements will be completed and the Travel Demand Forecasting System will be modified to include all of the States from Texas to Delaware. This work is done in close cooperation with key Federal, State and local partners to ensure mobility in the event of emergencies. The principal partners include the Department of Defense (DOD), FEMA, State departments of transportation, and security and emergency transportation offices within the Department of Transportation.
- *Emergency Communications:* Satellite phones and High Frequency radio units in FHWA Headquarters and Division offices will be repaired, replaced, upgraded and installed to ensure continual communication capability in the event of an emergency. This effort supports the emergency preparedness program and will be funded from the FHWA General Operating Expense (GOE) budget.

- Emergency Evacuation Information Technology: Begin develop of information technology requirements for the NHS to support emergency preparedness and evacuation operations.

Request $600,000 ($ 600,000 STR; $ 0 TDIPP)

New Initiatives

- **$400,000** *Information Technology for Evacuations and Coordination with FEMA.* The Federal Response Plan requires the DOT to provide technical assistance to Federal, State, and local governmental entities to determine the most viable transportation networks to, from, and within the disaster areas, as well as alternate means to move people and goods within the area affected by the disaster. This requirement has been delegated to the FHWA. The capabilities of the Travel Demand Forecasting System, initially developed by FEMA, will be modified to include all of the States from Texas to Delaware. This initiative will require coordination with FEMA to ensure maximum performance of the highways and major arterial roadways during hurricane, flooding, and other evacuations operations. Information technology for evacuations and a forum for inter-agency coordination will be developed. Requirement definition will begin for information technologies on the NHS that will support emergency preparedness and response.

Ongoing Research

- **$200,000** *Training Exercises for Military Deployments.* The effectiveness of military mobilization from a home base to its point of embarkation will be evaluated. Through a cooperative agreement with the Military Traffic Management Command Transportation Engineering Agency, the FHWA will work with the DOD to assess deployment procedures and the physical and operational characteristics of routes connecting a number of key military installations with their points of embarkation.

FHWA's Emergency Preparedness research program is an ongoing effort with increasing responsibility for hurricane evacuation (FY 01: $300,000; FY 02: $600,000)

- Evacuation Liaison Team: Convent, evaluate, revise and implement the Evacuation Liaison Team during the FY 02 hurricane season.

- Hurricane Workshop: Conduct a hurricane workshop to evacuate hurricane evacuation procedures and response and assess the application of information technology to improve operations.

Program Area: OPERATIONS

Strategic Goal: NATIONAL SECURITY

Activity: **SURFACE TRANSPORTATION RESEARCH (STR)**

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
Continuity of Operations Planning	50	0
Training Exercises for Military Deployments.	150	200
Information Technology for Evacuations and Coordination with FEMA.	74	400
Total	274	600

Program Area: OPERATIONS

Strategic Goal: NATIONAL SECURITY

Activity: **TECHNOLOGY DEPLOYMENT INITIATIVES & PARTNERSHIP PROGRAM (TDIPP)**

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
Continuity of Operations Planning	0	0
Training Exercises for Military Deployments.	0	0
Information Technology for Evacuations and Coordination with FEMA.	0	0
Total	0	0

FY 2002 R&T Program Funds:Total Requested					
(Dollars in Thousands $000)					
Line Item	PROGRAM (Str. Goal)	Priority Area	STR	TDIPP	Totals
Asset Management			**$2,373**	**$1,252**	**$3,625**
	ASSET MANAGEMENT (Mobility)		$1,020	$520	$1,540
		Systems Integration	$210	$30	$240
		Management Systems	$260	$390	$650
		Network Preservation	$550	$100	$650
	ASSET MANAGEMENT (Productivity)		$640	$20	$660
		Systems Integration&Eco. Anal	$640	$20	$660
	PROGRAM ADMINISTRATION (Mobility)		$513	$712	$1,225
		Utilities Engineering	$400	$200	$600
		Design Policies	$113	$512	$625
	NQI (CGI)		$200	$0	$200
		Support/Website	$200	$0	$200

SURFACE TRANSPORTATION RESEARCH and TECHNOLOGY DEPLOYMENT

Program Area: Asset Management

Strategic Goals: Mobility, Productivity

Amount Requested for FY 2002: $3,625,000 ($2,373,000 STR; $1,252,000 TDIPP)

SYSTEM INTEGRATION AND ASSET MANAGEMENT OUTREACH

Background and Objectives

Work conducted under the umbrella of this Priority Area is focused on activities to:

- Promote the integration of traditionally "stovepipe" activities, of State Departments of Transportation (DOTs), within asset classes, across asset classes, and across modes as well as across functional areas;
- Promote decision-making practices where all stakeholders - to include the public, legislators, day-to-day managers and officials from State DOTs - benefit from consistent and factual information; and
- Promote Asset Management awareness and best practices.

A noteworthy recent development is the major Government Accounting Standard Board (GASB) effort on valuation of assets. The GASB's newly promulgated requirement requires State and local governments to include the value of public infrastructure in their annual accounting statements. The GASB also plans to develop and issue rules that address the condition assessment and reporting of highway pavements and bridges. States will need to address the GASB requirement which essentially mandates a comprehensive State asset management system in order for the State to obtain a clean audit opinion. We anticipate that States will require extensive guidance in implementing these new requirements.

Status

- First Asset Management Primer published FY 2000
- By FY 2001, data integration Primer available
- By FY 2001, award contract to design a questionnaire and database to periodically benchmark current State asset management practices
- In cooperation with AASHTO, an NCHRP project to develop asset management guidelines is underway and a 3rd national workshop was held in FY 2000

Expected 2002 Products and Milestones:

- Produce detailed guide for database integration
- Develop State Asset management bench marking database to track best-practices and overall implementation progress
- Produce updated Primer
- Partner with AASHTO to establish State learning laboratories for asset management
- Initiate first newsletter, in collaboration AASHTO, sharing best practices

FY 2002 Program Request: $240,000 ($210,000 STR; $30,000 TDIPP)

New Initiatives

- $20,000 - Guidance for GASB implementation
- $10,000 - Experimental State laboratories
- $10,000 - Inaugural issue of best practices newsletter

Ongoing Research and Initiatives

- $60,000 - Database integration guide.
- $120,000 - Asset Management bench marking database.
- $20,000 - Asset Management Primer.

MANAGEMENT SYSTEMS

Background and Objectives

This area includes pavement, bridge and maintenance management systems. It is a dynamic area which, in concert with our partners, needs continuous updating. For many of the so called building blocks of asset management, no single management system currently exists. Concentrated effort is needed in 2001 and 2002 to fill major gaps such as the lack of a tunnel management component of broad interest in all states. Similarly, the absence of any system for the management of roadway hardware is a glaring omission that needs immediate attention from an infrastructure and a safety perspective.

Status

- Current management systems exist in the pavement, bridge and maintenance areas. An expert group convened regarding initiation of a tunnel management system in FY 2000.
- An expert group will convene to address hardware during FY 2000 through FY 2001
- A pilot to define how to use pavement management system data to track performance is underway using Superpave projects.

Expected 2002 Products and Milestones

- Design, test and implement new tunnel management system.
- Design, with AASHTO, new hardware management system components.
- Deploy improved high speed, nondestructive testing equipment for condition surveys of physical assets .
- Publish information from a pilot effort to compare management system decisions with actual program results.

FY 2002 Program Request: $650,000 ($260,000 STR; $390,000 TDIPP)

New Initiatives

- $200,000 - Tunnel management system
- $40,000 - Hardware management system
- $100,000 - Use asset condition data to assess the engineering performance of various asset parameters

Ongoing Research and Initiatives

- $50,000 - Improvements to bridge management/PONTIS
- $10,000 - Assess the of influence of past management systems decisions on program results
- $100,000 - Provide technical assistance to States in the implementation of 4 new AASHTO provisional standards for data collection.
- $150,000 - Provide technical assistance to AASHTO to develop and implement the National Initiative on Asset Management.

NETWORK PRESERVATION and the FY 2002 NATIONAL PARTNERSHIP FOR HIGHWAY QUALITY

Background and Objectives

This area focuses on the importance of infrastructure preservation and renewal. Preservation is one of the most crucial aspects of a mature infrastructure network. Continual development of tools and technical applications as well as educational and instructional approaches are essential to meeting our strategic objectives. The focus here is on improving the cost-effectiveness for users of the system and on lessening disruption and delay associated with costly projects whose need could be obviated through innovative and timely application of preservation strategies

This area also encompasses the requirement in the FHWA Strategic Plan to determine customer satisfaction through user surveys. Continual interaction with States and private industry is part of the extensive outreach program under our National Partnership for Highway Quality (NPHQ) (formerly the National Quality Initiative (NQI)). Products from the NPHQ provide innovative solutions drawn from State/industry practices and are made available to all States. Such innovative practices can result in savings of hundreds of millions of dollars annually through higher quality that yields higher performance

Status

- Working with the States, products to enhancing pavement smoothness are being showcased.
- Work with AASHTO and industry resulted in a national plan for preventive maintenance and commitment to development of NHI courses on pavement preventative maintenance. One course is now available, and a second course will come on line in 2001. An additional 2 courses will be deployed in FY 2002.
- Customer surveys are updated jointly with BTS.

Expected 2002 Products and Milestones

- Test evaluation results of preservation techniques that have high return on investment.
- Disseminate customer surveys that measure quality and usefulness.
- Develop innovative strategies/techniques to fill technical gaps and promote cost-effective preventive maintenance.

FY 2002 Program Request: $650,000 ($550,000 STR; $100,000 TDIPP)

New Initiatives

- $100,000 - Models to address applicability, timing and cost-effectiveness of preservation techniques.
- $100,000 - Deploy, with AASHTO, site managers module for construction and materials management .

Ongoing Research and Initiatives

- $200,000 - National Partnership for Highway Quality Initiative
- $100,000 - Customer oriented construction and maintenance information and application
- $150,000 - Support continuous quality improvement using State champions to show good case practices and unique applications.

Program Area: Asset Management

Strategic Goal: Mobility

Activity: Surface Transportation Research

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
System Integration and Asset Mgmt Outreach	$175	$210
Management Systems	359	260
Network Preservation and the FY 2002 Partnership for Highway Quality	359	550
Total Budget Authority	$ 893	$ 1,020

Program Area: Asset Management

Strategic Goal: Mobility

Activity: Technology Deployment Initiatives and Partnership Program

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
System Integration and Asset Mgmt Outreach	$0	$30
Management Systems	65	390
Network Preservation and the FY 2002 Partnership for Highway Quality	0	100
Total Budget Authority	$ 65	$520

SYSTEM INTEGRATION AND ECONOMIC ANALYSIS

Background and Objectives

Work conducted under the umbrella of this Priority Area is focused on developing and promoting the use of EEA tools to support cost-effective resource allocation and programming decisions. Such tools are a critical component of any Asset Management program. EEA tools, to include life-cycle cost analysis (LCCA) and benefit-cost analysis (BCA), are applicable for both project- and program-level analysis of alternative investment strategies. Although a considerable number of states currently use such tools as LCCA and BCA in some capacity, there is much diversity in application, and most states do not consider the full range of costs and benefits when conducting these analyses.

Reasons for the lack of comprehensive use of EEA tools by the states include limited research budgets, a lack of in-house expertise, insufficient data, and limited availability of comprehensive tools. The Office of Asset Management is providing technical assistance to the states by offering training and consultative services. In addition, the Office conducts research programs to develop and/or enhance EEA tools and techniques.

The FHWA strategic plan establishes a goal to continuously improve the efficiency of the Nation's transportation system to enhance America's position in the global economy. Asset Management is an essential component in meeting this productivity goal. Key to the Asset Management decision making framework is the application of appropriate engineering economic analysis tools (EEA) for consideration of alternative strategies at the project- and/or program level.

Status

- By the end of FY 2000, the prototype State-level version of the Highway Economic Requirements System (HERS-ST) will be available
- By FY 2001, the HERS Pilot Program will be complete
- By FY 2001, the LCCA Primer will be available
- By FY 2001, the LCCA Generic (Probabilistic) Model will be available, with companion course

Expected 2002 Products and Milestones:

- LCCA conference (follow-up to 1994 FHWA/AASHTO conference)
- Revisions to HERS-ST, indicated by Pilot Program States, underway
- Advanced course on Risk-Based Decision Making available
- HERS State conference to introduce HERS-ST to a broader audience
- Probabilistic LCCA Model - Version II underway (for application beyond pavement design)

FY 2002 Program Request: $660,000 ($640,000 STR; $20,000 TDIPP)

New Initiatives

- $20,000 - Risk-Based Decision Making course

Ongoing Research and Activities

- $204,400 - Development and delivery of project-level analysis tools (e.g., LCCA)
- $435,600 - Development and delivery of program-level analysis tools (e.g., HERS)

Program Area: Asset Management Strategic Goal: Productivity Activity: Surface Transportation Research		
Focus Area or Major Activity	**FY 2001 Budget ($000)**	**FY 2002 Request ($000)**
System Integration and Economic Analysis	$ 364	$ 640
Total Budget Authority	$ 364	$ 640

Program Area: Asset Management Strategic Goal: Productivity Activity: Technology Deployment Initiatives and Partnership Program		
Focus Area or Major Activity	**FY 2001 Budget ($000)**	**FY 2002 Request ($000)**
System Integration and Economic Analysis	$ 0	$ 20
Total Budget Authority	$0	$ 20

PROGRAM ADMINISTRATION

Utilities Engineering

Background and Objectives

Historically it has been in the public interest for public utility facilities to use and occupy the rights-of-way of public roads and streets. This is especially the case on local roads and streets that primarily provide a land service function to abutting residents; on conventional highways that serve a combination of local and state traffic needs; and most recently on controlled access highways that serve interstate needs. This practice has generally been followed nationwide since the early formation of utility and highway networks. Over many years it has proven to offer the most feasible, economic, and reliable solution for transporting people, goods, and public service commodities (water, electricity, communications, cable television, gas, oil, etc.), all of which are vital to the general welfare, safety, health, and well being of our citizens. To have done otherwise would have required a tremendous increase in the acquisition of additional rights-of-way for utility purposes alone. This could have resulted in significant added costs to be borne by the utility consumers.

Under the practice of jointly using a common right-of-way there are two broad areas of concern to highway and utility officials alike. First is the cost of relocating, replacing, or adjusting utility facilities that fall in the path of proposed highway projects. Second is the installation of utility facilities along or across highway rights-of-way and the manner in which they occupy and jointly use such rights-of-way. In both areas there is a continuing need for comprehensive research to determine best practices, the feasibility of using new concepts and technologies.

Status

No utilities research is presently underway. A number of utilities-related research projects have been recommended by the FHWA/AASHTO European Scanning Tour of Right-of-Way and Utilities and/or the AASHTO Subcommittee for Right-of-Way and Utilities.

Two of these recommended utilities research activities are expected to begin in FY 2001. Included are:

- a compilation of State utility practices;
- an investigation of better ways to control the frequency of pavement cuts; and
- research to investigate the feasibility of utilizing GIS and GPS to map utilities.

In addition, a number of recommended new research activities are expected to begin in FY 2002. Included are:

- investigations of problems associated with directional boring, better ways to control the frequency of pavement cuts, and how best to utilize and value limited highway right-of-way;
- identification of techniques and technologies for avoiding utility relocations; and
- research by State DOTs, as recommended by the European scanning team, to investigate the feasibility of highway contractors installing utilities, pipelines being used as a mode of transportation, and reimbursing utilities up front for preliminary engineering work.

Expected FY 2002 Products and Milestones

- *State Utility Practices*. Development of a comprehensive document which records each State's current policies regarding items such as clear zone, utility accommodation, reimbursement, encasement, and others, and then using this information to propose some best practices for management of highway rights of way.

- *Pavement Cuts*. Development of a report providing guidance for utilizing trenchless technologies for highway and street crossings, and for better controlling the frequency of pavement cuts to access or install utilities under the pavement of city streets.

- *Directional Boring*. Begin research to develop a report providing guidelines and/or specifications for the best use of directional boring and for the certification of drillers.

- *Accommodating Utilities on Highway Right-of-Way*. Begin research to develop guidance for utilizing and valuing limited highway rights-of-way that exists, and how best to value the right-of-way.

- *Avoiding Utility Relocations.* Begin research to develop a manual that identifies technologies capable of better identifying the location of underground utilities, and suggests types of design changes that might be made to avoid underground utilities.

- *Utility Installations by Highway Contractors.* Begin research to investigate the feasibility of highway contractors installing utilities as part of their contracts.

- *Pipelines as a Mode of Transportation.* Begin research to investigate the feasibility of using pipelines to transport essential products, instead of trucks.

- *Mapping Utilities Using GIS, GPS, and Other Technologies.* Development of a report discussing the feasibility of mapping utilities using Geographical Information Systems (GIS), Global Positioning Systems (GPS), or other similar technologies.

- *Up-Front Preliminary Engineering Payments.* Begin research to investigate the feasibility of paying preliminary engineering costs up front in exchange for an agreement from the utilities to get the work done in a timely manner.

FY 2002 Program Request: $600,000 ($400 STR; $200 TDIPP)

New Initiatives

- **$50,000** – *Directional Boring.* Research will begin to develop a report providing guidelines and/or specifications for the best use of directional boring and for the certification of drillers.

- **$50,000** – *Accommodating Utilities on Highway Right-of-Way.* Research will begin to develop guidance for utilizing and valuing limited highway rights-of-way that exists, and how best to value the right-of-way.

- **$50,000** – *Avoiding Utility Relocations.* Work will begin, as requested by the European scanning team, to develop a manual that identifies technologies capable of better identifying the location of underground utilities, and suggests types of design changes that might be made to avoid underground utilities.

- **$50,000** – *Utility Installations by Highway Contractors.* Research will begin, as requested by the European scanning team, to investigate the feasibility of highway contractors installing utilities as part of their contracts

- **$50,000** – *Pipelines as a Mode of Transportation.* Research will begin, as requested by the European scanning team, to investigate the feasibility of using pipelines to transport essential products, instead of trucks.

- **$50,000** – *Up-Front Preliminary Engineering Payments.* Research will begin, as requested by the European scanning team, to investigate the feasibility of paying preliminary engineering costs up front in exchange for an agreement from the utilities to get the work done in a timely manner.

Ongoing Research and Initiatives

- **$100,000** -- *State Utility Practices.* Development of a comprehensive document which records each State's current policies, expected to begin in FY 2001, will continue.

- **$100,000** -- *Pavement Cuts.* Development of a report providing guidance for utilizing trenchless technologies for highway and street crossings, and for better controlling the frequency of pavement cuts to access or install utilities under the pavement of city streets, expected to begin in FY 2002, will continue.

- **$100,000** – *Mapping Utilities Using GIS, GPS, and Other Technologies.* Development of a report discussing the feasibility of mapping utilities using GIS, GPS, or other similar technologies, as recommended by the European scanning team, will continue.

Design Policies & Context Sensitive Design (CSD)

Background and Objectives

The Intermodal Surface Transportation Efficiency Act (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21) made the planning, design, and construction of transportation projects part of a broadly-based process in which community and its surrounding environment are to be considered seriously at all stages. DOT's strategic plan calls for protection of the natural and human environment; FHWA's strategic plan calls for balancing highway facilities and communities' values.

In 1997, FHWA joined forces with AASHTO and other interested groups to develop a companion guide to the Green Book, entitled *Flexibility in Highway Design* to help planners and designers develop more environmentally sensitive projects. In May 1998, along with other organizations, FHWA sponsored the national workshop entitled "Thinking Beyond the Pavement" in Maryland. This workshop emphasized integrating highway development with communities and the environment while enhancing safety and performance. Along with the ISTEA, the NHS Act provided flexibility to the design process to enable states to consider the context of the highway within its surroundings, such as urban or rural, historic or cultural impacts and other environmental resources.

One of the most important result of the May 1998, Maryland workshop was the identification of initiatives to keep the momentum established by the workshop moving ahead. These initiatives were the development of pilot training programs in five states and the development of additional material to supplement the FHWA document on the *"Flexibility in Highway Design."* The five pilot states are Connecticut, Minnesota, Maryland, Utah and Kentucky. Subsequently the FHWA's Federal Lands Office was included as the sixth "pilot state." Each of these states is currently developing its individual training with FHWA assistance and cooperation. Their experiences will be shared with other states by the individual pilot states themselves, through an NCHRP synthesis project report and through a context-sensitive design web site.

There is a continuing need for comprehensive technology transfer efforts to provide the tools and training necessary for the states to be able to incorporate and institutionalize the principles of context-sensitive design into their routine way of doing business.

Status

Technology Scanning Tour: On June 2 through June 18, 2000 a panel of ten members representing FHWA, AASHTO, U.S. municipalities and U.S. academia will be in Europe on a joint FHWA and AASHTO technology scanning trip to discuss with various experts innovative project development and design methods and procedures. The principal topics are the geometric design and project development procedures that are responsive to the road's natural and human environment, i.e., "context-sensitive design.." Several recommendations for research/technology transfer activities are expected from this scan tour.

Context-Sensitive Design Web Site: The FHWA Eastern Resource Center and the six pilot States, including the FHWA Federal Lands Highways office, are cooperating in the development of a web site for context-sensitive design information. The site will contain general information on context-sensitive design and will provide links to CSD material available from the pilot states. The development of the content is being directed by group with representation from MD SHA, FHWA HQ and Eastern Resource Center. The current site development is being funded by FHWA's Office of Program Administration ($10,000) and will need to be maintained.

NCHRP Project 15-19, *Context-Sensitive Design Best Practices*: This study draws on the experiences of the five pilot training states, FHWA Federal Lands office as well as information from other states that have been active in training or otherwise have been trying to incorporate context sensitive design into their day to day practice. The objectives of this project are to (a) identify a range of approaches to how context sensitive design principles can be incorporated into highway development processes; (b) document the methodology of the best examples where barriers to context sensitive design have been overcome within state departments of transportation; and (c) provide information on the likely success of institutionalizing the context sensitive design approach through direct interviews with participants in training. Anticipated completion date is December 2000.

NCHRP Project 20-7/114, *Context Sensitive Design* This project provides support for the AASHTO's effort to develop a short document to bridge between the Green Book and the FHWA's *"Flexibility in Highway Design"* document. The four chapters of the document are: 1. The Project Development Process; 2. Highway Geometric Elements - Design and Safety Considerations; 3. Community Involvement in Environmental Design; and, 2. Liability Issues. This new document will

incorporate by reference the FHWA's 1997 flexibility document. Final draft is expected by mid 2000. The final document will be submitted by the Subcommittee on Design for normal AASHTO balloting and review process. .

ASCE Context Sensitive Highway Design Workshop: In addition to these AASHTO efforts, ASCE, with FHWA's co-sponsorship, conducted a "Context Sensitive Highway Design Workshop" in June 17 and 18, 1999 in Reston, Virginia. The preparation of a brochure summarizing this workshop is being funded by the FHWA's Office of Program Development ($3000).

Context-Sensitive Design Brochure: The Office of Human Environment is developing a short brochure on CSD for mass distribution.

AASHTO Green Book: AASHTO is currently revising and updating its "A Policy on Geometric Design of Highways and Streets" to incorporate latest research findings and new design philosophies. Publication is expected in 2001.

Expected FY 2002 Products and Milestones

- *Context-sensitive design procedures.* Development and distribution of a comprehensive technology transfer package (presentation materials) on the state-of-the-art/practice based on findings of NCHRP Project 15-19 and the European scanning tour results.
- *Context-sensitive Design web site.* Continuing support and maintenance of the CSD web site.
- *Basic Geometric Design Course.* Updated Basic Geometric Design Course that incorporates context-sensitive design philosophy and the most recent recommendations from the AASHTO Green Book.
- *Interchange Planning, Design and Operational Characteristics.* Develop a manual to provide planners and designers insight and the tools to plan, design and review interchanges. This would be the basis for further development of a training package.

FY 2002 Program Request: $625,000 ($113 STR; $512 TDIPP)

New Initiatives

- **$100,000** - *Context-Sensitive Design training and information package.* Although the scan tour funding will cover some implementation of its findings and recommendations there is need to supplement those funds to develop materials (such as Power Point or 35mm/overhead slide presentations with presentation text and state-of-the-art/practice guidance).
- **$25,000** - *Context-Sensitive Design Web Site.* Continued operation and maintenance.
- **$237,000** - *Basic Geometric Design Course.* Up date current material to incorporate context-sensitive design philosophy and most recent AASHTO recommendation on design criteria. Develop instructor manual, student manual and visual materials. All materials, including visuals would also be in electronic form so that they could be made available through the Internet.
- **$150,000** - *Interchange Planning and Design Manual.* Develop manual to assist planners and designers develop new interchanges and to redesign and reconstruct existing ones to enhance safety and reduce congestion.
- **$100,000** - *Training Course on Interchange Planning and Design.* Begin development of training course based on the material contained in the above noted manual.

Ongoing Research and Initiatives

- $10,000 - Development of a context-sensitive design web site.
- $3,000 - Development of a context-sensitive information brochure with ASCE.

Program Area: Program Administration Strategic Goal: Mobility Activity: Surface Transportation Research		
Focus Areas and Major Activities	**FY 2001 Budget ($000)**	**FY 2002 Request ($000)**
Utilities Engineering	$200	$400
Design Policies & Context Sensitive Design (CSD)	100	113
TOTALS	$300	$513

Program Area: Program Administration **Strategic Goal:** Mobility **Activity:** Technology Deployment Initiatives and Partnership Program		
Focus Areas and Major Activities	**FY 2001 Budget ($000)**	**FY 2002 Request ($000)**
Utilities Engineering	$0	$200
Design Policies & Context Sensitive Design (CSD)	0	512
TOTALS	$0	$712

National Quality Initiative (NQI)

The Federal Highway Administration has supported the National Quality initiative since its inception in 1991. With the exception of the initial National conference and a cooperative venture with the AASHTO Standing Committee on Quality for a quality clearinghouse (both of which were funded through NCHRP) the NQI has been overwhelmingly funded by FHWA. This applies only to specific major activities such as conferences, workshops, videotapes, and other publications. Other partners have contributed meeting space, their own travel to meeting s and other miscellaneous items however the monetary amounts have been minor compared to FHWA's contributions. FHWA has been promoting a "cost sharing approach" for several years in order to build establish increased industry ownership and participation. FHWA has finally been successful in promoting a long term strategy for the future of NQI including financial support. A task force was established and recommendations have just been released to the entire NQI Steering Committee for consideration at the March 29-30 NQI Steering Committee meeting. Overall, the consensus was to continue with the NQI and in fact re-energize its efforts which call for increased funding than FHWA has been able to support lately. In conjunction with numerous activities to be undertaken, a cost sharing strategy of 1/3-1/3-1/3 for FHWA, States. And Industry is being recommended with a proposed annual budget of $360,000. Assuming this strategy will be adopted this would place FHWA's yearly share at $120,000. Industry however has been extremely vocal in opposition to this "sharing" and is anticipated that they will try to negotiate a lower share for themselves arguing that it is "everyone's Federal money." In anticipation of this resistance and to reserve additional funding for FHWA activities we propose a conservative estimate of $200,000 as the FHWA budget which is compared with $320,000 in FY-2000. A number of activities in the past and anticipated for the future directly support our strategic goals but were implemented through the auspices of the NQI in order to gain wide-spread Industry support.

The Amount of funding required in FY 2002: $200,000 (STR)

Support for Other Program Initiatives (Technology Deployment Initiatives and Partnership Program)

Focus Area or Major Activity	FY 2001 Budget ($000)	FY 2002 Request ($000)
Support for the National Quality Initiative	$144	$200
Infrastructure Tech. Deployment Initiative	$38	$0

Support for Other Program Initiatives (Technology Assessment and Deployment Program)

Focus Area or Major Activity	FY 2001 Budget ($000)	FY 2002 Request ($000)
Infrastructure Tech. Transfer Initiative	$186	$200

FY 2002 R&T Program Funds:Total Requested					
(Dollars in Thousands $000)					
Line Item	PROGRAM (Str. Goal)	Priority Area	STR	TDIPP	Totals
R&T Technical & Program Support			$9,260	$2,755	$12,015
	TRB (CDB)		$3,000	$0	$3,000
	SBIR (CDB)		$4,100	$0	$4,100
	RD&T Computer Support (CDB)		$1,100	$0	$1,100
	R&T Reports Center (LTI)		$0	$890	$890
	Marketing/Publications/Communications (LTI)		$75	$1,865	$1,940
	Knowledge Management (CGI)		$810	$0	$810
	University Resource Database (CGI)		$175	$0	$175

SURFACE TRANSPORTATION RESEARCH and TECHNOLOGY DEPLOYMENT

Program Area: R&T Technical & Program Support

Amount Requested for FY 2002: $12,015,000 ($9,260,000 STR; $2,755,000 TDIPP)

Transportation Research Board Cooperative Agreement

Amount Requested for FY 2002: $3,000,000 (STR)

The Federal Highway Administration provides funding for the Transportation Research Board (TRB) under a Cooperative Agreement. These funds support TRB's Core Program which includes standing technical committees, committee-sponsored workshops and conferences, publications - production and distribution, the TRB annual meeting, the Transportation Research Information Service (TRIS) - a computerized bibliographic database and other information services, field visits to state DOTs and other sponsor organizations and the staff to support these and other related activities. In addition to the Core Program, the agreement also supports activities of the TRB Research and Technology Coordinating Committee (RTCC), a senior level advisory committee that provides guidance and recommendations for improving FHWA's R&T programs.

These activities are an integral part of the overall FHWA research and technology program. The annual TRB meeting provides a forum for the dissemination of research results and an opportunity to meet and work with our partners in State DOTs, private industry, and the international transportation community. The TRB committee structure is a valuable asset for coordinating all research efforts.

The budget for these activities is prepared on a triennial basis. While the scale of TRB's activities has grown in response to a steady stream of new issues, new opportunities, and new challenges facing transportation agencies, budget increases have been modest. The TRB Executive Committee approved the 2001-2003 Triennium Budget at their January 2000 meeting, which the FHWA Administrator attended. FHWA supports these activities as part of it's R&T budget and included appropriate funding in it's FY00 budget and FY01 budget request.

The Amount of funding required in FY 2002: $3,000,000 (STR)

Transportation Research Board (TRB) Cooperative Agreement

Focus Area or Major Activity	FY 2001 Budget ($000)	FY 2002 Request ($000)
TRB Cooperative Agreement	$2,456	$3,000

Small Business Innovation Research (SBIR) Program

Amount Requested for FY 2002: $4,100,000 (STR)

The SBIR program is mandated by the Small Business Research and Development Act of 1982 and was reauthorized in 1992. It requires that twelve Government departments contribute 2.5 percent of their **extramural R&D budget**[1] to the SBIR program. The SBIR program seeks to develop technological innovations using the high level of expertise in the small business community throughout the United States by stimulating technological innovation; meeting the Federal Government's needs for research and development by providing opportunities for small businesses; increasing private sector commercialization of innovations derived from federal research and development; and providing opportunities for minority and disadvantaged participation in technological innovation.. Phase I awards to small business are based on proposals that have shown proven scientific merit and feasibility and are relevant to DOT requirements. Phase II awards are made to successful Phase I businesses and provide funding for principal research or R&D that will lead to the development of a prototype product, which may become commercially viable. Phase III awards provide commercialization assistance to small business in financing and marketing their product.

The Amount of Funding Required in FY 2002: $4,100,000 (STR)

Program: SBIR

Focus Area or Major Activity	FY 2001 Budget ($000)	FY 2002 Request ($000)
Small Business Innovation Research (SBIR) Program	$3,508	$4,100

[1]**extramural R&D budget:** That portion spent outside the Federal sector by organizations that perform R&D with Federal funds under contract, grant, or cooperative agreement. Only those costs associated with actual R&D performance are reported, but these costs would include costs of materials and supplies to carry out R&D activities. These organizations can be industrial firms (including private individuals), universities and colleges, other nonprofit institutions, federally funded research and development centers (FFRDCs), State and local governments, and foreign performers (citizens, organizations, or foreign governments and international organizations (e.g. NATO, UNESCO) performing R&D work abroad financed by the Federal Government.

The extramural R&D budget is what remains after the intramural R&D budget is calculated. An intramural group or organization are the agencies of the Federal Government carrying out an operational function. The work is carried on directly by agency personnel. Obligations reported under this category are for activities performed or to be performed by the reporting agency itself or represent funds that the agency transfers to another Federal agency for performance of work as long as the ultimate performer is that agency or any Federal agency. Intramural activities cover not only the actual intramural R&D performance but also the costs associated with the planning and administration of both intramural and extramural programs by Federal personnel. Intramural activities also include the costs of supplies and equipment, essentially of an "off-the-shelf" nature, that are procured for use in intramural R&D.

Engineering and Network Support Services for the Turner Fairbank Highway Research Center

Amount Requested for FY 2002: $1,100,000 (STR)

In order to provide all the various computer related services needed to support the highly technical research and technology program at the Turner Fairbank Highway Research Center, a single contract has been awarded to provide coordination for these various activities. There are three general categories of services provided

- Help Desk and LAN/WAN Operations
- General Administrative Support
- Programmatic Support

Help Desk and LAN/WAN Operations

TFHRC, like any other large modern organization, needs the means to work productively, needs to collaborate with other researchers within TFHRC, across the country and around the world, and to disseminate information to its customers. Flow of electronic information is the function of a computer network and it is a very important infrastructure component that must be carefully tailored and maintained to fully meet the needs of TFHRC The network at TFHRC consists of 12 Intel-based servers, 400+ Intel-based desktop computers, 40 Intel-based laptop computers, 3 Macintosh desktop systems, 42 networked printers, 60 individual printers, and 10 UNIX workstations. There are approximately 300 network users. In addition to responding to the 30+ daily calls to the Help Desk, the network staff is constantly updating hardware and software to better meet the needs of the TFHRC employees.

General Administrative Support

In addition to the normal costs associated with administrating an on-site support contract of this size and keeping the staff constantly trained on all the latest software development systems, support is provided to develop, maintain, and upgrade systems which directly support the FHWA R&T program. This includes the *Accounting and Budgeting System (ABS)* which is used to monitor the R&T contract program, the *Activity 10 Tracking System* which monitors GOE funds, and providing support to the development of the *OST Research Database*. One of the major efforts currently underway is the development of an improved *Accounting and Budgeting System*.

Programmatic Support

There is a constant need for professional staff with engineering backgrounds to provide computer support to R&T efforts. Examples of programmatic support include:

- development and support of PRORUT2
- development and support of ROSAN and ROSANvm
- development and support of a data acquisition system for ALF
- LTPP Deflection database analysis
- development and support of Sign Management System (SMS)
- support of Highway Safety Information System (HSIS)

The Amount of funding required in FY 2002: $1,100,000 (STR)

Engineering and Network Support Services for the Turner Fairbank Highway Research Center

Focus Area or Major Activity	FY 2001 Budget ($000)	FY 2002 Request ($000)
Engineering and Network Support for the Turner Fairbank Highway Research Center	$1,089	$1,100
Totals	$1,089	$1,100

The FY-2002 funding breaks down as follows:

Support Function	FY-2002 Cost ($000)	Discussion
Help Desk and LAN/WAN Operations	$500	This function could be funded using GOE funds if any became available. However, if GOE funds are used for this, then something else would have to be reduced.
General Support (Administrative)	$600	Activities in the category include support for our current Accounting and Budgeting System (ABS, development of a revised ABS, data entry for ABS, OST Research Database development and support, consulting services, weekly/monthly reports, and project management.
Programmatic Support	$0	This are activities that directly support specific program areas. Since these activities are not crosscutting, the total cost is assigned to the requesting office.
Total	$1,100	

The cost break down for FY-2000 is based on the actual expenses for FY-1999. The funding level for this contract will remain relatively constant through FY-2002 as long as the required services remain the same.

Research and Technology (R&T) Report Center and Technical Reference Center

Operation of Report and Technical Reference Center—The R&T Report Center fills requests for FHWA publications and distributes training course materials for the National Highway Institute (NHI) and the Office of Motor Carriers (OMC). The Center ships over 35,000 documents a month in reply to approximately 650 requests. The R&T Report Center distributes technical publications for practically all of the offices within the FHWA. It also ships the training course materials for NHI and FMCSA to the course location. Without the Report Center, the FHWA would not be able to disseminate technical information, and would have to find another distribution means to continue its training function.
The Technical Reference Center is a central repository of technical literature from a number of sources including FHWA, TRB, State highway agencies and international research sources. The Technical Reference Center provides a central location for reliable, recognized sources of reference material for all of the FHWA staff, as well as visitors to the Turner-Fairbank Highway Research Center.

Report Center Automation—The above referenced Report Center currently operates under traditional methods of bulk printing, storage, ordering and distribution. The essences of this project is to provide real time printing based on daily demand and individual requests made electronically via the website. All documents would be scanned and stored, while new documents coming off the pipeline would be designed to accommodate the computerized system from inception. With great service we anticipate and are accounting for an increase in demand.

This project, once implemented, would reduce annual report center labor and storage requirements yielding an estimated annual savings of up to $150,000 per year while providing better customer service coupled with a reduction in wasted paper resources. Customers would not be sent away without their report, while hundreds of unused documents would not get discarded.

The Amount of Funding Required in FY 2002 $890,000 (TDIPP)

Research Development and Technology Publications and Communications

Strategic Communications — Technical information from RD&T is produced and disseminated through a variety of communications media such as the TFHRC website, *Public Roads Magazine* (4,450 subscriber base), *Research and Technology Transporter* (2,800 on mail list) newsletter, technical presentations, technical reports, animated posters and briefing papers. Annual and specialty reports as well as brochures for specific technologies, programs and events are also produced.

The strategic communications program for RD&T is supported by an onsite contract team that provides communication and editorial service for timely and accurate publishing of critical highway research results. We also contract offsite for professional services such as graphics, publishing, and electronic document conversion. Strategic communication provides essential and timely links to the research transportation community to improve the safety and productivity of the nation's highways. To augment our service base, a new publication, "*Public Roads for Kids,*" is being considered for development, to attract a new generation to the transportation technology field.

The TFHRC Laboratories are a national research resource. To make them more visible to visitors and field, a CD-ROM and virtual tour of key laboratories and facilities will be developed, web enabled as appropriate and distributed. This "portable laboratories tour" will stimulate interest in our programs and projects, establish contacts with key researchers, and may help stimulate partnerships, generate cooperative research projects, and encourage a broader range of interest.

The amount of funding required in FY 2002 $1,135,000 (TDIPP)

Research Development and Technology Marketing

Technology Marketing—Under the technology marketing program, we develop policies, regulations, and guidelines for national and international technology transfer programs; coordinate development of FHWA plans and facilitate outreach activities for marketing transportation technology. We identify and prioritize new and existing technologies with marketing potential, and lead in developing plans for marketing and disseminating innovative transportation technology. In addition, we facilitate field tests and evaluations of innovative new technologies that will transfer technology more efficiently and/or open up new areas to the transportation community. These field efforts are identified by the CBU's and are initiated through cooperative and innovative approaches using outreach and partnering as the catalyst.

The scope of our task, is to market technology nationally and internationally and it is compounded by the shear numbers of states, local agencies, and industries that are affected. It behooves us to continue to focus our energy and resources to effectively market innovative technology. Our continued focus on marketing will allow us to assist in closing the technology gap and substantially reduce the time it takes to implement innovative technology. To assist in this enormous task, the National Research and Technology Website will continue to be expanded with meticulous attention to the maintenance of all critical links. An electronic photo library will be created for on-line access to a wealth of transportation technology photo's to assist the CBU, SBU's, and field Offices in sharing innovative technology.

Leading a National and International Exhibition Program—We strategically select Conferences and Exhibitions to participate in (such as the Transportation Research Board annual meeting, AASHTO Technology Fair, and numerous others), and then, at the request of our Core Business Units, design custom exhibits and displays to share and promote technologies and programs that are germane to the audience of that event. We also provide contractual mechanisms for efficient field use of professional services such as exhibit design, shipping and storage, marketing plan development, etc.

Technology and Innovation Coordination—FHWA will leverage technology and innovation through the effective promotion of technological advancements and innovations by States and local governments. Technology deployment is a key factor to accomplish strategic objectives, therefore, studies and events will be undertaken to collect, develop, enhance and share the art and practices of technology transfer itself. Ways of sharing technology in other professions as well as successful efforts in the transportation community are monitored and put into practice or made more widespread where appropriate. We will utilize the "Community of Practice" approach as much as possible for the Marketing and Technology Transfer communities. Use of the latest communication media and methods to share knowledge are the focus of this effort.

The amount of funding required in FY 2002 $805,000; ($75,000 STR; $730,000 TDIPP)

R&T Report Center; Publications/Communications/Marketing

Focus Area or Major Activity	FY 2001 Budget ($000)	FY 2002 Request ($000)
Research and Technology (R&T) Report Center and Technical Reference Center	$519	$890 (TDIPP)
Research and Technology (R&T) Publications and Communications	$660	$1,135 (TDIPP)
Research and Technology (R&T) Marketing	$470	$730 (TDIPP) $75 (STR)
Totals	$1,649	$2,830

Knowledge Management

Amount Requested for FY 2002: $810,000 (STR)

The FHWA is a knowledge-based organization that values the great wealth of technical expertise and knowledge of its employees at all levels of the organization. Capturing and leveraging our collective expertise and knowledge through the principles and concepts of "knowledge management" (KM) can lead to better decision-making and improve the quality of service to our customers and partners. Knowledge management can help FHWA more effectively address its pressing business needs, and is a key component in fulfilling our corporate management strategies. Getting the right information to the right people at the right time for more informed decisioo-making can contribute greatly to our success as a high performance, learning organization. Transition to a knowledge based organization is a multi-year activity; and, while implementing knowledge management does involve technology solutions, it also involves people and a cultural shift toward an environment supportive of sharing, therefore, change management strategies are also necessary.

FY 2002 funding needs are $810,000. This level of funding would accelerate knowledge management concepts across the agency, and provide for a rapid pace of implementation of communities of practice (CoP) for BU's, RC's and division offices (to 6 - 8 per year). Also, the mapping of agency expertise in relation to an expertise locator would occur at a faster pace (1.5 years). Activities include identifying and framing CoP's, mapping and locating expertise, maintaining a KM platform, and implementing, integrating, communicating and delivering the agency's overall program.

The Amount of funding required in FY 2002: $810,000 (STR)

Knowledge Management

Focus Area or Major Activity	FY 2001 Budget ($000)	FY 2002 Request ($000)
Knowledge Management	$374	$810
Totals	$374	$810

University Resources Database

Amount Requested for FY 2002: $175,000 (STR)

Several different program offices within FHWA have a variety of agreements with universities throughout the United States for a variety of purposes. For example, division offices have agreements with 42 universities to deliver the Local Technical Assistance Program. The ITS Joint Program Office and the Turner-Fairbank Highway Research Center each have numerous agreements with several universities. The Dwight David Eisenhower Transportation Fellowship has agreements with numerous universities on behalf of fellowship recipients. It is envisioned that the level of cooperative efforts between FHWA and academia will increase as we continue to pursue improvements to the transportation systems and cultivate the workforce of the not-so-distant future. Each program office maintains a variety of data independently without standardization of the types and/or categories of information needed at an agency-wide level. There is no central repository of data about the nature of the relationship, institutional capabilities, quantitative impacts on students, contribution to the body of research by disciplinary category, etc. Yet there is a need for information about the universities with which FHWA does business and the capacities of universities with which the FHWA could do business in the future.

A database identifying and describing agreements with universities on an agency-wide basis would facilitate:

- accounting for all of the institutions with which FHWA has had and/or currently has agreements;
- assessing the capabilities of all institutions with which FHWA may want to develop future agreements; and
- evaluating the nature and extent of existing relationships with universities, e.g., how much spent within a given region over how long or the number of individual FHWA agreements with a single institution.
- providing information on capabilities and expertise of Minority Institutions of Higher Education

The benefits of such a database would apply across all program offices. The universities themselves would benefit from the data regarding research initiatives at peer universities. It would give them the opportunity to partner with each other on parallel or complementary research goals and objectives while allowing FHWA to leverage scarce resources. The database would also create a better link between the universities and program offices. An added benefit from this database would be the linking of technical expertise of the universities to the FHWA field structure.

Such an endeavor would support FHWA by providing real-time information about the extent and type of FHWA/university relationships and instantaneous information about the level of investment, numbers of institutions, prospective university partners and other valuable data. It would not only enable the agency to look at where it's been but also consider the appropriateness of engaging previously untapped academic institutions to support research and technology initiatives.

The Amount of funding required in FY 2002: $175,000 (STR)

University Resources Database

Focus Area or Major Activity	FY 2001 Budget ($000)	FY 2002 Request ($000)
University Resources Database	$0	$175
Totals	$0	$175

FY 2002 R&T Program Funds:Total Requested

(Dollars in Thousands $000)

Line Item	PROGRAM (Str. Goal)	Priority Area	STR	TDIPP	Totals
Fie d Services R&T Delivery			$3,220	$1,700	$4,920
	FEDERAL LANDS (National Security)		$735	$0	$735
		Integration of Weather Data	$735	$0	$735
		Integration of Road Closure	$0	$0	$0
	FEDERAL LANDS (Mobility)		$800	$0	$800
		Pavement Technology	$408	$0	$408
		Bridge Technology	$140	$0	$140
		Asset Management	$252	$0	$252
	FEDERAL LANDS (Safety)		$400	$0	$400
		Highway Safety	$400	$0	$400
	FEDERAL LANDS (Productivity)		$750	$0	$750
		Operations Technology	$750	$0	$750
	FEDERAL LANDS (Human & Natural Environment)		$335	$0	$335
		Human&Environment Technology	$335	$0	$335
	RESOURCE CENTERS - Marketing ((LTI)		$0	$700	$700
	RESOURCE CENTERS - Technology Deployment ((LTI)		$200	$1,000	$1,200

SURFACE TRANSPORTATION RESEARCH and TECHNOLOGY DEPLOYMENT

Program Area: Field Services R&T Delivery

Amount Requested for FY 2002: $4,920,000 ($3,220,000 STR; $1,700,000 TDIPP)

FEDERAL LANDS (National Security) $735,000 (STR)

Integration of Road Closure Information

Background and Objectives

RURAL INTELLIGENT TRANSPORTATION SYSTEMS (RITS): FHWA is providing leadership in developing and implementing Advanced Traveler Information Systems, Advanced Traffic Management Systems, and Advanced Safety and incident Management Systems. Many of these concepts have application to Federal Lands Highway projects. Several States, including all those within the WFLHD jurisdiction, have rural programs underway which could impact and influence roadways in the National Park and Forests. WFLHD needs
to be proactive in alerting our customers to the Rural Intelligent Transportation Systems opportunities and alternatives available.

IMPLEMENTATION AND OF GEOGRAPHIC INFORMATION SYSTEMS (GIS) AT WFLHD: WFLHD does not have the technical capabilities to view, analyze, or edit spatial data in Geographic Information Systems. This is the case, both in terms of technology and a skilled operator familiar with converting data layers from differing standards and formats. WFLHD is unable to utilize the wealth of spatial data that has been, and continues
to be developed and used by our primary client agencies (NPS, USFS, BLM & BIA). We are unable to contribute the results of our work to their spatial data because of our lack of GIS capabilities. It's not that our data is useless, it's because we currently can't speak the language" of GIS.
Limited GIS capabilities currently exit elsewhere in the FHWA but they are not responsive to the needs of WFLHD. Efforts are currently under at the CFLHD, to integrate GIS capabilities to produce a road/highway layer that can be used at a CFLHD office. WFLHD could guide its efforts to coordinate with CFLHD and EFLHD.

WEATHER CONDITION MONITORING: Several highway agencies are implementing weather condition monitoring systems for their road networks. All motorists seek and use weather data in making trip decisions resulting in user needs for current and accurate weather condition information as well as weather predications. Motorists on National Park Service and Forest Service Roads are at least as likely to want and need weather information as other motorists, and perhaps more likely because of the remote locations and recreational nature of their trips. The Federal Lands Highway Program should participate with other highway agencies providing assistance with the planning, constructing, implementing and operating weather condition monitoring systems. Our customers need information, encouragement and incentives to plan, construct and implement weather monitoring systems on their roads networks. Our customers can coordinate with existing or planned systems belonging to other agencies.

NHPN NETWORK AND LINEAR REFERANCING: Currently the GIS area is only funded by the Planning and Environment CPU by the Office of Intermodal and Statewide Programs and is only funded for $100,000 in FY 2000 to update. These cost do not cover basic maintenance of the data. The following are unfunded needs to get GIS activities completed to better support MTMC needs.

Status:

- Rural Intelligent Transportation Systems (RITS) State Highway agencies have programs underway, need application to Federal Lands.
- Geographic Information Systems (GIS) no ongoing work within the Federal Lands.
- Weather Condition Monitoring is being utilized by several state highway agencies.
- Linear Referencing for all states and quality control ongoing.

Expected 2002 Products and Milestones:

- Implement automated vehicle identification system, work zone delay notification, and traveler information system to the customers by FY 2002.
- Implement GIS at WFLD
- Implement at an appropriate location, and advanced remote weather information system through FY2002.
- Complete Linear Referencing for all states and quality control FY 2002.
- Complete matrix of all HPMS data to network FY2002.
- Complete match to the national highway system and STRANET.
- Develop interactive GIS website to provide access to data FY2002
- Put on a national demonstration of Road Closure Information Website.
- Complete development of internet training for FHWA Division office and states and MTMC.

FY 2002 Program Request: $735,000 (STR)

New Initiatives:

- **$250,000** - Rural ITS
- **$125,000** - GIS for construction monitoring
- **$50,000** - Weather condition monitoring
- **$10,000** - Vehicle identification system, work zone delay notification, and traveler information system to users

On going Research:

- **$50,000** - .HPMS data to networks
- **$200,000** - Matching bridge data to National Highway System Data and STRANET.
- **$25,000** - Developing Linear Referencing.
- **$25,000** - Road Closure due to weather condition.

Program Area: Federal Lands

Strategic Goal: National Security

Activity: Surface Transportation Research Program

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
Integration of Weather Data	$ 373	$ 735
Integration of Road Closure	0	
Total	**$373**	**$735**

FEDERAL LANDS (Mobility) $800,000 (STR)

Pavement Technology

Background and Objectives

ELIMINATING PRIME COATS ON CONSTRUCTION PROJECTS: Prime coats have a purpose in the pavement construction process, yet many times they are eliminated during the project. While this may be acceptable, no document exists that describes the condition when a prime coat is necessary, and when it may be eliminated with confidence. A publication is needed for project personnel to provide decision-making guidance o when to keep or eliminate a prime coat.

SOIL FREEZING FOR EXCAVATION DEMONSTRATION: Instances occur during construction where traditional methods of excavation fail to suffice. When the slopes can not be laid back, when sheet piles would have no lateral stability, when constraints due to other structures prevent wide excavation, then other techniques are needed. Soil freezing has been used in limited applications but it has yet to become standard practice. A demonstration is needed to elevate its viability and visibility with the highway industry.

NON-STANDARD MATERIALS IN CONSTRUCTION: Non-standard materials are becoming more and more available for use in construction, and some are even used now as state-of-the-art. Certain products such as plastic rebars, plastic bridge components, epoxies, ceramics, and fibers are relatively corrosion free and may be a practical alterative to the standard materials of steel, concrete, wood, and other commonly used materials. As a result, Federal Lands may not be using all available resources to design and constructed durable projects.

ALTERNATIVE PAVEMENT SELECTION GUIDELINES: Several instances have occurred on recent proposed projects where the roadway surface type was disputed or unwanted by the customer and individuals from the local public. And information packet with visuals is needed to guide and demonstrate the Federal Lands decision making process for selecting pavement types. The document needs to show Federal Lands' consideration for material, aesthetics, environment, safety, structural serviceability, and initial and service life cycle costs in the selection process.

COMPARE PAVEMENT REINFORCEMENT PRODUCTS TO MINIMIZE RELECTIVE CRACKING: It is proposed to compare the effectiveness of three different types of reinforcement designed to minimize reflecting cracking in asphaltic concrete (AC) overlays. The three types of reinforcement are geotextile, geogrid and heavy duty paving membranes. It is proposed to evaluate all three types of reinforcement in the following two applications: 1) AC overlay of jointed Portland cement concrete (P.C.) pavement and 2) AC overlay of cracks AC pavement. These should be incorporated via test sections into EFLHD projects relatively close to the Washington, D.C. area to facilitate regular monitoring.

EVALUATION OF THERMAL SEGREGATION USING INFRARED CAMERA: It is proposed to use an existing infrared camera own by FHWA to evaluate thermal segregation of the hot asphalt concrete pavement mat. It is planned to use the infrared camera to learn how thermal segregation can be minimized and instruct project personnel and contractor personnel on the effect of proper handling and placement of asphalt concrete.

EVALUATION OF SUPERPAVE MIX GRADING FOR WORK ABILITY: Eastern Federal Lands has used hop asphalt concrete pavement designed with the Superpave mix design method on three projects. On two of the previously mentioned projects the use of Superpave was proposed by the contractor and one was specified by FLH. Superpave was used with success on one of these projects and with limited success on another and was ceased by the contractor on the third. On the projects which experienced less than limited success, the problems centered around the work ability of the mix when hand work was required for manholes, inlets, patching, and ends of tapers. Superpave mix design method has encouraged the use of coarser mixtures which decrease the work ability of the mix.

Status

- Soil Freezing for excavation developing a report to be competed by end of FY2001
- Develop work plan for evaluating thermal segregation of hot asphalt by using Infrared camera.

Expected FY 2002 Products and Milestones
•Decision trees to guide construction project personnel in use of prime coats.
•Host a national conference to demonstrate use of soil Freezing.
•Develop specifications for use of non-standard materials and a final report.
•Develop pavement selection guidelines to enhance public and customer buy in.
•Summary report of effectiveness of pavement reinforcement product to minimize reflective cracking.
•Develop procedures for handling and placement of asphalt concrete using thermal infrared camera.
•Develop specifications for superpave mix grading for work ability.

FY2002 Program Request: $408,000 (STR)

New Initiatives:

•$25,000-Criteria for eliminating prime coats
•$100,000 - Demonstrate advantages of soil freezing
•$25,000 - Non-standard material use
•$150,000 - Alternative pavement selection guideline
•$38,000 - Controlling cracks in asphalt pavements
•$20,000 - Use infrared camera to determine thermal segregation of asphalt
•$50,000 - Evaluate superpave mix grading for work ability

Bridge Technology
Background and Objectives
High performance materials, including variations of the more familiar construction materials such as steel and concrete and the more exotic materials such as fiber reinforced polymer (FRP) composites and aluminum each have outstanding individual properties which integrated into the design of new bridges, or the repair of rehabilitation of existing bridges, will reduce construction time, improve durability, and reduce first cost and/or life cycle construction costs. This has been clearly demonstrated with the use of high performance concrete with better durability and higher strength in the San Angelo, Texas bridge where first costs were about the same when compared to using "standard" concrete. High performance steel, whicb has greater toughness and improved weldability and durability, was used in the Martin Creek, Tennessee bridge and resulted in reduced fabricated steel costs of 11%.

The objective of this portion of the program is to develop high performance structural materials to "fix" the problems found in deteriorating structures and to improve the longevity of new or replacement construction. High performance material (HPM) R&D is further supported because of the numerous inquires and congressional requests for research that are received due to the facts that HPM R&D id fully supportve of the Office of Science and Technology policy (OSTP) and the National Science and Technology Council's (NSTC) program for material research.

Status
•Concrete retarder literature search underway
•Seismic tomography techniques being evaluated
•Several pilots projects on ASR in place

Expected FY 2002 Products and Milestones
•*High-Performance Concrete*. Completion of additional HPC bridges and the evaluation report on the data obtained from monitoring the first set of experimental HPC bridges will be published. This new knowledge will be reflected by changes in the AASHTO Bridge specs.. An HPC bridge will either be completed or under construction in every one of the 50 States.
•Document reliability of performance and implement use of concrete set retarders.
•Collect crosshole sonic logging data and analyze using seismic tomography
•Compare four pile load test and write summary report.
•ASR guidelines for mitigating ASR and a final report

FY 2002 Program Request: $140,000 (STR)

New Initiatives:

•$20,000 - Prepare final report on seismic tomography use to analyze data
•$15,000 - Literature search, field test, report and implement set retarders.
•$25,000 - Workshop and implementation of high performance materials in to construction specifications.
•$34,000 - Compare four pile load test methods and report.
•$45,000 - ASR study for treatment and implementation literature review

Asset Management

Background and Objectives
Bridge and Pavement asset management is beginning to be embraced by bridge and pavement owners. Although an ISTEA mandate that originally required states to adopt a formal pavement and bridge management practice was lifted, all states chose to pursue the development and refinement of some form of bridge and pavement management system. Bridge and Pavement management is highly dependent on being able to accurately assess the physical condition of large numbers of bridges, and based on a systematic approach, develop budget s and plans to effectively maintain the existing bridge inventory The accuracy of bridge and pavement information, coupled with how best to incorporate the inspection information into the management system itself is a recognized need in order to optimize the management system. Bridge engineers, managers and owners have historically relied upon visual inspection as an important element in the construction of bridges. Nondestructive evaluation(NDE) has always been a part of this inspection . While usually associated with quality control of materials or fabrication, it was occasionally used to resolve doubts about existing structures. With the collapse Bridge asset management is beginning to be embraced by bridge owners Although an ISTEA mandate that originally required states to adopt a formal bridge management practice was lifted, all states chose to pursue the development and refinement of some form of bridge management system. Bridge management is highly dependent on being able to accurately assess the physical condition of large numbers of bridges, and based on a systematic approach, develop budgets and plans to effectively maintain the existing bridge inventory. The accuracy of bridge inspection e of the Silver Bridge in 1967, a new focus as given to bridge inspection: SAFETY. The most common type of NDE is a visual inspection, but if may not be adequate for safety inspections. It is also time consuming and subjective. More scientific and reliable types of NDE, e.g. ultrasonic, radiographic, or magnetic particle, are very localized. ; i.e., they cover a very small area. By their nature, they are slow. This has led to the need for such faster and more reliable types of NDE.
In support of advancing bridge management system, the objectives of this part of the program are to "find" the problems associated with the nation's existing bridge inventory. More specifically issues to be addressed will (1)

Status:

•Electronic historical final construction records consideration for easy management being reviewed.
•Retaining wall shoring systems being look at.

Expected 2002 Products and Milestone:
•Scanning tour to European, Asian and Africa Parks Preserves and prepare report on design, construction issues and solutions.
•Develop an easy access to historical final construction records
•Develop FLH design criteria for retaining wall shoring system
•Develop feasibility study report

FY 2002 PROGRAM REQUEST: $252,000 (STR)

New Initiatives

•$120,000 -Go on scanning tour to world National Parks System
•$80,000 - Develop easy access historical final construction records.
•$20,000 - Develop FLH design criteria for retaining wall shoring system.
•$132,000 - Develop distance learning system

Program Area: Federal Lands

Strategic Goal: Mobility

Activity: Surface Transportation Research

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
Pavement Technology	$211	$408
Bridge Technology	74	140
Asset Management	136	252
Total	$421	$800

FEDERAL LANDS (Safety) **$400,000 (STR)**

Highway Safety

Background and Objectives

POLYCARBONATE STOP SIGN IMPLEMENTATION: The polycarbonate stop sign has been evaluated in detail by the HITEC process and found to meet retroreflectivity and MUTCD requirements for stop signs. There remains concern about polycaronate signs ability to handle wind loads, retaining retroreflectivity properties after being shop by a shot gun and rifle, or damage resulting from solvent cleaning or graffiti.

WORK ZONE SAFETY: Many products are offered on an annual basis that purport to enhance safety on construction projects. An open effort is needed to evaluate these items when they are identified.

GUARDRAIL TESTING PROGRAM: Many of our approved guardrail and bridge rail need to be retested to meet the requirements of NCHRP 350. In 1999 a contract was developed and awarded for the various crash tests needed for the special guardrail and bridge rail systems used by Federal Lands Highway. Only two of the crash tests were funded for FY 1999.

SHOWCASE DURABLE PAVEMENT MARKINGS: Pavement markings are important appurtenances especially in recreation areas and at high volume visitor sites. Current requirements mandate alternatives to high VOC paints. New pavements have typically not been able to sustain first applications of pavement markings, probably due to the curing and initial latent debonding pavement markings. Many States are evaluating and adopting durable pavement markings as a feature on new pavement surfaces and on roads in good or better condition. These durable markings have superior bonding, last longer in a visible and retroreflective condition, and are sustainable during adverse climate and traffic conditions. Some durable marking manufacturers offer warranties of up to four years.

INTERACTIVE HIGHWAY SAFETY DESIGN MODEL: An Interactive Highway Safety Design Model (IHSDM) is being developed with GEOPAK, the design CADD system used by FLH. This model is used to evaluate designs against safety standards and practices to highlight areas for improvement and alternative considerations. The system is currently in the development stage and is expected to be operational in 2001. FLH is a partner in the development and should be one of the early users deploying the model system on appropriate project designs.

REDUCING WILDLIFE/VEHICLE COLLISIONS: Wildlife/vehicle collisions are an increasing safety and potentially life-threatening problem for humans and animals on all types of roads. The remote, rural nature of the roads in Western's highway program may slow the response time for emergency services trying to reach injured motorists. In addition, remote areas usually provide ideal habitat for wildlife and therefore, the likelihood of encountering wildlife and therefore, the likelihood of encountering wildlife in these areas is high. Better detection and notification of the presence of animals on or adjacent to the roadway could increase a driver's ability to avoid collisions.

STATISTICAL ACCEPTANCE FOR STRATEGIC HIGHWAY RESEARCH PROGRAM ASPHALTS: The Strategic Highway Research Program developed new grades for asphalt cements and new design procedures for asphaltic concrete. A statistically valid acceptance criteria needs to be established for use in project verification of specification compliance of asphalt cements.

Status

- Purchasing polycarbonate stop signs to be installed on a project located in wind area, and evaluating the sign after 6-months and one year to determine ability to resist windloading
- purchasing various work zone safety items for future installation.

Expected FY 2002 Products and Milestones

- Install and evaluate polycarbon stop signs in wind area for 6 months and one year to determine ability to resist windloading.
- Install and evaluate various work zone safety items.

- Update and test guardrail developed by FLH to the latest safety standards.
- Evaluate the applicability of durable markings to FLH type of projects and establish life cycle cost factors.
- Implement the IHSDM on appropriate project designs and showcase the deployment of widespread use in government and private sectors.

FY 2002 PROGRAM REQUEST: $400,000 (STR)

New Initiatives

- **$160,000** - Update and test guardrail developed by FLH to the latest safety standards.
- **$160,000** - Evaluate the applicability and report on durable markings to FLH type of projects and establish life cycle cost factors
- **$50,000** - Implement the IHSDM on appropriate project designs and showcase the deployment of widespread use in government and private sector.

Ongoing research

- **$10,000** -Polycarbonate stop signs on wind blown project.
- **$20,000** - Purchase and install various work zone safety items.

Program Area: Federal Lands

Strategic Goal: Safety

Activity: Surface Transportation Research

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
Highway Safety	$210	$400
Total	$210	$400

FEDERAL LANDS (Productivity) **$750,000 (STR)**

Operations Technology

Background and Objectives

VEHICLE COUNT, CLASSIFICATION, AND OCCUPANCY MONITORING EQUIPMENT: The National Park Service (NPS) has as an agency goal to protect the scenic, cultural, and natural resources within the lands within the NPS system. To develop projects that minimize the impact to these lands information on exactly what types of vehicles utilize the National Park is important. Traffic counts are usually just that, a number. When developing management activities for a National Park, more information on what types of vehicles, the numbers of, and the times those vehicle arrive are all pieces of information needed. The parks in the Alaska Region of the NPS are studying their traffic to develop the best management practices for handling the visitation while still protecting park resources.

GLOBAL INFORMATION SYSTEM (GIS), FOR ROADWAY AND SAFETY MANAGEMENT SYSTEMS: Develop a state-of-the-art GIS based Roadway Inventory Program and Bridge Inventory Program. Review and evaluate State DOT and commercial systems. Several members of the team will need to visit a few DOTs and/or vendor sites to see how their systems work. The team should try to visit States that are using commercial programs. This information will be used to help the team get a better understanding of how to use GIS systems and develop sound specifications.

VORTEX DISRUPTION DEVICES FOR PREVENTING SCOUR: Scour research has thus far been focused on determining ultimate scour depths and the resistance of cohesive and rock soils to scour. Very little has been done to counteract the actual cause of local pier scour, the "horseshoe" vortex, which is formed when flow impacts piers and dives down to the streambed and churn out bed material.

DEVELOP SPECIFICATIONS/GUIDELINES FOR USING CULVERT PIPE LINERS: Lining existing culvert pipes instead of replacing culverts is becoming more and more common because of our emphasis on 3R projects. Lining culverts can also be appropriate in some 4R situations - especially when the culverts are under high fills. Using culvert pipe liners can drastically reduce excavation costs and minimize traffic disruptions in these situations. Our problem in CFLHD is that we end up addressing the culvert pipe liner specifications on a project by project basis. There is no FLH policy, specifications or details. We need to better clarify what materials are acceptable and we need to have a better way of determining whether the area between the liner pipe and the exterior pipe needs to be continuously grouted. Some pipes only need to have the end s grouted, which is much less expensive than grouting the entire length.

EVALUATING ITS MEASURES IN THE BRYCE CANYON NATIONAL PARK: Traffic and visitor volumes are reaching critical levels at many popular public lands and recreational sites. In the Bryce Canyon National Park measures have been implemented to mitigate further decline in the quality of the visitors' experience, especially at the entrance gate. Their goal is to manage and preserve this natural area, while at the same time provide for the public a reliable sense of accessibility and sensation. These ITS measures include variable message signs, auto-payment at the gate, and public relations message on the radio and local systems. A separate study is needed to document the effectiveness of these ITS measures.

DIGITAL IMAGE SOFTWARE: Review and develop a method to allow roadway designers to view three dimensional mapping files with the traditional workstation to function as a digital stereo-plotter.

EVALUATION OF AIRTRIG SOFTWARE: Review and develop a better method of triangulating digital photographs.

HIGH-RESOLUTION PHOTO SCANNER: Develop a method to reduce cost of scanning aerial photographs.

EVALUATE SILICA FUME SHOTCRETE: The affects on adhesive and cohesive performance of shotcrete using silica fume are unknown for some structural applications. An evaluation of adhesive and cohesive properties of silica fume shotcrete could provide performance indicators. Evaluation of in place properties like compressive strength and permeability could also relate to performance.

Status

•At the end of FY2001 Traffic counter/classification for use by the Alaska Region of the NPS will be purchased.
•Currently FLH collects data on roadways and bridges for other transportation agencies and will be completed by 2001.

Expected FY 2002 Products and Milestones

•Complete installing traffic counters/classifiers in the Denali National Park and the Alaska Region for the NPS.
•Procure and install GIS for roadway, bridge and safety management systems, develop report and add safety management to the system.
•Construct a full scale model of the Vortex Disruption Device for preventing scour if lab test goes well by the end of 2002.
•Develop specification/guideline for using pipe culverts liners.
•Evaluating ITS measures in the Bryce Canyon National Park and issuing a final report.
•Implement integrated digital images software to allow roadway designers to view three 3D mapping.
•review and develop a better method of triangulating digital photographs.
•Develop a method to reduce cost of scanning aerial photographs using high resolution photo scanners.
•Establish a test and evaluation plan for project trials to evaluate adhesive and cohesive performance as well as compressive strength and permeability for silica fume shotcrete.

FY 2002 PROGRAM REQUEST: $750,000 (STR)

New Initiatives

•$200,000 - Develop a state-of-art GIS based Roadway Inventory Program and Bridge Inventory program.
•$100,000 - Construct a full scale model of the Vortex Disruption Device for preventing scour if lab test goes well by the end of 2002.
•$30,000 - Develop specification/guideline for using pipe culverts liners.
•$80,000 - Evaluating ITS measures in the Bryce Canyon National Park and issuing a final report.
•$28,000 - Implement integrated digital images software to allow roadway designers to view three 3D mapping.
•$10,000 - review and develop a better method of triangulating digital photographs.
•$20,000 - Develop a method to reduce cost of scanning aerial photographs using high resolution photo scanners.
•$20,000 - Establish a test and evaluation plan for project trials to evaluate adhesive and cohesive performance as well as compressive strength and permeability for silica fume shotcrete.

Ongoing research

•$22,000 -Purchasing , coordination and development of traffic counters/classifiers for use in Alaska National Parks.
•$240,000 - Reviewing and evaluating State DOT and commercial systems.

Program Area: Federal Lands

Strategic Goal: Productivity

Activity: Surface Transportation Research

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
Operations Technology	$395	$750
Total	$395	$750

FEDERAL LANDS (Human & Natural Environment) **$335,000 (STR)**

Human & Environment Technology

Background and Objectives

STREAM CORRIDOR RESTORATION HANDBOOK: The "Stream Corridor Restoration Handbook" creates a common reference for engineers and resource specialists to communicate concepts and solutions using common terminology. Many of the participating agencies were customers of FHWA, yet they were not asked to participate at the introductory level because the engineering complexity of FHWA bridge, culvert, and low water crossing hydraulic analysis and its impact on stream stability issues that exceeded the handbook's scope. The FHWA needs to clarify the complex nature of the information and incorporate into practice.

QUANTIFYING CONSTRUCTION DELAYS DUE TO WEATHER: Techniques to record and predict the weather have improved significantly over the recent years, yet many roadway construction projects still experience some level of unexpected delay due to weather. Most agencies will grant some relief to contractors for unusually severe weather, but it is the identification of the expected weather as compared to the unusually severe weather that still proves challenging.

IMPLEMENTING DUST CONTROL AND MITIGATION: Federal Lands has used various techniques to control dust on construction projects, however many other methods and materials are available. A recent publication coordinated by Jim Sorenson of the Infrastructure CBU documents most of the state-of-the-art and innovative practices of dust mitigation. The Federal Lands needs to review some of these techniques and develop additional alternatives to the existing three approved materials.

PROMOTING CONTEXT SENSITIVE DESIGN: Many times Federal Lands customers and the general public are reluctant to agree to proposed designs because they are unable to visualize the project, or have unique requirements for consideration. Training and guidance for Federal Lands and their customers are needed to elevate awareness and responsiveness to delicate requests and to increase the use and acceptance of existing tools and information..

BIA/FHWA PERSONNEL EXCHANGE PROGRAM: Both the BIA and the FHWA have needs for technical assistance from each other, and also capabilities to share agency expertise. A program is needed to provide for interagency cooperation in personnel exchanges so that both agencies will benefit from increased sharing of knowledge and practice.

FHWA COLORING FUN BOOK: The FHWA coordinates and participates in many school related student events. A few of these are with young grade school age children. There is a need to plant the seed early on in these young children that engineering and construction are exciting and viable fields in which to aspire. There is also a need to instill the idea that people of all races, genders, and ages can participate in these fields.

Status

- Handbook on stream Corridor Restoration already in place but due to the complex level it need to be simplified .
- Complete study to identify the current techniques, methods, and procedures that other transportation agencies use to determine contract adjustment for contractor when they request relief for weather impacts
- Demonstrate the use of Context Sensitive Design with specific designs. Conduct several training sessions for both FLH and partners/customers and document the results in a final report.

Expected FY 2002 Products and Milestones

- Develop a simplified and documented chapter on road related stream disturbances and restoration solutions.
- Complete study to identify the current techniques, methods, and procedures that other transportation agencies use to determine contract adjustment for contractor when they request relief for weather impacts.
- Complete study to identify the current techniques, methods, and procedures that other transportation agencies use to determine contract adjustment for contractor when they request relief for weather impacts.
- Develop and distribute the publication that summarizes the various materials and techniques. Identify and implement several of the methods on a construction project, and document the result.
- Demonstrate the use of Context Sensitive Design with specific designs. Conduct several training sessions for both FLH and partners/customers and document the results in a final report.
- Identify and select at least five candidates in both BIA and FHWA to participate in a personnel exchange program.

•Perform literature search to identify the existing coloring and fun books on the market related to highway construction. Develop highway construction themes and ideas on coloring, word games, word searches, and hidden items that appeal to young children.

FY 2002 PROGRAM REQUEST: $335,000 (STR)

New Initiatives

•**$65,000** -Develop a simplified and documented chapter on road related stream disturbances and restoration solutions
•**$30,000** - Complete study to identify the current techniques, methods, and procedures that other transportation agencies use to determine contract adjustment for contractor when they request relief for weather impacts.
•**$20,000** - Develop and distribute the publication that summarizes the various materials and techniques. Identify and implement several of the methods on a construction project, and document the result.
•**$80,000** - Demonstrate the use of Context Sensitive Design with specific designs Conduct several training sessions for both FLH and partners/customers and document the results in a final report
•**$100,000** - Identify and select at least five candidates in both BIA and FHWA to participate in a personnel exchange program.
•**$40,000** - Perform literature search to identify the existing coloring and fun books on the market related to highway construction. Develop highway construction themes and ideas on coloring, word games, word searches, and hidden items that appeal to young children.

Program Area: Federal Lands

Strategic Goal: HUMAN AND NATURAL ENVIRONMENT

Activity: Surface Transportation Research Program

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
Human & Environment Technology	$178	$335
Total	$178	$335

RESOURCE CENTERS – Marketing

Amount requested for FY2002: $700,000 (TDIPP)

The Federal Highway Administration provides funding for Division Office (DO) and Resource Center (RC) marketing of technologies under the FHWA's Research and Technologies Program. These funds support outreach efforts across the Nation to promote technology-based initiatives in the field, which in many cases were originally developed by HQ's Core Business Units–generally, but not limited to, Highway Safety, Operations, and Infrastructure, as well as the Office of Research and Development.

The technologies and innovations, promoted nationwide through these field marketing activities, work towards the achievement of the U.S. Department of Transportation's Strategic Goals by enhancing mobility, highway safety, productivity, and economic growth. This funding affords Division Office
and Resource Center staff the opportunity to improve the agency's customer focus, by enhancing communications with State, county, and other local government partners, industry, academia, the general public, school children, etc. It also aids in the advancement of State-of-the art technology nationwide and helps to streamline the transfer of information on the State-of-the-Practice. Providing this increased knowledge and understanding of new technologies that are available to highway agencies at the State and local level, results in improved safety, increased capacity, reduced congestion, and continued/enhanced mobility. Providing this technology exchange also helps assist State and local decision makers to opt for more prudent choices when considering varying construction and maintenance options, thus helping them to manage their programs more efficiently and effectively.

Some examples of the type of outreach being provided through this program include: the establishment of websites and connections to projects to enhance knowledge-sharing among States (i.e. lessons learned on the Central Artery Project); exhibiting at industry and statewide conferences and workshops enabling FHWA to communicate with target audiences on the latest technologies available to them to complete their work on the Nation's highways; promotional items helping agencies contact the appropriate FHWA staff for assistance when needed or for consultation; presentation equipment enabling field staff to perform outreach and make demonstrations of State-of-the-art innovations.

Continued funding of the RC Marketing Program also enables the RC Technology Transfer Program to maintain focus on funding products, demonstration projects, and seminars/workshops without diverting funds for outreach efforts. Thus, the much-needed communication element of technology transfer-- achieved through outreach and marketing activities--can still occur without impeding the exploration
of new technologies and innovations. These communications activities are an integral part of the overall FHWA Federal-Aid, Research and Technology, and Resource Center programs.

The annual solicitation by the RC's of candidate marketing/outreach initiatives–done to establish the distribution of RC Marketing funds--has already proven to be much-needed. In the first year that this category of funds was authorized, DO's and RC's had numerous activities to be completed with the limited funds available; and it is anticipated that the number of candidate projects will grow in future years as the field finds more forums for the dissemination of research results and new technologies and opportunities to meet and work with partners in State DOT's, private industry, the transportation community, and the public.

The Amount of funding required in FY 2002: $700,000 (TDIPP)

RC Marketing Program

Focus Area or Major Activity	FY 2001 Budget	FY 2002 Request
Annual Contribution to R&T Exhibit Contract	$46,000	$80,000
Annual Authorization for Equipment (presentation projectors, 3d imaging) in support of DO public outreach/project-orientation needs	46,000	80,000
Annual Authorization for Video-oriented Services in support of RC & DO tech transfer needs	34,000	60,000
Annual Authorization for Exhibiting activities (display space rentals, electric/ furniture/carpet rentals) in support of RC & DO (public, statewide, industry) outreach efforts	114,000	200,000
Annual Authorization for Promotion Materials in support of RC & DO exhibiting and outreach needs	114,000	200,000
Annual Authorization for Website message/ design establishment/ enhancements in DO's	46,000	80,000
Totals	$400,000	$700,000

The Amount of funding required in FY 2002: 4 Resource Centers @ $175,000 = $700,000 (TDIPP)

RESOURCE CENTERS – Technology Deployment

Amount requested for FY2002: $1,200,000 ($200,000 STR; $1,000,000 TDIPP)

Technology delivery is a primary function of the FHWA's Resource Centers (RC's)and the Technology Deployment funds provided to the Resource Centers (RC), and often referred to as technology transfer (T2) funds, support the agency's mission by promoting the use of technological advancements and innovations to increase productivity, safety, and operations. RC's have leveraged these funds in past years by partnering with Division Offices to promote innovation at the local level through a systematic sharing of these funds for use on state-specific technology transfer projects. Each Division is allocated a share of these funds to help create and foster an environment ripe for technology and innovation. In addition funds are also allocated for larger projects through a competitive solicitation of T2 initiatives from Divisions and RC technical staff. Generally, these projects are large in scope and involve multiple states. The technology deployment funds enhance collaboration among FHWA field offices and partners, leveraging their ability to identify and assess innovative research results, technology, and products. Through the efforts of the RCs and Division Offices, the funds are used to help ensure that the American public receives the best practical transportation services available.

Because of their familiarity with ongoing research and the state-of-the-practice, as well as their knowledge of state-of-the-art and innovative technologies, RC technical specialists are in position to provide customers with needed solutions The small investment in technology transfer activities represented by the technology deployment funds allows RC technical specialists to work with partners in a creative environment that stimulates change and innovation An increase in technology deployment funding would give technical specialists the resources needed to respond to the growing stream of new issues, opportunities and challenges facing transportation agencies. Maintaining FHWA's lead in transportation research and the application of innovation will depend on its ability to manage, absorb, and transfer knowledge. Enough funding must be available to support outreach, provide technology answers, and help customers apply new or innovative technologies. The Resource Centers have a fundamental role in helping maintain our lead by working to "raise the technology bar" for the agency and its partners.

Expected FY2002 Products and Milestones
- Provide technical assistance to FHWA field offices and others regarding the marketing and communication of Transportation technology.
- Provide Professional Capacity Building for those who have responsibilities in technology transfer through continued presentation of workshops, presentations, training courses, and other technology transfer related symposia.
- Deliver first exposures of innovative research results and products.
- Operate and maintain a cross-cutting system of Internet web-pages designed to share timely information regarding technologies and events
- Provide access to a broad range of technical information and expertise through new media
- identify and initiate use of innovative support technologies to make technology transfer more efficient and effective.
- Identify underused technologies with large potential payoffs, and develop and carry-out full scale marketing plans.
- Conduct a National Technology Transfer Conference that shares the latest technology for technology transfer and provides substantial networking opportunities.
- Develop new technology exhibits as necessary for program needs and marketing plans

Expected FY2002 Products and Milestones
(1) Division Initiatives to leverage local innovation
Measure: 52 Local initiatives completed and reported on
(2) Needs based Technology Transfer
Measure: Best practices identified and shared among partners
(3) Technologies deployed meet needs and add value
Measure: Customer feedback results shared
(4) Partnering to leverage investments in innovation
Measure: Partnerships created; Dollars leveraged;
(5) MIHE/HBCU's participating in technology initiatives
Measure: 5% of RD&T funds to MIHE

The amount of funding required in FY 2002: $1,2000,000 ($200,000 STR; $1,000,000 (TDIPP)

Leveraging Technology and Innovation: Resource Centers – Technology Deployment

Focus Area and Major Activities	Budget Request FY 2001 ($000)	Budget Request FY 2002 ($000)
Technology Deployment	$890	$1,000(TDIPP) 200 (STR)
Totals:	**$890**	**$1,200**

FY 2002 R&T Program Funds:Total Requested				
(Dollars in Thousands $000)				
Line Item	PROGRAM (Str. Goal) Priority Area	STR	TDIPP	Totals
R&T Strategic Planning Performance Measures		$1,060	$0	$1,060
	R&T Strategic Planning (CGI)	$500	$0	$500
	Performance Measures (CGI)	$560	$0	$560

SURFACE TRANSPORTATION RESEARCH and TECHNOLOGY DEPLOYMENT

Program Area: R&T Strategic Planning/Performance Measures

Amount Requested for FY 2002: $1,060,000 STR

R&T Strategic Planning **$500,000 (STR)**

FHWA Support of U.S. DOT Strategic Planning for Research and Technology (R&T)

These funds support a number of elements which relate to the Development of a National Highway Research agenda, including various outreach efforts.

DOT-level R&T strategic planning activities: The U S DOT Research and Technology Coordinating Council for DOT-level R&T strategic planning activities (as directed by TEA-21 Sec. 5108) requires support from all modal administrations for this work. Through the Council, RSPA as the lead DOT agency for this activity advises us of system-level, policy research areas which would contribute to Departmental R&T objectives

Major projects supported by these funds include the DOT Transportation R&D Plan, the Annual DOT R&D Performance Plan and Performance Report, and TRB support of the R&D Strategic Planning Process. Constant level FHWA funding projections through FY 2002 anticipate other modal administrations and other U.S. DOT partnerships and alliances assisting in providing input and resources for data collection efforts for these plans and reports.

The Amount of funding required in FY 2002. $250,000 (STR)

FHWA Support for National Partnership Forum and other Outreach Activities: In addition, funds are needed to support the National Partnership Forum and other outreach activities aimed at producing a consensus on the need for highways R&T and a national R&T agenda. The objective of these activities is to develop broad support for FHWA's R&T activities. First, FHWA needs to make the case for highway R&T activities in general, and then for a specific FHWA role in highway R&T. This includes showing how R&T activities support the agency's strategic goals. This effort requires telling the R&T story–defining the essential elements of the R&T story and developing a communications plan which identifies target audiences and the best means of communication to reach those audiences.

The Amount of funding required in FY 2002: $250,000 (STR)

Program: Research and Technology Strategic Planning

Focus Areas and Major Activities	FY 2001 Budget ($000)	FY 2002 Request ($000)
FHWA Support of Strategic Planning for Research and Technology (R&T)	$389	$500

Performance Measures **$560,000 (STR)**

Performance Measures for FHWA's Strategic Plan

The development and use of performance measures for FHWA will be of value to managers, sponsoring organizations, partners and stakeholders, as well as fulfilling GPRA reporting requirements. Although some performance indicators were included in the FHWA strategic plan, and others have been developed and reported to management in the FHWA business results reports, considerable work remains. This includes developing key agency process measures to assess our organizational effectiveness, identifying core customer satisfaction measures for major programs and activities, and working with our State DOT partners to identify partner performance measures.

A conceptual framework has yet to be out in place for measuring the effectiveness of FHWA R&T expenditures. This activity is integral to assessing how R&T programs contribute to successful achievement of the agency's strategic goals. Measuring the contributions of R&T to the achievement of the agency's strategic goals poses a special challenge. R&T is generally a component of broader programs directed toward achieving the goals. Ultimate realization of those goals, however, depends in large part on many factors that can be distant from the underlying research. Implementation of research results often take considerable time. Further, in the highways field, Federal activities are generally only a part-often a small part-- of achieving outcomes. Much of the responsibility for implementation falls to the private sector and state and local government. Moreover, final consequences are determined largely by actions and choices of transportation system users, providers and other affected parties.

The difficulty of linking R&T to specific outcomes does not preclude the application of performance measures to FHWA R&T programs or the incorporation of R&T into the broader framework of the Strategic Plan Likewise, it does not prevent meaningful consideration of the real or potential contribution of specific research to future accomplishments. The definition and attainment of performance measures for future years will benefit from well-designed and implemented research activities that increase understanding of issues and challenges, provide the foundation for solutions, demonstrate benefits, and generally support implementation of successful innovations.

If we receive the level of funding requested in FY01,the strategic assessment framework for evaluating R&T contributions should be in place by FY 2002 with goal owners developing and applying performance measures to assess the contribution of R&T activities to their strategic goals. In which case, the FY0 funds would be used to complete implementation, coordinate data collection, and conduct an overall assessment of the approach. If the level of funding is reduced, FY02 funds would be used to put performance measures in place.

The Amount of funding required in FY 2002: $560,000 (STR)

Program: Performance Measures

Focus Area or Major Activity	FY 2001 Budget ($000)	FY 2002 Request ($000)
Performance Measures for FHWA Strategic Plan	$1,489	$560

FY 2002 R&T Program Funds:Training&Education				
(Dollars in Thousands $000)				
Line Item	PROGRAM (Str. Goal) / Priority Area	STR	TDIPP	Totals
Training and Education		$19,000	$0	$19,000
	National Highway Institute	$7,000	$0	$7,000
	Local Technical Assistance Program	$10,000	$0	$10,000
	Eisenhower Transportation Fellowship Program	$2,000	$0	$2,000

Program Title: National Highway Institute (NHI)

Amount Requested for FY 2002: $7,000,000

SUPPORT OF FHWA STRATEGIC GOALS

The National Highway Institute (NHI) supports the FHWA Strategic Goals of Mobility, Safety, and Human and Natural Environment through courses which present the latest technologies and best practices in structures, hydraulics, pavements, geotechnical, traffic operations, Intelligent Transportation Systems (ITS), safety, civil rights, planning, right-of-way, and environment

GOALS

NHI offers education, training, and technology transfer programs addressed to transportation employees at all levels of the Federal, State, and local government; U.S. industry, and the international transportation community. The vision of the NHI is to use modern instructional techniques to provide high quality training in state-of-the-practice transportation technology that customers will find to be affordable, convenient, and timely.

TRAINING AND EDUCATION

Background and Objectives

The demand for NHI education and training is expanding as transportation is entering a period of profound change caused primarily by two major underlying influences. First, the operating environment in which transportation professionals will be performing in the TEA-21 era is changing rapidly. Reinventing government has led to a reduction in the total number of transportation professionals in the public sector. The State and local governments are maximizing the participation of the private sector in the implementation and operation of transportation systems. As traditional public sector functions are being transferred to the private sector, it is imperative that the NHI be prepared to educate and train the members of the private sector who will be carrying out these new responsibilities. Second, advancements in technology are consequentially affecting the implementation, maintenance, and operation of transportation systems. Initiatives, such as ITS and Superpave, are making complex technologies available at a remarkable rate to resolve current and future transportation problems. To offer training which is timely and "closes the gap" between the state of the art and the state of the practice, the NHI must speed the development of these new technologies into courses

The NHI averages around 500 presentations of 95 courses to 16,000 participants per year. The courses cover topics such as pavement construction and rehabilitation, bridge inspection and scour evaluation, removal and containment of lead-based paint from highway structures, seismic design and retrofitting of bridges, congestion management, techniques for pavement design and construction, environmental regulations, work zone safety, Intelligent Transportation Systems (ITS), transportation planning, railroad grade crossing safety, and safety features to minimize injuries and fatalities

Expected FY 2002 Products and Milestones

•Conduct presentations of training courses that will contribute to the following FHWA Performance Goals: reduce the number and severity of highway accidents, reduce highway users' exposure to deficient bridges on the National Highway System (NHS), increase the percentage of mileage of pavements in good condition on the NHS, reduce the growth of traffic congestion on the NHS, and protect and enhance the natural and human environment affected by the Federal-aid highway program.

•Develop and conduct courses in these high priority areas: ITS, Superpave, nondestructive testing, work zone safety, retroreflectivity of signs, quality assessment of management systems, improving safety information resources, structural composites and adhesives, recycling highway materials, and condition-responsive traffic control devices

•Conduct presentations that promote intermodalism, stimulate understanding of the cross-cutting issues, and foster the seamless interaction of the various transportation modes. Many of these presentations will be conducted jointly with other modal administrations.

•Provide a comprehensive program of courses regarding Intelligent Transportation Systems planning, design, architecture, standards, procurement, deployment, operation, maintenance and funding. Courses are aimed at both a metropolitan and rural audience.

•Provide a comprehensive program of courses addressing pavements and materials issues to train State and local transportation agency staffs. Pavements and materials represent the largest share of capital investment by public agencies.

•Provide a program of courses addressing roadway safety. The courses will be used by highway authorities to improve highway safety in their locality. The courses will aid our partners in the identification and analysis of highway accident locations and highway design, construction, and maintenance.

•Deliver a series of courses on structural foundations. These courses will aid transportation officials in averting bridge failures from natural disasters such as floods or earthquakes.

•Provide a comprehensive program of courses tailored for the private sector, including transportation contractors, consultants, and materials suppliers.

•Update all NHI courses as new technology and guidelines become available.

•Increase the number of NHI courses using distance learning technologies to reach large audiences at multiple sites. This move will allow the NHI to serve more customers, reduce delivery costs and increase revenue stream.

•Extend the customer base to new countries and conduct more training programs for the international members of the transportation community.

•Deliver over 600 presentations of 120 courses to more than 24,000 participants.

FY 2002 PROGRAM REQUEST **$7,000,000**

New Initiatives

•Operate and maintain an Advanced Computer Classroom using the latest technologies.

•Provide a program to develop leadership skills in State and local transportation agencies.
•Develop alternative means of collecting revenues for courses, including e-commerce.
•Continue to expand the definition of NHI by partnering with other modes and outside organizations.
•Develop, apply and institutionalize a mechanism enabling NHI to develop a stronger relationship with its customers.

Instructor Development—The objective is to deliver instructor development courses throughout the country. Involvement in course delivery is a recognized professional development activity. One of the agency goals is to increase the number of FHWA instructors teaching NHI courses. As part of the development of instructors, NHI will also certify new and existing instructors and anticipates having 90 percent of FHWA instructors who teach 6 or more times per year certified by 2002.

Leadership and Workforce Development—We will develop a series of courses to prepare the next generation of state and local transportation agency managers to focus on business and leadership skills.

Distance Learning—Distance learning techniques are becoming more readily available to the general public at a reasonable cost. These techniques make use of media such as computers, Internet, CD-ROMs, television, satellite broadcast technologies, and audio and videotapes and are substantially increasing the capability to deliver education and training. One distance learning method alone, the broadcast of courses by satellite to large audiences at multiple sites, is opening NHI education and training to thousands of new customers in the Federal, State, and local government, private sector, regional, State and metropolitan planning organizations, and the international community. Many of these groups heretofore could not afford the costs of the traditional NHI classroom course, including travel costs. Another important value-added feature of these modern instructional techniques is the significant reduction in classroom time, which in itself is a cost savings.

Training and Information Technology Support—The objective is to improve instructional design support for NHI courses through employing expertise in adult education design, instruction, and techniques; to increase software support to aid in the management of information for course scheduling and for performance measurement; and to provide needed support for local area network and web site.

Program. National Highway Institute

Focus Areas and Major Activities	Budget Request FY 2002 ($000)	Future Year Estimates		
		FY 2003*	FY 2004*	FY 2005*
Training and Education	$5,500	$6,500	$6,500	$6,500
Instructor Development	$100	$100	$100	$100
Leadership & Workforce Development	$50	$50	$50	$50
Distance Learning	$750	$750	$750	$750
Training and Information Technology Support	$600	$600	$600	$600
Totals	$7,000	$8,000	$8,000	$8,000

*Estimates for planning purposes only.

RELATED PROGRAMS: Local Technical Assistance Program

RESOURCE SUMMARY ($000)

Contract Authority	FY 1998 Enacted	FY 1999 Enacted	FY 2000 Requested	FY 2001 Budget	FY 2002 Request
Contracts	$4,400	$5,400	$5,400	$6,400	$6,400
Contractor Support Services	$600	$600	$600	$600	$600
Other Costs	$0	$0	$0	$0	$0
Total	$5,000	$6,000	$6,000	$7,000	$7,000

Contact: Professional Development Service Business Unit, HPD-1 Phone: 703/235-0500

Program Title: Local Technical Assistance Program
Amount Requested for FY 2002: $10,000,000

SUPPORT OF FHWA STRATEGIC GOALS

The Local Technical Assistance Program (LTAP) supports the full spectrum of FHWA's strategic goals by providing funding support to technology transfer centers serving local jurisdictions in all 50 States, Puerto Rico, and regional centers serving Native American tribal governments. These centers provide training, publications, newsletters, videotapes, and other material to local jurisdictions nationwide on all topics relevant to transportation on the local level and on tribal property. The return on the investment comes from the acceleration of learning among transportation staff serving local jurisdictions, resulting in increased knowledge about safety; infrastructure preservation and renewal; technologies and techniques that create economic efficiencies in the construction and operations of transportation facilities, and the effects of transportation on the human and natural environment

GOALS:

For over 38,000 local cities, towns, counties, and tribal governments, the Local Technical Assistance Program (LTAP) is the primary source for information on new transportation technologies, training, and technical assistance. Local transportation agencies are responsible for almost 70 percent of all public road mileage (2.9 million miles–1.3 million paved, and 1.6 million unpaved–with over 290,000 bridges) and expend over $30 billion annually to maintain their infrastructure. Most local road agencies are managed by individuals who have practical experience but little formal technical education or training. The LTAP assists them in maintaining and improving transportation infrastructure and services with the latest technology and information available pertinent to their specific situations.

Transferring technology to local transportation agencies and American Indian Tribal governments and the programs and activities under LTAP help fulfill the Secretary of Transportation's initiatives. Each year, more than 85,000 local transportation agency personnel receive training and technical assistance to help them maintain their roads, streets, and bridges. Such efforts assist local and tribal governments in gaining well-trained and motivated staffs, resulting in an improved transportation network that sustains rural economies.

Background and Objectives

Through the LTAP, the FHWA identifies and assesses innovative research results, technology, and products and facilitates the application of those that are determined to be of potential benefit to the local transportation community. The program's technical assistance efforts encompass a broad range of subject areas. Traditional transportation management issues addressed by the program cover road surfaces, construction and maintenance, and planning and project selection for American Indian tribes. In addition, safety, bridge, and road surface management systems are other areas that allow jurisdictions to increase serviceability of their transportation networks through better planning and maintenance of the network. Non-traditional transportation issues addressed include tourism and recreational travel

The delivery of technology transfer through training, product development, and the distribution of information from the FHWA make up the primary focus of the program. This (and other delivery elements of the program) is accomplished through a national network of 57 technology transfer centers–one in each State and Puerto Rico, plus six that serve the more specialized needs of tribal governments. One of the most important elements of the LTAP is that each center, although required to follow FHWA guidelines, has the flexibility to tailor its program to the needs of the local customers

In addition to improved knowledge, skills and abilities, workers completing the training have higher self-esteem, more confidence in their abilities, higher morale, and improved attitude toward their responsibilities. In turn, the local transportation agency sees fewer absences, a skilled workforce, and greater productivity

Training and adoption of new technologies at the local level pays off with estimated annual savings of about $55 million, a program benefit return of $8 for $1 spent.

Status

The LTAP is the FHWA's most direct method form moving innovative technologies out of the lab, off of the shelf, and into the hands of those who maintain our Nation's local, rural, and tribal streets and roads. The LTAP, which started in 1982, is currently recognized nationwide, as well as worldwide, for its expertise and accomplishments in the area of transportation technology transfer. The LTAP recently developed a long-range Strategic Plan and is embarked on major set initiatives including bench-marking and development of performance measures to help improve the value and effectiveness of the program.

Expected FY 2002 Products and Milestones

•LTAP will continue the implementation of measurement and evaluation methods to document the benefits of the program to the local and tribal governments and the taxpayers
•LTAP will be providing services to 75% of local and tribal governments having transportation responsibilities
•The LTAP will continue to expand and strengthen partnership agreements, increasing partners' involvement in providing training, technical assistance and technology transfer to local and tribal transportation providers

FY 2002 PROGRAM REQUEST: $10,000,000

LTAP Center Funding

Funding provided through contract authority is used to fund the 57 LTAP Centers. For FY 2002, it is our intent to provide $140,000 for each of the 57 Centers (57 Centers @ $140,000 = $7,980,000). This figure depends upon the amount of obligation authority received in FY 2002. Our prime funding objective is the LTAP Centers.

Technical Assistance and Products for Locals

In addition to supporting LTAP Center operations, contract authority funds are used to develop transportation technology transfer products for locals. These products include complete training packages, field guides, seminars, etc. that complement the Agency's national mission. These products and initiatives under this heading will be jointly developed by the LTAP Centers. The decision on which products to develop will be made jointly by the Centers and the FHWA based upon the needs of the customers.

Ongoing Activities

Continuation of Societal Benefits – The LTAP Centers continue to provide training and information on:

•The Americans with Disabilities Act–ensuring physically disadvantaged individuals access to mobility and a better quality of life.
•Commercial Driver Licensing–assisting local agencies with training their drivers, improving driver operating skills and safety, and saving their jobs.
•The Governor's Highway Safety Representatives–assisting local efforts to make the travel way safer for the public
•Tourism and Recreational Travel– providing transportation-related assistance in promoting local economic development on access and mobility.
•Work Zone Traffic Control
•Operational Improvements in local communities

Continuing to develop Partnerships with Stakeholders– The LTAP is a partnership effort with funding provided from Federal, State and local agency resources as well as universities and the private sector. There is an ongoing outreach effort to work cooperatively with other national associations and groups that share an interest in helping local transportation agencies to maintain and improve their infrastructure. This often involves providing funds for joint product development, sharing of technical resource personnel and sponsorship of meetings, expositions, and congresses to promote new technology. Our partners include the American Association of State Highway and Transportation Officials, National Association of County Engineers, American Public Works Association, U.S. Department of Interior's Bureau of Indian Affairs, Intertribal Transportation Association, National Highway Traffic Safety Administration, Environmental Protection Agency, US Army Corps of Engineers, Rural Technical Assistance Program of the Federal Transit Administration, Federal Motor Carrier Safety Administration, Economic Communities/Empowerment Zones, and the Agriculture Extension Service Programs of the US Department of Agriculture.

An important partnering activity is that with the American Public Works Association which operates the LTAP Technology Transfer Clearinghouse. Funded under contract with FHWA, the Clearinghouse assists the LTAP Technology Transfer Centers.

Development of Innovative Training and Reference Materials: The FHWA will continue converting LTAP reference materials to CD-ROM format. The emphasis on maintaining an up-to-date, useful and effective LTAP webpage will continue. More assistance will be given to the Centers in providing training through distance learning technologies such as Internet and satellite access.

Continuation of Societal Benefits: A major LTAP objective is to assist local agencies to "serve the broader social goals of the nation and to enhance our economic competitiveness."

Continuation of Developing Partnerships with Stakeholders: The program is a partnership effort with funding provided from Federal, State, and local and tribal agency resources as well as universities and the private sector.

Program: Local Technical Assistance Program

Focus Areas and Major Activities	Budget Request FY 2002 ($000)	Future Year Estimates		
		FY 2003*	FY 2004*	FY 2005*
Fund the operation of LTAP Centers (includes base level of funding for State and Tribal LTAP centers).	$8,000			
Technical Assistance and Products for Locals [1]	$2,000			
Totals	$10,000	$10,000	$10,000	$12,000

[1] The LTAP is organized in a series of integrated subject areas under which there are a variety of projects.

RESOURCE SUMMARY ($000)

Contract Authority	FY 1998 Enacted	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Budget	FY 2002 Request
LTAP Center Operation		$5,033	$6,555	$7,555	$8,555
Products for Locals & Tech Assist.					
Contractor Support Services		$539	$798	$798	$798
Personnel		$415	$413	$413	$413
Other Costs		$120	$138	$138	$138
		$74	$96	$96	$96
Total	$6,000	$6,181	$8,000	$9,000	$10,000

Contact: Professional Development Service Business Unit, HPD-1, Phone: 703/235-0500

Program Title: Dwight David Eisenhower Transportation Fellowship Program

Amount Requested for FY 2002: $2,000,000

SUPPORT OF FHWA STRATEGIC GOALS

The Dwight David Eisenhower Transportation Fellowship Program supports the full spectrum of FHWA's strategic goals by providing opportunity for high performing students and faculty to perform research on various transportation topics. Through these fellowships, students and faculty are also given the opportunity to spend time in Federal laboratories working with transportation experts. The return on the investment comes from the results of research performed by these students and faculty, advancing the state of the art in safety, infrastructure preservation and renewal, technologies and techniques that create economic efficiencies in the construction and operations of transportation facilities; and the effects of transportation on the human and natural environment

GOALS:

The goal of the Dwight David Eisenhower Transportation Fellowship Program (DDETFP) is to attract the best and brightest minds to transportation-related careers. Students are exposed to academic experiences and career opportunities in the transportation industry.

EISENHOWER FELLOWSHIP PROGRAM

Background and Objectives

DDETFP was established in 1991 by ISTEA and incorporated the existing Grants for Research Fellowship (GRF) Program. In 1998, the DDETFP was reauthorized under TEA-21. Currently, the DDETFP awards some 125 student and faculty fellowships annually. Fellowship award categories include Grants for Research Fellowships, Graduate Fellowships (GRAD), Faculty Fellowships (FF), Historically Black Colleges and Universities (HBCU) Fellowships, Hispanic-Serving Institutions (HSI) Fellowships, and Tribal Colleges Fellowships (TCF). The fellowship program offers students opportunities for research in transportation-related disciplines while striving to both attract and retain talent for the transportation workforce of the 21st century.

Expected FY 2002 Products and Milestones

•Improve dissemination of information by providing online applications and programmatic information in order to better facilitate and streamline the various aspects of the Dwight David Eisenhower Transportation Fellowship Program.

•Documentation and distribution of information on "success stories," individuals who have passed through the DDETFP and are making a contribution in the transportation field

FY 2002 PROGRAM REQUEST: $2,000,000

New Initiatives

- Establish partnerships with universities, officials and agencies within FHWA, DOT, State Highway Agencies, transportation and private sector organizations to expand funding opportunities for students who are involved in transportation-related disciplines
- Increase the number of participating Tribal Colleges

Ongoing Activities

- Providing funding opportunities for students and faculty to pursue their academic interests in transportation-related disciplines.

- Providing advisory, technical assistance, technology transfer, and outreach to other academic programs:
  - The National Summer Transportation Institute (NSTI)
  - Summer Transportation Program for Diverse Groups (STIPDG)
  - University Transportation Centers Program (UTCP).
- Identifying internship opportunities for university students with FHWA, other DOT modes, private sector organizations, educational institutions, and other federal agencies.

Program: Eisenhower Transportation Fellowship Program

Focus Areas and Major Activities	Budget Request FY 2002 ($000)	Future Year Estimates		
		FY 2003*	FY 2004*	FY 2005*
Eisenhower Transportation Fellowship Program	$2,000	$2,000	$2,000	$2,000
Totals	$2,000	$2,000	$2,000	$2,000

*Estimates for planning purposes only.

RELATED PROGRAMS: University Transportation Centers Program (UTCP), National Summer Transportation Institute (NSTI), Summer Transportation Internship Program for Diverse Groups (STIPDG), and the Garrett A. Morgan Technology and Transportation Futures Program.

RESOURCE SUMMARY ($000)

Contract Authority	FY 98 Enacted	FY 99 Enacted	FY 00 Enacted	FY 01 Budget	FY 2002 Request
Contracts	$2,000	$2,000	$2,000	$2,000	$2,000
Contractor Support Services	$0	$0	$0	$0	$0
Other Costs	$0	$0	$0	$0	$0
Total	$2,000	$2,000	$2,000	$2,000	$2,000

Contact: Professional Development Service Business Unit, HPD-1 Phone: 703/235-0500

Program Title: University Transportation Research

Amount Requested for FY 2002: $26,500,000

SUPPORT OF FHWA STRATEGIC GOALS

The University Transportation Research program supports the full spectrum of FHWA's strategic goals by providing funding support to selected university centers, who use the support to perform advanced research on various transportation topics. The return on the investment comes from the results of research performed at these centers advancing the state of the art in safety; infrastructure preservation and renewal; technologies and techniques that create economic efficiencies in the construction and operations of transportation facilities; and the effects of transportation on the human and natural environment.

GOALS:

- To provide interdisciplinary education for tomorrow's professionals and to advance the skill of today's professionals for all modes of transportation.

- To address current and future transportation challenges and issues through interdisciplinary applied and basic transportation research covering all modes of transportation

- To disseminate research results through carefully planned programs of technology transfer.

This program is administered by the Research and Special Programs Administration on behalf of the Federal Highway Administration and the Federal Transit Administration.

FY 2002 PROGRAM REQUEST: $26,500,000

New Initiatives
- Competition of 17 institutions for 10 grants.

Ongoing Activities
- Continued engagement in transportation research related to the theme of the particular UTC.
- Dissemination of research results.
- The provision of opportunities for students to engage in research.
- The granting of formal degrees in transportation.

Program: University Transportation Research

Focus Areas and Major Activities	Budget Request FY 2002 ($000)	Future Year Estimates		
		FY 2003*	FY 2004*	FY 2005*
University Transportation Centers Program	$26,500	$26,500	$26,500	$26,500
Totals	$26,500	$26,500	$26,500	$26,500

*Estimates for planning purposes only.

RESOURCE SUMMARY ($000)

Contract Authority	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Budget	FY 2002 Request
Contracts	$25,650	$27,250	$23,900	$26,500
Contractor Support Services	$0	$0	$0	$0
Other Costs	$0	$0	$0	$0
Total	$25,650	$27,250	$23,900	$26,500

Contact: Professional Development Service Business Unit, HPD-1, Phone 703/235-0500

JUSTIFICATION:FHWA FY 2002 REVENUE ALIGNED BUDGET AUTHORITY (RABA) REQUEST for R&T

	$20,704,146
Surface Transportation Research	**$12,673,447**
Technology Deployment	**5,646,585**
Training and Education	**2,384,114**

Surface Transportation Research - Additional Needs (by Strategic Goal) **$12,673,447**

Background: The Surface Transportation Research program addresses all phases of transportation research, development, planning and technology transfer including activities covering the broad areas of safety, design, construction, maintenance, planning, environment, operations and policy. In advancing innovative technology in these areas, the STR program also includes test and evaluation activities for new designs, materials, equipment, etc. necessary to achieve this end.

MOBILITY **$5,080,000**
Pavements $2,540,000

•Implementation and technical support for the Superpave mix design system
•Measurement of pavement ride quality/smoothness
•Data collection, analysis initiatives, and product delivery for LTPP Program
•Development of performance-related specification systems for AC and PCC pavements
•Development of guidelines for the selection of materials and concrete mixture designs to meet job-specific needs
•Investigation into new techniques to analyze, image, and simulate asphalt pavements
•Support for the development of the 2002 Pavement Design Guide

Structures $1,580,000

•Efforts to advance non-destructive testing capabilities for condition assessment of highway bridges
•Evaluation and implementation of high performance materials for bridges
•Increasing the corrosion protection of steel reinforcement
•Analysis of bridge scour mitigation technologies
•Development of micropile excavation techniques and soil mixing design guidance

Asset Management $480,000

•Development of tools to assist in performing strategic investment analysis
•Support for the development of an AASHTO Guide on Asset Management
•Efforts to develop and implement management systems for various infrastructure components
•Development of innovative preservation techniques and strategies
•Develop advanced methodologies and technologies to understand, define, and optimize the interaction between heavy vehicles, climate, and pavements.

•Policy Analysis & System Monitoring $480,000

•HPMS Data System
•Research Cooperation with International Agencies
•Investment / Performance Analysis
•Emerging Issues

SAFETY **$1,580,000**
Run-off-road crashes $475,000

•policy guidance on treating trees and utility poles
•better roadside design guidance to reduce rollover crashes
•development and application of more effective concrete barrier and guardrails and (roadside hardware)

Pedestrians and bicyclist safety $475,000
•improved design and operational guidance on rumble strips and non-traditional intersections, e g., roundabouts
•translating research results into design guidelines

Engineering-Traffic Operations and Design $315,000

•enhanced visibility: systems analyses in conjunction with market assessments of UV-fluorescent and other emerging technologies to determine if and how enhanced visibility systems can become a reality
•improved design and operational guidance on the following safety issues: intersections, head-on collisions two-lane rural highways, access management
•development and application of guidance on the effective minimum levels of retroreflectivity for signs and pavement markings in all weather conditions
•development of improved methodology for evaluating the effect on safety of differential speed limits

Safety management $315,000

•research on data support systems to produce better crash location information, better quality and consistency of data on driver inattention, and better information on crash causation
•development of analysis tools to support incorporation of safety into the planning process
•website enhancements to provide up-to-date safety information to the public, industry, and governmental entities

(Note: An overall objective is to support the AASHTO Strategic Highway Safety Plan implementation. Motor Carrier-related research is included elsewhere in US DOT budget.)

PRODUCTIVITY **$3,175,000**
Operations & Mobility $3,175,000

•Expand initiatives to develop performance measures of the surface transportation systems' operation to provide information and benchmarks for State and local transportation officials on the impacts of alternative strategies to address growing congestion and delays.
•Enhance the development of analysis tools, training, and technical assistance on effective work zone operations to reduce their impacts on congestion and delays.
•Improve State and local traffic management and operations, weather response and incident management through development of improved technology and a coordinated program of technical guidance and assistance and best practices and training.
•Expand and enhance mutli-state freight and trade institutional initiatives to leverage private investment and cooperation

(Note: ITS program needs are included elsewhere in the US DOT budget.)

HUMAN and NATURAL ENVIRONMENT **$2,865,000**
Planning & Environment $2,865,000

•Continue critical air quality research
•Conduct research to improve software used to predict highway noise
•Develop tools and techniques to assess the social and economic impacts of transportation
•Develop tools and methodologies and best practices for integrating bicycle and pedestrian as well as cultural, historic, archeological and scenic resources into the transportation planning process.
•Develop case studies and best practices for improving the quality of public real property acquisition and relocation activities.
•Conduct evaluation of the Corridors and Borders Program
•Transportation, Communities and System Preservation Pilot Program evaluation
•Develop tools and techniques for integration of Environmental Streamlining/National Environmental Protection Act (NEPA) into the transportation and environmental decision making processes.
•Identify improved analytic techniques for tracking and quantifying Global Climate Change
•Develop tools, techniques and best practices for estimating, forecasting and assessing changes in transportation system performance and for integrating safety into the transportation planning process.
•Develop best practices for Rural Transportation/Appalachian and Delta Initiatives
•Develop case studies, best practices and performance measures for assessing transportation impacts on livability.

Technology Deployment - Additional Needs (support STR Categories/Goals)	**$5,600,000**

Background: In cooperation with representatives of the transportation community- the States, local governments, the private sector, and academia, FHWA's technology deployment program makes use of domestic and international initiatives and strategies to provide technical assistance by sharing information and innovative technology.

MOBILITY	**$2,240,000**
Pavements	$1,120,000
Structures	$700,000
Asset Management	$210,000
Policy Analysis & System Monitoring	$210,000
SAFETY	**$700,000**
Run-off-road crashes	$210,000
Pedestrians and bicyclist safety	$210,000
Engineering-Traffic Operations and Design	$140,000
Safety management	$140,000
PRODUCTIVITY	**$1,400,000**
Freight and traffic management technologies	$1,400,000
HUMAN and NATURAL ENVIRONMENT	**$1,260,000**
Planning & Environment	$1,260,000

Training and Education - Additional Needs **$2,400,000**

Background: The National Highway Institute (NHI) offers education, training, and technology transfer programs to transportation employees at all levels of Federal, State and local governments, industry and the international transportation community. NHI's vision is to utilize modern instructional techniques to provide customers with high quality training in state-of-the- practice technology that is timely, affordable and convenient.

Local Technology Assistance Program (LTAP)	**$1,350,000**
National Highway Institute (NHI)	**$1,050,000**

- Adapt applicable NHI courses for presentation to Local and tribal units of government We estimate that in FY 2002, 21 courses will be adapted.
- Marketing effort to deliver courses to an expanded customer base -- this activity will introduce new audiences to the training services available from the NHI.
- Additional travel support for the adaptation and piloting of new and existing NHI courses.
- Increased efforts to provide Instructor development at the Resource Centers and Division Offices
- Development of new course material for introduction of new technology and procedures to the Tribal and Local Governments not typically reached by NHI programs
- Development of the ability to deliver training via distance learning techniques to reach broader audiences.

University Transportation Research

Justification for RABA increase: $3,325,211

The University Transportation Research Program continues to provide important benefits in the education of future transportation professionals, the development of applied and basic transportation research, and the dissemination of research through programs for technology transfer. The primary focus for the program has been transportation research. There is a tremendous need to develop more dynamic and effective mechanisms for technology transfer of university transportation research to the highway community. Emerging technologies can provide a tremendous benefit in meeting the challenge to provide a safe, efficient and effective transportation system. The additional funding will help support improved technology transfer processes which will facilitate the movement of newly developed technologies into the hands of those who need it. This will significantly enhance the contribution made by the university research program makes to transportation.

A second important need is to help assure the education and development of future transportation professionals. The University Transportation Research Program is an important component in developing the professional transportation workforce. The ability of the workforce to deliver a transportation system necessary to support American economic, consumer and recreational needs will be significantly challenged as the post World War II generation of workers begins to retire. Competition from other industries for competent, well trained professionals as the product of our university system will further compromise the transportation community's ability to meet the growing needs for an effective transportation workforce. The University Transportation Research Program has a much greater opportunity and potential to support the workforce development effort. The additional funding will allow the program to expand and better address workforce needs.

The following programs are proposed to be funded out Sec. 104(a) (1)(A) of Title 23, which are in addition to the $317.693 million requested for the Limitation on Administrative Expenses account in FY 2002.

1.) Environmental Streamlining and Metropolitan Capacity Building* - $15.750 million
2.) Future Strategic Highway Research Program (F-SHRP) Mobilization - $.750 thousand
3.) Nationwide Differential GPS - $6.0 million
4.) Enhanced Pavement Smoothness - $1.5 million
5.) Safety R&D - $1 million

*Note: An additional $2.5 million is included within the Limitation on Administrative Expenses for Environmental Streamlining.

Environmental Streamlining and Metropolitan Capacity Building

Total Requested: $10.5 M for Environmental Streamlining (+ $2.5M from LAE)
5.25 M for Metropolitan Capacity Building
$15.75 M

Overall Rationale: These funds would advance the President's Federalism philosophy in two of the most critical areas facing the surface transportation sector: (a) environmental streamlining; and (b) metropolitan transportation planning.

In both cases, the funds would be targeted to helping state DOTs and MPOs directly, by funding:

- state streamlining pilots,
- peer-to-peer programs that enable MPOs and states to learn from each other,
- case studies that highlight leading practices across the country,
- dispute resolution programs,
- preparation of materials aimed at helping elected officials understand the issues and Federal processes facing them (including new EPA AQ standards),
- upgraded training for professional staff of states and MPOs; and
- deployment of new technical tools needed by the professional staff of MPOs and DOTs to carry out their responsibilities more effectively.

These activities would help reinforce a shift in direction from a Federal regulatory emphasis, to an emphasis on providing tools and assistance to state and local government to achieve transportation goals.

These activities would serve all of FHWA's and US DOT's strategic goals under GPRA --Safety, Mobility, Productivity, Environment, and National Security - because currently these goals are handicapped by a stagnant environmental process that slows down project delivery, and an ineffective metropolitan planning process, where technical and political capabilities are weak. By streamlining the process, and strengthening the state/local planning institutions, better projects will emerge and be advanced more quickly.

Most of the activities envisioned could be funded from FHWA's normal Research program (and will be to some extent). However, special funding is requested outside the Research program because (a) it enables the Administration and FHWA to highlight them and the underlying Federalism philosophy; (b) environmental streamlining and metropolitan planning are both recognized as critical areas needing additional attention; and (c) these activities will push the limits of "research" because of their emphasis on deployment and implementation.

Environmental Streamlining: $10,500,000 requested (+ $2.5 M from LAE)

Environmental streamlining has been identified by House and Senate committees and the transportation industry as the number one program delivery issue under TEA-21. Recently, streamlining has gained attention as a part of the solution for adding airport capacity, a top priority of Secretary Mineta's. The focus of this budget line item is to accelerate the pace of change in adopting environmental streamlining measures around the country, by providing targeted funding primarily for State level environmental streamlining initiatives.

- State, local, and regional environmental streamlining initiatives/pilots - $11,000,000. Many State DOTs, local governments, transit agencies, and metropolitan planning organizations are investigating environmental streamlining measures appropriate to their situation. They often find that implementing promising measures requires seed money over the short term to develop more advanced information systems, establish improved coordination procedures, and negotiate interagency agreements. Apportioned funds are often already committed for specific projects, rather than process improvement efforts. FHWA has provided limited research and development funding to a small number of such efforts. At current rates of change, many years are likely to go by before widespread improvements are discernable. The requested funds would be used to multiply the number of efforts implemented across the country and to share the lessons learned.

- AASHTO environmental streamlining and stewardship center - $1,000,000. AASHTO is in early stages of establishing a center of expertise in the environmental area. The center would bring the expertise of the leading practitioners to bear in providing hands-on technical assistance to State DOTs in implementing environmental streamlining and environmental stewardship concepts. The requested funds would leverage State DOT provided funds in financing the operations of this center.

- Dispute resolution system - $500,000.
Effective dispute resolution is a critical element of environmental streamlining. FHWA has been collaborating with the U.S. Institute for Environmental Conflict Resolution in the development of a multi-faceted dispute resolution system. The requested funds would focus on the deployment of the system, including a training component and the utilization of a quick response mechanism for engaging dispute resolution professionals on specific transportation projects.

- Performance evaluation - $500,000.
  Gauging progress in implementing environmental streamlining requires developing and tracking relevant performance measure and understanding the underlying reasons the noted performance levels. FHWA has compiled basic baseline information, primarily on the length of time required to advance projects; additional measures are under development. The requested funds would continue these efforts, obtaining up-to-date data to compare with our baseline information, and would allow more in-depth analysis of the reasons accounting for project delays.

Metropolitan Capacity Building Program: $5,250,000 requested.

The purpose of the Metropolitan Capacity Building Program is to improve the ability of state/local professional staffs and metropolitan planning organization (MPO) board members to deal with the myriad of issues associated with urban transportation. The funds would be used to develop and deploy targeted training courses, peer-to-peer support programs, best practices, case studies, and other tools and informational materials. Implement what's being developed with R&D funds.

We propose the following Metropolitan Capacity Building Program elements for funding:

1. ***Training and Information for MPO Board Members*** - $400,000
   In our consultations with our customers as the SDOTs, MPOs, and transit operators, training for MPO board members was continually listed as the top priority. The training will be on a number of subjects and will offered at least 24 times a year in various locations across the country. The training will be designed to recognize the time constraints, background, and needs of Board members, usually elected officials. It will be designed to be tailored to the needs of different MPOs and different Board members needs.

2. ***Technical Assistance for Transportation Professional Staff***
   Technical assistance is offered on a number of subjects ranging from techniques to proactively engage the public in the planning process to travel demand modeling. Technical assistance is offered on an as needed basis but can be more in-depth and ongoing than formal training (i.e., Atlanta on conformity and environmental justice).

   - ***Safety in the Metropolitan Planning Process*** - *$500,000*
     Forward thinking planning that incorporates safety from the onset is increasingly important if we are to reduce accidents and fatalities as our urban areas become more populated. The Office of Environment and Planning would award grants to five (5) selected MPOs to act as case studies to effectively incorporate safety into the planning process.

- ***Freight Planning in the Metropolitan Planning Process - $500,000***
  The efficient movement of goods is vital to the economies of metropolitan areas and the nation as a whole. Unfortunately, many urban areas have failed to incorporate freight issues into their mainstream planning processes and this is necessary because it can have direct effects on traffic congestion, economic development, and quality of life issues. The Office of Environment and Planning will award grants to five (5) selected MPOs to act as case studies to effectively incorporate freight issues into the metropolitan planning process.

- ***Peer-to-Peer Component - $600,000***
  The peer-to-peer component is a sub-program that provides the means for transportation professionals from one locale to visit another on a short-term basis for the purpose of gaining "peer insight" on good planning practices such as air quality conformity.

- ***Travel Model Improvement Program (TMIP) - $500,000***
  Numerous lawsuits have been filed against MPOs alleging shortcomings in their travel demand modeling capabilities. This item would focus upon getting the "state of the practice" in modeling to a higher level.

3. ***Deployment of TRANSIMS - $2,750,000***

With over $35 billion a year in Federal highway and transit funds at stake (and an even higher amount of state/local funds), state DOTs and MPOs need effective, reliable planning models to help guide their investment and operational decisions. TRANSIMS has been developed to fill that need, replacing the unsophisticated and outdated planning models currently in use. TRANSIMS technology will be completed and tested by August of 2001. However, a commercial user friendly version of TRANSIMS must be developed for nationwide deployment. Intense competition for software development labor compounded by the rigors of delivering commercial technology to a vertical market has driven up the cost for commercializing the R&D products. Funding provided by TEA 21 is adequate to cover commercialization of software and training but is no longer sufficient to cover deployment costs beyond the initial test site in Portland, Oregon and, at most, two other areas. Thus, additional funds are needed in FY02 to assist MPOs in the early deployment of TRANSIMS. The requested funds would be used for MPO data collection, staff training, installation of TRANSIMS, technical support for the use of TRANSIMS, and the transition from existing analytic techniquest to TRANSIMS. This will help upgrade MPOs capability to

adequately address issues such as the air quality conformity, the new EPA air quality standards (which are more stringent and will affect far more areas than currently), compliance with Title VI, current travel behavior such as trip chaining and peak spreading, and impacts of traffic operations improvements on regional travel patterns and air quality.

Future Strategic Highway Research Program (F-SHRP) Mobilization

Total Requested: $750,000

In the Transportation Equity Act for the 21st Century (TEA-21), Congress requested the Transportation Research Board (TRB) to conduct a study to determine the goals, research agenda and projects, administrative structure, and fiscal needs for a new strategic highway research program. In response to this request, TRB formed a committee of highway industry leaders charged to identify one or more areas where a concerted, adequately funded research effort could make a difference. The committee engaged in an extensive outreach process to gather input from throughout the highway community regarding strategic priorities and promising research approaches. The committee's report will be published in October 2001. This leaves a two-year interim before congressional action can be taken to establish a research program.

When the first Strategic Highway Research Program (SHRP) was proposed in a 1984 TRB report, a similar two-year interim was used to develop detailed work plans based on the general descriptions included in the report. This allowed the research itself to begin as soon as funding was available from the authorizing legislation. In the case of the first SHRP, the interim work was funded by the National Cooperative Highway Research Program (NCHRP) and FHWA and covered the work of an interim executive director and staff as well as seven contractors who developed the work plans under the guidance of a committee structure that included AASHTO members and other stakeholders. It is proposed that a similar approach be taken to prepare for F-SHRP, to be jointly funded by FHWA and NCHRP.

From hundreds of ideas received through the outreach process, the F-SHRP committee focused on four strategic goals that aim at providing outstanding customer service through the highway system. These goals are the following:

1. Accelerate the renewal of America's highways
2. Make a quantum leap in highway safety
3. Reduce delay for highway users
4. Meet highway demand to support the nation's economic and social goals

The objective of the interim work would be to produce work plans, which implement Committee recommendations, to allow requests for proposals (RFPs) to perform the research to be issued as soon as funding is available. Development of the work plans would be performed by contractors with specific technical expertise appropriate to each research topic. In general, the interim work will include tasks such as the following:

1. Perform in depth search of relevant efforts in the US and abroad.
2. Develop detailed "roadmaps" of the research projects necessary to achieve the objectives identified by the F-SHRP report for each topic area.
3. Hold a national workshop with experts and stakeholders to obtain input on concepts, criteria, and general content of the research design.
4. Develop detailed descriptions of the research projects, including the tasks, level of effort, required resources, schedule, and budget.

Cost Estimate

The interim work described above would require the following resources and estimated funding over a two-year period:

1 Contractor for each of 4 research topic areas at $250,000 each and $200,000 for additional consultants, if needed, plus G&A Note: No contracts are included for an interim executive director or integration activities.	$1,300,000
Committees/Travel/Meetings "Executive" committee of 15 persons meeting up to three times per year 4 research panels of 25 persons meeting up to four times per year 4 workshops of 50 persons each (budget to pay for 10 trips per workshop)	$1,000,000
Staff	$700,000
Total:	$3,000,000

Propose that funding be split between NCHRP and FHWA, which amount to $750,000 per year over two years for each organization.

Nationwide Differential GPS

Total Requested: $6,000,000

All modes of transportation need precise positioning information. This information must be in real time and must be accurate to permit safe control of automobiles, trucks, trains, ships, aircraft, trucks, and transit and emergency response vehicles. Intelligent Transportation Systems (ITS), such as the Road Departure Collision Warning System and the National Mayday Initiative, require a positioning system with nationwide coverage, continuity, uniformity, reliability, and integrity.

The railroad industry annually experiences about 100 collisions and other accidents which communications-based positive train control (PTC) systems would have prevented. The National Transportation Safety Board has named PTC as one of its "ten most-wanted" initiatives for national transportation safety. PTC requires a positioning system with the same attributes as are required by the ITS systems. The Federal Railroad Administration (FRA) is facilitating the deployment of PTC within the railroad industry by completing the installation of the Nationwide Differential GPS (NDGPS) network, which FRA and railroads, labor organizations, and suppliers have determined to be a prerequisite for PTC.

Funding continues the NDGPS program started in FY 1998. FY 2002 is the fifth year of the program. When the NDGPS network is completely installed, it will provide double coverage across the continental United States and single coverage across the main transportation corridor between Anchorage and Fairbanks in Alaska. In FY 2002, $6 million is needed for construction ($2,800,000) and operating and maintenance costs ($3,200,000) for the NDGPS network, which will number 26 stations at the end of FY 2002 (an increase of 3 over 2001). The total number of stations remaining to be completed or installed is 48 (at a capital cost of $32 million). When completed, the network will consist of 74 stations.

The Coast Guard's Maritime DGPS network is a fully-operational, proven system in place along the coasts and inland waterways of the US providing precise positioning service to merchant shipping, barge operators, fishermen, and recreational boaters. NDGPS is an expansion of the Maritime DGPS network to provide complete coverage of the entire land mass of the continental US. NDGPS utilizes decommissioned US Air Force Ground Wave Emergency Network (GWEN) sites, augmenting the Maritime DGPS sites, to broadcast differential corrections to the GPS satellite signals, bringing positioning accuracy to 1 to 2 meters across the entire country for transportation and other users.

Seven Federal agencies signed a Memorandum of Agreement in February, 1999, to establish their respective roles and responsibilities in implementing the program: Federal Highway Administration, Federal Railroad Administration, US Coast Guard, Office of the Secretary of

Transportation, US Air Force, US Army Corps of Engineers, and the US Department of Commerce.

The installation and implementation of NDGPS across the continental United States and Alaska is a component of the "National Intelligent Transportation Infrastructure" initiative, and is a key element in supporting the strategic goals of the Department of Transportation to improve safety and mobility. NDGPS will help reduce transportation collisions and fatalities on all surface modes, reduce travel and shipping times, increase overall transportation system throughput, and reduce transportation operating costs.

Enhanced Pavement Smoothness

Total Requested: $1,500,000

The goal of the FHWA and our State partners is to preserve, upgrade, and operate the nation's transportation physical assets to acceptable levels of condition in the most cost effective manner. This country will have neither adequate mobility nor economic growth/productivity if we fail to preserve the existing highway infrastructure worth an estimated $1 trillion dollars. The National Quality Initiative National Highway User survey indicated that pavement condition is the number one concern of the public.

To increase the percentage of the NHS at a satisfactory level of service, an owner agency must build pavement smooth initially and keep pavements smooth throughout their life cycle. To accomplish this an owner agency must take a multi-faceted approach: there must be effective decision-making at the project/treatment selection phase that will materially impact pavement smoothness; the owner agency must have effective construction specifications; there must be a way of accurately measuring smoothness level specified; and the constructors must be knowledgeable of and apply the best practices for achieving smoothness initially. The listed activities will directly impact these activities.

The requested funds will be used for the development, marketing, delivery, and deployment of pavement technologies to improve pavement durability and condition consisting of:

- Development and deployment of a pavement smoothness demonstration project to 10 States.
- Expansion of the use of pavement profile data for pavement condition assessment and evaluation, including (1) development and deployment of pavement profile viewer, and (2) development of pavement profile technology for safety and environmental response assessment.
- Development of a pavement smoothness knowledge system.
- Development of smoothness specifications for weigh-in-motion sites.
- Development and deployment of data analysis tools for effective system preservation.
- Calibration/verification of profile measuring devices, including (1) development of calibration procedures and computer programs for pavement profiling devices; (2) provision of profile equipment calibration/verification services for three years; and (3) transfer of program to private sector after initial three years for continued service.

Safety R&D

Total Requested: $1,000,000

Our overall objective is to continuously improve highway safety by focusing on priority problem areas which contribute most directly to injuries and fatalities. The FHWA shares this US DOT-level goal with the National Highway Traffic Safety Administration (NHTSA) and the Federal Motor Carrier Safety Administration (FMCSA). FHWA's safety initiatives focus on delivering a comprehensive set of products and services which address roadway characteristics (such as design, maintenance, and operational topics), which complement NHTSA's focus on driver and vehicle issues, and FMCSA's focus on heavy trucks.

This initiative would provide an additional $1,000,000 for critically-needed increases to the FHWA safety-related research and technology (R&T) program. The FHWA is developing and delivering a comprehensive set of innovations which address the types of crashes that have the largest numbers of fatalities and serious injuries. These types of crashes are single vehicle run off road crashes (15,300 fatalities annually), speed-related crashes (12,400 fatalities annually), crashes involving pedestrians (5,200 fatalities annually), and intersection crashes (8,500 fatal crashes occur at intersections or are intersection-related each year). Better ways to obtain and analyze data will also continue to be emphasized, and safety management tools will continue to be developed to assist States and local governments in identifying safety problems and evaluating the effectiveness of safety programs.

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ACTIVITY / PROJECT	($000) FY 2002 REQUEST
I. RESEARCH AND DEVELOPMENT	**$48,495**
A. TRAFFIC MANAGEMENT AND CONTROL	**5,200**
1. Pedestrian Adaptive Signal Control	600
2. TSIS Maintenance and Support	350
3. CORSIM Reengineering	1,000
4. Long Term Traffic Research (DTA, DCS. etc.)	1,000
5. Short Term Traffic Mgmt. Research/Analysis	1,500
6. TrEL Operations	600
7. Traffic Mgmt. Center Consortium	150
B. INTELLIGENT VEHICLE RESEARCH	**30,945**
1. Generation 1	21,745
a Rear-end Collision Problem Area Research	(200)
b. Rear-End Collision Warning Field Operational Test	(3,500)
c. Rear-End Collision Warning Field Test Evaluation	(400)
d Light Vehicle Road Departure Problem Area Research	(1,300)
e. Develop/Test Road Depart. Coll. Avoid Tech./Spec. Vehicles	(300)
f. Light Vehicle Road Departure Crash Avoicance Field Test	(5,000)
g Light Vehicle Road Departure Crash Avoid Field Test Eval	(1,000)
h. Lane Change Collision Problem Area Research	(200)
i. Safety Impacting Systems	(2,645)
j. Vehicle Stability Field Test and Evaluation	(1,000)
k Drowsy Driver Field Test and Evaluation	(1,000)
l Transit Field Test and Evaluation	(1,000)
m Cross Cutting	4,200
1. Societal and Institutional - Legal/Pnvacy Issues - CMV's	(100)
2. Commercial Vehicle Driver Workload Limits	(100)
3 Enabling Research Consortium	(4,000)
2 Generation 2	7,600
a. Light Vehicle Pedestrian Countermeasure Functional Req.	(1,100)
b. Road Condition Sensors	(500)
c Road Departure Warning Systems(Designs, Prototypes, etc)	(1,000)
d Vehicle-based Intersection Collision Problem Area Research	(2,600)
e. Infrastructure/Cooperative Intersection Collision Avoidance	(1,000)
f. Vehicle Stability Problem Area Research	(700)
g Cross Cutting	700
1 Performance Specifications for Communication R&D	(500)
2. Needs Assessment for Emergency Vehicle Crash Avoid	(200)
3 Program Support	1,600
a TRB Peer Review of IVI Program	(200)
b. Project Management Support	(1,000)
c National IVI Meeting	(400)

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ACTIVITY / PROJECT	($000) FY 2002 REQUEST
C. RURAL RESEARCH	**3,800**
1. Rural Safety Services Research	1,900
a. Develop and Test Hazardous Vehicle Movement Sensors	(600)
b. Devel. Human Interface and Design Guides for Coop. & Infra	(400)
c. Develop and Test Environ. Sensors for Coop. and Infra.	(200)
d. Emergency Vehicle Traffic Management	(200)
e. Public Safety Research Support	(500)
2. Rural Mobility Services Research	500
3. Rural Information and Operations Services Research	1,400
a. Uniformity of ATIS Displays and Driver Information	(450)
b. ATIS Program Goals Research	(200)
c Dev. of Traffic & Emergency Mgmt. Decision Supp. Sys.	(750)
D. ADVANCED PUBLIC TRANSIT SYSTEMS (APTS) RESEARCH	**1,000**
1. Optimizing Operations Using ITS Technologies	(1,000)
E. COMMERCIAL VEHICLE OPERATIONS RESEARCH	**6,200**
1. Safety Data Systems	4,000
2. CVISN Level 1 Deployment	1,200
a. National Technical Support	(400)
b. Peer-to-Peer Support	(300)
c. Program Support	(100)
d. Interoperability Testing	(400)
3. Safety Technology for 2010	1,000
F. INTERMODAL FREIGHT RESEARCH	**0**
G. ARCHIVED DATA USER SERVICE (ADUS) RESEARCH	**1,000**
1. Data Quality and Aggregation Research	(300)
2. Data Ownership and Privacy Research	(200)
3. Data Archiving Pilot Study	(500)
H. ENABLING RESEARCH	**350**
1. Dedicated Short Range Communications (DSRC) Spectrum Issues	(350)
II. OPERATIONAL TESTS	**11,930**
A. TRAFFIC MANAGEMENT OPERATIONAL TESTS	**1,000**
1. Adaptive Control Systems (ACS) Field Operational Test	(500)
2. Pedestrian Safety Systems Field Operational Test	(500)

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ACTIVITY / PROJECT	($000) FY 2002 REQUEST
B. RURAL OPERATIONAL TESTS	**8,450**
1. Rural Safety Services	**3,400**
a. Dispatch Data Integration	(1,200)
b First Responder Incident Mgmt. Data Interoperability	(1,200)
c. Variable Speed Limit	(1,000)
2. Rural Mobility Serv. - ITS Integ.-Rural Transit/HHS Agencies	1,000
3. Rural Information and Operations Services	**4,050**
a N11 Offset Conversion	(2,000)
b N11 Model Deployment	(750)
c Traveler Decision Support System	(650)
d. IRRIS/ITS Joint Operational Test	(500)
e. Incorp. Surface Transp Weather Req into Weather Services	(150)
C. APTS OPERATIONAL TESTS	**1,000**
1. Real Time ATIS at the Bus Stop	(1,000)
D. INTERMODAL FREIGHT OPERATIONAL TESTS	**1,480**
1. Conduct Intermodal Freight Operational Tests	(1,480)
III. EVALUATION/PROGRAM/POLICY ASSESSMENT	**7,695**
A. EVALUATIONS	**4,695**
1. Field Operational Test Evaluations	(2,410)
2 Deployment Evaluations	(1,025)
3 Special Benefits Reports	(1,260)
B. PROGRAM/POLICY ASSESSMENT	**3,000**
1. ITS Deployment Tracking	(950)
2 Program Tracking	(365)
3 Policy Assessment	(1,685)

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ACTIVITY / PROJECT	($000) FY 2002 REQUEST
IV. ARCHITECTURE AND STANDARDS	**16,130**
A. ARCHITECTURE	**5,860**
1. Architecture Maintenance	1,000
a. National ITS Architecture Maintenance	(600)
b. CVO Architecture Maintenance	(400)
2. Standards Development Support	(750)
3. Enhancements to the National ITS Architecture	1,250
a. Develop an Intermodal Freight Architecture	(500)
b. New User Service Development	(750)
4. Architecture Deployment Support	2,750
a. Workshops	(700)
b. Deployment Technical Support	(900)
c. Peer-to-Peer DOT Architecture Activities	(500)
d. Architecture Engineering Maintenance Support (JPL)	(325)
e. Architecture Tool Development/Support	(325)
5. Architecture Training (Deployment and Implementation)	(110)
B. STANDARDS	**10,270**
1. Standards Development Activities	3,195
a. Infrastructure and Safety Standards	(950)
b. Commercial Vehicle Standards	(200)
c. Transit Standards	(700)
d. Highway-Rail Intersection Standards	(200)
e. Archived Data User Service (ADUS) Standards	(170)
f. Intermodal Freight	(150)
g. Standards Technical Support	(825)
2. Testing and Interoperability	3,500
a. Standards Testing	(2,000)
b. DSRC Testing at 5.9 Ghz	(1,000)
c. Data Registration	(500)
3. Implementation Support	3,225
a. Resource Materials	(750)
b. Lessons Learned	(375)
c. Technical Assistance (Peer to Peer)	(500)
d. Training	(1,000)
e. Software Tools	(600)
4. Conformity	350
a. Federal Rulemaking Support	(200)
b. Policy Development	(150)

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ACTIVITY / PROJECT	($000) FY 2002 REQUEST
V. INTEGRATION	**11,350**
A. TECHNICAL ASSISTANCE	**5,650**
1. Direct Technical Assistance	1,800
a. Service Plan Implementation	(1,500)
b. Travel Management Peer-to-Peer	(300)
2. Technical Guidance Materials	1,000
a. ITS Guidance for Mid-size Cities (TEA-21 Earmark)	(500)
b. Small Urban Area Programs	(500)
3. Technology Transfer	2,850
a. Computer Modeling and Simulation Demo Project	(500)
b RD&T Product Implementation	(500)
c Program Peer Review	(250)
d. ITS Public Safety National Conference	(150)
e. APTS Technology Transfer	(1,000)
f Pedestrian ITS Outreach	(100)
g. Architecture Consistency Support	(250)
h. Industry Fellows	(100)
B. PLANNING/POLICY	**500**
1 ITS Investment Decision Support Tools	(250)
2 IDAS Version 3 Update	(250)
C. TRAINING	**4,000**
1. National ITS Travel Mgmt Training Initiative	3,150
a Program Delivery	(600)
b. Course Updating	(450)
c. Advanced Training Development	(1,500)
d Advanced Curriculum Development	(200)
e Program Management	(400)
2. National ITS CVO Training	850
a Advanced Safety Technology Training Initiative	650
1. Safety Technology Training Development	(400)
2. Safety Technology Training Course Delivery	(200)
3 Course Management	(50)
b. CVISN Training and Workshop Delivery to Remaining States	200
D. OUTREACH AND COMMUNICATIONS	**1,200**
1 Outreach	(150)
2. Exhibits	(200)
3. Publications	(400)
4 Electronic Dissemination	(450)

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Intelligent Transportation Systems

FY 2002 Budget Request

ACTIVITY / PROJECT	($000) FY 2002 REQUEST
VI. PROGRAM SUPPORT	9,400
A. ITS AMERICA	2,700
B. MITRETEK TECHNICAL SUPPORT	5,700
C. MISCELLANEOUS TECHNICAL SUPPORT	500
D. GENERAL PROGRAM SUPPORT	500
VII. ITS DEPLOYMENT INCENTIVES	120,000
A. ITS (METRO/RURAL) INTEGRATION	85,000
1. Great Lakes ITS Implementation	(2,000)
2. Northeast ITS Implementation	(5,000)
3. Metro Deployment	(70,200)
4. Rural ITS Deployment	(7,800)
B. CVO DEPLOYMENT	33,500
C. HAZARDOUS MATERIALS MONITORING SYSTEMS	1,500
D. TRANSLINK - TEXAS TRANSPORTATION INSTITUTE	0
GRAND TOTAL	$225,000

Intelligent Transportation Systems

FY 2002 Budget Summary

Background

The ISTEA legislation of 1991 launched a program of research and testing of intelligent transportation systems (ITS) with a charge to investigate their effectiveness in solving congestion and safety problems, operating inefficiencies in transit and commercial vehicles and in reducing the environmental impact of growing travel demand. By late 1995, early results of that research had convinced DOT that several of the technologies were technically feasible, highly cost-effective, and, if implemented in an integrated system, could form a powerful platform for managing transit and traffic systems now and supporting a series of in vehicle private products coming on line in a second generation of ITS. Thus, in January of 1996, DOT Secretary Peña set a national goal to build, within a decade, an intelligent transportation infrastructure that would support rural and metropolitan travel management and safety needs, as well as streamline the regulatory transactions associated with commercial vehicle operations within states and across our international borders.

The Transportation Efficiency Act for the 21st Century (TEA-21) recognized the need to maintain a strong research program that continues to develop and test new ITS technologies. It also launched the deployment of intelligent transportation infrastructure by expanding ITS funding eligibilities under the NHS, STP, and CMAQ programs, and the creation of the ITS Integration and Commercial Vehicle ITS Infrastructure incentive programs. In keeping with the TEA-21 framework, this budget is proposed in two parts: (1) a program of research and technology transfer activities similar to those carried out under ISTEA, albeit with a stronger emphasis on the technical support necessary to achieve integrated deployment of ITS; and (2) an incentives program that supports the integrated deployment of metropolitan, rural, and commercial vehicle ITS infrastructure.

The priorities included in this budget submission are consistent with the national transportation priorities expressed by the National Science and Technology Council (NSTC). The NSTC priorities include an emphasis on human factors, demonstrations, deployment of advanced technologies and operational concepts for smart vehicles and operators, and national intelligent transportation infrastructure; development of training; development of modeling tools; demonstration of strategies to enhance movement of people, goods, and freight through domestic and international gateways; and development of consensus technical standards. All are areas of emphasis within the ITS program and within this budget submission.

ITS Research and Deployment Support Priorities

The proposed Research and Technology Transfer (R&T) budget (everything but the deployment incentives programs) has six basic components: (1) Research and Development, including Intelligent Vehicle Initiative Research totaling $48.5 million which constitutes about 46% of the R&T budget; (2) Operational Tests totaling $12.0 million and constituting about 11% of the R&T budget; (3) Evaluation and Program/Policy Assessment in the amount of $7.7 million and 7% of the R&T budget; (4) Architecture and Standards in the amount of $16.1 million and 15% of the R&T budget; (5) Integration Support in the amount of $11.4 million and 11% of the R&T budget; and, (6) Program Support in the amount of $9.4 million and about 9% of the R&T budget. Below are highlights of each component as they are integrated into several of the major ITS programs.

Intelligent Vehicle Initiative (IVI). The IVI is focused on the supporting the USDOT and FHWA goals of improving safety by ensuring safety is not compromised by the introduction of in-vehicle systems and by facilitating the development, deployment, and evaluation of driver-assistance safety products and systems. In FY 2002 the evaluation and analysis of results from tests of four near- market IVI systems will be completed. These efforts will support the early incorporation of IVI technologies into the market place and will form the basis for the development of more advanced IVI technologies. Phase I of a first-generation rear-end collision warning system field test will be completed. Research to develop performance specifications, test procedures and evaluation methodologies for longer-term, more advanced rear-end, road departure, and intersection collision avoidance systems will continue. Field tests of road departure, vehicle stability, drowsy driver, and transit collision avoidance systems will continue. Significant human factors research will be conducted to develop effective methods of conveying hazard information to drivers, develop an improved understanding of driver workload, and assess the safety impacts of in-vehicle safety and information systems.

Rural ITS. The Rural ITS efforts are focused on supporting the USDOT and FHWA goals of improving safety, mobility, and productivity, by conducting research and operational tests of technologies that meet the needs of system operators, travelers and transporters of goods in rural areas. In FY 2002 we will continue the expansion of the Rural ITS program, particularly in the area of operational testing. We will complete funding for conversion of existing traveler information to the national N11 system and continue research and model deployment to demonstrate how N11 can best be used to meet traveler information needs. We will initiate a significant public safety research and operational test program focused on improving the delivery of emergency services. We will continue research and operational tests in the areas of transit integration, weather decision support systems, intersection crash prevention and variable speed limits. Through our Evaluation program we will independently evaluate these operational tests, documenting their costs and benefits.

Traffic Management and Control The Travel Management efforts are focused on supporting the USDOT and FHWA goals of enhancing mobility by supporting the deployment of an integrated intelligent transportation infrastructure. In FY 2002, our traffic management and control research efforts will: 1) continue long range efforts to develop the next generation of advanced traffic control systems and new dynamic traffic assignment tools; 2) conduct short term research into more immediate solutions such as adaptive signal control, improved ramp metering algorithms, and innovative surveillance strategies; 3) develop and test ITS-based traffic control systems intended to improve pedestrian safety and mobility; 4) continue development of a new traffic simulation model; 5) maintain state-of-the-art traffic testing and analysis facilities; and 6) study human fact[illegible]ssues associated with the operation of traffic management centers.

Advanced Public Transit Systems (APTS). The APTS program is focused on supporting the USDOT goal of improving mobility through the development of new technologies that will increase transit service availability and efficiency. In FY 2002 we will continue research and operational testing efforts that are directed at investigating and testing the state of the art in transit fleet management and traveler information. In addition, we will expand our APTS technology transfer efforts, to advance the state-of-the-practice in the deployment of ITS technologies by transit properties. We have increasingly integrated transit elements into our Integration support efforts. Virtually, all of these activities are now directed to both transit and highway interests, and are budgeted accordingly.

Commercial Vehicle Operations (CVO). The CVO program supports the USDOT and FHWA goals of improving safety and productivity, through the development and deployment of the Commercial Vehicle Information Systems and Networks (CVISN). In FY 2002, we expect to have completed the deployment of CVISN Level 1.0 in 15 States. We will also complete the expansion of the Safety and Fitness Electronic Records (SAFER) System and the development of a Unified Carrier Register (UCR) to support improved roadside safety inspections.We will initiate a Safety Technology for 2010 effort focused on the development of new and innovative technologies to support safety enforcement and compliance. We will provide the technical support required for widespread CVISN deployment. This includes technical guidance, technical assistance, and training in the design and implementation of CVISN and testing to insure that CVISN is implemented in a compatible and interoperable manner.

Intermodal Freight. In FY 1999 we launched a limited effort in this new program area. It supports the USDOT and FHWA goals of improving productivity, through the deployment of ITS technologies that increase the efficiency of intermodal freight movement over the nation's highways, railroads, waterways, and ports. In FY 2002 we will complete the development of an intermodal freight architecture and initiate development of intermodal standards. We will continue our operational test efforts through the initiation of an end-to-end freight tracking and tracing test that would support a seamless information structure. These efforts will be conducted in close cooperation with industry partners.

Archived Data User Service (ADUS). We will be launching this new program area in FY 2002. The ADUS program has emerged over the last several years as ITS systems have begun to be deployed in metropolitan areas across the United States. This program seeks to capture the vast amounts of data generated by these systems, format it for use by a wide range of transportation users, and study how these data can be used to improve traffic management and operations. In FY 2002 we will conduct research on data quality, data aggregation, data ownership and privacy and initiate a pilot study of the impact data archiving can have on improving traffic management decisions.

Architecture and Standards. In the Architecture and Standards programs we will maintain the existing National ITS architecture and enhance the architecture to keep it current, complete development of the initial 80 ITS standards, and complete testing of 10 additional standards (for a total of 30). We expect the policy on architecture consistency to begin taking effect in FY 2002. We will be working aggressively with both metropolitan areas and rural regions on the implementation of this policy. This support will include the development and delivery of architecture workshops, standards training courses, deployment technical support, peer-to-peer support, technical guidance and lessons learned.

ITS Deployment Support. Our Integration Support program will assist those engaged in the planning, design, implementation and operation of the integrated ITS infrastructure. In FY 2002 we expect to have 61 of the 78 largest metropolitan areas at a medium or high level of basic ITS deployment. We will begin to expand our focus to the 350 metropolitan areas affected by our new architecture consistency policy. A combination of technical guidance materials, direct technical assistance, technology transfer, and training will be used to transfer research results and best practices. A major emphasis will be placed on the use of distance learning techniques (e.g. Internet-based training) to expand the reach of these programs. Through our Evaluation and Program Assessment efforts we will continue to track our progress in deploying an integrated ITS infrastructure and in documenting the costs and benefits of ITS technologies and services.

Integrated Deployment Incentives Program. Deployment of intelligent transportation infrastructure in metropolitan and rural areas, and including CVISN, represents a new layer of infrastructure that will enable the USDOT and FHWA goals of improved safety, mobility, and productivity. This infrastructure will enhance the effective capacity needed to handle the next generation of travel demand in the United States, and enable an unprecedented level of global commerce. However, the infrastructure must be implemented as a national system, using common standards and a common architecture. Moreover, if it is implemented with common standards it will allow the development of in-vehicle products that interact with the infrastructure to provide a new level of system management capability, safety, and consumer convenience.

Surveys, policy studies, and reviews of Federal-aid expenditures all indicate that, while elements of intelligent infrastructure are being deployed, their deployment is spotty, modally and jurisdictionally isolated, and usually not compatible or interoperable from one agency to another, from one jurisdiction to another, or from one region to another. If this situation continues:

- There will be insufficient "critical mass" of deployment to create a demand for national standards -- standards are a prerequisite to national interoperability and products that interact with the infrastructure;

- Product manufacturers will not have enough confidence in the capability and sufficiency of ITS infrastructure to develop complementary products and services;

- The common communications and information network will never be created that would allow active, real-time management of metropolitan transportation systems -- across modes and jurisdictions; and

- The common regulatory system that enables trucks to move non-stop from state to state will not be developed.

In essence, the status quo will yield a patchwork of various technologies deployed over a 20 to 30 year time-frame that will generally be incapable of communicating with one another, thus posing further barriers to inter-regional and interstate commerce, rather than enhancing it. It is unlikely that sufficient integrated infrastructure will be available to yield the full safety and capacity benefits, nor to serve as a platform for private sector investment.

By contrast, through effective application of the deployment incentives programs contained in TEA-21 we will see:

- The development of integrated and interoperable systems developed using the National ITS architecture and standards;

- Sufficient integrated infrastructure in six years to yield measurable mobility, safety and productivity benefits; and

- Sufficient integrated infrastructure to see substantial investment by the private sector -- some of which will yield a public return on investment, as well as private.

The specific TEA-21 programs are:

Intelligent Transportation Systems Integration Program. The ITS Integration program of $85 million will provide funding to State and local applicants who have been competitively selected (per TEA-21 requirements) using the selection criteria contained within TEA-21. Funding will support integration (not components) of metropolitan area travel management intelligent infrastructure. It will also support the deployment of integrated intelligent infrastructure in rural areas. A minimum of 10% of the funding will be allocated to rural areas. A non-ITS funding match of 50% would be required for each project selected, with total Federal funding not to exceed 80%.

Commercial Vehicle Intelligent Transportation System Infrastructure Deployment. The Commercial Vehicle Deployment program of $33.5 million will provide funding to State applicants, who have been competitively selected, for the deployment of CVISN. This program will be focused on achieving the goal of "deployment of CVISN in the majority of States by September 30, 2003" as directed by TEA-21. This will provide for the creation of systems to facilitate electronic processing of registration, tax credentials and permits; the electronic clearance of commercial vehicles past weigh stations along highways; and the delivery of real-time safety information to roadside inspectors to more precisely target unsafe carries. A non-ITS funding match of 50% would be required for each project selected, with total Federal funding not to exceed 80%.

Program Title: RESEARCH AND DEVELOPMENT
Budget Item No:
Amount Requested for FY 2002: $48.495 MILLION

Program Title: R & D - TRAFFIC MANAGEMENT AND CONTROL
Budget Item No:
Amount Requested for FY 2002: $ 5.2 MILLION

GOALS

The traffic management and control research program supports the US DOT and FHWA goals of enhancing safety, mobility, productivity, and the human and natural environments through long-term and applied research to develop advanced tools (models, software, guidance documents) that can be used by practitioners to improve the management and control of traffic.

PERFORMANCE MEASURES

The traffic management and control research program will develop tools that, when deployed, will reduce the rate of highway-related fatalities and injuries, reduce delays on Federal-aid highways, and reduce on-road mobile source emissions.

BACKGROUND

This program is focused on continuously improving traffic management and control systems that enhance surface transportation efficiency and accommodate user needs for mobility while ultimately leading to the long term goal of dynamic control. This program will be supported by improving and expanding dynamic simulation models to predict capacity problems, by evaluating planned research projects, and by testing the strengths and weaknesses of proposed revisions to surface transportation operations programs. Advanced traffic management and control technologies contribute directly to efficiency and mobility improvements as measured by throughput and travel time. Where advanced signal control and freeway management strategies have been implemented, increases of 17-25% in vehicle throughput and decreases of 8-25% in travel time have been achieved. In addition, implementation of these systems contributes to safety goals by smoothing traffic flow, and thus reducing the number of accidents that occur. Smoothing traffic flow through management and control technologies also enhances environmental goals by reducing stopping and starting of traffic, thereby reducing emissions.

The ATMS R&D program has six primary focus areas: (1) Long Tenn Traffic Research; (2) Short Term Traffic Research; (3) Pedestrian Safety and mobility; (4) Traffic Simulation Models and Analysis Tools; (5) The Traffic Research Laboratory (TREL) and (6) Human Factors. These research areas are considered the most important core of technologies necessary for the future of the ATMS R&D.

While the long-term focus on developing is the key goal, there will be many useful research products that spin-off from this program as the goal is achieved in an iterative fashion over the next several years. These research products alone will prove to be extremely useful to the transportation community, and at the same time form the building blocks for Dynamic Control Systems.

The focus of the Long Term Traffic Research Program is the development of Dynamic Control Systems (DCS). The intent of DCS is to combine the features of adaptive signal control with improved traffic estimation and prediction capability to produce network wide signal control capability that is very responsive to changing traffic conditions. One of the key components of this program is Dynamic Traffic Assignment (DTA). The focus of the DTA research has been to develop and test prototype algorithms that estimate traffic conditions on freeways and arterials where surveillance data is limited or unavailable and predict future (i.e., one hour) traffic conditions based on possible responses to incidents.

The Short Term Traffic Research Program recognizes the need for more immediate solutions to a number of traffic control issues that do not require the sophistication of solutions such as dynamic control. This program is focused on such issues as adaptive signal control, improved ramp metering algorithms, and innovative surveillance strategies.

The Pedestrian Safety and Mobility Research Program will focus on the development and testing of ITS-based traffic control systems and strategies intended to improve the safety and mobility of all pedestrians (including people with disabilities) and bicyclists.

The Traffic Simulation models and Analysis Tools Program is focused on the off-line dynamic simulation model *Traffic Software Integrated System* (TSIS). In FY 2001, the development of a next generation traffic simulation model was initiated. The "new" CORSIM, which is the Corridor Simulation component of TSIS, will replace antiquated computer code with a modern-day computer processing platform capable of meeting the user community's needs well into the next century.

The Traffic Research Laboratory (TReL) combines advanced hardware, software and communications systems to support the research, development, analysis, testing, evaluation, and integration of transportation management systems and technologies. The TReL provides a comprehensive analysis toolbox and experimental test bed to facilitate FHWA's ATMS research and development program. TReL capabilities include isolated device testing in an off-line

environment, systems integration testing for off-line applications, and TMC operations testing for on-line emulation in time-critical applications.

The Human Factors Program focuses on the human centered aspects of traffic control. A main emphasis of this focus area is the proper operations of traffic management centers from the perspective of operators and travelers alike.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

- **Dynamic Traffic Assignment (DTA)** - The field testing of the two prototype DTA algorithms was completed and appropriate modifications were made to the algorithms based on the results of the field testing. The field tests were conducted at a traffic control center and at a metropolitan planning organization to evaluate the utility of these algorithms as both a tool for developing traffic control strategies and as a planning analysis tool.

- **Adaptive Control Systems (ACS)** - Field testing of the three ACS algorithms was completed. A total of four tests were conducted in Northern Virginia, Seattle, Chicago, and Tucson. These sites were chosen to represent the various site and traffic conditions necessary to exercise the algorithms properly.

- **Pedestrian Adaptive Signal Control** - The development of a prototype adaptive signal control algorithms was initiated. These pedestrian adaptive signal control algorithms are intended to improve the operations of signalized intersections and improve pedestrian safety based on pedestrian presence and pedestrian walking speeds.

- **Models** - The development of a prototype of a new traffic simulation model was initiated in FY'01. The new model will take all of the known logic and algorithms, including the best of old CORSIM, develop a new operating platform using modern computer platforms, and begin to transfer the logic into a new simulation model. This new simulation model will serve as the foundation for all modeling enhancements in the future. In other words, the new model will be capable of serving as a platform for simulation needs well into the next century. The existing traffic simulation suite, TSIS, was maintained and supported through this period.

- **Human Factors TMC Consortium** - TMC Consortium completed an initial series of research efforts aimed at identifying and quantifying various operational issues related to the overall operations of traffic control centers.

KEY FY 2002 PRODUCTS AND MILESTONES

Pedestrian Activated Signals - The development of a prototype adaptive signal control algorithms was completed. These pedestrian adaptive signal control algorithms are intended to improve the operations of signalized intersections and improve pedestrian safety based on pedestrian presence and pedestrian walking speeds.

CORSIM Re-Engineering - Significant progress will be made in the development of a new traffic simulation model. Overall design will be completed; simulation logic will be completed, and final coding will be initiated

Short Term Research - Several short term ITS based traffic "solutions" will be developed. These might include an integration of adaptive ramp metering with adaptive signal control systems, and traffic analysis and control strategies based on wide area surveillance.

FY 2002 PROGRAM REQUEST

1. Pedestrian Adaptive Signal Control - $600 Thousand

Signals that adapt in real time to pedestrians have the potential to dramatically reduce delay and crashes to both motorists and non-motorists. Signal timing is constrained by minimum green times and pedestrian phases which are now based on an average pedestrian walking speed. This results in minor street green phases that are quite large since they must allow for pedestrians to cross the major arterial, which tends to be wide. Currently, a minimum green time phase is cycled whether or not a pedestrian is present, causing excessive and unnecessary delay on the major arterial. Phase I determined the feasibility of pedestrian adaptive signal control systems, assessing the potential costs, delay reductions and other benefits for various implementation scenarios. Phase II will develop the algorithms for the traffic controllers to adapt to pedestrian presence and walking speeds. Various sensing technologies that can detect the presence of pedestrians, both at the curbside and within the crossing area, will determine: (1) whether or not to call for a minimum green or pedestrian walk phase; (2) the need to extend the available green for pedestrians; or (3) the opportunity to cancel the call for the green. If a pedestrian is not present or leaves, a reduced minimum green time can be used or a call to the controller can be canceled, thus eliminating unnecessary motor vehicle delay on the major arterial. Detecting slower moving pedestrians within the crossing areas and extending the green can help reduce conflicts and crashes between pedestrians and vehicles, increasing safety for all users. Phase III will field test and evaluate the benefit of traffic signals and detectors that adapt to the presence and walking speeds of pedestrians.

This is the third year of a three-year program with a total cost of $1,300,000. $100,000 is estimated for FY 2000 (Phase I); $600,000 was proposed for FY 2001 ($400,000 - Phase II, $200,000 - Phase III); and $600,000 is requested for FY 2002 (Phase III).

2. TSIS Maintenance and Support - $350 Thousand

CORSIM (CORridor SIMulation) simulates traffic and traffic control conditions on street, corridor, and freeway networks and measures operational performance. Over the years, a shell program called Traffic Software Integrated System (TSIS) has been developed to facilitate the use of CORSIM.. TSIS includes programs such as CORSIM, TRAFVU, and TRAFED to help users easily develop data decks, interpret outputs, and view the intermediate and final statistics through animation. In FY 1999, Version 4.3 was released that included many key "fixes" and enhancements made during the previous year. In FY 2000, TSIS enhancements include increased modeling and functionality to support the Simulation-based laboratory research, development, testing and evaluation of advanced ramp metering strategies, integrated corridor control strategies, and dynamic traffic assignment systems. In FY 2000, this updated version of the software will be released and will allow the user community to simulate ramp metering among other facilities. This line item is intended to provide ongoing maintenance and support to TSIS in FY 2002.

This is the fourth year of an ongoing facility operation; $1,450,00 was spent in for FY 1998; $1,375,000 was spent in FY 1999; $1,150,000 was spent in FY 2000; and $200,000 was proposed for FY 2001; $350,000 is requested for FY 2002.

3. CORSIM Reengineering - $1.0 Million

In order to respond to the new and changing needs of transportation users, there is a need for an entirely new modeling effort that will use modern-day computer processing power. While CORSIM continues to provide useful service to transportation practitioners around the country, it was developed over 15 years ago utilizing out-dated computer programming techniques. Many strides have been made in computer processing capabilities which cannot be integrated with the current CORSIM operating platform. This fact has become increasingly obvious as research done in evaluating Dynamic Traffic Assignment has proven difficult. Continued enhancements to the original CORSIM model are no longer cost effective.

The new traffic simulation model proposed here would take all of the known logic and algorithms - the best of old CORSIM, develop a new operating platform using modern computer electronics, and begin to transfer the logic into a new simulation model. This new Simulation model will serve as the foundation for all modeling enhancements in the future. In other words, the new model will be capable of serving as a platform for Simulation needs well into the next century.

This is the second year of a three year effort; $1,000,000 is proposed for FY 2001; $1,000,000 is requested for FY 2002; $1,000,000 is estimated for FY 2003

4. Long Term Traffic Research - $1.0 Million

The traffic management research program has a long range goal of developing and deploying what has been termed Dynamic Control Systems (DCS). DCS is intended to combine the real-time signal control features of Adaptive Signal Control (ACS) with the traffic estimation and prediction capabilities of Dynamic Traffic Assignment (DTA). This integration of traffic prediction with the ability to adapt signal timing in real time holds the promise of fundamentally changing the way we manage traffic in urban areas. This program would advance the development and testing of DTA and move towards the envisioned integration of DTA with ACS to develop an advanced network wide traffic control system for congested urban areas.

This is the fifth year of a multi-year program; $600,000 was spent in FY 1998; $575,000 was spent in FY 1999; $250,000 was spent in FY 2000, $350,000 is estimated for FY 2001; and $1,000,000 is requested for FY 2002.

5. Short Term Traffic Management Research/Analysis - $1.5 Million

While a major focus of the traffic research program is the long range goal of Dynamic Control Systems, there is a need to pursue the development of shorter term solutions to less complex traffic control issues. DCS is a long range initiative that will take many years to develop, test and deploy. Even when DCS is "ready for market" it will initially only be appropriate for our most congested urban areas. It is therefore necessary to devote some portion of our traffic research program towards traffic control issues that effect a wide range of jurisdictions and are more amenable to short term solutions. This project will fund the development of various traffic control tools and strategies that can be developed and deployed in the short term. These efforts will focus on incremental progress in the state-of-the-art and state-of-the-practice rather than the sort of fundamental shifts in strategy and technology that our long range program requires. The expected result, of course, is incremental improvements in traffic congestion rather than the dramatic gains that long range initiatives such as DCS promise. Candidate projects include the integration of adaptive ramp metering with adaptive signal control systems, and the development of traffic control tools and strategies that take advantage of the wide area surveillance potential of wireless phone geo-location technology.

This is the first year of a multi-year program; $1.5 Million is requested for FY 2002

6. TReL Operations - $600 Thousand

The Traffic Research Laboratory is primarily a research facility. It fundamentally supports all of the research and development conducted under the ATMS research program, including DTA, ACS and TSIS. In previous budgets, funding used to support TReL as well as other research

projects was contained within the TReL line item. Starting in FY 2001, the funding request for TReL has been solely for its operations, maintenance and upkeep, and for performing limited technical assistance. Funding for all of the other research program projects that make use of TReL as a test bed, such as DTA, ACS and TSIS, is contained within those individual, appropriate line items. This approach will allow the TReL to maintain its identity as a research test bed facility, while allowing specific research projects to pay for and use TReL as needed.

This is the fifth year of an ongoing facility operation; $1,150,000 was spent in FY 1998; $2,450,000 was spent in FY 1999; $2,650,000 was spent in FY 2000; and $700,000 was proposed for 2001; $600,000 is requested for 2002.

7. Traffic Management Center Consortium - $150 Thousand

As traffic management centers (TMC) acquire new systems and develop new methods to address growing traffic problems, questions arise as to how these systems should be integrated with each other and with existing systems. Other questions include what impact these systems will have on traffic, and how TMC operators can be effectively incorporated in the management and operations of these systems. Such issues are of national concern. For instance, an ITS America Research and Technology Advisory Group (RTAG) composed of members from several states and FHWA, has identified numerous design areas requiring additional information (March 1998). They include: surveillance and intelligence gathering; safety implications of real-time data; operations and maintenance support tools; data fusion; driver response to traffic control devices; detector malfunctions; interactions with emergency vehicles; and optimizing regional networks.

The goal of this project is to assemble a consortium composed of regional, state, and local traffic management agencies to: (1) provide technical assistance; (2) identify common problems among consortium members; (3) suggest approaches to addressing shared problems; (4) initiate and monitor research projects intended to address shared problems; (5) disseminate results; and (6) assist in solution deployment.

It is assumed that participating states will fund the activities of the TMC Consortium through the National Pooled Funds. However, the TMC Consortium funding requested here will fund the Department's membership in the consortium and disseminate consortium products. These activities will support Metropolitan Infrastructure Deployment across the 75 major metropolitan areas. Dissemination of products to non-participants will serve to encourage future participation in the consortium in addition to furthering Metropolitan ITS objectives.

This is the third year of an ongoing program; $200,000 was spent in FY 2000; $300,000 was proposed for FY 2001; $150,000 is requested for FY 2002.

Program Title: R & D - INTELLIGENT VEHICLE RESEARCH

Budget Item No.:

Amount Requested for FY 2002: $ 30.945 MILLION

GOALS

The Intelligent Vehicle Initiative's (IVI) primary focus is in support of the U.S. DOT and FHWA goals of improving safety. This program will increase traffic safety by expediting the commercial availability of advanced vehicle control and safety systems which may be augmented by interaction with the infrastructure. Secondarily, the program will seek to support the goals of improving mobility and productivity.

PERFORMANCE MEASURES

The IVI will primarily seek to reduce the rate of highway-related fatalities and injuries.

BACKGROUND

Over the last several decades, safety equipment in the vehicle such as seatbelts and air bags, improved highway design and anti-drinking-and-driving campaigns have led to major improvements in protecting people and improving overall safety. However, more than 6 million motor vehicle crashes continue to occur on our highways every year, causing approximately 5.2 million injuries and more than 41,000 fatalities, and costing more than $150 billion per year. Driver error is cited as the primary cause in about 90 percent of all police-reported crashes involving passenger vehicles, trucks and buses. Our analysis shows that the widespread deployment of advanced driver assistance systems can significantly reduce the annual number of motor vehicle crashes.

In order to achieve this, U.S. DOT has a two-part role. The first, is to ensure that safety is not comprised by the introduction of in-vehicle systems. A particular interest for the IVI is the safety impact of combining multiple systems, such as route guidance and navigation, adaptive cruise control, cellular telephones, and in-vehicle computers. We will investigate the impact that these systems may have on driver behavior by measuring any changes in the level of driver workload and distraction.

The second part of the Federal role in IVI, addresses our responsibility for reducing deaths, injuries and economic losses resulting from motor vehicle crashes. This role, which is a cornerstone of U.S. DOT's mission, will be carried out by facilitating the development, deployment and evaluation of driver-assistance safety products & systems.

The IVI is a problem based program. An analysis of crash statistics and causal factors resulted in the selection of eight problem areas of high potential payoff in safety: Rear-end collision avoidance (approx. 1.7 million police-reported light vehicle crashes/year); road departure crash avoidance (approx. 1.2 million police-reported crashes/year); intersection collision avoidance (approx. 1.9 million police-reported crashes/year); lane change, merge collision avoidance (approx. 250,000 police-reported crashes/year); vision enhancement (a significant factor in 42 percent of all vehicle crashes and additional pedestrian collisions); vehicle stability (50% of large truck driver fatalities occurs in trucks that rolled over); driver condition warning (driver fatigue is a factor in 3 to 6 percent of fatal crashes involving large trucks. Fatigue is a factor in 18% of single-vehicle, large truck fatal crashes) and safety impacting services (driver error is a contributing factor for 90 percent of vehicle crashes. The introduction of cellular telephones and traveler information systems into the vehicle may contribute to increases in driver error).

Human factors and how they relate to driver performance is a fundamental underpinning of the IVI program. Human factors studies are integrated with other types of study, such as sensor performance, to create the systems approach to vehicle-based safety improvements. The importance of the human factors studies is due in large measure to the fact that the IVI program is charged with helping find human-centered solutions to the human-centered problem of highway crashes, and resulting deaths and injuries.

As noted elsewhere, the primary emphasis of the IVI program is prevention of crashes. As the IVI program has evolved, three distinct, but related, emphases have developed. The first emphasis is on systems that can enhance safety, i.e., help drivers avoid crashes. In this part of the program there is a focused emphasis on finding advanced technology systems that effectively help drivers avoid crashes that would otherwise occur. The second emphasis is on systems that are related to safety, but do not directly contribute to changes in safety. The emphasis in this part of the program is on understanding the safety impact, i.e., the likelihood of decreasing or increasing the number of crashes and severity of crash consequences. The third area of emphasis overlaps both of the other emphases. This is the study of how combinations of more than one system affect drivers and their safety-related performance. Thus, in a simplistic way, the charter of the IVI is to find solutions to the human-centered problem of crashes on the nation's highways.

For safety-enhancing systems, the underlying concept is that a crash will occur if the system does not intervene with timely and effective advice or control of the vehicle. A major factor in the human factors work in this area is the broad variety of types of study. Some of the studies are traditional human factors experiments, i.e., those that are for the purpose of testing hypotheses about human performance by means of experiments with volunteer subjects, and other studies

that are not traditional, e.g., analysis of crash data files. This variety is best seen by looking at a typical sequence of studies that evolve during the course of seeking an understanding of the problem and a solution for the specific problem area.

- Crash data analyses that lead to basic understanding of dynamic conditions that existed prior to a crash and causal factors for crashes.
- Driving simulator or test track studies which provide basic driver performance in relevant situations using artificially activated warning times.
- Basic estimation of benefits that might accrue to use of a countermeasure system.
- Additional driving simulator or test track experiments for the purpose of refining timing and usability of warning or advisory messages.
- Additional driving simulator or test track experiments for the purpose of developing necessary and sufficient features of driver/vehicle interface.
- Naturalistic driving with no intervention for the purpose of estimating level of annoyance that countermeasures might produce and to establish a baseline distribution of relevant situations that can be used for refinement of estimates of benefits.
- Refinement of benefits estimates.
- Operational test of the most promising system(s) for the purpose of measuring effectiveness and user acceptance, as well as providing a basis for further refinement of benefits estimates.

By contrast, the underlying concept for understanding safety impacting-systems is different than the concept for safety-enhancing systems. (The concept for safety-impacting systems is that crashes will not occur unless the system causes dangerous behavior in pre-crash situations.) Thus, the human factors studies associated with safety-related systems consist of two parts. The first is a determination of changes in driver causal behavior that would produce a crash if the surrounding driving environment is inconsistent with that type of behavior. The second part is to determine if the driver chooses to use the system in situations that, when combined with the causal behavior, can produce crashes.

The mental model behind this concept for safety-related systems is that drivers interact with in-vehicle systems for one of two reasons: either there is a need to interact (for example, answering an in-vehicle phone and applying the brakes at a stop sign) or a desire on the part of the driver to interact which is independent of the external circumstances (for example, checking the speedometer, changing a CD, or dialing a cellular phone) These interactions with in-vehicle systems involve the driver activating what can be called causal behaviors (for example, applying pressure to the brake pedal, directing the driver's eyes to the system in question, or even changing mental focus from driving to another emphasis). When done in a protected environment, each causal behavior may have no effect on the safety of driving; however, when these causal behaviors occur in inappropriate driving environments, crashes can occur.

The third area of emphasis is a combination of more than one system. These studies typically follow development of understanding of individual systems and follow a similar sequence of human factors studies. A major challenge in this part of the work is to do it in a way that the results can be generalized. The ideal goal would be to establish relationships for functional descriptions of systems and their performance; however, experiments and measures of performance are for specific implementations and are not easy to generalize. For example, rules for integration are not defined and combinations of systems will occur as individual manufacturers choose to proceed with product plans. Work in this area is presently based on experiments with basic measures such as eye activity relative to baseline activities such as tuning a radio (specific implementation). The challenge is how to relate these measures to safety.

The program will address problem areas in four classes, or "platforms," of vehicles. These are light, commercial, transit, and specialty vehicles. Light vehicles are passenger vehicles, light trucks, vans, and sport utility vehicles. Commercial vehicles are heavy trucks and interstate busses. Transit vehicles include all non-rail vehicles operated by transit agencies, and specialty vehicles include emergency response, enforcement, and highway maintenance vehicles. Vehicles have been categorized into the four platforms to improve safety by focusing on the unique problems encountered in their respective environments. The inclusion of the four individual platforms will allow us to expedite the commercial availability of driver assistance systems across all platform types. Although the largest problem area is in light vehicles, we will be able to conduct field tests and quantify the benefits of some systems in the other platform areas before they are ready to be tested on light vehicles. This will give us a better understanding of the benefits and give guidance on where best to conduct future research.

This budget is organized to reflect the organization of the IVI program. There are 4 major categories of effort, Generation 0, Generation 1, Generation 2 and Program Support. Under each Generation, we have 3 types of activities, Problem Area Research, Field Testing and Cross-cutting Activities. The FY 2000 and 2001 accomplishments and the FY 2001 program request are presented in this format.

Generations

Developing solutions to the seven safety-enhancing problem areas is a highly complex undertaking. It involves determining causality, measuring driver behavior, developing performance specifications (including driver-vehicle interface) for potential countermeasures, measuring the technical performance, driver performance and user acceptance of applicable systems, estimating and validating benefits. In order to provide near term benefits, the IVI will not wait to develop the optimal solution, but will evaluate and encourage the deployment of effective systems that may only partially address the problem areas. In order to implement this incremental approach, the IVI will focus on developing generations of vehicles with increasing capabilities which address the eight problem areas. During the period covered by TEA-21, U.S.

DOT intends to support work on generations zero, one, and two. Each succeeding generation is expected to address systems with more advanced capabilities, higher levels of integration and increased infrastructure cooperation.

The effect of safety-impacting systems will require a different approach. The major concern for these type systems is that they will distract the driver from the driving task. We will develop tools and objective test procedures to measure driver behavior, driver workload and distraction. These tools will be used to study each generations safety-impacting systems.

Each generation will culminate in multi-platform *operational tests*, which will objectively evaluate improvements in safety and driver performance resulting from the integrated intelligent vehicle systems. These operational tests will be competitively awarded. They will involve multiple platform types of integrated systems. The systems evaluated must be within five years of commercial deployment. The applicants for these operational tests, who must be capable of deploying these systems, will propose the integrated systems. These operational tests will serve as a performance indicator for the IVI program by allowing us to measure the progress resulting from each generations research investment.

In preparation for each generations' operational tests, U.S. DOT will conduct *problem area research* and *field tests* in the eight problem areas. The activities undertaken in the problem area research will result in an improved understanding of technical performance required to achieve suitable levels of driver acceptance and benefits. The field tests of individual systems differ from the Generation Operational Tests in that they evaluate individual problem areas, the subject of each field test are identified by U.S. DOT based on the problem area research, the systems evaluated are longer term and not necessarily expected to be deployed within five years. As with the Generation Operational Tests, we will enter into cooperative agreements with public/private partnerships. The partners will provide significant cost share. These field tests of individual systems will be the first time these countermeasures are evaluated on real roads using real drivers.

Generation 0 Generation 0 will assess the technical performance, determine user acceptance, and measure the benefits of driver assistance systems that are expected to enter production preparation by 2003. This initial generation is intended to leverage the service development which occurred under the IVI's predecessor programs. The U.S. DOT will focus on developing the ability to meaningfully evaluate integrated services while our industry and stakeholder partners will be responsible for developing the vehicles with integrated IVI services. We will also conduct large scale driver behavior studies to allow us to better understand crash causal factors and develop driver workload measurement tools. These will be used to study Generation 0 safety-impacting systems.

Generation 1 Generation 1 is expected to address systems with more advanced capabilities, higher levels of integration and increased infrastructure cooperation. The Generation 1 activities will advance the capabilities of selected IVI problem areas. While Generation 0 focused

primarily on driver information and assistance systems, Generation 1 is expected to include advanced collision *warning* systems and possibly some early collision *avoidance* systems. Research will be conducted to improve our understanding of the technical performance and user acceptance required to achieve improved benefits. This will involve the development of advanced performance specifications and field testing of individual services. Driver-vehicle interface guidelines will be developed. Risk compensation and driver workload will be studied for safety enhancing and safety impacting systems. We will also assess the impact of service integration on technical performance and human factors issues. This will lead to the development and field testing of Generation 1 vehicles for the purpose of validating the safety benefit estimates.

Generation 2 This generation is expected to build on the accomplishments of Generation 1. The role of infrastructure and vehicle to vehicle cooperation is expected to greatly increase. True collision avoidance (not just warning) systems should begin to emerge. During FY 2001 we will conduct research in the most complex problem areas to improve our understanding of the technical performance and user acceptance required to achieve improved benefits. Improved benefits are expected from systems which achieve higher performance from advanced technology and infrastructure-vehicle cooperation. Initially, we will focus on developing advanced performance specifications. In later years we will include field testing of individual services. We will also assess the impact of service integration on technical performance and human factors issues. This will lead to the development and field testing of Generation 2 vehicles for the purpose of validating the safety benefit estimates. The human factors related issues for Generation 2 systems of driver workload and risk compensation are expected to be similar to those of Generation 1.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

GENERATION 0

Operational Test

The on road testing and data collection will be completed for the four Generation 0 operational tests which were awarded during FY 1999. These tests included:

- A collision warning system (advanced Eaton-Vorad) including closing distance warning, blind spot object warning, and adaptive cruise control will be evaluated on 50 heavy vehicles and an additional 50 vehicles will be used as a control group. The 100 test vehicles will operate in commercial service on public roads through the U.S.

- Infrastructure-assisted road hazard warning will be evaluated on 143 commercial vehicle tractors. The test vehicles will operate in commercial service on public roads throughout the Commonwealth of Virginia.

- A truck "Rollover Stability Advisor" (RSA) to warn truck drivers of potential instability will be evaluated. Six tractors coupled to tanker semi-trailers will operate in commercial service in the Midwest. Three of the tractors will be equipped with the countermeasure and three will serve as the unequipped control group. The test fleet will be dispatched and managed from LaPorte, IN, about 45 miles southeast of Chicago.

- A Specialty Vehicle Collision Warning System, using a lateral guidance system, and integrated driver vehicle interface with vision enhancement will be evaluated on a fleet of snow plows in Minnesota.

GENERATION 1

Problem Area Research

- Installation of data collection systems will be completed for a large-scale, on-road, naturalistic (people in their own cars), pre-crash driving experiment for light vehicles. This experiment is designed to gather crash and near-crash data so that event-time modeling of typical crash scenarios can be accomplished This data base will be used for effectiveness modeling of countermeasures and for scenario development for the National Advanced Driving Simulator (NADS). It is expected that the data will include all the major types of crashes: rear-end crashes, road departure, intersection, and lane change crashes.

- Off-the-shelf testing of commercially available road departure systems (sometimes called lane keeping systems) will be completed in the National Advanced Driving Simulator (NADS) in light vehicle crash situations. This data will clarify the road departure effectiveness of lane keeping systems and inform the development of objective test procedures for road departure countermeasures in preparation for an upcoming field operational test.

- Research will be initiated into developing objective test procedures for safety-impacting systems (night vision systems a voice interfaces for drivers-- both hands-free and hand held) in light vehicles. Both of se types of systems are products in the marketplace and the Intelligent Vehicle Initiative needs objective test procedures to facilitate their development.

- Generation 1 Multiple system integration driver-vehicle interface guidelines will be completed.

- In FY 2001, three of the performance specification projects for transit collision warning systems will be completed. The performance specifications and associated cost / benefit

analysis information will be evaluated and a recommendation will be made to perform an operational test. A request for proposals to do the operational test will be developed and a proposal will be selected. FTA will continue to meet with the industry to discuss the program. Additionally, the pedestrian/passenger safety study will begin.

Field Tests

- Two field test prototype vehicles will be completed to test the integration of the subsystems with the vehicle and the driver-vehicle interface in support of the Rear-End Collision Warning Field Operational Test for light vehicles. Preliminary testing of these vehicles will be completed to prepare for the decision to enter into Phase II of this contract, the data gathering phase, which is expected to begin in FY 2002.

- A road departure field test for light vehicles will begin with the development of objective tests for the proposed test vehicles.

GENERATION 2

Problem Area Research

- An approach to gathering intersection crash data for light vehicles will be validated in a pilot test of the System to Assess Vehicle Motion Environments (SAVME). The pilot test will examine the use of this tool to construct dynamic models of pre-crash and near-crash events occurring in the form of common crossing path conflicts at intersections. Given satisfactory pilot test results, a plan will be completed for the deployment of SAVME to gather and extrapolate data for a data base to represent the national crossing path crash population.

- Research will be initiated into objective test development for intersection crash countermeasures for light vehicles.

- Development of a test-bed passenger car to study the technology and human factors problems of integration will be initiated as part of the development of intersection countermeasures. Specific areas of research for this vehicle include: new sensor development for lane change, countermeasure functional fusion for rear-end, road departure, lane change, and intersection crashes, data fusion and management for integrated DVI development, and generation of countermeasure field test support data. The functional and design requirements for this vehicle will be completed and a critical design review held in FY 2001.

- Research will be completed to define the pedestrian collision problem for light vehicles. This new problem area for light vehicles will be treated just as we have approached the other crash problem areas: common crash scenarios will be extracted from available data bases, causal factors will be determined, technology-based countermeasures to address the causal factors will be researched, functional performance specifications for countermeasures will be developed, objective tests will be developed for countermeasures, and field operational tests of countermeasures will be conducted.

- Analysis of Roadway Departure Avoidance Concepts: A detailed analysis of alternative infrastructure-based and vehicle-highway cooperative systems to reduce the number of roadway departure crashes. Concepts included the provision of hazard information to assist motorists in avoiding hazardous situations and vehicle-highway cooperative systems that can recognize actual or imminent roadway departures so that evasive actions can be taken.

- Identification of Methods to Convey Hazard Information: Candidate methods of conveying hazard information to drivers through active roadside and in-vehicle signing to assist drivers in avoiding roadway departure crashes. The hazard information included warnings of upcoming roadway hazards and of actual or imminent roadway departure, as anticipated based upon prior conceptual designs for roadway departure warning systems. These methods were identified based on prior human factors research and engineering practices.

- Survey and Assessment of Environmental Sensors: Identification of commercially available sensor systems capable of determining current driving and pavement conditions and of conveying information to motorists through roadside and in-vehicle signing. These sensors were identified through surveys of current sensor providers, examinations of sensors already deployed by highway agencies, and published research reports.

- Analysis of Intersection Collision Avoidance Concepts. A detailed analysis of alternative infrastructure-based and vehicle-highway cooperative systems to improve safety at signalized and unsignalized intersections. Analytical methods were developed to support the development and evaluation of promising collision avoidance system concepts. Extensions of these system concepts to improve railroad-highway grade crossing safety were also defined.

- Identification of Methods to Warn Drivers to Avoid Intersection Crashes: Alternative methods of warning drivers who are about to violate a traffic control device at an intersection, or else are at risk of colliding with violating or other vehicles. Methods considered included use of special strobe lights to capture the attention of distracted drivers, active textual or graphic display signs, audible warnings, and use of existing traffic signal displays. Methods were identified and assessed based on prior human factors research and engineering practices, including consideration of deployment costs.

- Functional Requirements for Intersection Collision Avoidance Sensors: Definition of functional requirements for sensing systems capable of identifying violators of traffic control devices who might collide with other vehicles and of identifying vehicles that might collide with pedestrians or cyclists at intersections. An assessment of commercially available sensing systems to achieve these functional requirements and the conceptual development of needed new or improved sensors was conducted. These sensors were identified through surveys of current sensor providers, examinations of sensors already deployed by highway agencies, and published research reports.

KEY FY 2002 PRODUCTS AND MILESTONES

GENERATION 0

Operational Test

- Data analysis will be completed for the four Generation 0 operational tests which were awarded during FY 1999 will be completed.

GENERATION 1

Problem Area Research

- Data collection and analysis will begin for a large-scale, naturalistic, pre-crash driving study in light vehicles. This study will create naturalistic scenario crash event timing data in all crash types.
- The Enabling Research Consortium will complete a preliminary Driver Workload Tool. Which will undergo validation in FY 2002.
- Effectiveness testing of commercially available lane keeping systems on the NADS in light vehicle crash situations will be completed.
- The initial three-year research program with the Light Vehicle Enabling Research Consortium will be completed. This research will be in three areas: enhanced digital maps, forward collision warning, and driver workload and distraction.
- The evaluation of road departure collision avoidance technologies for further development in Specialty Vehicles will be initiated.

Field Tests

- Objective test procedures will be completed for a light vehicle road departure field test and preparations will begin for the data collection phase of the field test.

- The decision will be made by U.S. DOT and GM on whether to continue into Phase II of the Rear-End Collision Warning Field Operational Test for light vehicles, the open-road data gathering phase.

GENERATION 2

Problem Area Research

- Phase II Small Business Innovation Research (SBIR) research will end on a vehicle-based road condition sensor for light vehicles in support of road departure countermeasures. This will provide a working prototype for evaluation.

- Intersection crash data will be gathered from the initial operational deployment of the System to Assess Vehicle Motion Environments (SAVME).

- Fabrication of a light vehicle integration test-bed will be initiated in support of the development of intersection crash countermeasures.

- The needs assessment study of the emergency vehicle crashes and technologies will be initiated.

- Design Guidelines for Methods to Convey Hazard Information : Design guidelines for roadside and in-vehicle signing. Evaluation of candidate methods of conveying hazard information to drivers through active roadside and in-vehicle signing based on driver simulation experiments, driving studies, and other human factors analytical processes intended to verify the human performance of candidate communication methods.

- Functional Specifications and Prototypes of Environmental Sensors: Functional specifications and prototypes of new or improved environmental sensors capable of supporting roadway departure collision avoidance. New or improved sensors were developed in partnership with industry and tested in the laboratory or on highways to demonstrate achievement of the functional specifications.

- Functional System Designs for New Roadway Marking Products: Functional specifications of systems to reduce the incidence of roadway departure crashes. Prototypes of promising systems were developed and new functions that must be developed to enable realization of the roadway departure systems conceived in prior research studies were identified.

- Design Guidelines for Driver and Pedestrian Interfaces to Avoid Intersection Crashes: Design guidelines for infrastructure-based and vehicle-highway cooperative intersection collision avoidance systems. Evaluation of candidate methods of warning drivers through active roadside and in-vehicle signing based on driver simulation experiments, driving studies, and other human factors analytical processes intended to verify the human performance of candidate warning methods.

- Functional Specifications and Prototypes of Intersection Collision Avoidance Sensors: Functional specifications and prototypes of new or improved sensors to support intersection collision avoidance. New or improved sensors were developed in partnership with industry and tested in the laboratory or at intersections to demonstrate achievement of the functional specifications.

- Functional System Designs for Intersection Collision Avoidance: Functional specifications of systems to reduce the incidence of vehicle crashes and of pedestrian or cyclist collisions with vehicles at intersections. Prototypes of early intersection collision avoidance systems or components were developed and new functions that must be developed to address all major objectives of intersection collision avoidance systems conceived in prior research studies were identified.

FY 2002 PROGRAM REQUEST

1. GENERATION 1

a. Rear-End Collision Problem Area Research - $200,000

This will support the data gathering and analysis of the rear-end crash data coming from the large-scale, naturalistic pre-crash driving experiment. This will create a public-domain data base of pre-crash events for rear-end collisions. This information will improve our understanding of the benefits of collision countermeasures and will be the basis for developing more effective countermeasures.

This will be a five year effort. (FY 2000: $600,000; FY 2001: $600,000; FY 2002: $200,000; FY 2003: $200,000; FY 2004: $200,000; total cost: $1.8 million).

b. Rear-End Collision Warning Field Operational Test - $3.5 million

There are approximately 1.65 million police-reported rear-end crashes annually resulting about 1,160 fatalities, which is about 25 percent of the country's 6.4 million annual crashes, and is the largest single crash type. In excess of 90% of these crashes are attributable to driver error and should be amenable to technology-based countermeasures; hence, this is the most safety-

promising countermeasure. Preliminary estimates have shown that rear-end collision countermeasures could prevent up to 750,000 crashes each year if all passenger vehicles were properly equipped. For these reasons, this service has been given the highest priority by U.S. DOT and the light vehicle industry, it has seen the largest investment to date, and this is the most advanced of the collision avoidance services. Experimental prototypes offering this service are developing as a collision warning feature to be offered in conjunction with an Adaptive Cruise Control (ACC) feature, though both need not operate at the same time. ACC products were announced in the U.S. market late in CY 1999 to begin the deployment of the forward-looking radar that is necessary for the Rear-End Collision Warning service.

This funding will continue a field test of a first-generation rear-end collision warning system for passenger cars. This project will equip and test a fleet of Model Year 2000 Buick LeSabres with first-generation rear-end collision warning systems. The field evaluation will include a study of driver workload, driver acceptance, and behavior adaptation. Results from this test will help to refine the development of the Generation 1 passenger cars and will provide better estimates of the safety benefits of this service. This project enters the second phase of the field test this year, the vehicle deployment and data gathering and analysis phase. (The funding stream for this project has been corrected to reflect the actual project schedule as of the date of writing).

This will be a 5 year effort. (FY 1998: $4.0 million; FY 1999: $4.0 million; FY 2000: $3.5 million; FY 2001: $4.5 million; FY 2002: $3.5 million; FY 2003: $2.0 million; total cost: $21.5 million)

c. Rear-End Collision Warning Field Test Evaluation - $400,000

This funding will support the independent evaluation of the field test described in the preceding paragraphs in order to investigate such goals as: achieve an in-depth understanding of system benefits, obtain measures of driver performance and comprehensive ratings of user acceptance, determine the performance and capability potential of these systems, assess product maturity for deployment, and address institutional and legal issues that might impact deployment.

This will be a five year effort. (FY 2000: $500,000; FY 2001: $400,000; FY 2002: $400,000; FY 2003: $400,000; FY 2004: $300,000; total cost: $2.0 million).

d. Light Vehicle Road Departure Problem Area Research - $1.3 million

This will support the development of countermeasure objective test data bases, the gathering and analysis of naturalistic pre-crash data, and the development of advanced warning algorithms to be tested by U.S. DOT in support of the road departure field test described above. This project will create a public-domain data base for road departure countermeasure objective tests that will openly establish proper deployment expectations. Further, the data base must include adequate time-event modeling of the pre-crash events in order to determine the benefits of proposed

systems. In addition, various options in the driver warning algorithm that are not part of the field test (that can test only one warning algorithm) will need to be developed, tested and reported to the public.

This will be a five year effort. (FY 2000: $1.4 million; FY 2001: $1.7 million; FY 2002: $1.3 million; FY 2003: $800,000; FY 2004: $200,000; total cost: $5.4 million)

e. Develop and Test Road Departure Collision Avoidance Technologies for Specialty Vehicles - $300,000

This project will evaluate the results of the Generation 0 Operational Test for Specialty Vehicles and will select road departure collision avoidance technologies and driver assistance systems for more advanced development and testing. The technologies that will be evaluated include DGPS, GIS mapping, head-up display, auditory warning, haptic feedback, magnetic roadway tape, magnetometer sensing system, and radar and video detectors. The outcome of this study will be improving technical performance and user benefits of road departure technologies to enhance specialty vehicle safety and operation under low visibility conditions.

This will be a three-year effort. (FY2002: $300,000; FY2003: $500,000; FY2004: $500,000; total cost: $1.3 million)

f. Light Vehicle Road Departure Crash Avoidance Field Test - $5.0 million

Roadway departure crashes account for 20 percent of the country's 6.4 million crashes annually. Of these, 22% are attributable to avoidance actions or vehicle failure and are not suitable to driver warning countermeasures in Generation 1. Of the remainder, 36% are due to hit-and-run, alcohol, or impaired driver and are also not suitable to a Generation 1 countermeasure. The remainder (635,000 off-road crashes in 1998) are attributable to speed, distraction, or surface conditions, all of which are amenable to a Generation 1 countermeasure.

This funding will continue a field test of a Generation 1 road departure countermeasure for light vehicles in cooperation with a passenger car manufacturer or first-tier supplier. Prior work in this area included development of objective tests for countermeasures. The funding in this year is for the fabrication and objective test of prototype field test vehicles.

This will be a four year effort. (FY 2001: $5.0 million; FY 2002: $5.0 million; FY 2003: $5.0 million; FY 2004: $5.0 million; total cost: $20.0 million)

g. Light Vehicle Road Departure Crash Avoidance Field Test Evaluation - $1.0 million

This funding will support the independent evaluation of the field test described in the preceding paragraphs in order to investigate such goals as: achieve an in-depth understanding of system

benefits, obtain measures of driver performance and comprehensive ratings of user acceptance, determine the performance and capability potential of these systems, assess product maturity for deployment, and address institutional and legal issues that might impact deployment.

This will be a four year effort. (FY 2001: $500,000; FY 2002: $1.0 million; FY 2003: $1.0 million; FY 2004: $1.0 million; total cost: $3.5 million)

h. Lane Change Collision Problem Area Research - $200,000

Estimates of this crash type vary between 244,000 and close to 1 million per year, with many serious injuries and accompanying property loss. Again, the overwhelming causality is due to driver error, especially looked-but-didn't-see or didn't-look. Effective crash countermeasures are a type of situational awareness system as opposed to the imminent crash warning developed for rear-end collision warning. However, this research area has been significantly trimmed back due to several problems. First, sensor development continues to languish due to lack of industry interest (it's a high cost sensor to provide marginal benefit in the consumer's eyes), and the lane change problem requires more pre-crash data to assess effectiveness, especially that needed to model driver behavior rather than pre-crash kinematics. This will support the data gathering and analysis of the lane change pre-crash data coming from the large-scale, naturalistic pre-crash driving experiment.

This will be a five year effort. (FY 2000: $600,000; FY 2001: $600,000; FY 2002: $200,000; FY 2003: $200,000; FY 2004: $200,000; total cost: $1.8 million).

i. Safety Impacting Systems - $2.645 million

Safety impacting systems are those systems that are not necessarily designed to have a safety promoting feature, but could nevertheless have a significant impact on the safety of the vehicle. Some systems are suspected to have a detrimental impact on safety through workload, distraction, and/or attentional demands on drivers. An example of such is the in-vehicle, hand-held cellular telephone, which has already been linked to a higher crash risk. Other systems may have a positive impact on safety by addressing safety problems, either directly or indirectly. Examples of this type are the Cadillac night vision system, and hands-free cellular telephones. This project will develop objective test procedures for evaluating the impact on driver performance from these and other systems that are entering the market. It will look at the need for defining message priority protocols and filters, and study the effectiveness of integrating multiple driver vehicle interfaces. We will also assess the effectiveness of the Intelligent Data Bus (IDB) as a mechanism to control the many aftermarket options possible from the open architecture design promoted by the IDB.

Another safety impacting system which will be addressed is incident recorders. Although, incident recorders (or Black Boxes) exist today for both automobiles and commercial vehicles, there is no agreement on what data elements to collect and who can read what data. The IVI

Program is the appropriate place to look at the appropriate components to monitor and how to share the data so that these parameters are consistent across modes. Also, most automotive/truck incident recorders that exist today are not destruction proof. Some testing may need to be done on transferring aircraft "protection" technology.

This will be a five year effort. (FY 2000: $300,000; FY 2001: $1.5 million; FY 2002: $2.645 million; FY 2003: $1.5 million; FY 2004: $1.5 million total cost: $7.445 million).

j. Vehicle Stability Field Test and Evaluation - $1 million

This was intended to be the third year of a 3 year field test of electronically controlled braking systems (ECBS) which began in FY 2000. Additionally, test track work was delayed due to the VRTC test track being shut down for repair and resurfacing during from April through June which is prime testing season. In FY2000, we did in fact get a research plan written and test track work begun. Operational on the road testing began in FY2001 and will continue through FY2003.

This test is intended to be of not only tractor based ECBS systems, but also of trailer (and multiple trailers) ECBS systems. At issue is the compatibility of different manufacturer's ECBS, as tractors and trailers do not stay "married" throughout their operational life. Preliminary work on tractor only ECBS was begun in FY2000 through the IVI Generation 0 Volvo operational test. This will also test the enhanced safety benefits of using EBS as these systems have the potential to: reduce brake response and release times; decrease stopping distance; improve anti-lock braking performance; provide the capability for stability corrections by selective braking; optimize braking strategies for brake pressure distribution, optimize brake lining wear; enhance braking compatibility between tractors and trailers; and foster development of collision avoidance systems for commercial vehicles. It is expected that commercial vehicle manufacturers and commercial vehicle fleets will cooperatively work with the Department in field testing of these devices. In addition, this work may be done in separate test in order to assess EBS performance on double and triple trailer combination trucks. These systems potentially offer many advantages, compared to pneumatically-controlled systems, in terms of safety, efficiency, productivity and reliability, including: reduced brake response and release times, decreased stopping distance, and an optimized strategy for brake pressure distribution and adhesion utilization. Also, funds for an independent evaluation are included in this request.

This will be a four year effort. FY 2001: $1.0 million; FY 2002 $1.0 million; FY 2003: $1.0 million; Total Cost: $3.0 million.

k. Drowsy Driver Field Test and Evaluation - $1 million

This request is the 2nd year of a 3 year test. This test was to have begun in FY2000, however, due to engineering challenges in developing a sensor, validation requirements and driver-vehicle interface refinement, the operational test did not start until mid FY2001.

This field test will be the second year of a three year operational test of drowsy driver technology developed under the IVI commercial vehicle platform in previous years. This technology detects and warns of drowsiness of drivers of commercial vehicles in real world, revenue producing operations. This Operational Test will evaluate the use of such a system in preventing crashes involving fatigued commercial vehicle drivers. It is expected that commercial vehicle manufacturers and commercial vehicle fleets will be working cooperatively work with the Department in field testing of these devices. This request includes funds for an independent evaluation.

This will be a three year effort. FY 2001: $2.0 million; FY 2002: S 1.0 million; FY 2003: $2.0 million; Total cost: $5.0 million.

l. Transit Field Test and Evaluation- $1 million

This request is the 2nd year of a 3 year test. The test will provide a validation of transit collision avoidance performance specification, by conducting a field test The field test will be a full-scale test on a significant number of buses within a transit agencies' fleet.

Transit performance specification projects for rear-end, lane change and rear-impacting collisions will be completed in FY 2000, or early 2001. Close to the completion of the performance specification projects, an analysis of each performance specification will be performed to determine which project shows the most promise in a field test. The field test is necessary to commercialize the product which will occur by industry after completing the field test.

This will be a three year effort: FY 2001: $1,500,000; FY 2002: $1,000,000; FY 2003: $500,000; total cost: $3,000,000.

m. Cross Cutting

1. Societal and Institutional - Legal/Privacy Issues - CMV's - $100,000

As new technology is introduced into the marketplace, full deployment may be hampered by legal/privacy issues surrounding this new technology. It is anticipated that by FY2002, specific legal/privacy issues will have arisen that are unique to on-board commercial vehicle technology. The intent here is to identify potential S&I barriers and to recommend potential solutions. General issues relating to the use of vehicle-based safety technologies would include product liability, equity, and insurance implications. A study to look at this issue would define it in terms of the specific legal/privacy impact on commercial motor carriers willingness to adopt these technologies.

This will be a 2 year effort. FY 2002: $100,000; FY 2003: $100,000; Total cost: $200,000.

2. Commercial Vehicle Driver Workload Limits - $100,000

This project will apply workload tools and metrics to commercial vehicles, which were developed previously for the light vehicle platform As IVI commercial vehicle technology becomes more mature, and multiply, there is a need to identify and measure CMV driver workload limits, i.e. at what point do the new technologies in the cab become too much for the driver to safely perform their driving task. The work addressed here could include collision avoidance counter measures and their priority sequencing, in cab work tools such as cell phones and the Internet, and/or the practicality of a driver vehicle interface that incorporates two or more of these new technologies.

This would be in support of rule-making issues dealing with the operational use of IVI technologies. Specifically this research could provide the scientific evidence to support a rule regarding limits of CMV driver workload.

This will be a two year effort. FY 2002: $100,000; FY 2003: $100,000; Total Cost: $200,000.

3. Enabling Research Consortium - $4.0 Million

This Enabling Research Consortium is a partnership of passenger vehicle manufacturers that is interested in pre-competitive research in three areas: enhanced digital maps, forward collision warning, and driver workload metrics. The private partners will provide 40 percent of the total funding for this project. Each of these areas will facilitate the development of crash countermeasures of several types.

The first project, Forward Collision Warning Requirements (FCW) will examine driver performance and alert functions/ interface modality requirements associated with rear-end crash scenarios involving nighttime and wet road conditions, non-constant lead vehicle deceleration profiles and last second lane change (rather than braking) maneuvers will be examined. The results will support the validation of collision warning algorithms and interface design.

The second project, Driver Workload Metrics, will develop practical, repeatable driver workload metrics for both visual and cognitive demand that can realistically assess which types of driver interface tasks are appropriate to perform while a vehicle is in motion. It will then identify interface design approaches which emerging collision avoidance and comfort and convenience oriented information systems might employ in order to provide acceptable workload performance ratings.

The third project, Enhanced Digital Maps (EDMap), will develop a range of digital map database enhancements that enable or improve the performance of various driver assistance systems presently under development or consideration. Digital map navigation may be able to act as an additional sensor for various driver assistance systems, providing information about the vehicle's relationship to the roadway infrastructure that is not feasible to obtain with other sensors such as

radar or computer vision. It will not obviate the need for these other sensors, but may add a necessary component for successful implementation of future systems. The results of this effort will provide direction to map suppliers regarding enhancements needed to enable future driver assistance systems and establish the preliminary feasibility of generating and maintaining these enhancements.

This will be a three year effort. The Federal share is as follows: FY 2000: $2.6 million; FY 2001: $6.0 million; FY 2002: $4.0 million; total cost: $12.6 million.

2. GENERATION 2

a. Light Vehicle Pedestrian Countermeasure Functional Requirements - $1.1 million

In 1998 there were about 69,000 pedestrian crashes with 5,220 fatalities, which represents about 13% of all vehicle crash-related fatalities in that year. Problem area research on countermeasures for these crashes is being developed according to the following process: determination of common crash scenarios and crash causal factors, determination of crash countermeasure functional requirements, test and analysis of off-the-shelf countermeasures, identification of countermeasure preliminary performance specifications, and identification of objective test procedures for countermeasure performance.

In FY 2002, this project will begin to address the second and third steps in the process: determination of countermeasure functional requirements for vehicles and identification of technology-based countermeasure concepts, and test and analysis of off-the-shelf countermeasures.

This will be a six year effort. (FY 2001: $900,000; FY 2002: $1,100,000; FY 2003: $1.0 million; FY 2004: $1.0 million; FY 2005: $1.0 million; FY 2006: $1.0 million; total cost: $4.8 million).

b. Road Condition Sensors - $500,000

Slippery road condition is a critical causal factor in road departure crashes. Two Phase I Small Business Innovation Research (SBIR) projects were begun by NHTSA in FY 1999 to identify vehicle-based sensors that could determine road condition. This funding will continue the best one of those SBIRs into the completion of Phase II and prepare for the deployment of the sensor.

This will be a three year effort. (FY 2000: $300,000; FY 2001: $500,000; FY 2002: $500,000; total cost: $1.3 million).)

c. Road Departure Warning Systems - Develop Functional System Designs, Prototypes, and Roadway Marking Products for Cooperative and Infrastructure-only - $1.0 million

This project will develop the second generation of road departure systems. This generation will achieve improved performance through the use cooperation with infrastructure components. This research will complement "infrastructure only" systems which are being studied in the rural ITS program. The initial system concepts, as refined through human factors assessments, will be developed into detailed system designs and engineering prototypes for cooperative and infrastructure-based roadway departure systems. These systems might include variable message signs that can display warning messages to drivers and communicate electronically to intelligent vehicles for specific hazard locations, and may include information from environmental sensors. This project will also develop promising pavement marking technologies, including processes that could be employed by roadway construction and maintenance staff, to allow infrastructure providers to deploy these technologies to support cooperative roadway departure applications. The project will include limited field testing of prototype systems or their components. Partnerships with industrial partners who can develop, market, and support these cooperative systems and pavement marking technologies will be needed.

This will be a two year effort. (FY 2002: $1.0 million, FY 2003: $1.0 million; Total cost: $2.0 million)

d. Vehicle-based Intersection Collision Problem Area Research - $2.6 million

There were about 1.72 million crashes related to intersections in 1998, or about 27% of the total, the overwhelming majority of which involved one or more light vehicles. Commonly reported causalities included distraction/inattention, misjudged velocity/gap, and did not see the other vehicle, all of which are amenable to driver warning countermeasures. Previous work in this area involved development of preliminary performance specifications by Veridian/Calspan.

This research will build the research and requirements base required to prepare for a field test of a vehicle-based intersection collision countermeasure. We will gather and analyze real-world, event-time pre-crash data using the System to Assess Vehicle Motion Environments (SAVME) deployed at intersections. This will give us greater understanding of pre-crash events and thus an understanding of how a crash countermeasure must perform. We will create objective test procedures for intersection crash countermeasures. This will give us repeatable measures of system performance in crash situations. We will develop a test-bed vehicle to study design countermeasure integration and human factors integration. The test-bed vehicle will treat intersection crash countermeasures as a new vehicle feature that will use the sensors from rear-end plus road departure crash countermeasures and will add sensors and a driver-countermeasure interface to accomplish its warning. Hence, the need for the study of data and information fusion, and driver-vehicle interface integration. The vehicle will be developed to provide supplemental, non-proprietary test data for the intersection field operational test when that occurs.

This will be a six year effort. (FY 2000: $800,000; FY 2001: $2.1 million; FY 2002: $2.6 million; FY 2003: $3.4 million; FY 2004: $2.7 million; FY 2005: $1.2 million; total cost: $12.8 million).

e. Infrastructure / Cooperative Intersection Collision Avoidance - $1.0 million

This project will develop the next generation of intersection collision avoidance systems. This generation will achieve improved performance through the use cooperation with infrastructure components. This research will complement "infrastructure only" systems which are being studied in the rural ITS program. The initial system concepts, as refined through human factors assessments, will be developed into detailed system designs and engineering prototypes for intersection collision avoidance systems. The intersection collision avoidance systems are intended to discourage signal violations, provide advice to drivers at unsignalized intersections, and warn other drivers of dangerous vehicle movements or the presence of conflicting pedestrians or cyclists. These systems must also recognize the needs for transit buses or specialty vehicles in signal control and collision avoidance. Partnerships with leading traffic control and sensing equipment suppliers will be sought. The project will include limited field testing of prototype systems or their components.

This will be a two year effort. (FY 2002: $1.0 million; FY 2003: $500 thousand; Total cost: $1.5 million)

f. Vehicle Stability Problem Area Research - $700,000

This is the second year of an on-going effort to advance the applicability of ECBS systems into more advanced safety systems such as adaptive cruise control and brake-by-wire technologies.

This project will support advanced activities in this problem area that build on the capabilities addressed in the ongoing filed test. This is a core activity of the Commercial Vehicle Intelligent Vehicle program and will explore the most promising method of integrating the stability enhancement and vehicle diagnostic research to develop the fully integrated IVI Commercial Vehicle. The performance specifications developed for other platforms will be expanded to incorporate adverse weather, complex road geometry and night time driving conditions. It is expected that the role of infrastructure cooperative and vehicle to vehicle cooperative systems will be increased. Supporting research areas include in-vehicle naturalistic vehicle following studies, benefits methodology developments including NADS and traffic simulation methods. This activity will also include the development of tools that will be used to quantify the performance of concepts and specific systems to be integrated in any IVI Commercial Vehicle Operational Test of the developed technology.

This will be a 2 year effort. FY 2001: $700,000; FY 2002 $700,000; Total Cost: $1.4 million.

g. Cross Cutting

1. Performance Specifications for Communication Research and Development - $500,000

This project will develop the functional requirements for short range communication equipment needed to support the core communications requirements for IVI services, including cooperative intersection collision avoidance and roadway departure applications. This is the initial step in a two-year project to develop performance specification for communication systems that enhance other crash avoidance technologies.

This will be a two-year effort. (FY2002: $500,000; FY2003: $500,000; total cost: $1 million)

2. Needs Assessment for Emergency Vehicle Crash Avoidance - $200,000

This project will study the emergency vehicle crashes and technologies to complete the needs assessment for advanced control and safety technologies. The project will include study of intersection crashes, run-off-the-road crashes, and crashes with other moving vehicles and fixed objects. Study of cross-cutting technologies for improving communications with other vehicles and interaction with infrastructure will be included. The outcome of this project will be identification of technologies with the best potential contribution to improving safety and mobility of emergency vehicles, for more advance deployment.

This will be a two-year effort. (FY2002: $200,000; FY2003: $300,000; total cost: $500,000)

3. PROGRAM SUPPORT

a. TRB Peer Review of IVI Program - $200,000

This project will provide a continued and independent review by the Transportation Research Board (TRB) of the IVI program plans, accomplishments, and management procedures. The review should provide advice about the mission plans of the research and development program and critique progress toward goals as a project progresses. The scope will include assembling and maintaining a committee of experts external to the U.S. DOT and the project participants, conducting a technical and management review, and publishing the review in a report.

Annual expense of $200,000.

b. Project Management Support - $1.0 million

This activity will fund program management services for the IVI program. Program management services include maintenance of the project tracking system which monitors individual project costs and schedules; development and maintenance of the program plan and roadmap; administrative support for budget and spending plan development; supporting

procurement activities by drafting and review statements of work and requests for proposals; developing white papers on technical issues such as crash causality, benefits and needs assessments; and analyzing technical reports. This covers FHWA and NHTSA laboratory operation expenses for the Turner-Fairbanks Highway Research Center in McLean, Virginia and the Vehicle Research Transportation Center in East Liberty, Ohio..

Annual expense of $1.0 million.

c. National IVI Meeting - $400,000

This will provide funding for a national conference to bring industry, academia, and government experts together to share information and provide live demonstration of their IVI related safety products. A similar meeting took place in FY 2000.

Single year expense of $400,000.

Program Title: RURAL RESEARCH

Budget Item No:

Amount Requested for FY 2002: $ 3.8 MILLION

GOALS

The Rural ITS Program supports the USDOT and the FHWA goals of improving safety, mobility and productivity. This program seeks to meet the needs of system operators, travelers and transporters of goods in rural areas, and on an intercity/national scale through research into new technologies and services.

PERFORMANCE MEASURES

The rural research program will develop technologies and services that, when deployed, will reduce the rate of highway-related fatalities and injuries and reduce delays on Federal-aid highways.

BACKGROUND

Rural America accounts for 21% of our nation's population, spread over 83% of its land area. This large area encompasses 78% of the national road mileage carrying 39% of the vehicle miles traveled. Rural areas also include large parts of the other surface modes. Rural travelers and system operators have unique characteristics and challenges in using, operating and maintaining the rural transportation system. Differences in the needs of rural travelers from urban travelers for information and other ITS services reflect the rural environment of long distances, relatively low traffic volumes, relatively rare traffic congestion, travelers unfamiliar with the surroundings, and rugged terrain in remote areas. The rural needs can be more vital in avoiding dangerous circumstances and receiving aid. Rural areas have an over representation of fatal crashes (About 60% of traffic fatalities and 55% of work zone fatalities occur in rural areas), more safety problems related to high speeds on non-interstate rural roads, and increased response time for Emergency Medical Services (47% of rural fatal crashes have crash-to-hospital times of over 50 minutes compared to 14% in urban areas).

The rural research program is currently focused in three emphasis areas: 1) Rural Safety Services; 2) Rural Mobility Services and; 3) Rural Information and Operations Services. Accomplishments and plans for the rural ITS program will be presented under these emphasis areas.

The Rural Safety Services emphasis area supports the USDOT and FHWA safety goals through research and development of safety systems aimed at reducing the number of rural crashes and improving emergency services in rural areas when there is a crash. A major emphasis of this program area is the coordination and enhanced performance of the various public safety sectors. Highway incidents, especially serious accidents require the prompt and coordinated response of a number of safety and traffic instiutions to ensure emergency aid is provided in a timely manner, hazardous materials are dealt with properly and the incident is cleared to restore full operation of the facility. The application of ITS technologies to facilitate such coordination is a significant focus of this research area.

The Rural Mobility Services emphasis area supports the USDOT and FHWA mobility and productivity goals through improvements to rural traffic control that will enhance traffic flow. Development and testing of low cost advanced traffic control systems and strategies that are applicable for small communities is the focus of this research. This emphasis area also includes the development of rural transit or transportation services that improve access to transportation and reduce the costs of providing transportation services.

The Rural Information and Operations Services emphasis area supports the USDOT and FHWA mobility and productivity goals by providing enhanced traveler information and enhancing systems operations. Travelers will use this information to improve their transportation decision-making regarding mode, route, and time. System operators will use this information to improve the management of the transportation system. A major emphasis of this research area is the deployment of a telephone based traveler information systems. It is expected that the FCC will soon authorize the use of a single three digit number for traveler information nationwide. The application of this number to traveler information systems will require significant effort to resolve a host of technical, institutional and operational issues. Another emphasis will be the development of weather data collection, prediction and dissemination systems that meet the need to surface transportation operators and users.

Research in each of these emphasis areas was initiated in FY 98 and FY 99. The initial results from this research focus primarily on a review of the current state-of-the-technology, completion of needs analyses, and the development of model system designs and specifications. In FY 00 and 01 the research program was in full operation, building off of the results of these early efforts, and producing results that can be used to implement ITS in rural areas.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

Rural Safety Services

- **MAYDAY Initiative -** Model Strategies for integrating the services of third party Mayday providers with the public emergency response system were developed and evaluated. Tested strategies were derived from the Summer 2000 Mayday Readiness Initiative conference and included: addressing issues such as the routing of call transfers from Mayday services to public safety dispatchers, training specifications for Mayday service call takers, and standardized data formats to permit voice plus crash data to be shared between Mayday services and public agencies. Several variations of call routing between Mayday and public agencies were examined to accommodate the anticipated near- and mid-term variation in infrastructure that will accompany the adoption of wireless E9-1-1.

Rural Mobility Services

- **Integration of advanced transit systems with health and human service agency information systems:** A common transportation and service referral architecture, based on GIS databases, was developed that integrates advanced brokerage and dispatching systems with employment referral systems (e.g., the One Stop Office being developed for Unemployment Insurance) and DHHS customer referral and services billing systems.

- **Rural, regional and small community traffic control strategies and capabilities:** A manual of traffic control systems for rural regions and small communities was developed. The manual was organized on a needs-situation basis (type of network and traffic problem), and keyed to various rural environments. The manual also contains simulation results of applying adaptive signal control systems in small communities. These control strategies addressed in the manual include adaptive control of signals for small communities, and other traffic surveillance and control systems. Attention was also given to portable systems for seasonal or episodic events as well as for natural disasters and other emergencies.

Rural Information and Operations Services

- **National Highway System Minimum ATIS Deployment Goals:** A set of ATIS deployment goals for the National Highway System was articulated and disseminated. These goals describe the minimum performance and operational standards which will help achieve consistent ATIS presentation and ubiquitous coverage of ATIS services throughout the whole nation.

- **N-1-1 User Presentation:** Guidelines were established for presenting seamless information to travelers who traverse the operational areas of multiple jurisdictions. The guidance also describes how information from different ATIS deployments can be harmonized from the user's perspective.

- **N-1-1 Institutional and Cooperative Goals:** A set of N-1-1 institutional and cooperative goals was developed to aid in the implementation of ATIS services delivered through N-1-1. Institutional cooperation is a critical success factor for N-1-1 deployment because ultimately the institution that operates the N-1-1 will be the primary access point for the users.

- **Weather Traveler Decision Support System (TDSS) Development:** The Surface Transportation Weather Decision Support Requirements documentation effort will have completed Versions 3.0 and 4.0, which will support coordination with the meteorological community, and expand the requirements beyond winter maintenance to other users, operators, and weather events (e.g., hurricanes, etc.). A prototype of the Weather Traveler Decision Support System will be completed. This will yield tools to manage decisions based on integrated road weather information for surface transportation users.

KEY FY 2002 PRODUCTS AND MILESTONES

Rural Safety Services

- **Intersection Crash Prevention** - Sensors will be developed and tested to identify hazardous vehicle movements at intersections. These sensors are a critical component of any intersection collision warning system. Also, initial concepts for intersection collision avoidance systems will be evaluated through simulators, limited highway experiments, and other research methods to determine driver response and reaction. Products will include confirmations of the feasibility of specific concepts, preliminary human interface design guidelines, and assessments of potential behavioral adaptation problems applicable to intersection driving behaviors and the effectiveness of candidate countermeasures to avoid collisions.

- **Emergency Vehicle Traffic Management** The interaction of emergency vehicles and traffic flow will be evaluated through the use of traffic simulation models to evaluate potential impacts to overall network efficiency, emergency vehicle response time, and emergency vehicle collision risk. The modeling analysis will consider scenarios with multiple emergency vehicles responding to an incident. In addition, the analysis will examine network dynamics resulting from emergency responses over a time period of several hours.

Rural Mobility Services

- **Rural Transit Systems Development** - Techniques and strategies for integrating the many available rural transit services with the automated demand-responsive transit capabilities, and coordinated transit service that are equipped with ITS technologies will be evaluated. This research will examine how to reduce the current third-party transit system costs by reducing unnecessary duplications and providing more efficiently as one system with few overlaps/gaps in routing and scheduling. It will also have less administrative overhead, reduce maintenance and driver costs, and help ensure America's economic competitiveness through the USDA's rural development initiatives.

Rural Information and Operations Services

- **Guidance on Uniform ATIS Displays & Driver Information** - This effort will provide guidance on appropriate ATIS messages, message types, and message formatting for display via a variety of display mechanisms. This will enable public sector transportation managers, public and private sector information providers, and private sector device manufacturers to converge upon universally accepted information delivery practices.

- **ATIS Program Goals Research** - This effort will support the national ATIS Deployment Goals and the N-1-1 Institutional and Cooperative Goals. Research directed towards ensuring seamless delivery of traveler information products will enhance the efforts of public agencies to make salient information available for multiple uses.

- **Traffic and Emergency Management Decision Support System Development:** A prototype system for weather based decision support to traffic and emergency management personnel will be developed and tested with stakeholder groups. This research will generate specifications to be further tested in operational conditions, and for adoption by agencies that perform traffic control and emergency management.

FY 2002 PROGRAM REQUEST

1. Rural Safety Services Research - $1.9 Million

a. Develop and Test Hazardous Vehicle Movement Sensors for Cooperative and Infrastructure-only Intersection Collision Avoidance - $600 thousand

This project will support the adaptation, development, and testing of sensors to identify hazardous vehicle movements at intersections. These movements will include potential

violations of traffic control devices and potential conflicts with turning or opposing flow vehicles. The sensing technologies might include conventional embedded pavement traffic detectors, radar or similar sensors, and machine vision systems, applied singly or in combination.

This will be a two year effort; $600,00 is estimated for FY 2001; $600,000 is requested for FY 2002.

b. Develop Human Interface and Design Guides for Cooperative and Infrastructure-only Intersection Collision Avoidance - $400 Thousand

This project will exercise and validate the initial concepts for intersection collision avoidance systems through simulators, limited highway experiments, and other research methods. Products will include confirmations of the feasibility of specific concepts, preliminary human interface design guidelines, and assessments of potential behavioral adaptation problems applicable to intersection driving behaviors and the effectiveness of candidate countermeasures for avoiding collisions.

This will be a two year effort; $400,000 is estimated for FY 2001; $400,000 is requested for FY 2002.

c. Develop and Test Environmental Sensors for Cooperative and Infrastructure-only Road Departure Avoidance Systems - $200 Thousand

This project will support the adaptation, development, and testing of infrastructure-based environmental sensors for weather, limited visibility, and pavement surface conditions. The major focus will be upon infrastructure-based sensors that can communicate through signing with all vehicles and through cooperative communication with intelligent vehicles, including commercial vehicles buses, and specialty vehicles. The environmental information is expected to be especially useful in addressing roadway departure crash problems.

This will be a two year effort; $200,000 is estimated for FY 2001; $200,000 is requested for FY 2002.

d. Emergency Vehicle Traffic Management - $200 Thousand

This project will examine the impact of various traffic control strategies with respect to emergency vehicles and emergency driving. Potential interactions to be considered between emergency vehicles and traffic control devices include traffic signals (including preemption or emergency actuation strategies), ramp metering, lane control, variable message signs (arterial or freeway) and variable speed control. Interactions will be considered under peak and off-peak travel demand in one or more realistic case studies.

This is a one year project with $200,000 requested for FY 2002.

e. Public Safety Research Support - $500 Thousand

The project will assist the DOT in defining and executing the ITS Public Safety Program. It will recommend, define, and conduct data interpretations and analyses to assist DOT in ensuring that its goals are met for the development and implementation of interoperable procedures and advanced sensor, communications, and processing technologies for public safety and transportation operations. Task activities will include technical and policy analyses, as well as technical contributions to task forces, consortia, and working groups supporting the public safety areas of ITS. The project contractor will maintain a sufficient understanding of technological developments so as to review and report on the state of development of advancing ITS-related public safety technologies and transport policies in the light of potential public safety applications. Products may include study and review reports, briefings, papers, developmental prototype software, and draft inputs to planning documents, correspondence and procurement materials as determined by the Public Safety Program Coordinator.

This is a one-year project with a total cost of $500,000 requested for FY 2002.

2. Rural Mobility Services Research - United States Department of Agriculture (USDA) and FTA Coordination - $500 Thousand

The United States Department of Agriculture (USDA) currently sponsors an initiative focused on the development of "America's Rural Communities." The success of these land development initiatives relies on a strong transportation system that can move goods and people efficiently and effectively from origin to destination. Through the National Rural Development Partnership (NRDP), the USDA is working to strengthen rural America through collaborative partnerships. This research will examine the integration of many available rural transit services with the automated demand-responsive transit capabilities, and coordinated transit service that are equipped with ITS technologies. This research will examine how to reduce the current third-party transit system costs by reducing unnecessary duplications and providing more efficiently as one system with few overlaps/gaps in routing and scheduling. It will also have less administrative overhead, reduce maintenance and driver costs, and help ensure America's economic competitiveness through the USDA's rural development initiatives.

This is a one year project with $500,000 requested for FY 2002.

3. Rural Information and Operations Services Research - $1.4 Million

a. Uniformity of ATIS Displays & Driver Information - $450 Thousand

The goal of this effort is to provide a preliminary set of recommendations for ATIS information that is utilized across various information media and information content providers. The focus of these recommendations is on conveying the traveler information so that presentation is consistent and effective. The approach will consist of: comparing existing and planned information systems

to determine how divergent traveler information is conveyed to users; developing preliminary recommendations based on human factors principles; and, empirically testing the recommendations to determine the effects of consistent/inconsistent subsystems on such aspects as traveler confidence in the system, route planning and route diversion decision making. The study will evaluate how different in-vehicle ATIS presentation affects travel decisions when coupled with a variety of guide sign deployment.

This is a one year project with $450,000 requested for FY 2002.

b. ATIS Program Goals Research - $200 Thousand

This effort will support the national ATIS Program Goals and the N11 Institutional and Cooperative Goals established in 2001 that set guidance for the consistent deployment of traveler information. The consistencies are meant to ensure that consumers of traveler information can comprehend the instructions no matter where in the country they travel. This is a significant challenge considering the diversity of the regions and the efforts to harmonize nomenclature and terms. This research effort will identify successful paths to ATIS deployment that features the fusion of several agencies' travel information. The research will also lead further guidance for the delivery of seamless traveler information as the traveler crosses through the administrative boundaries of several agencies.

This is a one year project with $200,000 requested for FY 2002.

c. Development of Traffic and Emergency Management Decision Support System - $750 Thousand

This project will develop a prototype system that fuses road weather forecast models with traffic management and control systems and also with emergency response systems. It is anticipated that this research will yield a series of tools that enable the operators to manage weather-related incidents and crashes more efficiently, while improving coordination with travelers and maintenance staff. This prototype will be built based on the Surface Transportation Weather Decision Support Requirements documentation that articulates how traffic and emergency managers use of road weather information to make tactical and strategic decisions. This prototype will also reflect improvements .

This is a one year project with $750,000 requested for FY 2002.

Program Title: R&D - ADVANCED PUBLIC TRANSIT SYSTEMS

Budget Item No:

Amount Requested for FY 2002: $1.0 Million

GOALS

The goal of the Advanced Public Transit Systems (APTS) Research program supports the USDOT goal of improving mobility, through the development of new technologies that will increase transit service availability and efficiency. Program elements have been identified as part of the FTA Five Year Research and Technology Plan.

PERFORMANCE MEASURES

This program supports such integration of APTS and ITS to enhance the following transit performance measures:

- Improving transit accessibility and availability, and contributing to mobility for the 80 million Americans who depend on transit to get to jobs, health care facilities, schools, and other essential services;
- Contributing to alleviate highway congestion in the Nation's major metropolitan areas through application of bus and rail transit APTS and integration with other ITS; and
- Applying APTS and ITS to meet the special mobility needs of the elderly, individuals with disabilities, and economically disadvantaged individuals moving from welfare to work.

BACKGROUND

In meeting the USDOT goal of improving mobility, one of the most potent tools are the public transit systems in the United States. The ability to cause people to travel via public transit verses the private automobile offers significant potential to reduce congestion. The Advanced Public Transit Systems (APTS) program seeks to fulfill this objective by making public transit the mode of choice. To accomplish this, transit must provide faster, more reliable, safer, and easier to use transportation to the public. At the same time transit operators must become more efficient in order to provide these services at a lower cost to the public.

The Fleet Management research and deployments have improved on time performance, improved both the safety of passengers and drivers, and improved the operating efficiency of transit agencies. The APTS traveler information program has defined technologies that provide easier access to public transit information to offer a transit alternative to the public. These technologies include automated vehicle location (AVL) and computer aided dispatch (CAD) systems. With the deployment of these capabilities becoming more prevalent, it has become clear that there is more to be gained from the operational utilization of CAD/AVL than currently being experienced by transit agencies. Therefore, a new research effort will be initiated to determine these operational efficiencies and their potential impact on transit agencies.

Transit is often the mode of choice for those with disabilities. This program includes efforts to examine transit systems in light of the Americans with Disabilities Act (ADA) to determine how ITS can help meet the provisions of this Act.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

In FY 2000 a transit stakeholders committee , through ITS America, was convened to re-evaluate the research direction for the APTS program. This evaluation was based upon a detailed examination of the State of the Art and the State of the Practice of fleet management in the transit industry. The results of the recommendations of the stakeholders group forms the basis of the APTS research and operational test program.

- Completed research in two areas of Advanced Fleet Management: an expert system for fleet management and an improved algorithm for demand responsive transit using performance data from operational testing;

- Completed research meeting the requirements of the Americans with Disabilities Act, identifying issues and solutions for transit operators. Two workshops on the subject were also conducted; and

- Published market survey data on wireless technologies, providing transit operators with cost and performance data relating to wireless technologies applicable to transit needs.

- Complete a reevaluation of the research needs of the transit industry based on the State of the ART and State of the Practice analyses initiated in FY 2000.

KEY FY 2001 PRODUCTS AND MILESTONES

- Complete research and development on the Demand response Dispatching Algorithm.

- Complete research and development on the transit expert system.

- Complete the State of the Art and State of the Practice reports on the use of technology in fleet management.

FY 2002 PROGRAM REQUEST

1. Optimizing Operations Using ITS Technologies - $1.0 Million

This project responds to the growing awareness of the agencies that have deployed CAD/AVL systems that there is more to be gained from these systems than is currently being realized. The research will focus on the approach to re-engineering the operational procedures and management of transit agencies using CAD/AVL.

Every CAD/AVL system that has been implemented to date has inserted the technology into the existing operational structure and procedures that existed in the transit agency. Often, the automation mimics the manual functions that were performed.

This research will address the questions of how an efficient operational structure should be organized given that the functions of bus performance monitoring is automated. Should the functions being performed by the dispatch operations center be altered to better utilize the experience of its operators and the data that is readily available automatically. How could these changes be implemented in an agency and what benefits would result.

It is proposed to define the opportunities for major improvements to be examined and implemented at a willing transit agency to understand and measure the benefits.

This will be the first year of a three year research project. $1,000,000 is proposed for Fiscal Year 2002, and $1,000,000 is proposed for each of Fiscal Years 2003 and 2004.

Program Title: R&D - COMMERCIAL VEHICLE OPERATIONS (CVO)

Budget Items No:

Amount Requested for FY 2002: $6.2 MILLION

GOALS

The Commercial Vehicle Operations (CVO) research program supports the US DOT's goals to promote the public health and safety by working toward the elimination of transportation-related deaths and injuries, to shape an accessible, affordable, and reliable transportation system for all people and goods, and to support a transportation system that sustains America's economic growth. Through the development of applications of advanced technology, the CVO research program supports the Federal Motor Carrier Safety Administration's (FMCSA) goals to reduce the number of fatalities resulting from commercial motor vehicle crashes 50 percent by 2010 and the number of persons injured in commercial vehicle crashes 20 percent by 2008. The CVO research program, with the integration of safety data systems, the deployment of Commercial Vehicle Information Systems and Networks (CVISN) in the states, and the use of technology to strengthen the effectiveness and efficiency of federal and state commercial motor vehicle and driver safety programs is expected to improve safety, and simplify government administrative systems and operations to enhance productivity.

PERFORMANCE MEASURES

The FMCSA has established goals to reduce commercial vehicle-related fatalities 50 percent by 2010, with a baseline of 5,374 fatalities in 1995, and to reduce the number of persons injured in commercial vehicle-related crashes 20 percent by 2008, with a baseline of 127,000 injuries in 1998. Technology offers tremendous potential in supporting these program goals. By the end of 2002, the performance measures in support of these goals are to reduce commercial vehicle-related fatalities by 12 percent and injuries by 5 percent.

The CVO research program supports the TEA 21-established goal to "complete deployment of CVISN in a majority of States by September 30, 2003." The performance measure in support of this goal is that up to 15 states will complete CVISN Level 1 deployment in the areas of safety information exchange, credentials administration, and roadside electronic screening by December, 2002 (contingent upon receiving FY 2001 federal ITS deployment funds and/or state resources to support CVISN deployment).

BACKGROUND

We need to develop new ways of thinking, new approaches, new policies, and new strategies to foster a climate of innovation to meet these goals for the US DOT and the FMCSA. We must improve commercial motor vehicle and driver performance; increase enforcement and better target high-risk motor carriers, commercial motor vehicles and their drivers; increase partnerships with and outreach to states, industry, and other stakeholders; and improve highway operating conditions. Technology offers tremendous potential in supporting the safety goals to reduce the number of persons injured and killed as a result of commercial motor vehicle crashes. Improving the electronic exchange of, and access to safety information through incorporating web-enabled and other new technologies, and the deployment of systems and technologies that address commercial motor vehicle and driver safety hold great promise for achieving these goals. Three predominant themes for the CVO research program are:

- Continue the upgrade and integration of safety data systems, in particular, the Safety and Fitness Electronic Records (SAFER) system and the Unified Carrier Register (UCR);
- Continue to deploy CVISN Level 1 capabilities in all interested states, along with the necessary support elements, to meet the TEA-21 goal of CVISN deployment; and
- Begin to identify, test, deploy, and evaluate new technologies and to explore new operational concepts using existing technologies that address commercial motor vehicle and driver safety.

Safety Data Systems

We are deploying innovative technologies and integrating FMCSA safety data systems to support the electronic exchange of safety and credentials information among the federal government, state agencies that have safety and regulatory responsibilities for commercial vehicle operations, the motor carrier industry, and the insurance industry. The integration of safety data systems involves the Safety and Fitness Electronic Records (SAFER) system and the Commercial Vehicle Information Exchange Window (CVIEW), and the Uniform Carrier Register (UCR).

SAFER provides carrier, vehicle, and driver safety and credential information to fixed and mobile roadside inspection stations. This information will allow the roadside inspector to select carriers, vehicles, and/or drivers for inspection based on the number of prior carrier inspections, as well as carrier, vehicle, and driver safety history and current credential information. As a result, inspection resources are directed at drivers and vehicles from carriers with few prior inspections, poor safety records, or invalid credentials while minimizing time spent on carriers with many prior inspections, good safety histories, and whose vehicles are properly credentialed. This improves the overall cost effectiveness of the inspection process as well as provides an

incentive to safe and fit carriers, i.e., carriers with good safety histories and whose vehicles and drivers are properly credentialed.

CVIEW is a distributed version of the SAFER systems that is owned by and deployed in individual States. It supports the processing of interstate and intrastate carrier safety data and provides that data to the roadside to support electronic screening and inspection operations. CVIEW is designed to interface directly with State systems for the collection and exchange of both interstate and intrastate carrier, vehicle, and driver safety and credential information. CVIEW then provides this information to the roadside to support electronic screening operations and will provide SAFER credential information for those carriers and vehicles that are based in the State, but are authorized to perform interstate operations.

The UCR will be developed to bind all of the safety data systems together through common data that will serve the needs of all of the systems. The UCR will provide a system essential to the electronic collection and processing of federal census and credentialing information (i.e., US DOT registration numbers, operating authority, and financial responsibility.) This compliments the efforts of the federal government and the states in deploying CVISN Level 1 capabilities that support exchanging motor carrier and commercial vehicle safety information electronically, automating the interstate credentialing process (both within and among states,) and establishing roadside electronic screening of commercial vehicles at one fixed or mobile site. The UCR will enhance access for federal and state roadside safety inspectors to a system which contains current carrier and commercial vehicle safety data, as well as federal, interstate, and intrastate credentialing information, that can be used to identify and target high-risk carriers and commercial vehicles, a fundamental tenet of CVISN.

The UCR will reduce the burden on the motor carrier industry by eliminating the need to complete redundant registration forms. The UCR would eliminate the need to file in multiple places and, therefore, would make the requirement for a periodic filing less burdensome to the carriers. This will increase mobility and productivity, two goals of the ITS program, by making carriers operational two months earlier.

CVISN Level 1 Deployment

CVISN Level 1 deployment is a primary component of the US DOT's ITS strategy to develop, deploy, and promote cost effective information technologies to carry out its top transportation priority - safety - while at the same time improving the productivity of the transportation system by streamlining the regulatory process and supporting the free movement of trucks and buses throughout North America. Deployment of CVISN and other CVO technologies improve safety by providing: (1) more timely and accurate safety and related credentialing information, enabling federal and state enforcement officials utilize their resources to concentrate on high-risk and uninspected carriers and vehicles; and (2) the architecture and networks that support the electronic access to, and exchange of the safety information needed to identify high-risk carriers and vehicles for inspections.

CVISN is a process for agencies and carriers to work together to solve institutional issues. CVISN is also a process for interconnecting disparate systems and networks to allow multiple agencies in a state, and multiple states to work together to permit one stop shopping of credentials and permits, and coordinated enforcement of the safety and tax laws of each state and the federal government. CVISN includes three primary components:

- a safety inspection component designed to get current safety information to and from the roadside inspector to more precisely target unsafe carriers–this will increase the driver and vehicle out-of-service rate and reduce the violation of out-of-service orders;

- an electronic screening component along the highway to allow the state safety inspectors to clear trucks past weigh stations at highway speeds through electronic wireless communication–this will decrease the delays for participating and compliant carriers at weigh stations to 1-3 minutes per weigh station and increase targeting of high risk carriers; and

- the credentials component between the carriers and the issuing agencies of each state to issue registration, tax credentials and permits to carriers electronically, from computer to computer–this will allow carriers to receive their registration and fuel tax immediately through a carrier automated transaction system using a dedicated or Internet communication.

For each of the three primary components, a number of tools and subelements have been defined:

- Safety information exchange -- There are several software tools that were developed to allow real-time safety and credential data to the roadside. They are SAFER (Safety and Fitness Electronic Records) for communication between federal and state entities, CVIEW (Commercial Vehicle Information Exchange Window) a State-owned system which exchanges both interstate and intrastate carrier, vehicle, and driver safety and credential data within the State and with SAFER, and ASPEN (No Acronym) for local systems at the safety inspector site. Using ASPEN and SAFER, the inspector has the capability to retrieve prior inspections of individual vehicles and drivers to verify the repair of violations and the adherence to out-of-service orders. As part of CVISN deployment, States can use these software systems or an equivalent system that will take safety and credential data and format it in a standard manner.

- Credential administration -- There are three subelements under this component. These are: (1) end-to-end processing, (2) connection to international registration and fuel tax payment plans, and (3) a percentage of state records that are expected to be processed electronically. Under the first subelement the carriers will be able to apply for and receive credentials electronically from the states through an end to end processing arrangement. The software tools that were developed to provide immediate delivery of credentials to carriers, and help to eliminate the need for walk-in service, are the Carrier

Automated Transaction System (CATS), which is the link between the state and the carrier; and the Credentials Interface (CI), which is the link between CATS and the state legacy systems. In addition carriers and states have a choice to use the Internet for conducting electronic transactions. Several states have been developing web-based credentials systems where a carrier can link directly to the state credential system over the Internet. Credentials include registrations for interstate carriers under the International Registration Plan (IRP), which is a state based international program between the United States and Canada that allows fees to be prorated based upon the percentage of miles driven in a jurisdiction. It also includes the payment of fuel tax under a similar international arrangement called the International Fuel Tax Agreement (IFTA). IFTA proration works the same as IRP. Under the second subelement the states will be able to connect to the IRP and IFTA Clearinghouses, which will allow payments and record exchange for registration and fuel tax between states to be done electronically. Under the third subelement the states are expected to process at least 10 percent of their registration credentials using the link and interface systems established under subelements one and two.

- Electronic screening -- There are two subelements under this component. The first is implementing electronic screening at a minimum of one fixed or mobile site. This includes the capability to screen vehicles that pass a roadside check station by reading their identifiers from a transponder, correlate that with vehicle weight and a snapshot of safety and credentials information, and determine whether further inspection or verification of credentials is required. The second subelement is to design the system to allow replication at other roadside sites throughout the state. The electronic screening component is also being developed for use at international border crossings to verify safety and credential information for motor vehicles entering the United States.

CVISN is being developed and deployed using a "building block" approach. This approach is designed to achieve a 15-state CVISN network by the end of CY 2002 and meet the TEA-21 goal to deploy CVISN in a majority of States by 2003. Achieving this goal is contingent upon states receiving FY 2002 federal ITS deployment funds and/or state resources to support CVISN deployment.

The first step of this approach was to develop CVISN Level 1 capabilities in a prototype environment for two States, Maryland and Virginia. This allowed the system to be developed and implemented simultaneously and shorten the research, development and implementation cycle. Work in these States was initiated in FY 1996 and was completed during FY 2000.

The second step was to select a second wave of states through a competitive process to pilot test the deployment of CVISN Level 1 capabilities using the products developed in the prototype states. These states (California, Connecticut, Colorado, Kentucky, Michigan, Minnesota, Oregon, Washington) have completed business plans, technical project plans, and several states have implemented portions of CVISN; such as the roadside component of safety information

exchange and electronic clearance with HELP, Inc. in California and Colorado; NORPASS in Kentucky and Washington; and GREENLIGHT in Oregon. Kentucky, and Washington will be deploying CVISN Level 1 capabilities by the end of FY 2000, and California and Minnesota will be completed by the end of fiscal year 2001. Colorado and Connecticut will complete Level 1 deployment by the end of fiscal year 2002. The FMCSA's and the FHWA's highest priority for the use of federal ITS deployment funds will continue to be completing CVISN Level 1 deployment in Michigan and Oregon. This will provide the essential foundation for subsequent deployment of Level 1 capabilities across the nation in support of the TEA-21 goal for CVISN deployment.

The third step of this approach is to support business planning and provide technical guidance and lessons learned for the third wave of CVISN states. In each state, the process from the initial training, the development of a business plan, the technical training and technical project planning, and the implementation of CVISN Level 1 capabilities is expected to take approximately 3-4 years. Thirty-seven states have completed business plans, and five are in varying stages of completing the business plans. Twenty of the 37 states have completed the technical workshop training that provides them a detailed project plan and top-level system design to begin building CVISN in their respective states during the summer of 2000. From this group of 20 states, we estimate that 6 states will be in a position to complete CVISN level 1 by the end of FY 2002 (contingent upon receiving FY 2001 federal ITS deployment funds and/or state resources to support CVISN deployment).

Safety Technology for 2010

Technology is changing rapidly. It is critical to be able to identify, test, deploy, and evaluate new technologies quickly, and explore new operational concepts using existing technologies in a timely fashion that will: (1) reduce the number of fatalities and injuries resulting from commercial motor vehicle crashes; (2) improve the identification of high-risk motor carriers, vehicles, and drivers; and (3) support the enforcement of and compliance with performance-based regulations; and (4) increase the efficiency and accuracy of safety data collection and access at the roadside. New technologies and operational concepts are needed to address commercial motor vehicle and driver safety and strengthen the efficiency and effectiveness of federal and state enforcement and compliance activities. Improving the electronic exchange of, and access to safety information and the deployment of systems and technologies that address commercial motor vehicle and driver safety hold great promise for reducing the number of fatalities and injuries resulting from truck and bus crashes.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

Safety Data Systems

- The SAFER system will be in the first stage of integration with other FMCSA safety data systems to provide information from a host of data bases, such as the Commercial

Driver's License Information System, to roadside inspectors, insurance companies and motor carrier managers; and to expand motor carrier safety enforcement from purely governmental to a more shared responsibility with the private sector.

- Complete CVIEW, a state based system designed in a similar manner as SAFER but provides the states the opportunity to send both interstate and intrastate motor carrier registration records to the roadside. SAFER only handles interstate carriers under the federal responsibility of FMCSA. With CVIEW the states will have the generic capability to provide roadside safety inspectors intrastate as well as interstate credential information (registration and tax) in a common format.

CVISN Level 1 Deployment

- In addition to Kentucky, Maryland, Virginia, and Washington, completed in 2000; CVISN Level 1 will be complete in California and Minnesota in FY 2001. Colorado and Connecticut will be funded to complete deployment in FY 2002.

- Interoperability tests are complete in California, Kentucky, Maryland, Minnesota, Virginia, and Washington.

- Up to 9 additional states will complete their ITS/CVO Business Plans during FY 2001.

- In addition to the 30 States, up to 13 states will complete their CVISN project plans and top-level designs during FY 2001.

- Up to 9 states are expected to begin deployment of CVISN Level 1 capabilities during FY 2001 (contingent upon receiving FY 2001 federal ITS deployment funds and/or state resources to support CVISN deployment.)

- The credential development, testing and model deployment of the IRP Clearinghouse is completed. The clearinghouse integrates and provides CVISN Level 1 credentialing capabilities to CVISN prototype and pilot States; and approximately one half of all IRP jurisdictions are connected to the clearinghouse with an initial operating capability. The clearinghouse also conducts electronic records transfer to the appropriate states. IRP credential data is sent to SAFER and is included in snapshots sent to the roadside safety inspectors for enforcement support.

- The credential development, testing and model deployment of the IFTA Clearinghouse is completed. It provides CVISN Level 1 credentialing capabilities in support of CVISN pilot deployment. Two-thirds of all IFTA jurisdictions are connected to a fully operational clearinghouse and may access it for business functions and related services. The clearinghouse also conducts electronic records transfer to the appropriate states as does the IRP Clearinghouse. IFTA credential data is sent to the SAFER system and is

included in snapshots sent to the roadside safety inspectors for enforcement support.

- Complete the interoperability test plans that states, motor carriers and vendors will use to test out their specific ITS/CVO components for architecture conformance.

- Provide technical support to the users of the interoperability tests through 2003 to assist in meeting the Congressional goal of a majority of states operating under CVISN.

Safety Technology for 2010

- Assessment of infra-red brake testing technology is complete. Brake testing technologies will be used more extensively in a compliance and enforcement environment.

- Testing of visual imaging technology (e.g., optical character recognition systems) to identify motor carriers is expected to be complete. This technology will complement the dedicated short range communication (transponder) technology, which is only voluntary on the part of motor carriers. The objective is to identify vehicles/carriers with the new Inspection Selection System 2 (ISS2) safety assessment software for screening and to get the trucks of safe carriers out of the queue along the highway electronically.

- Integrate new technological developments into ASPEN system, such as voice recognition, transponder interface, and Internet secure communications.

- Begin the impact analysis of safety technology on helping FMCSA meet the goals to reduce the number of fatalities resulting from commercial motor vehicle crashes 50 percent by 2010 and the number of persons injured in commercial vehicle crashes 20 percent by 2008.

KEY FY 2002 PRODUCTS AND MILESTONES

Safety Data Systems

- Safety Data Systems Integration project - Integrate the major safety systems used by FMCSA (SAFER, Licensing and Insurance, Motor Carrier Management Information System (MCMIS) and create a Unified Carrier Register (UCR) that becomes focal point for FMCSA safety management decision making.

- Integrate the Performance and Registration Information Systems Management (PRISM) deployment program, MCMIS and CVISN to improve safety and reduce the number of crashes involving commercial motor by providing more timely and accurate safety and related credentialing information, enabling state enforcement officials to use their

resources more effectively to concentrate on high-risk and previously uninspected carriers, vehicles, and drivers.

CVISN Level 1 Deployment

- CVISN Deployment - up to 46 states in one of the three steps for CVISN Level 1 deployment-planning, design, or deployment, up to 15 states complete (contingent upon receiving FY 2001 federal ITS deployment funds and/or state resources to support CVISN deployment) by December, 2002.

- CVISN Support - Continue to provide technical support to the users of CVISN interoperability tests until the majority of states have deployed CVISN level one.

- CVISN Architecture and Standards- build on the Internet and electronic data interchange (EDI) standards and migrate to an Extensible Markup Language standard and incorporate into CVISN.

- CVISN Training - develop and conduct 3 new courses on deploying safety technology to assist in meeting the goals to reduce the number of fatalities resulting from commercial motor vehicle crashes 50 percent by 2010 and the number of persons injured in commercial vehicle crashes 20 percent by 2008. Conduct CVISN technical workshops for 4-5 new states deploying CVISN.

- Draft a Notice of Proposed Rule Making for CVISN related standards and interoperability tests.

Safety Technology for 2010

- Explore an expansion of the CVISN capability to allow more widespread targeting of high risk commercial motor vehicles on the National Highway System, at truck stops and truck terminals, and other locations throughout North America. Develop and test a driver-based screening system. Implement decision-support tools to respond rapidly to new technology decisions. Targeting emphasis is on:
  - unstaffed roadside inspection and other sites;
  - transponders on high risk carriers as a condition for rehabilitation;
  - transponders on new entrants as a probationary condition; and
  - information linkage with Canada and Mexico safety record systems.

- Develop concept and prototype the integration of Intelligent Vehicle Initiative (IVI) commercial vehicle platform on-board safety data systems with roadside enforcement systems.

- Support the initial deployment of an imaging system that reads US DOT registration

numbers, or other identifying marks. Build on the work conducted in FY's 2000 and 2001 to allow electronic identification of motor carriers for screening at highway and ramp speeds.

- Establish tools to assess the benefits of deploying new technologies and operational concepts. These tools are expected to assist in decision making for:
  - technology investments (CVO Research Program focus)
  - program orientation (FMCSA-wide focus)

FY 2002 PROGRAM REQUEST

The Research and Development request for CVO is primarily focused on the support necessary to assist the US DOT and the FMCSA in meeting the goals to reduce the number of fatalities resulting from commercial motor vehicle crashes 50 percent by 2010, and the number of persons injured in commercial vehicle crashes 20 percent by 2008; and to achieve the TEA-21 requirement to deploy CVISN in a majority of states by 2003. Under those priorities are 3 subdivisions of research: (1) Safety Data Systems, (2) CVISN Level 1 Deployment, and (3) Safety Technology for 2010 program.

1. Safety Data Systems -- $4.0 million

The FMCSA's safety data system integration project will be in its second year of modification to modernize the methods of storing and retrieving records and to provide more effective tools for identifying high-risk carriers at border crossings and at roadside on the nation's highway system.

The major data system access is expected to be made through SAFER, which was developed under the ITS CVO program to support roadside safety inspectors with near real-time access to carrier, vehicle and driver safety and credential information. Under the modernization project SAFER will serve as the central access system for all FMCSA query activities supporting the needs of both internal and external operations.

In conjunction with the SAFER modernization, funded by the ITS program, all FMCSA safety data systems will be modified, and new ones may be developed. Chief among the safety data systems to be modified is the Motor Carrier Management Information System (MCMIS). Funding for MCMIS redevelopment will be made by FMCSA. The Unified Carrier Register (UCR) is a new system to be developed and integrated into the safety data system suite of support tools. The UCR will serve as the focal point for census information and other data that may be common to those systems that now operate in a stand-alone mode. The UCR is critical as a linking mechanism to bind all FMCSA's safety data systems together.

SAFER obtains weekly updates of interstate carrier safety data from the MCMIS and daily updates of licensing and insurance credential data, for required carriers, from the Volpe Licensing & Insurance (L&I) system. Both types of data include independently generated census information, which is also stored locally within SAFER's database. Several problems exist with this model. They include: (1) data inconsistency among the three systems due to update rate variability, and (2) the potential for data inconsistency resulting from data replication on a non-real time basis. These problems will be eliminated when the census information as well as the other common data elements shared among the three systems are maintained in a single, shared database system, i.e., the database proposed for the UCR.

The UCR will integrate FMCSA safety and supporting federal credential application systems and their data that will provide industry and the enforcement community an integrated set of motor carrier online registration and business services. Also to be integrated into the integrated safety data system is the PRISM program which provides the capability to do a pre-registration check on carriers prior to issuance of their credentials.

The UCR will provide electronic one-stop shopping for carrier registration and insurance filing for interstate motor carriers by integrating the carrier registration functions performed by the current MCMIS and L&I systems. It will replace the paper-based carrier registration process used today with an interactive electronic method that is expected to reduce registration time for carriers from weeks to minutes.

The UCR will also provide users access to a variety of FMCSA safety and supporting credential business services via a common, integrated SAFER interface. In addition to registration, these services will include access to FMCSA data products such as carrier profile reports, inspection reports, crash data, enforcement data, and compliance reviews.

The funding of $9 million for the UCR development is shared equally by the ITS Joint Program Office and FMCSA (ITS-$4.5 million and FMCSA safety data system funds-$4.5 million). ITS funding for the UCR piece is spread over a three year period from 2001-2003, at $1.5 million per year. The SAFER redevelopment funding is spread over a two year period, from 2001-2002, at $2.5 million per year. FMCSA will fully fund operations and maintenance of the SAFER CVISN system from other than ITS funding sources. PRISM is funded under Congressionally designated funding in TEA-21.

Safety Data Systems development is in the fifth year of a seven-year project; $6.0 million was spent in FY 1996; $5.1 million was spent in FY 1997; $3.6 million was spent in FY 1998; $3.05 is expected to be spent in FY 1999; $1.925 million was requested for FY 2000; $4.0 million is projected for FY 2001; $4.0 million is projected for FY 2002; and $1.5 million is projected for FY 2003.

2. CVISN Level 1 Deployment -- $1.2 million

Dedicated technical support is critical to meeting Congress' goal to deploy CVISN in a majority of states by 2003. The funding provides technical support as well as the peer-to-peer assistance to the states to mitigate deployment risks facing new state implementors and to minimize deployment costs.

a. National Technical Support - $400 thousand

The purpose of this item is to provide FHWA and FMCSA headquarters staff assistance with technical support needed to meet the Congressional goal contained in TEA-21, which establishes the goal for a majority of States to be deploying CVISN by September 30, 2003. This includes assistance in providing FMCSA the capability to develop strategies, plans, and schedules for future CVISN deployment as required by TEA-21; identifying and analyzing issues, including facilitating their resolution; providing technical support related to CVISN deployment and related standards/architecture; reviewing and evaluating State CVISN project plans and other deployment documentation to ensure that State and motor carrier CVISN deployment is successful and in conformance with the National ITS and CVISN architecture; and coordinating with other related efforts impacting CVISN deployment. Assistance will also be provided for FMCSA to develop and maintain current formal and informal planning and coordination documents needed to support Congress' CVISN deployment goal.

The National Technical Support component is in its fourth year of a multi year project. It was funded at $500 thousand in FY 1998; $450 thousand in FY 1999; $550 thousand in FY 2000; and $400 thousand in FY 2001. The budget request for FY's 2002-2003 is $400 thousand per year.

b. Peer-to-Peer Support - $300 thousand

These funds will provide for deployment support on an as-needed basis to State CVISN personnel implementing ITS/CVO by experienced FHWA and FMCSA ITS/CVO Division office staff, FHWA Resource Center and FMCSA Service Center staff, and State and consultant CVISN implementors. FHWA and FMCSA field staff and State implementors will provide deployment support in the area of institutional and process issues. Staff from the Johns Hopkins University Applied Physics Laboratory and other CVISN system integrators will provide highly technical deployment support to new State implementors. New implementors will be able to contact on a periodical basis experienced peers and, depending on the need and their availability, these experienced peers would provide assistance remotely or with site visits. Also, the new implementors will also use the program to visit sites of deployed ITS/CVO technologies. The goal of this program is to facilitate technology transfer and provide lessons learned to mitigate deployment risks facing new state implementors and to minimize deployment costs.

The objective is to provide experienced technical support to the 25 or more States, expected to be in the midst of deployment activities in FY2002. Potential tasks include:

- Answering questions about the architecture
- Reviewing plans and designs
- Participating in technical review meetings (possibly via teleconference)
- Helping to troubleshoot and resolve institutional and/or technical issues
- Interpreting requirements for architectural and standards conformance
- Processing change requests to the architecture

The areas of expertise would include:

- CVISN project management
- System engineering
- CVISN architecture
- EDI and XML standards and technology
- DSRC standards and technology
- Safety information exchange
- Credentials administration
- Electronic screening

The Peer-to-Peer component is in its second year of a multi year project. It was funded at $975 thousand in FY 2000, $300 thousand in FY 2001; and $300 thousand is projected for each of FY's 2002-2003.

c. Program Support - $100 thousand

Program support funds will be used to provide the CVO program continued maintenance and upgrades to the ITS/CVO website to help advance the deployment of CVISN and other CVO program components. This funding will also support two ITS/CVO Deployment Conferences per year; one in the eastern part of the U.S. and one in the west. These conferences will provide an opportunity among the 42 States participating in various stages of CVISN deployment to discuss technical ITS/CVO deployment issues; to share lessons learned among safety, credentialing, and electronic screening staff from the states; to learn about ITS/CVO safety technology developments in short tutorial sessions; and to receive information on the latest technology developments from the private sector.

d. Interoperability Testing - $400 thousand

The interoperability of CVISN is critical to its success as a national program. To be assured of interoperability requires dedicated support on architectural conformance as systems are deployed. One assurance of architectural conformance is passing the interoperability tests developed by the JHU APL. Although acceptance testing on project implementation is generally the responsibility

of state contractors, national assistance is critical to meeting the CVISN deployment goals, especially as it relates to tests that may need to be conducted between states. The intention is to provide support to the states on interoperability testing through FY 2003 to expedite and help meet the goal for a majority of states to be operating under CVISN level one.

The US DOT expects to formally adopt in FY 2002, thru rulemaking, ITS/CVO standards, implementation guides and related interoperability test suites once adequate field testing and stakeholder approval has been reached. Funding is needed to test the interoperability test suites and to maintain the tests until they have been adopted under rule making.

This is the second year of a five year project, It was funded at $1.0 million in FY 1999, $1.0 million in FY 2000; $500 thousand is requested for 2001; $400 thousand is requested for FY 2002 and for FY 2003.

3. Safety Technology for 2010 -- $1 million

The US DOT and the Federal Motor Carrier Safety Administration (FMCSA) have established goals to reduce the number of fatalities resulting from commercial motor vehicle crashes 50 percent by 2010 and the number of persons injured in commercial vehicle crashes 20 percent by 2008. To achieve these goals will require innovative countermeasures. It can't be business as usual or the goals will not be met. ITS/CVO research and development can help the Department and the FMCSA provide the leadership needed to carry out its highest transportation priority - safety. New technology for safety enforcement has been developed through CVISN Level 1 deployment, the Motor Carrier Safety Assistance Program, and the PRISM program. Additionally, work is underway to integrate the safety systems of FMCSA and provide access to those systems to all interested parties through an Internet link. Technology is also being developed by the motor carrier industry to improve operations and provide a competitive advantage. As part of the Safety Technology for 2010 program, the power of that technology and the technology being developed by US DOT need to be focused together on the safety problems

As vehicles are becoming smarter, the roadside inspection community needs to be moving forward in parallel and have the ability to communicate with the new generation of vehicles. Diagnostic monitoring tools and their associated system interfaces at the roadside will become increasingly more important to the advancement of safety enforcement and compliance.

The application of existing technologies can be viewed in a different way, such as having high-risk carriers place transponders on their vehicles, exploring the use of unmanned and automated inspection sites, and performing electronic screening based on commercial motor vehicle driver data, as opposed only to carrier and vehicle data. Driver data is a higher predictor of crashes than is vehicle data. This would allow federal and state enforcement officials to use their resources more effectively and concentrate on high-risk and uninspected motor carriers, vehicles, and drivers. The various concepts was initially explored in FY 2001 and will continue to be explored

in FY 2002. The most feasible of the concepts are expected to be prototyped in FY's 2003 through 2005.

During the FY 2003-2005 time frame, the FMCSA needs to become very active in promoting the transfer of technologies that impact motor carrier safety, enforcement, and compliance to the federal and state enforcement community and to the motor carrier industry. This could be done through various training and education programs. Improving the electronic exchange of, and access to, safety information and the deployment of systems and technologies that address commercial motor vehicle and driver safety hold great promise for reducing the number of fatalities resulting from truck and commercial passenger carrier crashes.

In addition to applying technology, decision support tools are needed to help FMCSA make appropriate technology investment decisions for the future. To meet that need, technology which is in use today needs to be assessed for its effectiveness and its particular impact on safety improvement. In addition a focused research effort on new technology developments is critical for FMCSA to shape its program for the future, and to identify future areas of emphasis. A research program on conducting an assessment of the effectiveness of safety technology will begin in FY 2002.

A strategic plan for rolling out the Safety Technology for 2010 program will begin in FY 2003.

Funding to demonstrate cost-effective new and existing technologies for achieving improvements in motor carrier safety and enforcement began in FY 1997, when $685 thousand was spent to support on-board safety diagnostics. In FY 1998, $. 25 thousand supported the analysis and evaluation of brake technologies. During FY 1999, $200 thousand was spent to support advances in roadside technologies, such as infrared brake testing machine. In FY 2000, $350 thousand was budgeted to examine automatic motor carrier identification technologies. In FY 2001, $650 thousand was requested for new technology research. The work accomplished under these funds created the foundation for initiating the Safety Technology for 2010 program. The budget request for this item in FY 2002 is $1 million, and $2 million annually for each of FY's 2003 through 2005. In FY 2002, funding is also being requested through the FMCSA R&D budget to share in the cost of safety technology initiatives.

Program Title: RESEARCH AND DEVELOPMENT - INTERMODAL FREIGHT

Budget Items No.:

Amount Requested for FY 2002: $0

GOALS

The ITS intermodal freight research program supports the USDOT and FHWA goals of enhancing productivity, through the development of technologies that facilitates the movement of freight and improves mobility.

PERFORMANCE MEASURES

The intermodal freight research program will develop technologies that, when deployed, will reduce the cost of freight movement and reduce delays on Federal-aid highways.

BACKGROUND

The ITS intermodal freight research program complements One DOT efforts to coordinate planning and infrastructure development across transport modes. It ensures that technologies applied are interoperable, efficient, and well coordinated. Intermodal is increasingly the means by which trade moves. Trade is also typically multi jurisdictional; that is, States, localities, and other countries work together to facilitate intermodal freight movement. Given the increasing reliance on intermodality and the issues of multi jurisdictional coordination, a strong Federal presence is required to ensure a strategic and coordinated perspective by all parties. Between 1981 and 1997, the share of U.S. GDP devoted to freight logistics declined from 18.1% to 10.4%, but has recently increased to 10.8%. Developing a strong national ITS intermodal program to improve freight flow efficiency will allow U.S. firms to (1) reduce freight logistics costs; (2) adapt innovative manufacturing/distribution strategies to compete more effectively in a global market; and (3) support advanced corporate basic and applied research programs. The partnership between industry and government will benefit both parties, strengthening the U.S. economic base, protecting U.S. jobs and providing opportunities for advanced technology job creation. This partnership is not possible without strong Federal involvement.

The objective of the intermodal freight research program is to increase the efficiency of intermodal freight movement over the nation's highway system, rail lines, waterways, and ports of entry, focusing on intermodal freight movements that contribute to domestic economic health, international trade and the national defense. This program will apply the technology and the lessons that have been learned from the intelligent transportation systems (ITS) operational tests, and the metropolitan and CVISN model deployments, to facilitate the movement of freight along

major trade corridors, through major metropolitan areas and across congested borders with Canada and Mexico.

Linking information systems between the modes to provide an end-to-end information flow is expected to enhance and make more efficient the movement of freight through highly congested areas. Productivity will be improved through reductions in time and cost for freight movement, as well as the improved reliability and predictability in the pickup and delivery of intermodal freight.

Over the past three years the USDOT's intermodal freight program has been building a strong foundation to meet the end goal of increasing overall efficiency for the U.S. transportation network as well as facilitating its integration into the world transportation network.

In FY 1999 ITS funds were used to establish a public/private Intermodal Freight Technology Working Group (IFTWG) under ITS America. Together both government and industry have been mapping the intermodal freight processes to better understand the linkages between modes and between shippers and carriers. In addition two intermodal freight operational tests were initiated. The first was with Washington State and the ports of Tacoma and Seattle and Sealand to develop better planning methods for moving freight through the Pacific Northwest. The second test involved Chicago O'Hare airport, Illinois DOT and the ATA Foundation to develop an end-to-end secure electronic manifest system to integrate highly secure processes into the normal freight operations from manufacturer to customer. Both of these operational tests will link appropriate information systems to expedite the movement of trucks through major metropolitan areas as they deliver and pick up containers at port and air freight facilities.

In FY 2000 ITS funds were used to conduct six major tasks:

- Complete the mapping of the intermodal freight process under the IFTWG.
- Complete the border operational tests on safety systems, being conducted in conjunction with U.S. Customs.
- Develop a border crossing modeling tool to establish a baseline and to measure the benefits of ITS improvements at borders.
- Provide oversight and evaluation of the freight operational tests in the Pacific Northwest and in Chicago.
- Conduct a National Freight Technology Conference in Rosslyn, VA to continue the partnership with the Department of Defense and industry on technology harmonization

- Begin the development of an intermodal freight user service as a beginning to an intermodal freight national architecture.

In FY 2001 ITS funds were requested to build on lessons learned and conduct additional operational tests in major metropolitan areas, and to enhance the efficiency and safety of commercial vehicle traffic. Additionally the intermodal freight user service is expected to be complete and an intermodal freight architecture is expected to be initiated. The freight architecture will support Federal, State and MPO responsibilities in facilitating interstate commerce and ensuring public safety. Included in that activity will be a border architecture to link the activities of transportation, customs and immigration. The two operational tests in the Pacific Northwest and Chicago and Newark are expected to be completed in FY2001.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

- Build on the freight process mapping of ITS America's Intermodal Freight Technology Working group and complete the intermodal freight user service as part of the development of an architecture.
- Complete a border architecture that includes processes on both sides of the border for the federal inspection services, the DOT, the carriers, and the states.
- Initiate development of an intermodal freight architecture.
- Begin development of a modeling tool that will provide investment guidance for conducting additional operational tests.

KEY FY 2002 PRODUCTS AND MILESTONES

No funds are being requested for this program in FY 2002.

FY 2002 PROGRAM REQUEST

No funds are being requested for this program in FY 2002.

Program Title: R & D - ARCHIVED DATA USER SERVICE

Budget Share For:

[illegible]: $ 1 MILLION

GOALS

This program supports the USDOT and FHWA goals of enhancing safety, mobility, productivity and the human and natural environment, through the archiving and sharing of ITS collected data to enhance decision making capabilities for improved transportation operations.

PERFORMANCE MEASURES

The Archived Data User Service (ADUS) program supports the deployment of ITS systems that archive and share data that is collected through other ITS tools and services. The archiving of data enables different agencies and institutions to comprehend their transportation system operation more accurately so that agencies execute well informed operations decisions.

BACKGROUND

A key feature of Intelligent Transportation Systems (ITS) is the use of information about transportation system conditions to improve overall system performance. ITS can generate massive amounts of data that are used primarily in managing system operations and providing information on system conditions and choices to the public. Increasing deployment of ITS throughout the nation has brought an awareness that ITS-generated data offer great promise for uses beyond the execution of ITS control strategies. Often, ITS activities provide data similar to that traditionally used in transportation planning, operations, administration, and research. In some instances, ITS-generated data have no current counterparts in these disciplines and offer the potential for new and extended applications. Therefore, archiving ITS-generated data after they have been used in ITS operations can provide a valuable resource.

The significant beneficiaries of archived data are Traffic Management and Transit Operators, whose systems are the primary sources of ITS-generated data. The use of archived data will allow Traffic Management operators to progress beyond the current practice of traffic control into dynamic, responsive plans that intervene before traffic conditions become disrupted. Likewise, Transit Operators who have implemented electronic fare payment systems or automatic passenger counters are also able to make use of data for short-range planning activities such as route and schedule delineation. Other significant contributors and consumers of archived data include the Freight community and the Incident/Safety community.

Archived ITS data coupled with "traditional" data sources enable new forms of analysis to develop because of the high degree of spatial and temporal data inherent with ITS. Because traditional data collection activities are expensive to undertake, such efforts rely on statistical samples. ITS-generated data are continuously collected, or nearly so, thus greatly reducing sampling bias. Also because of their continuous nature, variability in system performance and response can be studied. Finally, much ITS-generated data are available for very small time intervals, allowing for greater resolution in analyses and models.

The ADUS program was executed with funding from various sources until FY 2002, in which a distinct ADUS program element was defined under the ITS Research and Development program area.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

- **Meta-data and XML Research:** Guidance established on what information is required when describing archived data elements so the user community of archived data can reference information, understand the contents of the archive, and understand how data were transformed into the archive.

- **ITS Data Collection Technology Survey:** Guidance for technical research on data issues based on survey of emerging data collection technologies that have capabilities beyond "traditional" ITS data collection mechanisms.

KEY FY 2002 PRODUCTS AND MILESTONES

- **Data Quality and Aggregation Research:** Preliminary guidelines will be available to describe techniques that assure a known level of quality control for archived data. Recommendations will be made for procedures which enable data collected from ITS to be used to automatically support federal reporting such as through the Highway Performance Monitoring System (HPMS) or the National Transit Database (NTD).

- **Data Ownership and Privacy Research:** Preliminary guidelines will be available on institutional and private sector liabilities, rights, and responsibilities in shared and proprietary ADUS deployments.

FY 2002 PROGRAM REQUEST

1. Data Quality and Aggregation Research - $300 Thousand

This project will investigate issues regarding: error checking and validation; data management and storage; data analysis; and data communication and reporting. These issues are common for any ADUS implementation and are significant considering the high degree of integration ADUS will have among its user community. Certain ITS collected data, such as video images, have unique properties that will affect its archiving and retrieval. Techniques for addressing special ITS data will enable integration with other archived data. This project also will compare statistics compiled for federal reporting, such as the Highway Performance Monitoring System (HPMS) and the National Transit Database (NTD), and will determine if the use of archived ITS data does introduce differences compared to the traditional means of collecting data. This study will also investigate why such differences arise and their impact on the data's usability. The results of this effort will be used to develop guidance and input to the ADUS outreach and awareness efforts.

This is the second year of a three year effort; $100,000 will be spent in FY 2001; $300,000 is requested for FY 2002; $50,000 is anticipated to be spent in FY 2003. Non-ITS funding contributions to this project amount to $10,000 in FY 2001; $10,000 in FY 2002; $90,000 in FY 2003.

2. Data Ownership and Privacy Research - $200 Thousand

This effort will investigate institutional issues that are anticipated to arise in the implementation of ADUS, especially for integrated systems which bring together public and private institutions. The potential for a private sector ADUS market poses particular challenges that need to be investigated as ADUS is implemented across the country. Institutional issues include: data access, ownership, and privacy concerns; defining concepts of operations on who cleans, stores, maintains and pays for the data; degree of private sector involvement; and security issues. Private sector issues include: public agency rights to privatized ADUS data, advertising presented with ADUS products, shared ownership rights.

This project will investigate these issues, both from the perspective of how to encourage private sector ISP involvement, and what type of involvement is desirable from the public's perspective. The project also will produce recommendations and examples to be used in developing guidance and the outreach/awareness efforts of the program.

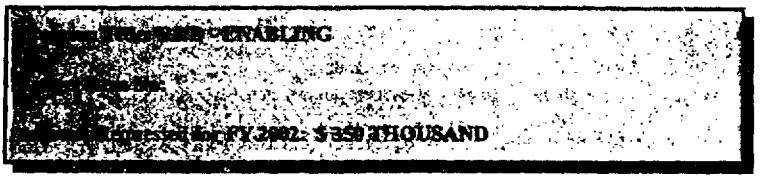
This is the first year of a two year effort; $200,000 is requested for FY 2002; $120,000 is anticipated to be spent in FY 2003. Non-ITS funding contributions to this project amount to $20,000 in FY 2002 and $30,000 in FY 2003.

3. Data Archiving Pilot Study - $500 Thousand

This study will focus on the impact data archiving can have on improving traffic management decisions. This project will focus on integrated archiving that combines the ITS collected data from two or more ITS sources (or centers as they are defined in the National ITS Architecture). An example is the integration of information from both transit and traffic management centers. The application of data archiving in a real-time operations management environment will yield improvements in data archiving techniques and traffic management practices. The implementation of data archiving in the context of a traffic management center will allow observation on how operators interact with archived data and how such interactions enhance their tactical decisions.

New issues arise once integration is attempted including how data should be structured, consistency in data definitions, and data update cycles. Institutional issues concerning who is responsible for what processes, how the data is shared, liability, etc. also become critical. The pilot study results will be used to support the development of guidance for integrated archived databases from multiple sources.

This is the first year of a three year effort; $500,000 is requested for FY 2002; $300,000 is anticipated to be spent in FY 2003; $0 is anticipated to be spent in FY 2004. Non-ITS funding contributions to this project amount to $100,000 in FY 2002, $100,000 in FY 2003, and $200,000 in FY 2004.



GOALS

The enabling research program supports the USDOT and FHWA goals of improving safety, mobility, and productivity, through the development of essential crosscutting ITS technologies.

PERFORMANCE MEASURES

The enabling research program supports ITS technologies that, when deployed, will reduce the rate of highway-related fatalities and injuries, reduce delays on Federal-aid highways, and reduce the cost of highway freight movement.

BACKGROUND

Communications technologies form the backbone of virtually all ITS services, functions, and capabilities. Early in the ITS Architecture program, a number of communications issues were identified that were critical to the implementation of ITS. The communications research has been oriented to examining those issues, performing the technical analyses, testing, and evaluation of communication alternatives and new technologies that could be used to support ITS functions. This program continues in the rapidly evolving communications field. One key result of this effort has been the identification of the communication link between vehicles to the roadside to be critical, and the current frequency spectrum used for this link will become crowded causing severe interference in the future. Therefore, late in FY 96 an effort was initiated to obtain a spectrum allocation for this crucial communications link by supporting a petition to the FCC.

This petition was granted by the FCC in October of 1999. The spectrum allocation will provide for a wide range of vehicle to infrastructure communications. These include safety services as part of IVI, electronic clearance as part of CVISN, automatic toll collection, and numerous private-sector applications. The enabling research program is centered on this critical issue and its interaction with other ITS communications functions.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

The FCC has issued an NPRM (Notice of Proposed Rule Making) which allocates 75 MHz spectrum at 5.8 gigahertz for vehicle to roadside communication

KEY FY 2002 PRODUCTS AND MILESTONES

- Technical support through the definition of service rules and technical analyses of testing results. Continue evaluating short range communication systems dedicated to ITS applications and the continued support of the FCC for definition of the utilization of the spectrum allocation from 5850-5925 MHZ.

FY 2002 PROGRAM REQUEST

1. Dedicated Short Range Communications (DSRC) Spectrum Issues - $350 Thousand

This task provides the continuing support for the FCC allocation of the spectrum at 5.8gigahertz for vehicle to roadside communication. The FCC is examining many issues including system capacity, spectrum efficiency, and system applications in order to determine service rules and coordination with other services in the band. This effort will support the analysis activities necessary to answer these and other questions that will be raised over the next two years to insure that the spectrum is useful to the ITS community. Additionally, there are many issues related to standards for this communication link that will need to be addressed. Fundamental to this, as well as to the FCC issues identified above, will be, among other issues, the type of modulation, information transfer rate, and bandwidth requirements.

This is the fourth year of a four year project with total cost of $1,350,000; $450,000 was requested in FY 1999; $200,000 was requested for FY 2000; $350,000 was requested for FY 2001; and $350,000 is proposed for FY 2002.

Program Title: OPERATIONAL TESTS

Budget Item No:

Amount Requested for FY 2002: $ 11.93 MILLION

Program Title: OPERATIONAL TESTS - Traffic Management

Budget Item No:

Amount Requested for FY 2002: $ 1.0 MILLION

GOALS

The traffic management and control field operational test program supports the US DOT and FHWA goals of enhancing safety, mobility, productivity, and the human and natural environments through efforts to develop tools (models, software, guidance documents) that can be used by practitioners to improve the management and control of traffic.

PERFORMANCE MEASURES

The traffic management and control field operational program will develop tools that, when deployed, will reduce the rate of highway-related fatalities and injuries, reduce delays on Federal-aid highways, and reduce on-road mobile source emissions.

BACKGROUND

This program is focused on continuously improving traffic management and control systems that enhance surface transportation efficiency and accommodate user needs for mobility while ultimately leading to the long term goal of dynamic control. This program will be supported by improving and expanding dynamic simulation models to predict capacity problems, by evaluating planned research projects, and by testing the strengths and weaknesses of proposed revisions to surface transportation operations programs. Advanced traffic management and control technologies contribute directly to efficiency and mobility improvements as measured by throughput and travel time. Where advanced signal control and freeway management strategies have been implemented, increases of 17-25% in vehicle throughput and decreases of 8-25% in travel time have been achieved. In addition, implementation of these systems contributes to safety goals by smoothing traffic flow, and thus reducing the number of accidents that occur.

Smoothing traffic flow through management and control technologies also enhances environmental goals by reducing stopping and starting of traffic, thereby reducing emissions.

The ATMS R&D program has six primary focus areas: (1) Long Term Traffic Research (e.g., Dynamic Control Systems)M and Analysis Tools; (5) The Traffic Research Laboratory (TREL) and (6) Human Factors. These research areas are considered the most important core of technologies necessary for the future of the ATMS R&D.

The focus of the Long Term Traffic Research Program is the development of Dynamic Control Systems (DCS). The intent of DCS is to combine the features of adaptive signal control with improved traffic estimation and prediction capability to produce network wide signal control capability that is very responsive to changing traffic conditions. One of the key components of this program is Dynamic Traffic Assignment (DTA). The focus of the DTA research has been to develop and test prototype algorithms that estimate traffic conditions on freeways and arterials where surveillance data is limited or unavailable and predict future (i.e., one hour) traffic conditions based on possible responses to incidents.

The Short Term Traffic Research Program recognizes the need for more immediate solutions to a number of traffic control issues that do not require the sophistication of solutions such as dynamic control. This program is focused on such issues as adaptive signal control, improved ramp metering algorithms, and innovative surveillance strategies.

The Pedestrian Safety and Mobility Research Program will focus on the development and testing of ITS-based traffic control systems and strategies intended to improve the safety and mobility of all pedestrians (including people with disabilities) and bicyclists.

The Traffic Simulation models and Analysis Tools Program is focused on the off-line dynamic simulation model *Traffic Software Integrated System* (TSIS). In FY 2001, the development of a next generation traffic simulation model was initiated. The "new" CORSIM, which is the Corridor Simulation component of TSIS, will replace antiquated computer code with a modern-day computer processing platform capable of meeting the user community's needs well into the next century.

The Traffic Research Laboratory (TReL) combines advanced hardware, software and communications systems to support the research, development, analysis, testing, evaluation, and integration of transportation management systems and technologies. The TReL provides a comprehensive analysis toolbox and experimental test bed to facilitate FHWA's ATMS research and development program. TReL capabilities include isolated device testing in an off-line environment, systems integration testing for off-line applications, and TMC operations testing for on-line emulation in time-critical applications.

The Human Factors Program focuses on the human centered aspects of traffic control. A main emphasis of this focus area is the proper operations of traffic management centers from the perspective of operators and travelers alike.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

The major FY 2001 activities and anticipated accomplishments follow:

- **Adaptive Control Systems** - A prototype version of the adaptive control system (ACS) software was developed for small communities and rural areas (ACS-lite) as part of the traffic research program. The intent was to provide some of the traffic improvement benefits of adaptive control systems as well as the maintenance cost improvements of such systems to small communities at an affordable cost.

- **Pedestrian Safety Systems** - A number of potential ITS-based pedestrian and bicyclist safety systems were deployed in an integrated manner for field testing and independent evaluation.

KEY FY 2002 PRODUCTS AND MILESTONES

- **Adaptive Control Systems** - A field test of the prototype ACS-lite system will be initiated. The test will focus on the performance of the system, the effect on traffic, and the life cycle costs of such a system.

- **Pedestrian Safety Systems** - The field testing of a number of potential ITS-based pedestrian and bicyclist safety systems will be completed.

FY 2002 PROGRAM REQUEST

1. Adaptive Control Systems Field Operational Test - $ 500 Thousand

This project will deploy the prototype low cost version of adaptive control system software that was developed for small communities to test and evaluate the effectiveness of the system as well as the potential life cycle costs. This test will also demonstrate the potential for using ITS systems in small communities

This is the first year of a one year project; $500 thousand is requested for FY 2002.

2. Pedestrian Safety Systems Field Operational Test - $500 Thousand

A number of "technologies" have been identified that are intended to improve pedestrian/bicyclist safety and mobility. Some of these are not fully developed and therefore are not in the marketplace. Some are being used in other countries but have not been tried in the U.S. Some are system components (e.g., pedestrian sensors) which have never been integrated into fully developed ITS systems. Most have never been adequately evaluated in a real world setting.

This field operational test would involve the identification, integration and testing of a number of pedestrian safety/mobility systems and strategies in one controlled real-world setting. A community with appropriate characteristics (e.g., numbers, density and characteristics of pedestrians; mix of urban, suburban and rural locations; highway types and traffic characteristics, existing ITS infrastructure, etc.) would be selected as a test site. Selected technologies would be deployed in an integrated fashion. An independent evaluation would be carried out to determine the performance of these systems as well as their impact on pedestrian safety and mobility. Effects on vehicle mobility would also be assessed. This would be a joint effort with the Safety Research Program.

This is the second year of a two year project. $1 million is estimated for FY 2001 ($500 thousand - ITS Program, $500 thousand - Safety Research Program); $1 million is requested for FY 2002 ($500 thousand - ITS Program, $500 thousand - Safety Research Program).

Program Title: OPERATIONAL TESTS - RURAL

Budget Item No:

Funding Requested for FY 2002: $ 8.45 MILLION

GOALS

The goals of the Rural ITS Operational Test Program are consistent with both the goals of rural ITS and the overall ITS program. The five goals of the rural program are: safety and security, mobility, efficiency, economic vitality/productivity, and environmental conservation. These are goals to meet the needs of system operators, travelers and transporters of goods in rural areas, and on an intercity/national scale.

PERFORMANCE MEASURES

The performance measures for the rural operational test program are: 1) Reduce fatalities, injuries and crashes; 2) Increase mobility, convenience and comfort of travelers by increased accessibility to transportation and traveler services; 3) Increase the efficiency of travel and incident response through reduced delay; and 4) Improve the efficiency of fleet operations and of transportation infrastructure operations and maintenance.

BACKGROUND

Rural America accounts for 21% of our nation's population, spread over 83% of its land area. This large area encompasses 78% of the national road mileage carrying 39% of the vehicle miles traveled. Rural areas also include large parts of the other surface modes. Rural travelers and system operators have unique characteristics and challenges in using, operating and maintaining the rural transportation system. Differences in the needs of rural travelers from urban travelers for information and other ITS services reflect the rural environment of long distances, relatively low traffic volumes, relatively rare traffic congestion, travelers unfamiliar with the surroundings, and rugged terrain in remote areas. The rural needs can be more vital in avoiding dangerous circumstances and receiving aid. Rural areas have an over representation of fatal crashes (About 60% of traffic fatalities and 55% of work zone fatalities occur in rural areas), more safety problems related to high speeds on non-interstate rural roads, and increased response time for Emergency Medical Services (47% of rural fatal crashes have crash-to-hospital times of over 50 minutes compared to 14% in urban areas).

The rural operational test progr m will support the following emphasis areas: 1) Rural Safety Services ; 2) Rural Information and Operations ; and 3) Rural Mobility Services.

Accomplishments and plans for the rural ITS program will be presented under these emphasis areas, although operational tests may integrate more than one area.

The Rural Safety Services emphasis area supports the USDOT and FHWA safety goals through research and development of safety systems aimed at reducing the number of rural crashes and improving emergency services in rural areas when there is a crash. A major emphasis of this program area is the coordination and enhanced performance of the various public safety sectors. Highway incidents, especially serious accidents require the prompt and coordinated response of a number of safety and traffic institutions to ensure emergency aid is provided in a timely manner, hazardous materials are dealt with properly and the incident is cleared to restore full operation of the facility. The application of ITS technologies to facilitate such coordination is a significnat focus of this research area.

The Rural Mobility Services emphasis area supports the USDOT and FHWA mobility and productivity goals through improvements to rural traffic control that will enhance traffic flow. Development and testing of low cost advanced traffic control systems and strategies that are applicable for small communities is the focus of this research. This emphasis area also includes the development of rural transit or transportation services that improve access to transportation and reduce the costs of providing transportation services.

The Rural Information and Operations Services emphasis area supports the USDOT and FHWA mobility and productivity goals by providing enhanced traveler information and enhancing systems operations. Travelers will use this information to improve their transportation decision-making regarding mode, route, and time. System operators will use this information to improve the management of the transportation system. A major emphasis of this research area is the deployment of a telephone based traveler information systems. It is expected that the FCC will soon authorize the use of a single three digit number for traveler information nationwide. The application of this number to traveler information systems will require significant effort to resolve a host of technical, institutional and operational issues. Another emphasis will be the development of weather data collection, prediction and dissemination systems that meet the need to surface transportation operators and users.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

Rural Safety Services

- **Variable Speed Limit (VSL) Operational Test** - A field operational test was initiated to determine the effectiveness of a variable speed limit system using new sensor systems, driver messaging devices and enforcement practices in achieving speed limit compliance and reducing highway crashes.

- **Crash Prevention Operational Test** - The operational feasibility and potential effectiveness of infrastructure based crash prevention systems was demonstrated. A field operational test evaluated the reliability of the system in detecting threatening situations, changes in driver behavior with respect to warning messages, and changes in crash outcomes. The test resulted in lessons learned to be disseminated, warrants for effective systems and additional requirements for roadside-vehicle system interfaces.

- **ALERT Vehicle.** The traffic incident management benefits of the ALERT® system was assessed for commercial systems deployed in police vehicles. Developed through an FHWA Cooperative Agreement, ALERT is a communications and control system for public safety vehicles. An in-vehicle network links electronic equipment such as light bars, sirens, radar, and radios to a touch-screen display. This results in a simpler, safer driving environment. The ALERT system also supports vehicle-to-vehicle and vehicle-to-center data communications via wireless networks. The results of the on-going evaluation will be published in FY 2002.

Rural Mobility Services

- **Multi-agency integration of information systems and transportation coordination** - This test will build a working partnership between the USDOT and the Department of Health and Human Services to improve transportation services. This test began to integrate systems that existed in isolation as a result of seperate regulatory requirements and development programs. The needs for agency customer referral and third-party payment and validation for trips will be met by integration of the information systems among the agencies and transportation providers. This will increase efficiency, improve customer service, and reduce fraud and abuse. The test will lead to further joint standards and development programs between USDOT, DHHS, DOL, USDA and other agencies. The test will identify changes in regulations and procedures that complement the new technical capabilities of ITS-IT integration.

Rural Information and Operations Services

- **Maintenance Decision Support System (MDSS) Operational Test** - A field test was completed of Maintenance Weather Decision Support System This test demonstrated the integration of various weather information that is provided to maintenance operators at the appropriate times for them to cope with certain weather events.

- **N-1-1 Model Deployment:** A location for an N-1-1 model deployment was selected to be a showcase for addressing institutional and technical issues. Such a showcase will yield best practices that can be applied to offset conversion recipients and to new ATIS deployment.

- **N-1-1 Offset Conversion:** Initial funding was made available to motivate and encourage existing ATIS deployments to make their information services available through a N-1-1 number.

KEY FY 2002 PRODUCTS AND MILESTONES

Rural Safety Services

- **Dispatch Data Integration Operational Test** - A field test to integrate ITS technologies and public safety dispatch information systems to enhance emergency response will be initiated. The test participants, venue, and technologies will be selected. Specific common operational procedures and data elements will be developed. Network and system interfaces will be tested and evaluated and user training will be conducted. Operational implementation and evaluation will be conducted during the following year.

- **First Responder Incident Management Data Interoperability Operational Test** - An extensive operational test of the traffic incident management capabilities of mobile data systems will be initiated in an Interstate Highway environment. The test participants, venue, and technologies will be selected. Specific common operational procedures and data will be developed. Network and system interfaces will be tested and evaluated and user training will be conducted. Operational implementation and evaluation will be conducted during the following year.

- **Variable Speed Limit Operational Test** - A field operational test to determine the effectiveness of a variable speed limit system using new sensor systems, driver messaging devices and enforcement practices in achieving speed limit compliance and reducing highway crashes was completed.

Rural Mobility Services

- **Rural Transit** - An integrated weather and emergency management system for transit operators will be implemented and evaluated as part of a filed operational test. Advanced system integration technologies, transit communication standards and protocols, integrated operational concepts, and collaborating operational procedures will be tested. This integrated transit and emergency service will enable rural transit operators to manage weather-related incidents more efficiently, while improving the coordination with travelers and emergency management staff.

Rural Information and Operations Services

- **N-1-1 Offset Conversion:** Continued funding will be made available to motivate and encourage existing ATIS deployments to make their information services available through an N-1-1 number.

- **N-1-1 Model Deployment** - A model deployment of an N-1-1 implementation will demonstrate how a state or multi state region can employ the most successful practices encountered by the N-1-1 Offset Conversion recipients. This will showcase the successful solutions for countering technical and institutional issues for providing ATIS through a single point of access.

- **Weather Decision Support System for Travelers** - A field test will be conducted to demonstrate the operation of advanced data fusion and human-computer interactive decision support technologies to affect the decisions travelers make on their desired route and modal opportunities. Roadway weather information will be provided to travelers in the environment they encounter daily, so that the utility of the decision support system can be refined and improved to better suit traveler's needs.

- **IRRIS/ITS Operational Test** - A field test will be conducted to demonstrate the effective integration of diverse weather information products into an existing resource that is used by the military to manage surface transportation freight movements. The outcome of this test will be an integrated roadway weather and roadway closure tool that has a national scope and that serves the needs of travelers and traffic operators alike.

FY 2002 PROGRAM REQUEST

1. Rural Safety Services Operational Tests - $2.9 Million

a. Dispatch Data Integration - $1.2 Million

Transportation, law enforcement, fire and rescue, and emergency medical organizations across the country are working to improve public safety by sharing information across organizations and jurisdictions. There is a growing consensus that integrated public safety information can help save lives, time and dollars. To date, however, there has been little effort to integrate highway traffic management with public safety or utilize ITS architecture, standards, or deployed systems for public safety operations.

This operational test will integrate ITS technologies and public safety dispatch information systems to enhance emergency response. The logistical challenges in coordinating the response to a transportation incident, whether rural or municipal, are daunting and are exacerbated by often incompatible voice and data communications systems. This test will be conducted in a rural jurisdiction by actual transportation and public safety agencies and will focus on the standards and technologies needed to integrate information across the dispatch and operations centers of the key agencies. It will be structured around the capability to manage a large, multi-agency emergency incident with significant multi-modal transportation challenges, from automobile crashes to disaster evacuation. The operational test will demonstrate the benefits of enhancing field operations involved in locating and responding to the incident, on-scene activities, and documenting the incident. It will be coordinated with the Department of Justice, which has a new initiative underway to integrate criminal justice information systems that are outside the scope of the USDOT ITS Program.

This is a one year project with $1.2 Million requested in FY 2002

b. First Responder Incident Management Data Interoperability Operational Test - $1.2 million

Traffic incidents -- flat tires to multi-vehicle crashes -- are the primary cause of congestion in many areas of the United States. Furthermore, incidents, especially major ones, have the cascade effect of generating additional incidents. The level of congestion and secondary crashes that stem from an incident is proportional to the amount of time it takes to resolve and clear the original incident. For a given type of incident, the incident resolution time depends on how well the various responding agencies are coordinated and integrated. The goal of this two-year project is to reduce incident resolution time by effectively using mobile data technologies.

This project will test the traffic incident management benefits of integrated mobile data systems for highway incident first responders (e.g., law enforcement, fire service, emergency medical service and motorist assistance). ITS technology and systems used for this operational test shall support the rapid and reliable exchange of incident-related information among the disparate first responders at an incident location. The project will include approximately 25 operational vehicles supported by interoperable, network-based communications, to include voice, data and image transfer capabilities. This project will test, refine, and evaluate mobile data technologies, including both the in-vehicle network of integrated technologies and the communications infrastructure support software and databases. A significant part of the operational test is the development, implementation and testing of protocol standards for in-vehicle networking, center to center, and vehicle to center communications. This operational test will be coordinated with the Department of Justice, which has a new initiative underway to integrate criminal justice information systems that are outside the scope of the USDOT ITS Program.

This is a one year project with $1.2 Million requested in FY 2002

c. Variable Speed Limit - $1.0 Million

An operational test of a variable speed limit system will be completed. This test will demonstrate the effectiveness of these systems for enhancing safety and improving mobility of rural travelers. Rural infrastructure components of VSL systems will be field tested and compliance and enforceability of these systems will be demonstrated. Lessons learned from this operational test will be documented for further development and deployment of VSL systems.

This is the second year of a two year project; $500,000 was planned for FY 2001, $1,000,000 is requested for FY 2002.

2. Rural Mobility Services Operational Tests - ITS Integration Between a Rural Transit Provider and HHS Agencies -$1.0 Million

This field operational test will deploy, test and evaluate an integrated system to facilitate coordinated dispatching and operations of subsidized public transportation services. This will be similar to previous field operational tests with different geographical and institutional context. Advanced information system integration technologies, integrated operational concepts, and collaborating operational procedures will be tested in this field operational test project.

This is a one year project with $1,000,000 requested in FY 2002

3. Rural Information and Operations Services - $4.05 Million

a. N11 Offset Conversion - $2.0 Million

Offset conversion funding will be made available to agencies that have established Advanced Traveler Information Systems and offer delivery of information through a phone number. Multiple agencies operating ATIS within proximity of one another will coordinate their ATIS information so that the user can locate the appropriate information even though that information rests with an agency that doesn't operate the N-1-1 number. A research program funded in FY 2001 will provide guidance so that multiple institutions can harmonize their information for N-1-1 users.

The allowance of conversion funding will propel the deployment of ATIS services to the traveler. The funding allowance will encourage those institutions that have not effectively deployed ATIS services for a lack of public acknowledgment. The announcement of the availability of an N-1-1 number, functioning as a nationally recognized customer information portal, will elevate public awareness of ITS and ATIS in particular. Providing the offset funding casts support for the N-1-1 and the technical means for supporting that mechanism for information delivery.

This is the second year of a three year effort to provide funding for the N-1-1 Offset Conversion; $ 2,000,000 is estimated for FY 2001; $2,000,000 is requested for FY 2002; and $ 1,000,000 is proposed for FY 2003.

b. N11 Model Deployment - $750 Thousand

The N-1-1 Model Deployment will implement a showcase regional traveler information system that features an N-1-1 telephone system as a high profile component. This model deployment, initiated in FY 2001, will build upon the experiences and lessons learned from other ATIS implementations that received conversion funding. The best practices observed from the conversion recipients will be employed for establishing a robust N-1-1 system that has an area of coverage that includes a full state or possibly multiple states. Users of the system shall be capable of dialing N-1-1 from within the service area of the model deployment and receive travel information on routes and modes. The model deployment will demonstrate the most successful solutions for the technical and institutional issues encountered during the N-1-1 conversions conducted in FY 2001. Showcase results and techniques will be applied to other recipients of the N-1-1 conversion funding and also to new ATIS deployments that feature N-1-1 components.

This is the second year of a two year project; $350,000 is estimated for FY 2001; $750,000 requested in FY 2002.

c. Traveler Decision Support System - $650 Thousand

This project will consist of a field test of a traveler decision support system to measure the effectiveness of the system in an operational environment - akin to the "weather in the cockpit" systems being developed by the aviation community. Such a system will provide travelers with the immediate road weather warnings they need for safe travel. This operational test will build upon a prototype decision support system that will be developed in FY2001 that provides travelers with route-specific road weather information.

This is a one year project with $650,000 requested in FY 2002

d. IRRIS/ITS Joint Operational Test - $500 Thousand

This project will test and evaluate the use of traffic and emergency management information interfaces in the military's Intelligent Road & Rail Information System (IRRIS). The IRRIS, developed by the Military Traffic Management Command, is a nationwide land traffic control system that incorporates dynamic road closure information for variable horizon decision support of their military movements. The incorporation of roadway weather information, as guided by the Surface Transportation Weather Decision Support Requirements, will enhance the IRRIS functionality by featuring weather information from throughout the country. The intent is to demonstrate inter-jurisdictional information sharing among contiguous regions, in support of the FHWA National Security goal and the program's Road Weather Management objective to deliver weather information to travelers nationwide.

This is a one year project with $500,000 requested in FY 2002

e. Incorporating Surface Transportation Weather Requirements into Weather Services - $150 Thousand

This effort builds upon all the surface transportation weather requirements work to date, focusing on joint activities with the OFCM Weather Information for Surface Transportation Joint Action Group. This includes incorporating the requirements into remote sensing products (e.g., satellite, radar products), National Weather Service numerical weather models of surface attributes, and local digital products from the Advanced Weather Interactive Processing System for surface applications. This project serves to reinforce the coordination among the transportation and meteorological community, so that transportation operations needs are further considered as the NWS refines its products and services.

This is a one year project with150,000 requested in FY 2002

Program Title: OPERATIONAL TESTS - ADVANCED PUBLIC TRANSIT

Budget Item No:

GOALS

The Advanced Public Transit Systems (APTS) operational test program supports the USDOT goal of improving mobility, by testing technologies that can make transit more accessible, integrated, and efficient.

PERFORMANCE MEASURES

This program supports deployment of APTS and transit ITS through operational tests to enhance the following transit performance measures:

- Improving transit accessibility and availability, and contributing to mobility for the 80 million Americans who depend on transit to get to jobs, health care facilities, schools, and other essential services;
- Improving transit efficiency and productivity through reduced travel and dwell times, and improved quality of service and reliability;
- Contributing to alleviate highway congestion in the Nation's major metropolitan areas through application of bus and rail transit APTS and integration with other ITS; and
- Applying APTS and ITS to meet the special mobility needs of the elderly, individuals with disabilities, and economically disadvantaged individuals moving from welfare to work.

BACKGROUND

In meeting the USDOT goal of improving mobility, one of the most potent tools are the public transit systems in the United States. The ability to cause people to travel via public transit verses the private automobile offers significant potential to reduce congestion. The Advanced Public Transit Systems (APTS) program seeks to fulfill this objective by making public transit the mode of choice. To accomplish this, transit must provide faster, more reliable, and easier to use transportation to the public. At the same time transit operators must become more efficient in order to provide these services at a lower cost to the public.

The APTS operational test program is focused on testing the deployment of APTS technologies and the integration of these technologies by linking them in order to share data within and across transportation modes and across local, state, and regional jurisdictions. Integrating ITS and APTS systems into an ITS infrastructure provides public agencies with a higher level of system capabilities than unlinked intelligent transportation systems and offers the traveling public safety, mobility, and productivity benefits.

Previous research and operational testing have established certain technologies as viable products for use in the transit industry. These technologies include automated vehicle location (AVL) and computer aided dispatch (CAD) systems. The current program will evaluate the use of these technologies to provide real time bus schedule information at each bus stop.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

Began operational test of Demand Response Dispatching Algorithm for scheduling multi-origin/destination requests, based on initial research results and focused on adding features and predictions to the Demand Response Dispatching Algorithm;

Began operational test of Transit Expert System to test the concept of fusing transit dispatch data and expert systems technology. This testing will identify key dispatch concepts that data fusion techniques can present to transit dispatch personnel. They were phased into operational testing in FY 2000 and will continue in FY 2001.

Completed an operational test of the integration of a hybrid bank smart card. The test integrated transit fare payment (via proximity systems) with other smart bank card uses (contact systems) and integration with other transportation services. Cooperative development of this project will include the banking community. This test used funds from FY 1999.

In FY 2000 a transit stakeholders committee , through ITS America, was convened to re-evaluate the research direction for the APTS program. This evaluation was based upon a detailed examination of the State of the Art and the State of the Practice of fleet management in the transit industry. The results of the recommendations of the stakeholders group forms the basis of the APTS research and operational test program.

KEY FY 2002 PRODUCTS AND MILESTONES

Conclude the operational test of the Demand Response Dispatching Algorithm, and circulate data for initial industry comment. Following full data analysis, the algorithm and analysis will be published made available to the transit industry (paratransit operators, systems integrators, software vendors) for review and recommended refinements.

Conclude the operational test of the Expert System, and circulate data for initial industry comment. Following full data analysis and software modifications, a beta software version and report will be published and made available to the transit industry (transit operators, systems integrators, software vendors) for review and recommended refinements

FY 2002 PROGRAM REQUEST

Real Time ATIS at the Bus Stop - $1 Million

This test will evaluate the economic viability of deploying real time transit schedule information at the bus stop. This project is a result of the recommendations of the APTS stakeholders review of the program.

The technology now exists to economically deploy individual displays of real time bus arrival times at each bus stop using CAD/AVL information. Previous research has indicated that making the customer more aware of the exact arrival times of buses can induce people to use transit. This test will be implemented for both a fixed route bus route and one of the Bus Rapid Transit projects. The real time information at the bus stop will be supplemented by the same data available to users via the phone information system and the internet. The test will examine the value of deploying the system and determining the customer response and impact on their reaction to transit as a mode of travel.

This will be the first year of a two year operational test. $1,000,000 is proposed for Fiscal Year 2002 and $1,000,000 is proposed for Fiscal Year2003.

Program Title: OPERATIONAL TESTS - INTERMODAL FREIGHT

Budget Items No.:

Amount Requested for FY 2002: $ 1.48 MILLION

GOALS

The goal of the ITS intermodal freight operational testing program is to apply existing ITS technology to both; test the linkage of information systems between the public and private sector, and between the modes, to provide an end-to-end information flow to enhance and make more efficient the movement of freight from origin to destination as well as through highly congested areas.

PERFORMANCE MEASURES

The objective of the intermodal freight operational test program is to test changes that are expected to occur in streamlining freight movement as a result of enhanced tracking of cargo and assets and the linkage of information systems. Improvements in the efficiency of intermodal freight movements will be measured in terms of reduced time and cost for freight movement, as well as the improved reliability and predictability in the pickup and delivery of intermodal freight. Improvements in the safety of intermodal freight movement will be measured in terms of the reduced accident and injury rates.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

- Complete the two operational tests awarded to Washington State DOT and the ATA Foundation in FY 1999. The first was with Washington State and the ports of Tacoma and Seattle and Sealand to develop better planning methods for moving freight through the Pacific Northwest. The second test involved Chicago O'Hare airport, Illinois DOT and the ATA Foundation to develop an end-to-end secure electronic manifest system to integrate highly secure processes into the normal freight operations from manufacturer to customer.

KEY FY 2002 PRODUCTS AND MILESTONES

- Conduct an end-to-end international intermodal freight operational test that, as a first step, may include a US test with Canada and Mexico. This would be a natural progressions associated with the border crossing tests which have involved Customs and

Immigration, but would now possibly include brokers and other federal inspection agencies associated with freight movement. Subsequent tests are expected to take place with Europe and Asia.

End-to-end is defined as manufacturer to customer. The DOT expects to use a modeling tool, being developed in FY 2001, that will provide investment guidance for conducting this test.

BACKGROUND

ITS is a natural tool for linking the many disparate systems that constitute intermodal freight. The ITS intermodal program complements One DOT efforts to coordinate planning and infrastructure development across transport modes. It ensures that technologies applied are interoperable, efficient, and well coordinated.

The problems that ITS may be able to help fix consist of delays and inefficiencies at seaports and border crossings; inefficiencies associated with intermodal equipment tracking and repositioning; inefficiencies with movements through metropolitan communities and reduction in the paperwork glut associated with single mode billing and tracking. Most seaports in the US are in large metropolitan areas, and the rail lines and truck lines calling on those ports use the local infrastructure mostly at peak times of day to get back and forth. Peak times, which is the highest mix of commuter and business traffic, are the normal business hours, which are also the hours that most seaports are open. ITS may be able to help plan the coordination of pick up and delivery between the truck carriers and the seaport terminal operators. This requires information flow that is coordinated between the ocean carriers, rail carriers, motor carriers, federal and state regulatory agencies where applicable; e.g., U.S. customs, shippers and customers. It also may require coordination with ITS traffic management centers and their various satellite operations.

Congestion at border crossings, with the two largest trading partners of the US, often can take 2-4 hours of waiting times at commercial crossings. The cargo may then be staged at a separate transfer point and the delay can be 2-3 days. ITS can help in several ways. One way is the coordinated exchange of safety information either directly between the two country safety agencies or funneled through the customs station and then passed on to the safety agency. The other way that ITS can help is the coordinated exchange of information between all federal inspection agencies and the counterparts in Mexico or Canada to facilitate the movement of both trucks and rail through border crossings.

Lastly, ITS offers the promise to bring together often disconnected paths of the physical movement of goods, the "back office" information flow of the goods, the financial transaction flow of those goods; i.e., E-commerce, and the public need for the generic information generated by these movements in areas ranging from such diverse areas as timing of municipal traffic lighting systems to planning infrastructure investments costing billions of dollars.

FY 2002 PROGRAM REQUEST

The FY 2002 ITS end-to-end intermodal freight operational test will be based upon lessons learned at border crossings and other tests in progress. The new tests will also include a modeling tool that will identify incremental benefits and will provide return on investment information. In addition the test will have strong stakeholder interest, and will maximize private sector cost sharing.

1. Conduct Intermodal Freight Operational Tests - $1.48 Million

The funding requested will provide for an ITS Intermodal Freight Research Operational Test Program that is based upon the foundation elements established in the freight flow modeling to determine the priorities for investment. It is expected to include end-to-end freight and tracking and tracing, and a seamless information structure. It is also expected to include research in areas such as intermodal supply chain management, intermodal drayage efficiency, and intermodal terminal access, and would likely include partnering with Europe or Asia. These projects will improve cargo visibility, intermodal safety, improve throughput, and reduce nitrogen dioxide and carbon emissions in congested ports of entry, and extend the commercial benefits of EDI.

This is the third year of a four year project; $500 thousand was spent in FY 1999; $ 200 thousand was spent in FY 2000; $2 million was requested in FY 2001; and $1.48 million is requested for FY 2002. Expectations are to conduct another end-to-end operational test in FY 2003, and therefore another $1.5 million will be requested for that test. Model deployment is planned to begin in FY 2004.

Program Title:	**EVALUATION/PROGRAM/POLICY ASSESSMENT**
Amount Requested for FY 2002: $7.695 MILLION	

Program Title:	**EVALUATION/PROGRAM/POLICY ASSESSMENT - Evaluations**
Amount Requested for FY 2002: $ 4.695 MILLION	

GOAL

The Evaluation Program supports the USDOT and FHWA goals of enhancing safety, mobility and productivity and the environment through focused efforts dedicated to evaluating the effectiveness and costs of ITS systems deployed in operational settings as well as those which are the subjects of field operational tests. The Evaluation Program additionally contributes to fulfilling the mandates of the Government Performance and Results Act by developing and refining techniques for measuring the impacts of ITS deployments and/or integration of ITS infrastructure.

PERFORMANCE MEASURES

The Evaluation/Program/Policy Assessment Program supports the development, deployment and integration of ITS technologies contributing to the reduction in the rate of highway-related fatalities and injuries; the reduction of congestion-induced delays on Federal-aid highways; the reduction of the costs of highway freight movement; and the reduction of on-road mobile source emissions.

BACKGROUND

This program primarily funds targeted collection of ITS cost and benefits information for the purpose of sharing with State and Local government staff in order to help them make better informed decisions regarding ITS deployments in their respective locations. ITS cost and benefits information also helps Federal ITS program managers understand the strengths and weaknesses of the technologies so that future program investments can be better targeted. Field evaluations will focus on assessing improvements as measured, modeled, and analyzed in eight primary measurement areas: (1) Crashes; (2) Fatalities; (3) Throughput; (4) Congestion-related

delay; (5) Transit time delay; (6) Customer satisfaction; (7) Costs to public and private sectors; and, (8) Energy and emissions.

The FY 2002 evaluation program concentrates on three areas of endeavor: (1) Field Operational Test Evaluations; (2) Deployment Evaluations; (3) Special Benefits Reports.

Field Operational Test (FOT) Evaluations focus on assessing the feasibility of either a technology application or a user service that has matured enough to test in a real-world operational setting. Independent evaluation is one key role of the Federal partner in these typically public-public, or public-private partnerships. Technical, or developmental tests answer questions primarily formulated by members of the engineering community. FOTs of a user service go beyond technical testing to see if the target audience of users actually derives benefit and utility from the ITS product or service in the real-world setting. FOTs are hypothesis-driven, and evaluation activities include developing evaluation strategies, plans, and detailed test plans, and performing data collection, analysis, and reporting of results. Typically, FOT evaluations yield information on ITS benefits; however, very little insight can be gained regarding the ultimate costs of acquiring and deploying such systems. This is because, among several reasons, FOTs are largely designed for evaluation and include costs that full scale deployments would not encounter. The FY 2002 request includes evaluations for rural and traffic management FOTs, with rural FOTs accounting for the majority of the FOT evaluation request.

Deployment Evaluations take advantage of decisions to deploy ITS for the purposes of documenting costs and benefits in actual deployment settings. Moreover, because FOTs usually focus on single systems, FOTs provide limited opportunities to observe benefits of integrating ITS with other systems. Additionally, because many ITS have such short deployment histories, little information has been gathered about the costs of operating and maintaining such systems over their life cycles. Deployment evaluations also help to develop better understanding regarding how ITS-generated data can be collected, archived, and used to assist local planners, transportation system operators, and other data stakeholders to better manage their resources. In FY 1998, the USDOT and ITS America approved a new "Archived Data User Service (ADUS)" in response to a broad stakeholder-based set of requirements for such services. In FY 1999, ADUS stakeholders and the National ITS Architecture Team worked to change the National ITS Architecture to accommodate ADUS requirements. Version 3.0 of the Architecture, which incorporated ADUS requirements, was released in December 1999. Deployment evaluations are needed to understand and document successful practices of progressive implementers who archive and use ITS-generated data. This area holds great promise for accelerating feedback to decision makers regarding how well their transportation systems are operating. Instead of waiting for dated bi-annual or annual reports on the state of congestion or the state of transportation safety, for example, one having real-time access to and analysis of archived data generated by ITS may some day be able to view hourly, daily, weekly, and monthly trends that can be acted upon in dramatically shorter times. The FY 2002 request includes funds for the development of cross-cutting studies on the uses of archived data documenting viable practices in the ADUS user communities. Funding is also requested for Phase II evaluations of

metropolitan and Commercial Vehicle Information Systems and Networks (CVISN) deployments, and evaluations of select highway-rail intersection applications of ITS.

Another important activity funded by this program is the conduct of Special Benefits Reports intended to translate results from reports intended for academia and other evaluators, to reports intended to assist State and Local government officials make better informed decisions regarding alternative ITS applications. There are four types of these special benefits reports: (1) *Benefits Brochures*, thirteen of which were published in FY 99, yet targeted primarily for high level transportation decision makers who have heard about ITS and may or may not have made commitments to invest in ITS. They contain explanations of ITS application concepts and testimonials from peers who have already decided to deploy such concepts; (2) *Cross-Cutting Studies* are targeted to transportation middle managers who manage resources and would like more detailed information than their higher level managers. These studies, about 30 pages in length and featuring successful approaches across the U.S., are intended to be easy reading while educating about different facets of ITS and their related benefits; (3) *Case Studies* are designed to inform technical staff about how a facet of ITS deployment was conducted at a particular site in the U.S., detailed lessons learned are described; (4) *Implementation Guides*, also designed for use by technical staff, provide "How To" information regarding deployment of ITS products or services. The end of FY 2000 and beginning of FY 2001 will see the advent of several cross-cutting and case studies in mature ITS areas where the benefits and lessons are well known. FY 2001 will be characterized by a continuation of the benefits special reports initiative with increased emphasis on implementation guides. FY 2002 will focus on a new series of benefits reports addressing topics recommended by the operational community as well as HQ USDOT staff.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

FOT evaluation activity will include data collection, analysis and preliminary report drafting in the Acadia National Park rural FOT and two intermodal freight FOTs: The Deployment of ITS Technology to Facilitate Management of Intermodal Freight; and An Integrated Cargo and Information and Security System for Intermodal Distribution.

The evaluation of selected FY 1999 ITS Integration Program projects will have attained certain milestones. Project evaluations producing case studies include:

- Miami-Dade County, FL
- Spokane, WA

Other evaluation activities are being focused on Systems Impacts Studies which inherently require analyses of data collected prior to implementation of the proposed integration. The following projects are scheduled to deliver Evaluation Plans and corresponding analyses of "before" data:

- Silicon Valley, CA
- State of New Jersey
- Riverside, CA

In the area of ADUS deployment, evaluation efforts will include completed survey of innovations in ITS data collection technologies that offer high quantity and high quality data that can be used for multiple purposes. The impact of these technologies on data archiving may affect the research towards establishing data archiving practices and standards.

KEY FY 2002 PRODUCTS AND MILESTONES

- Final evaluation report for the Deployment of ITS Technology to Facilitate Management of Intermodal Freight FOT;
- Final evaluation report for An Integrated Cargo Information and Security System for Intermodal Distribution FOT;
- Final evaluation report for the Acadia National Park FOT;
- Final evaluation case studies for the Delaware River, PA and Seattle, WA FY 1999 ITS Integration Program projects;
- Updates to ITS Deployment Benefit and Cost Database.
- Development of cross-cutting studies on the uses of archived data will describe the practices that are viable for the ADUS user communities: Transit, Traffic, Freight, and Incidents.
- Early implementation case studies will describe the state of the practice for data archiving and how ADUS implementations affect the efficiency of transportation operations management.

FY 2002 PROGRAM REQUEST

1. Field Operational Test Evaluations - $2.410 million

This request will fund independent evaluations of operational tests requested in the Rural Operational Tests and Traffic Management Field Operational Tests portions of the budget request.

Rural field operational tests are grouped into the subcategories of Rural Safety Services; Rural Mobility Services; Rural Information and Operations Services. Funding for independent evaluations of the following rural operational tests is included in this request:

Rural Safety Services

- Dispatch Data Integration Operational Test. This operational test will integrate ITS technologies and public safety dispatch information systems to enhance emergency response.

- First Responder Incident Management Data Interoperability Operational Test. This operational test will evaluate traffic incident management capabilities of mobile data systems in an Interstate Highway environment. ITS technologies and systems will be applied in support of rapid and reliable exchange of incident-related information among the elements of a unified incident command organization.

- Variable Speed Limit Operational Test will evaluate the effectiveness of variable speed limit systems for enhancing safety and improving the mobility of rural travelers.

Rural Mobility Services

- The ITS Integration Between a Rural Transit Provider and HHS Agencies Operational Test will evaluate an integrated system designed to facilitate coordinated dispatching and operations of subsidized public transportation services.

Rural Information and Operations Services

- N-1-1 Offset Conversion will evaluate the effectiveness of providing advanced traveler information through a phone number. Multiple agencies operating advanced traveler information systems in proximity of each other will coordinate delivery of traveler information so that agencies not operating an N-1-1 number can make it available.

- The N-1-1 Model Deployment will evaluate the effectiveness and impacts of a regional traveler information system featuring an N-1-1 telephone system. The evaluation should provide guidelines for subsequent deployment of N-1-1-based systems supporting delivery of seamless traveler information from a single source.

- The Traveler Decision Support System Operational Test will evaluate the effectiveness of the decision support system in an operational environment where travelers are provided with immediate road weather warnings needed for safe travel.

- The IRRIS/ITS Joint Operational Test will evaluate the use of traffic and emergency management information interfaces in the Defense Department's Intelligent Road and Rail Information System (IRRIS) when supplemented by roadway weather information.

- Incorporating Surface Transportation Weather Requirements into Weather Services will evaluate the effectiveness of coordination and cooperation among the transportation and meteorological communities in advancing the incorporation of transportation needs in National Weather Service products.

Advanced Public Transit Systems Operational Test

- Real-Time ATIS at the Bus Stop Operational Test will evaluate the economic viability of deploying real-time transit schedule information at bus stops using CAD/AVL information.

Traffic Management FOTs scheduled for evaluation include:

- The Adaptive Control Systems Field Operational Test will be evaluated to measure the effectiveness and document the life cycle cost of the low cost version of adaptive control system software in a small community setting.
- The Pedestrian Safety Systems Field Operational Test will be evaluated to determine the effectiveness of a number of pedestrian safety/mobility systems and strategies in a controlled real-world setting.

Intermodal Freight Operational Test

- ITS Intermodal Freight Research Operational Test will include end-to-end freight flow modeling and tracking in an international (intercontinental) setting.

The FOT evaluation program is a continuing endeavor responsive to the needs for independent evaluations of FOTs conducted in the various parts of the ITS Program. FY 1999 independent evaluation budget was $623 thousand; the FY 2000 budget was $1.135 million; the FY 2091 request was for $2.450 million; the FY 2002 request is for $2.410 million. The anticipated FY 2003 request will be for $2.530 million.

2. Deployment Evaluations - $1.025 million

This request is intended to fund continuation of Phase II evaluation activities for Metropolitan Model Deployment Initiative (MMDI) and CVISN. It also funds evaluation of selected ITS applications at Highway-Rail Intersections. As both the metropolitan and CVISN model deployment initiatives experienced delays in deployment schedules, but were retained on slightly adjusted schedules to deliver evaluation reports in early and late summer of 2000, respectively, Phase II funding will pursue evaluation opportunities not attempted in Phase I. To the extent possible, the impacts of integrating metropolitan ITS infrastructure will be a priority evaluation objective. Of comparable importance is identifying and documenting the effects of multimodal traveler information systems on traveler behavior. Phase II evaluations will build on experiences in FY 1999, FY 2000 and FY 2001 as the inventory of projects grows and project experience

matures to enable collection of "after" data. Analyses of "after" data will provide the information base for developing system impact studies capturing the benefits and/or other impacts of deploying/integrating selected components of ITS infrastructure. A particular priority will be the documentation of cost data.

The concern for safety improvements at highway-rail grade intersections has led to the adoption of a new user service. One aspect of USDOT's efforts to reduce the rate of motor vehicle and train crashes at highway-railroad crossings has been the demonstration and/or deployment of various innovative technologies at highway-rail intersections (HRIs). Requested funding will support evaluation of one, and possibly two, deployments of ITS technologies at HRI sites. Such evaluations will additionally provide needed focus on improved train and highway traffic control through exchanges of real-time data.

Cross-cutting studies will be developed to demonstrate ADUS implementations that satisfy the needs of one or more of the ADUS user communities: Transit (APTS); Traffic (ATIS, ATMS); Freight (CVO, Motor Carrier Safety, Intermodal); Incident (Emergency Management, Incident Management). The cross-cutting studies will illustrate how institutional agreements to share archived data were arranged. Several ADUS implementations will be reviewed and described, so that other agencies considering data archiving can learn from the documented examples.

A series of State of the Practice case studies will illustrate the mechanisms that are used to support data archiving and sharing among multiple institutions. The case studies will demonstrate how technology and systems integration satisfy the data archiving needs for each of the ADUS user communities (Transit, Traffic, Freight, and Incident). Other case studies to describe how ADUS is incorporated in regional architecture development, ITS project design and implementation, and in the ITS earmarks will enable the ADUS user communities to comprehend the most current developments in ADUS deployment.

For ADUS deployment evaluations, this is the second year of a five-year effort; $245,000 was allocated in FY 2001; $275,000 is requested for FY 2002; $200,000 is anticipated to be requested in FY 2003; $200,000 is anticipated to be requested in FY 2004; $120,000 is anticipated to be requested in FY 2005.

In aggregate deployment evaluations were funded at $1.385 million in FY 1998; $1.350 million in FY 1999; $1.025 million was budgeted in FY 2000; and the FY 2001 request was for $1.100 million. $1.025 million is being requested for FY 2002, and it is anticipated that $1.150 million will be requested for FY 2003.

3. Special Benefits Reports - $1.260 million

This request will fund customer-oriented special benefits reports reflecting the contemporary state of benefits and cost knowledge. Special emphasis will be placed on stimulating the FHWA operations community to identify areas needing these products. The inventory of highly

successful benefits reports completed through the end of FY 2000 will serve as a baseline for future endeavors, including those to be funded by this request. The existing model which evolves a topic, e.g., Metropolitan Transportation Management Centers through eight Case Studies of specific centers, followed by a Cross-Cutting Study which captures key operational features of various TMCs in the U.S. and Canada, and culminates in an Implementation Guide has proven very successful in meeting the needs in the planning and operational communities.

This is a continuing activity supporting cross-cutting analyses of results from field operational tests, model deployments, and ITS deployment/integration projects. $1.722 million was obligated in FY 1998; $900 thousand was obligated in FY 1999; $700 thousand was obligated in FY 2000; $1.075 was requested for FY 2001, and $1.260 million is being requested for FY 2002 and $1.100 million is the anticipated request for FY 2003.

Program Title: **EVALUATION/PROGRAM/POLICY ASSESSMENT - ITS Program/Policy Assessment**

Amount Requested for FY 2002: $ 3.0 MILLION

GOAL

The Program/Policy Assessment Program supports the USDOT and FHWA goals of enhancing safety, mobility, productivity and the environment by evaluating the effectiveness of the ITS Program and supporting policies.

PERFORMANCE MEASURES

The Program/Policy Assessment Program supports the development and deployment of ITS technology applications which will reduce the rate of highway-related fatalities and injuries, reduce the cost of highway freight movement, and reduce on-road mobile source emissions.

BACKGROUND

This program primarily funds the analysis of ITS cost and benefits information, the tracking of ITS deployments nationwide, and the assessment of ITS policies and programs. These efforts will help direct future Federal R&D, programs, and policies and provide State and Local government staff with information that will help them make better decisions regarding ITS deployments in their respective locations.

Benefits data analyses will use empirical data from field evaluations and simulation models to project benefits as related to achieving goals in the six measurement areas: (1) Reductions in crashes; (2) Reductions in fatalities; (3) Increases in throughput as measured by people or goods moved per unit time; (4) Reductions in congestion-related delay (formerly, travel time); (5) Improvements in customer satisfaction; and, (6) Savings in costs to public and private sectors. Benefits modeling of fuel savings and emissions will be performed in cooperation with the U.S. Department of Energy and the Environmental Protection Agency, respectively.

Deployment and program tracking will be based primarily upon output measures that count how many systems, standards, or training objectives have been achieved. These measures will assess goals in four primary areas: (1) A goal to deploy the metropolitan components the ITS infrastructure among 75 of the nation's largest metropolitan areas by FY 2005; (2) A goal to deploy Commercial Vehicle Information Systems and Networks (CVISN) nationwide by FY 2002; (3) A goal to establish ITS standards for national deployments; and, (4) A goal to ensure

appropriate ITS training is in place for present and future transportation professionals responsible for deployment of ITS.

FY 2002 will mark the fourth year of Metropolitan Model Deployment operations, and the CVISN model deployments will also be expanded. The report from the fourth year of metropolitan deployment tracking (FY 2001) will be issued and the shape of deployment trends (linear or curvilinear) will for the first time be detectable. CVISN deployment tracking data from FY 1998 was available in early FY 2000 and comparative analysis of progress between FY 1996 and FY 1998 was made. In FY 2001, CVISN tracking surveys will be re-issued for FY 2000 performance. The rural architecture will begin to be defined by FY 2001 and baseline tracking of rural ITS infrastructure deployments will be targeted for FY 2001. The ITS Deployment Analysis System (IDAS) tool will have been available for use by various Metropolitan Planning Organizations for a year. The Intelligent Vehicle Initiative will be well established in its fifth year. These milestones mark the opportunity to finalize and publish initial assessments, collect data regarding program effectiveness, or begin the framework for new program and policy assessments.

Deployment of the metropolitan components of the ITS infrastructure will continue to be measured by counts of the following deployed elements compared to a nationwide goal for each: (1) Freeway Management Systems; (2,) Emergency Medical Services; (3) Incident Management Systems; (4) Arterial Management Systems; (5) Railroad Grade Crossing Systems; (6) Fleet Management Systems; (7) Electronic Toll Collection Systems; (8) Electronic Fare Payment Systems; and, (9) Traveler Information Systems. The most important measure, however, will be the number of deployed infrastructure elements or components that integrate the capabilities of other appropriate elements to achieve maximum traffic management efficiency. Deployment of CVISN will be measured in terms of counts of: (1) administrative processes conducted electronically; (2) safety inspection sites with the capability for both uploading and downloading safety information; and, (3) counts of vehicles checked for credentials, safety, or weight that were electronically screened rather than stopped for inspection.

By FY 2001, policies regarding deployment of ITS accordir g to TEA-21 will have been implemented for three years. By this time, it will be appropriate to finalize assessments of policies regarding architecture consistency and establishment of regional frameworks for architectures with respect to the guidance provided by the National ITS Architecture. Other policy issues will also be emerging, including: the changing roles of the public and private sectors in collecting and reporting traffic and transportation conditions and in managing transportation systems; institutional impacts of IVI; transit union acceptance of ITS technologies; and organizational coordination and cooperation as a national traveler information public service phone number, N11 becomes available. Policy and operational assessments of failed projects will continue to be needed. And, as ITS deployments make real-time information collection and dissemination to the public more common place, the Federal role in reporting conditions and performance of the surface transportation system to Congress can be better served. Through

access to archived ITS information, the USDOT can provide Congress with more economical and timely reports.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

- Publication of the National Summary Report on Metropolitan ITS Infrastructure Deployment for 2000.
- Completion of individual site reports on Metropolitan ITS Deployment in 78 Metropolitan areas.
- Update of the ITS Deployment Tracking Website.

The National ITS Architecture will have published its latest modification that includes logical and physical architectures responsive to the Operations and Maintenance User Service defined in FY 2000.

Case studies based on preliminary assessments of regional frameworks/architectures will have been published.

Institutional issues and case study reports on: CVISN deployment experience; Metropolitan infrastructure deployment experience; successful ATIS business models; alternative traffic management center design and implementation approaches; and, alternative approaches to conforming with the architecture to achieve similar functions.

KEY FY 2002 PRODUCTS AND MILESTONES

- A final report that defines the ITS rural infrastructure components, identifies quantitative indicators of the presence of a rural infrastructure, and defines, for tracking purposes, objective boundaries for what is considered "rural" versus "metropolitan" will be published.
- Publication of Tracking State Deployments of Commercial Vehicle Information Systems and Networks: 2000 National Report.
- Publication of the annual update (2001) to the National Summary Report on Metropolitan ITS Infrastructure Deployment.
- Final FOT Evaluation Report for FORETELL: Integrating ITS With Advanced Weather Prediction.
- Final FOT Evaluation Report for North Florida Rural ITS Transit.

- Final FOT Evaluation Report for New York City Metropolitan Transportation Authority Travel Information System.
- Final FOT Evaluation Report for Chicago Smart Intermodal System.
- Completion of An ITS Policy Framework Analysis for Reauthorization.

FY 2002 PROGRAM REQUEST

1. ITS Deployment Tracking - $950 thousand

Counting the number of integrated metropolitan ITS infrastructure components and pieces of ITS deployed throughout the Nation continues to be one of the best and most expediently ascertained indicators of ITS Program success. Management emphasis continues with regard to reaching the FY 1996 goal to deploy metropolitan components of the ITS infrastructure among 75 of the Nation's largest metropolitan areas by FY 2005. Also, TEA-21 sets a goal of deploying CVISN in the majority of states by 2003. This line item pays for the FY 2002 survey updates, assistance to sites in using survey results to establish local deployment goals, and web site and paper reports of progress for metropolitan and CVISN infrastructure deployments. The baseline levels of rural ITS infrastructure will be established in FY 2002. This is the sixth year of a ten-year tracking of the Secretary of Transportation's Operation TimeSaver deployment goal: $500 thousand per year was obligated in FY 1996, FY 1997, and FY 1998; $620 thousand was obligated in FY 1999; $950 thousand was obligated in FY 2000; and, $950 thousand is projected yearly for FY 2001 through FY 2005.

2. Program Tracking - $365 thousand

This request funds administrative support required to track cost, schedule and other performance indicators in ITS-funded projects. On a quarterly basis project status is updated to provide a composite depiction of project experience in the various ITS project types. At the end of each calendar year, an annual status is assembled and either published or uploaded on the ITS JPO electronic document library under the title Intelligent Transportation Systems Projects Book. The ITS Program Assessment Working Group (PAWG) was formed in FY 1997 and part of this request funds the continuance of administration of these activities, including minutes and management-by-objectives tracking of progress against quarterly generated action items. The PAWG is responsible for selection of topics for the special benefits reports and provides peer review of major publications before they are published. This request funds the executive secretariat of the PAWG, maintenance of the Evaluation Resource Guide for those conducting self-evaluations, peer reviews of technical deliverables, coordination among ITS evaluators, liaison with ITS America's Benefits, Evaluation, and Cost Committee, and weekly reporting of progress, as well as web-site support for publishing Program Assessment activities and

evaluation reports. This FY 2002 request also funds continued maintenance of a database of field operation test evaluations and earmark evaluations. This database was begun under a contract, ending in FY 2000, that provided oversight to the original group (pre-FY 1996 of ITS FOT evaluations).

This is the fifth year of a continuing project to track progress of elements of the ITS Program: $100 thousand was obligated in FY 1997; $250 thousand was obligated for FY 1998 and FY 1999; $350 thousand was obligated in FY 2000; and, $365 thousand is requested for FY 2001 and FY 2002, with $370 thousand projected for FY 2003.

3. Policy Assessment - $1.685 million

This request funds the investigations of ITS policy effectiveness for the primary purpose of improving Federal management effectiveness of the overall ITS Program. Topics of assessment include all aspects of the ITS Program, including research and development, operational tests, architecture and standards, mainstreaming, program support, and deployment. Secondary benefits of program/policy assessment include improvement of State and local government management of their respective ITS programs through education and lessons learned as documented in published benefits and benefit/cost reports.

Of the $1.685 million request for policy assessment funds in FY 2002, $900 thousand will be used for analysis and synthesis of data collected in other parts of program assessment. This includes regression and other statistical analyses of CVISN and metropolitan deployment tracking databases against other databases such as Section 15 transit databases and key indicators in the Highway Statistics report to detect significant trends in deployment. By conducting such analyses, policy questions can be answered. For example, what distinguishes sites that are more successful in integrating ITS than others? Can transit ridership increases be correlated with the presence of ITS? Is there a relationship between the amount of funds available and the types of ITS deployed? What commonalities are there among sites that invest more heavily in arterial management compared to freeway management. Such trend information can be shared with less progressive sites to motivate effective next steps in implementing ITS. It is anticipated that several trend reports will be generated with these funds. In addition, benefit/cost analyses will be performed. These analyses and reports will serve as companions to those performed for the Model Deployment Initiative. It is anticipated that numerous gaps in knowledge about ITS benefits and costs will be identified in the Model Deployment Initiative final reports due in FY 2000. These funds will target benefit/cost studies for ITS functional areas where benefit/cost information is most needed while deficiencies of such information have a good prognosis of being corrected.

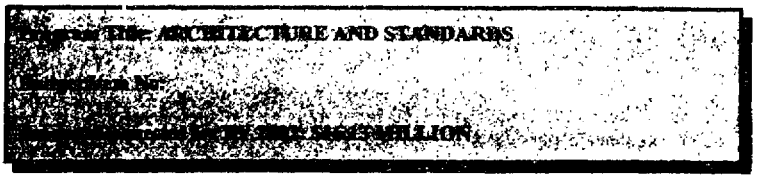
The advent of ITS, ITS data archiving, and acceleration of the use of real-time information for transportation planning can serve to accelerate the planning process to the point where it may merge with transportation system operations activities that are currently segregated from planning. In addition to accelerating the reporting, ITS will provide for more detailed reports

that include measures of travel time, arrival time reliability, and many other performance indicators. If all metropolitan areas provide web sites that report real-time travel conditions, these sites and their respective databases can be periodically queried, data can be analyzed, and national trends can be detected and reported in at least half the time. Currently, the Conditions and Performance Report uses data from the Highway Performance Monitoring System. This system depends on States to report statistics specifically for Federal reporting purposes. This FY 2002 request includes funds for a multi-year, State-coordinated assessment of how ITS may modernize the Highway Performance Monitoring System while dramatically reducing State reporting burdens.

In addition to quantitative analytical support of policy assessment, $685 thousand is requested for qualitative assessments of ITS policies. Specific emphasis in FY 2002 will be on performing assessments and case studies on the effectiveness of ITS standards in operational applications. By FY 2002, the standards program will be mature enough to obtain valuable feedback with regard to its attainment of strategic objectives. An assessment of the changing role of the private sector in its deployments is proposed. Originally proponents of ITS stressed that the private sector would eventually provide 80% of investment costs in ITS. The second report to Congress on nontechnical barriers to ITS stated that private sector involvement is stymied by the lack of public sector implementation plans that identify the roles of the two sectors. The report also noted that the potential for public-private partnerships is more limited in scope than previously thought. A review will be undertaken to ascertain ways that public sector agencies have identified the roles for the private sector and have used them to enhance ITS projects. FY 2002 qualitative assessments will also be dedicated to establishing a policy framework capable of supporting the post TEA-21 reauthorization process. Assessments of effective and challenging operational test and deployment experiences will contribute to the development of recommendations for reauthorization legislation to facilitate achievement of USDOT ITS metropolitan, CVISN and rural infrastructure deployment goals in FY 2005 and FY 2006.

Finally, an area with policy implications may emerge from the intelligent vehicle initiative test experience and from automobile industry assessments of services offered in late model platforms. The issue of defining standard intelligent infrastructure components tailored to complement on-board systems may emerge as a high priority policy issue.

This is a continuing activity dedicated to the conduct of policy analyses of implementation approaches employed throughout the ITS Program. $1.290 million was obligated in FY 1999; $1.690 million was obligated in FY 2000; $1.750 million was requested for FY 2001; $1.685 million is being requested for FY 2002, and the projected request for FY 2003 is $1.750 million.



GOALS

The Architecture program supports the USDOT and FHWA goals of enhancing safety, mobility, productivity, and the human and natural environment by providing a framework by which ITS systems can be effectively planned and implemented.

PERFORMANCE MEASURES

The Architecture program supports the deployment of ITS technologies that will reduce the rate of highway-related fatalities and injuries, reduce delays on Federal-aid highways, reduce the cost of highway freight movement, and reduce on-road mobile source emissions.

BACKGROUND

A systems architecture is the framework that guides and moderates the evolution of a complex system's many interrelated elements. It provides order and rules so that hardware, software, data, and communications can work together. The National ITS Architecture, a systems architecture developed in support of the US Department of Transportation, was completed in June 1996 after nearly three years of effort and more than 100 public reviews designed to help achieve consensus. The completed National ITS Architecture supplies the transportation and communications framework necessary for a nationally compatible transportation system. It includes an implementation strategy for use by public and private sector transportation planners in developing their unique transportation systems, and it includes the supporting analysis, strategy, and detailed requirements essential to accelerate the ITS standards development process.

The Architecture program is pursuing a five-part strategy for supporting the implementation of ITS technologies.

First, the existing National ITS Architecture is being kept current. Maintenance of the architecture is essential to ensure that it accurately reflects evolving standards, deployment experiences, and operational test results. It is accessible in a user-friendly manner - through the web or through distribution of current CD Rom copies.

Second, the National ITS Architecture and the architecture team is supporting the standards development effort, capitalizing on the considerable institutional knowledge gained during architecture development.

Third, as the ITS program continues to evolve, some new user services are being added to the National ITS Architecture in response to stakeholder needs and requirements. A highway-rail intersection user service was developed by FRA and FHWA and integrated into the National ITS Architecture in January 1997. In addition, the archived data user service was completed in October 1998 and was incorporated into the National ITS Architecture in September 1999. Additional user service development is expected to continue based upon emerging stakeholder needs.

Fourth, as with the larger ITS program, the focus of the Architecture program has turned to deployment, and specifically, the use of the National ITS Architecture and implementation of related policies on architecture consistency. Training and technical support are being developed and delivered to educate the public and private sector transportation engineers and planners, and guidance documents have been developed to provide stakeholder groups with specific information on the National ITS Architecture and its use in planning for and designing ITS systems.

Fifth, training of DOT field staff will continue, in order to maintain the highest quality of assistance relevant to architecture consistency to state and local planners, managers, developers and deployers of ITS.

MAJOR ACCOMPLISHMENTS AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

Broad distribution of National ITS Architecture guidance documentation has been accomplished through the FHWA Divisions and the documentation is available on the FHWA electronic document library web site.

The updated version (3.0) of the National ITS Architecture was released in late CY 1999 reflecting new standards information, clarifications of data and process specifications, and changes due to deployment experiences. This version (3.0) also reflected the integration of the archived data user service, responding to the needs of various stakeholders in the planning, research and safety communities. Work continues in FY 2000 to more thoroughly address rural stakeholder needs in the National ITS Architecture. It is also expected that in CY 2000 the rural community will define a new user service "Operations and Maintenance" to further address their communication needs in a rural environment. Version 4.0 of the National ITS Architecture will be issued to reflect necessary architecture changes to the existing documentation and to add the rural "Operations and Maintenance" user service in FY 2001.

Technical support was provided to a number of ITS deployment projects to advise and ensure adherence to the National ITS Architecture and to keep them apprized of the status of emerging standards. This has included helping metropolitan/state efforts to develop regional architectures by involving many of their stakeholders in the process. Workshops have been supported in Texas, South Dakota, Florida, Pennsylvania, California, Wisconsin, New York, Pennsylvania, Michigan, Georgia, Maine, Louisiana, Nebraska and North Carolina. It is anticipated that close to two dozen more major metropolitan areas within many states across the nation will be in various stages of development of regional architectures during FY 2001 and require workshop assistance from the National ITS Architecture team.

Development will be completed in FY 2000 on Turbo Architecture, a computer-based tool that will assist users in the development of regional and project architectures using the National ITS Architecture as a reference. This tool will greatly assist those using the National ITS Architecture in the development of ITS regional architectures or ITS project architectures. It is anticipated that it will receive a broad distribution among ITS specialists in FHWA, state DOT's, and private sector systems integrators.

Outreach and training activities have continued to be an integral part of the program. Two training courses have been developed and have been given at sessions in Washington, DC and around the country. The first, with a private sector orientation, was given 9 times in FY 1999 to approximately 130 persons and is being given 6 times in FY 2000 to approximately 100 persons. The second, with a public sector orientation, was given 44 times in FY 1999 to approximately 1015 persons and is being given approximately 23 times in FY 2000 to approximately 500 persons around the country. A half day course on the use and operation of the Turbo Architecture software tool will be developed and initially given in late FY 2000. In CY 2001 advanced National ITS Architecture training will be provided to federal DOT field personnel along with training on the Turbo Architecture software tool.

In FY 2001, in-depth technical support of FHWA resource center and division activity associated with the National ITS Architecture is planned. This will substantially increase the scheduling and support of workshops addressing regional architecture development and ITS planning. Support of

numerous ITS standards development efforts will continue and emerging standards testing efforts will be continued in FY 2001.

KEY FY 2002 PRODUCTS AND MILESTONES

Providing technical assistance to various transportation organizations deploying and implementing intelligent transportation systems will be done with public sector state, metropolitan planning organization, and priority corridors. This will include technical assistance in the initial development of regional architectures and assisting in their consistency with the National ITS Architecture. Critical to the process is assisting in the understanding and acceptance of ITS as an integral part of the transportation planning process. Focused and in-depth support is expected to be provided to FHWA resource center and division personnel to further enable them to assist state and local ITS planners and implementors.

We will integrate into the architecture emerging user needs in the areas of weather information services as well as the identification of user needs and service requirements in the area of intermodal freight movement. In addition, we will examine existing requirements in incident and emergency management to ensure stakeholder needs are being met and are prepared to enhance this area. We are prepared to continue to maintain configuration control and update the architecture data base documentation as a result of ITS deployment experiences and ITS standards development and approvals.

We will continue to provide technical advice and assistance to standards development organizations (SDOs) in their task of developing ITS standards. These standards grew from standards requirements derived as a part of the development of the National ITS Architecture. The institutional knowledge brought to the SDOs by the architecture team is expected to accelerate the normally slow and deliberate standards development process

FY 2002 PROGRAM REQUEST

1. Architecture Maintenance - $1.0 million

a. National ITS Architecture Maintenance - $600 thousand

USDOT is planning to maintain a current National ITS Architecture documentation data base and update it based on changed or emerging policies, lessons learned from deployments, and the impacts of developing standards. Critical to the data base are the standards requirements, with a detailed analysis grouped into thirteen sections. The documentation is produced in three forms for maximum acceptance within the transportation community. Paper copies are developed for limited distribution, but the principal means of release is through CD ROMs which contain the entire architecture. It is expected that we will produce between 7,000 and 10,000 for free

distribution in FY 2002. Finally, the most current architecture is posted on the USDOT ITS (www.its.dot.gov) and ITS-America web sites, and includes any minor revisions identified by the architecture team and the field. It is critical to maintain a current federal reference and keep it as the definitive architecture source for transportation planners and implementers at the state and regional level.

b. CVO Architecture Maintenance - $400 thousand

This task will maintain the CVO architecture and top-level design documentation from earlier CVISN efforts to include changes based on stakeholder feedback, new technologies and capabilities, and further analysis and experience. In particular, lessons learned from continuing CVISN deployment efforts in the areas of safety information exchange, electronic credentialing, electronic clearinghouses, and electronic screening will be incorporated.

CVISN Architecture documents will be updated and expanded to keep them current and comprehensive. These documents include:

- CVISN System Design Description
- COACH (CVISN Operational and Architectural Compatibility Handbook)
- EDI Standards and Implementation Guides
- DSRC Standards and Implementation Guides

This is the 6th year of a 10 year project; $600,000 was spent in FY 1997; $1,000,000 was spent in FY 1998; $1,273,000 was spent in FY 1999; $1,090,000 was spent in FY 2000; $1,000,000 was requested for FY 2001; $1,000,000 is requested for FY 2002; and $950,000 is projected for FY 2003

2. Standards Development Support - $750 thousand

Standards requirements were one of the most critical elements produced by the architecture development program. In order to facilitate this outcome, the architecture team examined every interface within the National ITS Architecture and prepared a detailed list of requirements in thirteen different areas. In support of the separate JPO standards development program, there is a need within the architecture task effort to work with and review proposed standards to determine the impacts upon and compliance with the architecture. The architecture team support, JPO interface, and technical support will help to achieve a coordinated accelerated standards development effort. The architecture team will also assist in the execution of the standards testing program for various ITS standards and integrate standards testing results into the appropriate portions of the National ITS Architecture.

This is the 6th year of a 10 year project; $800,000 was spent in FY 1997; $800,000 was spent in FY 1998; $800,000 was spent in FY 1999; $800,000 was spent in FY 2000; $750,000 was requested for FY 2001; $750,000 is requested for FY 2002; and $650,000 is projected for FY 2003

3. Enhancements to the National ITS Architecture - $1.25 million

a. Develop an Intermodal Freight Architecture - $500 thousand

The development of an ITS intermodal freight architecture, as an integrated portion of the National ITS Architecture, will provide a framework that describes how ITS components interact and work together to achieve total system goals. It is expected to be an open system architecture, in the public domain, which encourages competition among multiple vendors. It describes the system operation, what each component of the system does, and what information is exchanged among the components. It will be modular, allowing for and facilitating the introduction of new technologies and system capabilities over time.

The development of an intermodal freight architecture is expected to take approximately two years from user service development to the final National ITS Architecture update being issued. The initial development of the architecture is expected to focus on the interfaces between intermodal operations and the public sector operations. For instance, the research design and modeling activity conducted in FY 2000 may show that it could be highly cost effective to use the National Transportation Communications for ITS Protocol (NTCIP) standard to help interface electronic roadside equipment to facilitate freight mobility in major metropolitan areas. The NTCIP is a family of standards that provides both the rules for communicating and the vocabulary necessary to allow electronic roadside equipment from different manufacturers to operate with each other as a system. This activity is expected to begin during the third quarter of FY 2001 and continue into FY 2003.

b. New User Service Development - $750 Thousand

As transportation planners and engineers and other stakeholders become more familiar with the elements of the National ITS Architecture, additional needs are arising which were not addressed in the original National ITS Program Plan. These new needs are expected to be in the areas of weather information, rural services, emergency services and safety/law enforcement. The stakeholder communities will develop their needs, gain consensus, and propose new or modified user services in the National ITS Program Plan.

The ITS JPO will respond by developing new user service requirements which will be the basis for the architecture team to modify and expand the current architecture. The rural stakeholders are defining areas that they feel were not sufficiently addressed, while stakeholders within the weather community also are looking into their needs so that they may be stated. Finally,

emergency services and the safety/law enforcement stakeholders user needs were only partially addressed in the original architecture, and it is expected that new user service requirements will need to be added to the National ITS Architecture or added in conjunction with existing user service requirements. The consensus agreement on newly defined user needs and user service requirements will lead to the modification of the National ITS Architecture. These actions are critical to maintain a current reference architecture that has the support of all stakeholders and to keep it before planners and implementers at the state and regional levels as they determine their future needs in developing and deploying ITS.

This is the 6th year of a 10 year project; $200,000 was spent in FY 1997; $200,000 was spent in FY 1998; $799,000 was spent in FY 1999; $625,000 was spent in FY 2000; $1,000,000 was requested for FY 2001; $1,250,000 is requested for FY 2002; and $1,250,000 is projected for FY 2003.

4. Architecture Deployment Support - $2.75 million

FHWA has proposed to implement section 5206(e) of the Transportation Equity Act for the 21st Century (TEA-21), which requires ITS projects funded through the Highway Trust Fund to conform to the National ITS Architecture and applicable standards. Conformance with the National ITS Architecture leads to development of an ITS regional architecture based on the National ITS Architecture, and the subsequent adherence of ITS projects to the ITS regional architecture. Critical to the successful accomplishment of this task will be technical assistance, guidance and tools USDOT can provide to help those effectively perform these tasks in a timely manner. The ITS JPO will provide deployment support to those planners, developers and deployers of ITS as detailed below:

a. Workshops - $700 thousand

Federal policies and ITS programmatic initiatives will facilitate the development of regional frameworks as a needed, up-front, forward-looking regional plan from which individual ITS deployments can be integrated and deployed. It is this initial phase of considering the region's needs both from an overall perspective and from integrating all stakeholders needs, that will require understanding and use of the National ITS Architecture as an integration tool. One-day workshops will be conducted with assistance from FHWA resource centers and division offices to help stakeholders come together and facilitate a process whereby a regional architectural framework can be developed. Three-day workshops will subsequently be conducted to assist in the initial development of these regional architectures.

b. Deployment Technical Support - $900 thousand

As ITS deployment continues to take place across the country, it is anticipated that the architecture team will provide considerable technical and advisory support to USDOT and to various public sector state, regional, and metropolitan transportation authorities who deploy ITS.

Individual metropolitan planning organizations beyond those participating in deployment initiatives will progress and develop integrated ITS deployments following the lead provided through the Metropolitan Model Deployment Initiative program. The architecture team will provide technical support to the planners and developers of these deployments in order that the architecture consistency policy is understood and utilized and its goals achieved. Support in the actual use of the National ITS Architecture data base/documentation as well as assistance in the use of the Turbo Architecture software tool will be provided. This will enable regional architectures and ITS project deployment architectures to be produced locally.

c. Peer to Peer DOT Architecture Activities - $500 thousand

The architecture team will provide technical advice and support to FHWA resource centers and divisional offices as well as to MPOs and other transportation organizations. The purpose of this activity is to aid in developing transportation plans and to assist in understanding policies addressing architecture consistency, ITS standards, interoperability and other evolving ITS issues within the realm of architecture and deployment. The support will be fast reaction response to requests by the field agencies.

d. Architecture Engineering Maintenance Support (JPL) - $325 thousand

The Jet Propulsion Laboratory will provide technical and management expertise in support of National ITS Architecture deployment, implementation and maintenance. They will review architecture team products, assist in the development of user service requirements, review training and provide technical assistance in the project management and configuration control of the National ITS Architecture. They will develop recommendations for architecture team task orders relating to all elements of the architecture program.

e. Architecture Tool Development/Support - $325 thousand

USDOT is planning to evolve the Turbo Architecture software tool to continue to meet the needs of those utilizing the National ITS Architecture to assist in both ITS planning and ITS regional and project architecture development. Enhancements will be made to the tool to enable more efficient operation, to respond to user requests for more functionality and to expand it to include the National ITS Architecture updates.

This is the 6th year of a 10 year project; $1,000,000 was spent in FY 1997; $1,110,000 was spent in FY 1998; $1,485,000 was spent in FY 1999; $2,020,000 was spent in FY 2000; $2,480,000 was requested for FY 2001; $2,750,000 is requested for FY 2002; and $2,500,000 is projected for FY 2003.

5. Architecture Training (Deployment and Implementation) - $110 thousand

The USDOT has developed comprehensive training courses to assist those involved with the planning, development and deployment of ITS in applying the tools and methodologies developed as part of the National ITS Architecture. Approximately 8 courses for public sector personnel will be conducted, giving the trainees hands-on experience in the use of the National ITS Architecture tools.

This is the 4th year of an 8 year project; $926,000 was spent in FY 1999; $800,000 was spent in FY 2000; $110,000 was requested for FY 2001; $110,000 is requested for FY 2002; and $110,000 is projected for FY 2003.

Program: ITS ARCHITECTURE AND STANDARDS - STANDARDS

Budget Estimate

Amount Requested for FY 2002: $10.270 Million

GOAL

The standards program supports the US DOT and FHWA goals of enhancing safety and mobility by facilitating interoperability within and among the diverse ITS elements. The ITS Standards Program is also fostering the widespread use of ITS by accelerating the development and deployment of ITS standards and protocols.

PERFORMANCE MEASURES

The standards program supports the deployment of ITS technologies that will reduce the rate of highway-related fatalities and injuries, reduce delays on Federal-aid highways, reduce the cost of highway freight movement, and reduce on-road mobile source emissions.

BACKGROUND

ITS relies on state-of-the-art telecommunication and information technologies for monitoring and controlling transportation systems and devices and for sharing information and control among systems. ITS requires that the systems and the information flowing among them are "interoperable"—in other words, that all ITS hardware and software systems are fully and seamlessly integrated so that they can send, receive and store meaningful data.

To achieve the attribute of interoperability, and to facilitate interoperability at agency, jurisdictional, state and national levels, a set of standards is being developed. The standards are based upon information flows in the National ITS Architecture. Standards enable common understanding and use of information and promote coordination among ITS providers and users. Standards-compliant products and services will have a built-in level of interoperability.

As standards development has been greatly accelerated, there has been a noticeable need for support activities to ensure successful acceptance and adoption of these standards by the community. The standards program is continuing to make the transition of resource allocation to be more weighted towards outreach and education, as opposed to new developments, with the objective of ensuring successful application of the standards to ITS deployments. As such, the

standards program has significant activity in the areas of testing, implementation support, and policy support. The following provides more detail on each of these areas.

Testing. The purpose of standards testing is to investigate the performance of the standards and to "prove" the standards in realistic transportation settings, under actual operating conditions. This will build credibility in the standards and reassure deployers that the standards perform as intended. As an important step to encourage acceptance and early adoption of the standards, testing will provide timely and meaningful information on standards performance to the ITS community. Through testing and widespread distribution of test results, ITS standards will "mature" more quickly, thereby leading to their earlier acceptance by ITS stakeholders.

Implementation support. Standards implementation activities are aimed as ensuring that all public transportation stakeholders and those in the private sector who are involved in ITS implementation are aware of ITS standards and the educational and training opportunities that will help them become knowledgeable in the application of these standards. Standards implementation activities in the form of outreach and education are priority activities that provide transportation stakeholders with educational resource materials and technical assistance in support of the deployment of ITS. Such information and support is critical to the successful understanding and the application of the standards.

Policy support. After a standard has been approved by the standards development organization, field tested, and then assessed as ready for widespread use, DOT will initiate a rulemaking activity to require the use of the standard on federally funded projects. Policy support involves guidance and direction in meeting the conformity requirements, as called out in TEA-21, relating to the National ITS Architecture and standards.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

- Almost all of the approximately 80 standards that were originally chosen for development under the original national architecture have been approved or published.
- The ITS data registry has been operating on line for more than one year and has become the premier tool for coordinating and harmonizing transportation data systems.
- The standards testing program has completed testing on 10 additional standards, for a total of 20.
- Five additional standards lessons learned documents have been published for a total of 7.
- Field staff have completed standards familiarity training and standards resource libraries have been established at FHWA resource centers and division offices and at FTA regional offices.
- Five highway and 3 transit ITS standards courses are being conducted across the country.
- The first software tools that support standards deployment are being offered to public agencies.

ITS STANDARDS TO BE PUBLISHED BY THE END OF FY 2001

The following is a comprehensive list of the 80 ITS standards that are currently expected to be published by the end of FY 2001. All of the seventeen standards identified in FY 1999 as "critical standards" are expected to have been approved by January 1, 2000, except for DSRC standards for the 5.9 GHz band, which will be in ballot at that time. (DSRC standards are not included in this list because no standard name or document number has been identified yet.)

Standard Title [Document Number]	Lead SDO	To Be Tested	Testing Done By End of FY 2001
NTCIP - Application Profile for File Transfer Protocol (FTP) [NTCIP 2303]	AASHTO	Yes	Yes
NTCIP - Application Profile for Trivial File Transfer Protocol [NTCIP 2302]	AASHTO	Yes	Yes
NTCIP - Applications Profile for Data Exchange ASN.1 (DATEX) [NTCIP 2304]	AASHTO	Yes	Yes
NTCIP - Base Standard: Octet Encoding Rules (OER) [NTCIP 1102]	AASHTO		
NTCIP - Subnetwork Profile for Ethernet [NTCIP 2104]	AASHTO		
NTCIP - Subnet profile for Point-to-Point Protocol using RS 232 [NTCIP 2103]	AASHTO		
NTCIP - Object Definitions for Video Switches [NTCIP 1208]	AASHTO		
NTCIP - Simple Transportation Management Protocol (STMP) [NTCIP 1103]	AASHTO		
NTCIP - Profiles - Framework and Classification of Profiles [NTCIP 8003]	AASHTO		
NTCIP - Ramp Meter Controller Objects [NTCIP 1207]	AASHTO	Yes	

Standard Title [Document Number]	Lead SDO	To Be Tested	Testing Done By End of FY 2001
NTCIP - Data Dictionary for Closed Circuit Television (CCTV) [NTCIP 1205]	AASHTO	Yes	
NTCIP - Object Definitions for Environmental Sensor Stations & Roadside Weather Information System [NTCIP 1204]	AASHTO	Yes	Yes
NTCIP - Applications Profile for Common Object Request Broker Architecture [NTCIP 2305]	AASHTO	Yes	Yes
NTCIP - Simple Transportation Management Framework (STMF) [NTCIP 1101]	AASHTO	Yes	Yes
NTCIP - Class B Profile [NTCIP 2001]	AASHTO	Yes	Yes
NTCIP - Global Object Definitions [NTCIP 1201]	AASHTO	Yes	Yes
NTCIP - Object Definitions for Actuated Traffic Signal Controller Units [NTCIP 1202]	AASHTO	Yes	Yes
NTCIP - Object Definitions for Dynamic Message Signs [NTCIP 1203]	AASHTO	Yes	Yes
NTCIP - Point to Multi-Point Protocol Using RS-232 Subnetwork Profile [NTCIP 2101]	AASHTO	Yes	Yes
NTCIP - Transportation System Sensor Objects [NTCIP 1209]	AASHTO	Yes	
NTCIP - Data Collection & Monitoring Devices [NTCIP 1206]	AASHTO	Yes	
NTCIP - Application Profile for Simple Transportation Management Framework (STMF) [NTCIP 2301]	AASHTO	Yes	Yes
NTCIP - Internet (TCP/IP and UDP/IP) Transport Profile [NTCIP 2202]	AASHTO	Yes	Yes
Commercial Vehicle Safety Reports [TS284]	ANSI	Yes	
Commercial Vehicle Safety and Credentials Information Exchange [TS285]	ANSI	Yes	

Standard Title [Document Number]	Lead SDO	To Be Tested	Testing Done By End of FY 2001
Commercial Vehicle Credentials [TS286]	ANSI	Yes	
Specification for DSRC - Physical Layer using Microwave in the 902-928 MHz Band [PS 111.98]	ASTM	Yes	
Specification for DSRC - Data Link Layer: Medium Access and Logical Link Control [PS 105-99]	ASTM	Yes	
Data Radio Channel (DARC) System [EIA-794]	EIA/CEA		
Subcarrier Traffic Information Channel (STIC) System [EIA-795]	EIA/CEA		
Standard for Common Incident Management Message Set (IMMS) for use by EMCs [P1512]	IEEE	Yes	Yes
Survey of Communications Technologies [ITSPP#5]	IEEE		
ITS Data Dictionaries Guidelines [ITSPP#6A]	IEEE		
Guide for Microwave Communications System Development [1404]	IEEE	Yes	
Selection and Installation of Fiber Optic Cable in Intelligent Transportation Systems (ITS)	IEEE	Yes	
Message Set for DSRC ETTM & CVO [1455]	IEEE	Yes	
Standard for Message Set Template for ITS [P1488]	IEEE	Yes	Yes
Standard for Data Dictionaries for Intelligent Transportation Systems [1489]	IEEE	Yes	Yes
Standard for Functional Level Traffic Management Data Dictionary (TMDD) [TM 1.03]	ITE	Yes	Yes
ATC Application Program Interface (API) [9603-1]	ITE	Yes	
ATC Physical Cabinet Functional Design [9603-2]	ITE	Yes	
Advanced Transportation Controller (ATC) Functionality and Interface Definitions [9603-3]	ITE	Yes	

Standard Title [Document Number]	Lead SDO	To Be Tested	Testing Done By End of FY 2001
Message Set for External TMC Communication (MS/ETMCC) [TM 2.01]	ITE	Yes	Yes
TCIP - Control Center (CC) Business Area Standard [NTCIP 1407]	ITE		
TCIP - Common Public Transportation (CPT) Business Area Standard [NTCIP 1401]	ITE	Yes	Yes
TCIP - Fare Collection (FC) Business Area Standard [NTCIP 1408]	ITE		
TCIP - Framework Document [NTCIP 1400]	ITE		
TCIP - Incident Management (IM) Business Area Standard [NTCIP 1402]	ITE	Yes	Yes
TCIP - Onboard (OB) Business Area Standard [NTCIP 1406]	ITE		
TCIP - Passenger Information (PI) Business Area Standard [NTCIP 1403]	ITE	Yes	Yes
TCIP - Scheduling/Runcutting (SCH) Business Area Standard [NTCIP 1404]	ITE	Yes	Yes
TCIP - Spatial Representation (SP) Business Area Standard [NTCIP 1405]	ITE	Yes	Yes
TCIP - Traffic Management (TM) Business Area Standard [TS 3.TM]	ITE	Yes	Yes
Truth-in-Labeling Standard for Navigation Map Databases [J1663]	SAE		
Serial Data Comm. Between MicroComputer Systems in Heavy-Duty Vehicle Applications [J1708]	SAE		
Information Report on ITS Terms and Definitions [J1761]	SAE		
A Conceptual ITS Architecture: An ATIS Perspective [J1763]	SAE		

Standard Title [Document Number]	Lead SDO	To Be Tested	Testing Done By End of FY 2001
ISP-Vehicle Location Referencing Message Profiles [J1746]	SAE	Yes	
In-Vehicle Navigation System Communication Device Message Set Information Report [J2256]	SAE	Yes	Yes
On-Board Land Vehicle Mayday Reporting Interface [J2313]	SAE	Yes	Yes
Mayday Industry Survey Information Report [J2352]	SAE		
Advanced Traveler Information System (ATIS) Data Dictionary [J2353]	SAE	Yes	Yes
Advanced Traveler Information System (ATIS) Message Set [J2354]	SAE	Yes	Yes
ITS Data Bus Architecture Reference Model Information Report [J2355]	SAE		
Standard for Navigation and Route Guidance Function Accessibility While Driving [J2364]	SAE	Yes	
ITS Data Bus Protocol - Link Layer Recommended Practice [J2366-2]	SAE	Yes	
ITS Data Bus Gateway Recommended Practice [J2367]	SAE		
ITS Data Bus Conformance Test Procedure [J2368]	SAE		
Standards for ATIS Message Sets Delivered Over Bandwidth Restricted Media [J2369]	SAE	Yes	
Field Test Analysis Information Report [J2372]	SAE		
Stakeholder's Workshop Information Report [J2373]	SAE		
Location Referencing Message Specification (LRMS) Information Report [J2374]	SAE		
ITS In-Vehicle Message Priority [J2395]	SAE	Yes	
Measurement of Driver Visual Behavior Using Video Based Methods (Def. & Meas.) [J2396]	SAE		

Standard Title [Document Number]	Lead SDO	To Be Tested	Testing Done By End of FY 2001
Adaptive Cruise Control: Operating Characteristics and User Interface [J2399]	SAE	Yes	
Forward Collision Warning: Operating Characteristics and User Interface [J2400]	SAE	Yes	
ITS Data Bus Data Security Services Recommended Practice [J1760]	SAE	Yes	
ITS Data Bus Protocol - Physical Layer Recommended Practice [J2366-1]	SAE	Yes	
ITS Data Bus Protocol - Thin Transport Layer Recommended Practice [J2366-4]	SAE	Yes	
ITS Data Bus Protocol - Application Layer Recommended Practice [J2366-7]	SAE	Yes	

KEY FY 2002 PRODUCTS AND MILESTONES

- All of the 80 original standards have been approved
- Ten additional standards have been tested for a total of 30
- Three additional highway (total of 8) and two additional transit (total of 5) standards courses are being offered
- Five additional lessons learned documents have been published for a total of 12

FY 2002 PROGRAM REQUEST

1. Standards Development Activities - $3.195 Million

The addition of new user services to the National ITS Architecture, as well as the need for refinements to some of the standards, the rapid advancement of technology, and the need to integrate ITS into transportation-related infrastructures, such as public safety, are stimulating a second phase of standards development. Plans for standards development to address information flows in new user services are already underway, for example, the highway-rail intersection and the archived data user services. Other user services, such as operations and maintenance for rural, weather, disaster respense management, safe driving enforcement, and intermodal freight, will likely be added and standards development will quickly follow. Also, some existing user services, such as emergency management, will likely be enhanced.

Formal testing and evaluation activities are uncovering needs for extensions and refinements in the standards, for example to make it unnecessary for vendors to create custom functionality, which risks achieving interoperability. Even without testing results, additions, improvements and extensions to the standards would normally be made to increase their capability and make incremental improvements to interoperability.

The rapidly changing technological landscape within which the ITS infrastructure is still being built is offering new and better ways of providing services. The same rapid advances in telecommunications and information technology that make consumer products obsolete, and produce a sometimes bewildering array of new services, make existing standards either obsolete or limited in their ability to provide the full potential of new technologies. In some cases, standards are being modified and updated. Also, standards based upon newer technological approaches are being developed to provide ITS products and services with even greater functionality or convenience. Examples of newer standards are object-oriented standards for traffic management applications and Web-based standards for CVO applications.

It is now understood that the full potential of ITS will be realized through the full integration of ITS and related public systems and infrastructures. Therefore, some standards are being extended to include interoperability with related systems. One example is the standard for emergency management message sets, which is being extended to include connections to traffic incident management, public safety and hazardous materials.

After a successful initial five years, the standards development activity has been extended to ten years in duration. In addition, expanded development needs, and for the same reasons explained above, the cost for standards maintenance will be greater than was previously expected. The continued development to meet technological advances and the greater-than-expect expenses for standards maintenance may result in a growth in expenditures for standards development.

a. Infrastructure and Safety Standards - $950 Thousand

This will be the seventh year of direct funding to standards development organizations (SDOs) for developing ITS standards. This funding will provide for standards committees to write the standards, for technical support organizations to analyze and report on standards and standards development efforts, and for public sector involvement in standards committee and SDO activities.

In FY2002, development will continue on NTCIP, TCIP, incident management, HRI and ADUS standards. Development will begin on operations and maintenance for rural user service standards.

As ITS systems have been deployed, it has become apparent that the initial ITS scope was too narrow and other interests that had a stake in ITS were not participating in standards development. It had not taken into account the need to integrate ITS with related public systems.

Therefore, the scope of the standards has been expanded to extend the interoperability of ITS to related, interdependent communities. Examples of such communities include rural, public safety, and public utilities. One particular expansion of the standards will be in the area of location referencing.

In the case of location referencing standards, different federal agencies as well as state and local agencies have maintained parallel, non-interoperable location referencing systems. Technology exists to increase the accuracy of these systems, but the quest for an updated universal national system that would meet all needs has not been reached. For several years the special needs of ITS location referencing have been discussed but not resolved, pending a decision on the universal, government-wide framework. Such a decision may be reached and a standards development effort in FY 2002 may be needed to develop standards that specifically address ITS requirements.

One other factor influencing standards development in FY 2002 is technology evolution. With the continual advancing of technology, there is a need to provide information models that can be used to standardize the implementation of new technologies. This will help maintain interoperability with standardized systems that are already in place. One example is the need for information models that relate data elements and message sets to functional "objects" used in newer object-oriented software technologies.

This is the seventh year of a ten-year project; $4,200,000 was spent in FY 1996; $7,000,000 was spent in FY 1997; $4,313,000 was spent in FY 1998; $1,290,000 was spent in FY 1999; $1,765,000 was spent in FY 2000, $1,350,000 was requested for FY 2001; $950,000 is requested for FY 2002, and $900,000 is projected for FY 2003.

b. Commercial Vehicle Standards - $200 Thousand

Previously, The Johns Hopkins University Applied Physics Laboratory (APL) developed, tested and wrote implementation guides for the Commercial Vehicle Information System Network (CVISN) based upon electronic data interchange (EDI) standards. To ensure that CVISN demonstration projects are properly incorporating developed standards and that the standards work properly, APL will be providing standards technical support to the states for the CVISN level 1 deployment program. The effort will continue to produce interoperability and compatibility test criteria and results, as well as migration support. Such support will encompass the EDI standards for safety and credentials information exchange as well as other Web-based solutions that are evolving.

This project is extended for four years beyond previous expectations to provide for integration of CVO with safety, electronic toll, and other evolving ITS applications such as the highway-rail intersection and intermodal freight. The project will monitor and begin testing developments in

related arenas, especially dedicated short-range communications in the new 5.9 GHz band. In addition, the project will develop a needed reference model that will ensure interoperability between the electronic data interchange standards and newer Web-based standards, such as extensible markup language (XML).

This is the eighth year of a twelve-year (formerly eight-year) project. $500,000 was spent in each of FY 1995 through FY 1999; $400 was spent in FY 2000; $200,000 was requested for FY 2001; $200,000 is requested for FY 2002; and $200,000 is projected for FY 2003.

c. Transit Standards - $700 Thousand

This activity will support, through FTA, the development of national and international transit specific standards such as the Transit Communications Interface Profile (TCIP). This activity will continue the transit location referencing projected started in FY 2000. It will add the development of fare-collection business area objects. These objects will be developed based on the electronic fare payment systems guidelines that were developed during FY 1998 - FY 2000. It will continue to support bus-to-rail interface standards development, transit-related aspects of highway-rail intersection standards development, and vehicle area network standards development. Originally intended to be a five-year project, the work has built upon its success to embrace a more challenging, broader scope that includes paratransit, rail-based transit, smart cards, transit garage operations, and transit signal priority. This activity will also continue support for U.S. experts and a U.S. Working Advisory Group Secretariat in the development of international standards for public transit.

This is the sixth year of a eight-year project; $100,000 was spent in FY 1997; $600,000 was spent in FY 1998; $1,200,000 was spent in FY 1999; $1,055,000 was spent in FY 2000; $800,000 was requested for FY 2001; $700,000 is requested for FY 2002; and $600,000 is projected for FY 2003.

d. Highway-Rail Intersection Standards - $200 Thousand

During FY 2000, the Federal Highway Administration and the Federal Railroad Administration (FRA) worked with rail and highway stakeholders and standards development organizations, held workshops, and developed plans for highway-rail intersection standards. In FY 2002, FRA will continue coordinating the development of needed HRI standards and changes to existing standards to accommodate the needs of HRI.

This is the forth year of a six-year effort; $200,000 was spent in FY 1999; $200,000 was spent in FY 2000; $200,000 was requested for FY 2001; $200,000 is requested for FY 2002, and $300,000 is projected for FY 2003.

e. Archived Data User Service (ADUS) Standards - $ 170 Thousand

This project will provide for the concept definition, strategic planning, and development for each ADUS guideline standard and data dictionary that will be articulated in the ADUS Standards Strategic Plan and Project Plan. This project will establish guidelines for processing, storing, and retrieving archived ITS travel monitoring data for ADUS users to help resolve data quality control issues concerning incomplete ITS collected data sets, data sets with varying degrees of aggregation, and message sets for transferring data across ADUS interfaces. It is anticipated that ADUS guidelines and data dictionaries will be developed for the following ADUS user communities: transit, traffic management, traveler information, freight, commercial vehicle operations, and incident and emergency management.

This is the third year of a six-year effort; $24,000 was spent in FY 2000; $90,000 was requested for FY 2001; $170,000 is requested for FY 2002; and $140.000 is projected for FY 2003.

f. Intermodal Freight - $150 Thousand

Intermodal freight standards will need to be developed to meet the goal of linking information systems between the modes to provide an end-to-end information flow to enhance and make more efficient the movemen of freight. In FY 2002 intermodal freight architecture is expected to be completed with linkages o the ITS National Architecture, to modal operations, to metropolitan operations and border partners. Those linkages will require standard interfaces for data exchange. A plan for developing the standards and associated documentation will need to begin in FY 2002.

This is the first year of a multi-year request; $150,000 is being requested in FY 2002; $250,000 is projected for FY 2003.

g. Standards Technical Support - $825 Thousand

This activity upholds the highest technical quality in the standards development and deployment efforts and ensures adequate coordination and timely resolution of cross-cutting technical issues. The work includes acting as systems engineering and technical advisor to the U.S. DOT on standards development, testing and deployment. The work is performed by the Jet Propulsion Laboratory, which is a NASA federally funded research and development center.

Elements of the work involve technical project review and coordination; technical guidance, oversight and evaluation; information system management; technical training and education planning; and standards development and testing guidance and evaluation. In the area of technical project review and coordination, examples of activities are developing planning documents and white papers on technical issues in the areas of standards development and testing, analyzing standards projects to develop technical guidance and direction, coordinating

work among organizations involved in standards development, testing, and outreach, and reviewing for technical quality standards-related deliverables.

In the area of technical guidance, oversight and evaluation, activities include monitoring and advising the organizations developing, testing and deploying standards, developing analyses of national and international standards activities, evaluating standardized system deployments and their interoperability, and developing and evaluating technical efforts to help ensure the interoperability of ITS systems. In the area of information system management, the primary activity is the maintenance and enhancement of a comprehensive ITS standards database, a deployment contacts database and the U.S. DOT's ITS Standards Web Site. In technical training and education planning, the major activities are coordinating and evaluating standards outreach and education programs.

Finally, in the area of standards development and testing guidance and evaluation, activities focus on technically reviewing standards development efforts, developing work plans for coordinated activities such as the data registry, developing standards testing projects, providing technical direction, guidance, coordination and evaluation of test plans, analyses, and results, and acting as a testing systems engineering advisor.

This is an ongoing effort; $760,000 was spent in FY 1999; $780,000 was spent in FY 2000; $800,000 was requested for FY 2001; $825,000 is requested for FY 2002, and $850,000 is projected for FY 2003.

2. Testing and Interoperability - $3.5 Million

Standards testing is an important step toward ITS standards becoming ubiquitous in interoperable ITS systems. After development, standards testing is an important element of standards readiness that must occur prior to rulemaking, which formally adopts the standards and requires their use in Federally funded transportation projects.

Standards testing provides information to potential users on the reliability, interoperability, functionality and performance of systems based upon the standards. By building confidence in the standards, standards testing and the wide distribution of test results are essential to encourage adoption of ITS standards by public agencies, vendors and systems integrators.

The objectives of ITS standards testing activities are to "prove" the standards in real transportation settings, ensure they achieve interoperability, and provide information on the "quality" of the standards to the ITS community. Furthermore, the evaluated results of tests performed on standards gives feedback to the organizations that developed the standards so that they can improve and update the standards. Through testing and the reporting of test results, ITS standards will "mature" more quickly, thereby leading to their earlier acceptance by ITS stakeholders.

While testing measures interoperability, which is the ability of ITS systems to exchange information automatically, other efforts directly promote increased interoperability. One of these is the ITS Data Registry, a tool that promotes interoperability among data systems. The harmonization process that is associated with the use of the data registry is key to moving toward common terminology and data among different systems, including non-ITS transportation data systems that are participating in the data registry. It is also providing a quality ranking for data elements that provides data system designers with optimal and interoperable data elements.

a. Standards Testing - $2.0 Million

The standards testing activity is a comprehensive formal testing program that is performed by Battelle Memorial Institute. It is systematically evaluating and documenting the operation, completeness and correctness of testable ITS standards to determine whether they work as they were intended and whether there are any deficiencies. A separate coordinated activity is the special-purpose testing of EDI standards, which are used in combination with dedicated short-range communications (DSRC) standards for commercial vehicle applications (CVO). This activity is performed by The Johns Hopkins University Applied Physics Laboratory. In another coordinated activity, the Oak Ridge National Laboratory is conducting tests of location referencing standards and profiles.

The standards testing activity leverages ongoing and planned ITS field deployments. The intent of the "leveraging" approach is to bring together public agency and private sector participants in a testing effort that will provide information about the standards that will benefit all stakeholders. In addition to the formal testing activities, analysis of experience from deployments of standardized systems will provide valuable information on the ability of the standards to meet the needs of the producers and users of such equipment.

It is expected that about thirty of the fifty-five standards currently targeted for formal testing will be tested by the end of FY 2002.

Previously, standards testing had been expected to be a five-year project. However, the slower-than-expected deployment of ITS standards, the greater-than-expected demand for experience-based test results, and advances in technology are causing the formal testing program to be a longer process and one that is more important to deployment than was initially expected. In addition, since modifications to standards are being produced and will need to be tested, the testing program will need to remain in operation longer than originally expected.

This is the fifth year of a seven-year project; $1,400,000 was spent in FY 1998; $1,800,000 was spent in FY 1999; $1,700,000 was spent in FY 2000; $1,700,000 was requested for FY 2001; $2,00,000 is requested for FY 2002; and $2,000,000 is projected for FY 2003.

b. DSRC Testing at 5.9Ghz - 1.0 Million

The FCC has allocated 75 Mhz of bandwidth around 5.9 Ghz for ITS use. This targeted frequency requires new technology to be developed to support DSRC applications. From DOT's perspective, the critical applications are safety related and include: emergency vehicle preemption, transit vehicle preemption, broadcast of emergency conditions/warning, and highway-rail intersection warning. Over the last two years, the vendor community has worked out the new standard and has invested in the development of this new technology. As with all of the standards that DOT intends to mandate, a supporting testing program needs to be carried out. The DSRC test, however, is more complex and comprehensive because it involves testing physical communication elements and a multi-application environment as opposed to the more "simple" testing of message set transfers. And because of the safety applications that the new DSRC technology will support, a higher level of confidence in the standard needs to be in place

This is the first year of a two-year project;$1,000,000 is requested for FY 2002; and $500,000 is projected for FY 2003.

c. Data Registration - $500 Thousand

The ITS Data Registry is a centralized repository for definitions of data elements across all ITS applications. Its objective is to provide for unambiguous data interchange among ITS systems by providing unique identifiers and formats for data elements and messages. With regard to data definitions and characteristics, the data registry can be thought of as a single, uniform source of information where the boundaries among different databases are transparent.

The data registry helps ensure that different ITS applications do not develop conflicting data elements for similar information and provides a means for application developers to check for proven data elements that they can re-use. Ultimately, the data registry may become a self-sustaining user-fee-based activity. However, U.S. DOT support is needed for the participation of public agency stakeholders and the inclusion of existing intermodal U.S. DOT data systems.

Initially, this was a four year project. However, it has been slow to get into full operation because of the uncertainty in knowing what it takes to achieve a workable business plan and because of an increase in scope. The increasing scope was primarily due to needs of the archived data user service and the desire to harmonize ITS data with data from existing U.S. DOT data systems, such as the Highway Performance Management System. In FY 2002, the data registry will put a business plan into place and will incorporate several of the legacy U.S. DOT data systems.

This is the fourth year of a six-year project; $460,000 was spent in FY 1998; $500,000 was spent in FY 1999; $800,000 was spent in FY 2000; $500,000 was requested for FY 2001; $500,000 is requested for FY 2002; and $300,000 is projected for FY 2003.

3. Implementation Support - $3.225 Million

While development and testing has assisted in the technical aspects of ITS standardization, an even more significant element of the program relates to actual use of the standards, that is, the deployment of standardized ITS systems. Implementation support, in the form of outreach and education, is a priority activity. This effort will provide outreach, documentation, training and technical support to deployment sites to ensure successful application of developed standards. It will support widespread distribution and sharing of standards information, sample procurement specifications, test results, lessons learned, and case studies, as well as the development, publishing, and distribution of guidelines on how to use specific standards to implement particular applications. It will increasingly provide on-line, automated tools for assisting standards deployers, such as tools that transportation agencies can use to develop procurement specifications or to design and perform acceptance tests.

a. Resource Materials - $750 Thousand

Resource materials include a variety of technical and non-technical outreach, and reference materials in electronic as well as hardcopy form. Examples of the kinds of resource materials that will be produced and disseminated are "plain-English" fact sheets on the standards, sample procurement specifications, and standards user guides. All resource materials will be made available for use in standards training activities and on the ITS Standards Web Site (www.its.dot.gov/standard/standard.htm).

User guides provide detailed information on applying the standards to system design. The guides describe how the standards benefit users, the different types of transportation management systems the standards support, how to choose from among the various options available, and the issues to consider in system design. These guides will also help local implementers build interoperable systems.

The duration of this project will depend upon the needs of transportation and transit agencies. These needs will be monitored and this project will grow and lengthen, or shrink and shorten, depending upon how well the needs have been satisfied. Based upon current expectations, and considering the length of time rulemaking is likely to take, the current projection is for an eight-year project. Once materials are developed, the continuing need is updating them as the standards are updated. Nevertheless, new materials will be needed for new standards and for new deployment needs, which will come through time and experience with standardized systems.

This is the fourth year of an eight-year project; $700,000 was spent in FY 1999; $500,000 was spent in FY 2000; $975,000 was requested for FY 2001; $750,000 is requested for FY 2002; and $700,000 is projected for FY 2003.

b. Lessons Learned - $375 Thousand

Leading-edge deployments, such as the model deployment sites and other early operational activities, as well as the standard testing activities, provide opportunities to gain insightful information that will be useful to future deployers. This effort will monitor, analyze, and evaluate deployments and standards tests to capture valuable experiences and translate them, into "lessons learned." These "lessons learned" are short, easy-to-read reports containing advice and guidance. They will be shared through various mechanisms including Web sites, workshops and general publications on ITS systems, including those produced by other programs within U.S. DOT. The community has identified this as a priority item to facilitate successful implementation of ITS standards.

This is the third year of a five-year project; $300,000 was spent in FY 1999; $300,000 was spent in FY 2000; $375,000 was requested for FY 2001; $400,000 is requested for FY 2002; and $300,000 is projected for FY 2003.

c. Technical Assistance (Peer-to-Peer) - $500 Thousand

As standards are put into practice, there is a growing need for real-time personalized technical assistance. The Peer-to-Peer Program has a proven history of effectiveness in providing useful technical support. Individuals familiar with the technical details of the standards are made available to deployers of ITS systems for short-term, on-demand support, consulting, and/or troubleshooting. Standards experts who are not public employees are paid for their time and expenses.

This is and ongoing effort; $250,000 was spent in FY 1999; $100,000 was spent in FY 2000; $500,000 was requested for FY 2001; $500,000 is requested for FY 2002; and $400,000 is projected for FY 2003.

d. Training - $1.0 Million

As part of FHWA's comprehensive ITS standards outreach and education effort, training on selected ITS standards will provide classroom instruction, including seminars, workshops, and standards training modules that can be added to existing ITS courses. This training will provide standards training at different levels to different types of users throughout the ITS community, with an emphasis on public sector users. Training activities will bring together the appropriate stakeholders and build reliability and confidence in ITS standards.

Training activities encompass developing and delivering courses, seminars, workshops, and/or course modules intended for classroom instruction on ITS standards in general as well as specific highway (i.e., NTCIP) and transit (i.e., TCIP) standards. The ITS standards training courses will empower managers, project planners, deployers, systems integrators, and others in the public

sector to plan and execute successfully, within their area of responsibilities, the deployment of ITS standards. Where appropriate to support public-sector ITS standards deployment, private-sector audiences will be included. The courses will give these audiences necessary information about the ITS standards that are the subjects of the courses, including information about how to locate additional specialized information resources and expertise that they may require. This activity includes planning, developing and delivering ITS standards courses and course modules.

This is the first year of a six-year project; $700,000 was spent in FY 1999; $500,000 was spent in FY 2000; $500,000 was requested for FY 2001; $1,000,000 is requested for FY 2002; and $1,000,000 is projected for FY 2003.

e. Software Tools - $600 Thousand

To accelerate the deployment of standardized systems, the ITS Standards Program will develop and provide software applications that can be used by transportation agencies to determine whether a product will function correctly and interact correctly with other components within a system. Such tools can be used in acceptance testing and in verifying an application's capability to function within a system. They can also assist both buyers and producers with assessing conformance and interoperability of software and hardware implementations of ITS standards by, for example, testing data interfaces. Software and hardware tools that transportation agencies can use to test standardized products will be provided on line, as will other tools that will assist in developing specifications for systems.

This is the first year of a six-year project; $600,000 is requested for FY 2002; and $800,000 is projected for FY 2003.

4. Conformity - $350 Thousand

Conformity refers to the requirement in TEA 21 that Federally funded ITS deployments conform to the National ITS Architecture and to ITS standards. Conformity activities will include developing guidance for public agency ITS deployers and developing policies to support such guidance.

a. Federal Rulemaking Support - $200 Thousand

To ensure compliance with and usage of ITS standards, U.S. DOT, on a selective basis, will initiate a rulemaking process by which use of approved ITS standards will be a prerequisite to the receipt of Federal funding. Each standard proposed for being subject to Federal funding support ties will be published in the Federal Register as part of the rulemaking process. While these standards will have already been approved by the direct stakeholders as part of the approval

process within each standards development organization, it is expected that issues and questions may arise in the general public. This rulemaking process will require resource support for administrative, legal and technical issues identified and resolved during the public commenting period.

This is the second year of a six-year project; $100,000 was spent in FY 2000; $500,000 was requested for FY 2001; $200,000 is requested for FY 2002; and $200,000 is projected for FY 2003.

b. Policy Development - $150 Thousand

The prime policy development effort will be the development of appropriate standards consistency policy and guidance, including criteria for adoption or approval of individual standards by U.S. DOT prior to any requirement that they be used in federally funded projects This task will address the coordination of standards consistency policy with architecture consistency policy, as well as the need for additional policy development. Policy development includes not only the costs associated with writing conformity policy, but also outreach activities, consensus-building activities and education of the stakeholders.

This is the third year of a five-year project; $100,000 was spent in FY 2000; $250,000 was requested for FY 2001; $150,000 is requested for FY 2002; and $100,000 is projected for FY 2003.

Program Title: INTEGRATION - SUMMARY

Budget Item No:

Amount Requested for FY 2002: $11.35 MILLION

Program Title: INTEGRATION - TECHNICAL ASSISTANCE

Budget Item No:

Amount Requested for FY 2002: $5.65 Million

GOALS

The Technical Assistance program supports the USDOT and FHWA goals of enhancing safety, mobility, productivity and the human and natural environment, by facilitating the implementation of ITS systems at the State and local level. This program supports the USDOT goal set in January 1996, by Secretary Pena, to deploy integrated ITS systems in 75 of the largest metropolitan areas by 2006.

PERFORMANCE MEASURES

The Technical Assistance program supports the deployment of ITS technologies that will reduce the rate of highway-related fatalities and injuries, reduce delays on Federal-aid highways, reduce the cost of highway freight movement, and reduce on-road mobile source emissions.

BACKGROUND

Metropolitan areas across the country are struggling to mitigate congestion and improve mobility. The metropolitan ITS program is focused on the deployment and integration of metropolitan systems including advanced traffic management, traveler information, and public transportation systems to enable the management of these systems in an integrated fashion to improve transportation in urban areas.

ITS deployment is occurring in metropolitan areas throughout the nation. However, approximately a third of the 75 regions still have a low level of deployment. In addition, individual systems are still being purchased and installed in a stove-piped fashion without proper attention to integration. To address these concerns, the ITS Program has taken action to spark deployment of integrated ITS infrastructure. Using an assessment of the level of metropolitan ITS infrastructure deployment and of the associated degree of integration of the individual infrastructure components, metropolitan areas can be classified into areas of high, medium, or low levels of integrated deployment. An area with a high level of integrated deployment is one where the extent of ITS deployment is both broad, including all the major infrastructure components, and deep, with a significant market penetration. Low areas are characterized by either limited deployment or integration, or both. Twenty-seven regions are currently characterized as low, 26 as medium, and 22 as high.

In low-level metropolitan deployment regions there is limited awareness of ITS and its potential benefits to agencies and the public. Many of the local and state transportation agencies may not have staff knowledgeable in ITS or resources to pursue ITS projects. Medium-level areas are those that have an awareness of ITS and the beginnings of a basic system, but are not yet fully engaged in integrated ITS deployment. For these areas, more technical information and assistance on installation, operations, and evaluation is needed. High level areas are defined as regions with a great deal of ITS deployment activities underway. These areas tend to be the early adopters in the ITS industry, and typically lead the way for others in ITS implementation. These regions understand the benefits of ITS, have gained experience in ITS procurement, have resolved technical design issues, have installed hardware and software, and are in operation.

For most of these sites, whether high, medium, or low, ITS is not being fully considered in the planning process. ITS projects may be included in plans at the metropolitan or state level, but few areas have developed a vision for ITS in their area. At the planning level, DOT expects state and local agencies to routinely consider ITS projects as part of the traditional transportation planning process. ITS projects will start to become routine elements in Transportation Improvement Plans, or TIPs, and Statewide Transportation Improvement Plans, or STIPs. DOT will encourage regions to start linking their metropolitan ITS plans and architectures with statewide plans and architectures. In addition, regional stakeholder bases will be broadened to include non-traditional stakeholder groups such as emergency management, the travel and tourism industry, and others.

While most deployment is still occurring in the major metropolitan areas, a significant amount of ITS planning and some deployment is now taking place at the State level. Encouraging States that have not yet embraced ITS deployment at the State level and assisting those that are addressing this issue will require new methods or refinements of existing methods for providing technical assistance.

The implementation of the Architecture and Standards Compliance Policy required by TEA-21 will require a significant technical assistance effort. The application of this requirement is expected to result in each state and metropolitan area being required to develop a local or regional architecture in order to ensure that ITS systems and services are deployed in an integrated manner. It is presumed that most effected jurisdictions are not prepared to take on this critical but challenging requirement. As States and metropolitan areas address the need to consider the National Architecture and appropriate standards in their ITS planning efforts, they will require significant support in the form of guidance, training, and direct technical assistance.

The primary focus of the USDOT strategy is to direct the majority of its technical assistance resources at moving jurisdictions that are at a medium level of integrated deployment to a high level. These jurisdictions are the most ready to accept and effectively utilize the resources that are available. Limited resources will be used to support the growth of low level jurisdictions and to capture the successes and lessons learned by the high level jurisdictions. Three key approaches are being used to advance integrated ITS deployment:

- Providing direct technical assistance which may include defraying travel costs to those who are planning and implementing ITS technologies at the State and local level. This technical assistance will be delivered through service plans that are tailored to the level of deployment and needs of each jurisdiction and through a peer-to-peer program that delivers high-quality, objective technical assistance quickly.

- Developing and delivering technical guidance materials. The objective is to capture and document the best practices and lessons learned from existing and innovative ITS deployments into the decision-making and deployment process of State, metropolitan, and/or rural transportation and transit agencies through technical guidance. This will help others build their systems in an integrated manner, position themselves for the future, and make cost-effective, informed decisions to meet their unique needs.

- Transferring new technologies and methodologies into practice. Outputs from the traffic management, APTS and rural ITS R&D programs, combined with new tools and approaches uncovering during the benchmarking of best practices will be packaged and delivered to State and local governments. A variety of delivery approaches, depending on the product and target audience will be used. They could include demonstration projects, technology trucks computer or web-based tutorials, etc.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

FY 2001 will be characterized by the availability of more detailed and technical information developed and available to support ITS deployment. Technical guidance, training and other information sources will be readily available on topics such as architecture, procurement, and

integration. Tangible examples of integrated systems will emerge providing valuable insights into the applicability and usefulness of ITS in transportation operations and management. ITS deployments will continue to be more closely linked to transportation planning activities. Major activities and anticipated accomplishments implemented individually or jointly by FHWA and FTA during FY 2001 include:

- **Peer-to-Peer Program:** The Intelligent Transportation Peer-to-Peer program responded to over 150 requests and provided expert assistance to State, regional and local transportation agencies as they encounter issues and problems related to the planning, design, implementation, operation and maintenance of intelligent transportation systems. FHWA, FTA, and FMCSA coordination was maintained through joint management efforts. The program developed and disseminated a knowledge database accessible to our partners and stakeholders and produced an annual report on "lessons learned" while providing technical assistance.

- **Technical Guidance Materials:** Technical materials on transportation systems operations were developed and distributed to State, metropolitan, and regional transportation authorities, that are based on the best examples of integrated surface transportation operations and presented in the form of best practices guidelines.

- **Rural Deployment Guidance:** Various guidance documents that facilitate the deployment of rural ITS systems were developed and distributed These guidance documents addressed such topics as the inclusion of ITS planning in the state and local transportation processes; development of a second generation rural ITS toolbox; lessons learned documentation for existing rural ITS projects; and training curricula for rural ITS components of professional capacity building.

- **Service Plans:** Service Plans were developed for 30 metropolitan areas and 15 rural regions, which contained activities such as: development of regional architectures; specialized guidance on procurement and planning; specialized ITS technical support for peer reviews and assistance; and support to field offices to carry out coalition building with local authorities; and ITS courses.

- **RD&T Product Implementation:** Research and development products were moved from the laboratories into the hands of practitioners, including Adaptive Control Systems and Computer Aided Design software for human factors in designing traffic management and control centers.

- **APTS Mobile Showcase:** Advanced Public Transportation System (APTS) were demonstrated with the APTS Mobile Showcase at ten sites across the country.

KEY FY 2002 PRODUCTS AND MILESTONES

Major activities and anticipated accomplishments implemented individually or jointly by FHWA and FTA during FY 2002 include:

- **Service Plans:** Service Plans will be developed for 30 metropolitan areas and 15 rural regions, which contain activities such as: development of regional architectures; specialized guidance on procurement and planning; specialized ITS technical support for peer reviews and assistance; support to field offices to carry out coalition building with local authorities; and ITS courses.

- **Peer-to-Peer Program:** The Intelligent Transportation Peer-to-Peer program will respond to over 175 requests and provide expert assistance to State, regional and local transportation agencies as they encounter issues and problems related to the planning, design, implementation, operation and maintenance of intelligent transportation systems.

- **Small Urban Area Programs:** Non-traditional stakeholders will begin to engage in the ITS program, including emergency management services personnel, the law enforcement community, and health and human services providers. The Department will capture what is known about integrating these stakeholders into the ITS and transportation planning processes, and disseminate the information in the form of guidance documents, white papers and possibly through a national conference.

- **RD&T Product Implementation:** Research and development products will be moved from the laboratories into the hands of practitioners.

ITS Public Safety Conference: A national conference will be held to bring together public safety officials to discuss and plan how ITS can advance public safety initiatives.

Architecture Consistency Support: A wide range of technical assistance efforts will be carried out to facilitate the implementation of the ITS Architecture Consistency Policy that is expected to go into effect in late FY 2001. This will include training, guidance documents, direct assistance, etc.

FY 2002 PROGRAM REQUEST

1. Direct Technical Assistance - $1.8 Million

a. Service Plan Implementation - $1.5 Million

A Service Plan is a document developed jointly by the FHWA Division and FTA Regional offices. Service Plans enable headquarters and field offices to develop and deliver products and services that will assist a metropolitan and/or rural area deploy ITS in an integrated manner. The philosophy behind Service Plans is a pro-active, intermodal, and more targeted approach to customer service. These FY 2002 funds are provided to FHWA Division offices and FTA Regions for supporting activities necessary to move a metropolitan or rural area to a more advanced level of ITS deployment and may include defraying travel costs to those who are planning and implementing ITS technologies. Service Plans will be the major mechanism for supporting integrated ITS deployment. Assistance activities supported will include: development of regional architectures; specialized technical assistance on procurement and planning; specialized ITS technical support for peer reviews and assistance; and ITS training courses. Service Plans are an intermodal effort involving shared FHWA and FTA funding and leadership.

This is the third year of a five year program; $1,000,000 was spent in FY 1999; $1,500,000 was spent in FY 2000; $1,500,000 is estimated for FY 2001; $1,500,000 is requested for FY 2002; and $1,500,000 is proposed for FY 2003.

b. Travel Management Peer-to-Peer Program - $300 Thousand

The ITS Peer-to-Peer Program is effective largely because it links transportation professionals who have experience in overcoming ITS deployment issues with their peers who face similar issues. The Peer-to-Peer Program provides technical assistance to assist local and state agencies to initiate new ITS deployment efforts, identify and resolve challenges in existing ITS efforts, and foster the state-of-the-art in ITS. Both highway and transit agencies are provided peer support through this program and the program has a broad range of peers available with expertise in all areas of ITS.

The ITS Peer-to-Peer Program helps educate decision makers, agency staff, and others in the application and implementation of ITS for the development and management of multi-modal transportation systems. This program delivers high-quality, objective technical and programmatic assistance quickly, efficiently, and with minimum prerequisites to those requesting assistance. Examples of assistance include: feasibility/needs analysis; functional requirements; system operational concept and maintenance plans; preliminary and final design; procurement and contract management; and implementation plans.

This is the fourth year of a six year program; $250,000 was spent in FY 1998; $250,000 was spent in FY 1999; $300,000 was spent in FY 2000; $350,000 is estimated for FY 2001; $300,000 is requested for FY 2002; $350,000 is proposed for FY 2003; and $400,000 is proposed for FY 2004.

2. Technical Guidance Materials - $1 Million

a. ITS Guidance for Mid-Size Cities (TEA-21 Earmark) - $500 Thousand

Over the years, a great deal of resources have been devoted to the needs of large metropolitan areas. While this focus was, and will continue to be, important, the needs of mid-size and smaller urban metropolitan areas have not been adequately addressed. Mid-size cities have needs and requirements that, while similar to their larger counterparts, are still unique to the smaller urban areas. This project will begin with some of the more pressing ITS guidance from larger metropolitan areas and revise it to speak to the unique needs of the smaller metropolitan areas. This project will be done by Public Technologies, Inc. (PTI) who specializes in providing clear and concise technical guidance to their constituency of smaller metropolitan areas.

This is a six year project with an annual cost of $500,000 proposed for FY 2002.

b. Small Urban Area Programs - $500 thousand

Most of the efforts to date to develop outreach and guidance materials to facilitate the deployment of ITS has been focused on large metropolitan areas. There is a need for information/guidance that is directly applicable to small urban areas where ITS deployment is expected to accelerate dramatically in the next few years. This need will be exacerbated by the architecture conformity policy required by TEA-21 which will apply to all metropolitan areas deploying ITS independent of size. This project will identify and synthesize information concerning deployment of ITS in small communities and produce appropriate guidance documents. Existing guidance documents, intended for large metropolitan areas will be modified as appropriate to address small and medium sized communities.

This is the first year of a three year program; $500,000 is requested for FY 2002; $500,000 is proposed for FY 2003; $500,000 is proposed for FY 2004.

3. Technology Transfer - $2.85 Million

a. Computer Modeling and Simulation Demonstration Project - $500 Thousand

In recent years the state-of-the art of traffic simulation has improved dramatically. These programs are more accurate, more comprehensive, and are often integrated (i.e., freeway and street network). They are much more user friendly (e.g., windows based input, graphical output, etc.), faster and at the same time with lower operating costs than their earlier predecessors. Still

their use in the transportation community is limited. This project would provide for a number of activities intended to improve the state of the practice in using traffic simulation as a tool in analyzing traffic problems, assessing traffic control strategies, comparing alternative design strategies and providing input to transportation planning. These activities might include on-site demonstrations, training, and limited technical assistance.

This is the second year of a three year program; $500,000 is proposed in FY 2001, $500,000 is requested in FY 2002, and $500,000 is proposed in FY 2003.

b. RD&T Product Implementation - $500 Thousand

The Department continues to invest resources into research and development for travel management. In FY 2002, there are several products that will be mature and ready for operational use. These resources will be used to transfer that research into operational use.

The first is Dynamic Traffic Assignment software. Two traffic estimation and prediction algorithms have been developed and tested that are now available for use by practitioners. This funding will support the implementation of DTA through various products and services such as training courses and technical guidance documents and materials.

The second is Advanced Ramp Metering Algorithms. In FY 2001, the software will have been developed and evaluated and there will be some practical experience with this software that can be developed into guidance. The Department will foster the use of these algorithms through technical guidance documents, presentations, and other outreach mechanisms.

This is a continuing program; $500,000 is requested for FY 2002

c. Program Peer Review - $250 Thousand

To be effective, government must get close to its customers and understand their needs and perspectives. This initiative will provide for regular peer reviews of the ITS Traffic Management/Traveler Information (TM/TI), research and development programs. There are four key program areas supported by this peer review effort.

The APTS Stakeholders Forum provides peer review of the transit program, the first key area. Select transit representatives from the APTS Stakeholders Forum, APTS Committee, ITS America, and APTA will participate in various program reviews and various technical advisory groups to ensure that transit interests have been addressed. Transit representatives will come from large, medium, and small transit properties.

The Deployment Technical Advisory Group (DTAG) performs peer review of the Traffic Management and Traveler Information program, the second key area. DTAG is comprised of public and private sector professionals who are knowledgeable and experienced in issues related

to Traffic Management and Traveler Information. A subset of the DTAG, the Research Technical Advisory Group (RTAG) also performs peer review of the ATMS research and development program, the third key area.

All three peer review groups: the APTS Stakeholders Forum, DTAG, and RTAG provide feedback and program guidance, and serve as a sounding board for new USDOT initiatives.

The Public Safety Advisory Group (PSAG) performs peer review of the Public Safety program activities. The PSAG is comprised of public and private sector professionals who are knowledgeable and experienced in issues related to Public Safety operations and information systems.

The results and recommendations from the program peer reviews is typically provided to the Department of Transportation as formal program advice under ITS America's charter as a utilized Federal Advisory Committee. FHWA and FTA will support the funding of this program.

This is an ongoing effort; $250,000 is requested for FY 2002.

d. ITS Public Safety National Conference - $150 Thousand

In FY 2002, the USDOT ITS Program will be in the third year of a focused effort to better integrate public safety agencies and their data systems into transportation operations. Key technical and institutional issues for ITS public safety integration will have been identified and initial operational tests of technologies and operational procedures will be underway. There are presently no other forums for effectively bringing together public safety and transportation professionals. Consequently, FY 2002 will be an opportune time for USDOT to reconvene public safety and transportation professionals and leaders and present the status of ITS Public Safety activities. At this National Conference on ITS and Public Safety, USDOT will report on the status of ITS Public Safety research, field operational tests, and standards development activities. Through this conference, USDOT also gather and share status information on related public safety integration efforts underway in other federal, state, and local programs. USDOT will solicit stakeholder input on future ITS program activities and deployment strategies.

This is a one-year project with a total cost of $150,000 is requested for FY 2002.

e. APTS Technology Transfer - $1.0 Million

There are a number of APTS technologies that have been demonstrated to increase ridership and/or lower operating costs of transit authorities who have deployed these technologies. Deployment of these technologies has been slow to date, however. A good example is automatic vehicle location (AVL). Limited experience with AVL Systems has shown that the information generated by such systems has the potential to dramatically improve scheduling, monitoring, preventative maintenance and a number of other transit system functions. Yet the deployment of

this technology is still limited as is the full utilization of the data such systems generate by transit authorities who have AVL. This project will fund a number of technology transfer initiatives intended to encourage deployment and usage of ITS technologies in the transit industry. These activities may include workshops, guidance documents, demonstrations, training, etc.

While many of these efforts will be targeted at urban systems there are ITS technologies that offer significant potential for rural transit operations. This outreach project will include the development of a series of "Rural APTS Success Story" booklets to describe a series of case studies from rural systems, and possibly other small to mid-size systems, that demonstrate how APTS have been successfully implemented and what type of rural ITS implementation assistance may be applicable to other rural transit service.

This is a one-year project with a total cost of $1,000,000 is requested for FY 2002.

f. Pedestrian ITS Outreach - $100 Thousand

This project will produce several outreach documents intended to increase knowledge and facilitate the deployment of ITS technologies that will improve pedestrian safety. These might include pedestrian sensors, pedestrian adaptive signal systems, etc.

This is a one-year project with a total cost of $100,000 is requested for FY 2002.

g. Architecture Consistency Support - $250 Thousand

TEA-21 included a requirement that all Federally funded ITS projects should be in conformance with the National ITS Architecture and appropriate ITS standards. The formal policy implementing that language will require an understanding of the National Architecture, more comprehensive and coordinated ITS planning, and a systems approach to planning and deploying ITS systems and services. This funding will provide a range of support activities to state and local governments as they implement this policy for the first time.

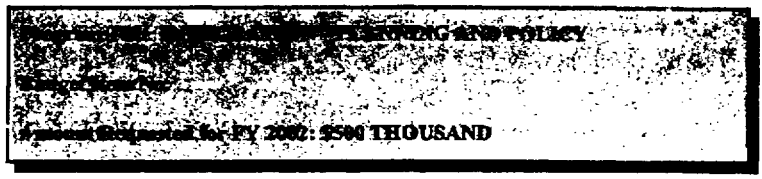
This is the first year of a three year program; $250,000 is requested for FY 2002; $250,000 is proposed for FY 2003; and $250,000 is proposed for FY 2004.

h. Industry Fellows - $100 Thousand

There is significant value to bringing in individuals from non-federal environments (e.g., the private sector, state and local government, other countries, academia, etc.) to work with the DOT staff on ITS program planing and execution. These exchanges not only supplement the limited Federal staff but more importantly they bring unique perspectives and internally unavailable

technical expertise that helps advance the program. This funding will provide for several industry fellows to work for one year in various DOT offices involved in ITS.

This is a one-year project with a total cost of $100,000 requested for FY 2002.



GOALS

This program supports the USDOT and FHWA goals of enhancing safety, mobility, productivity and the human and natural environment, through incorporation of ITS into the metropolitan and statewide planning processes and into widely accepted planning models.

PERFORMANCE MEASURES

The Integration -- Planning and Policy program supports the deployment of ITS systems that will reduce the rate of highway-related fatalities and injuries, reduce delays on Federal-aid highways, reduce the cost of highway freight movement, and reduce on-road mobile source emissions.

BACKGROUND

Integrated application of Intelligent Transportation Systems (ITS) will be facilitated by consideration of system operations and management within the ongoing processes of transportation plan and program development at the metropolitan and statewide level. Planning initiatives and both capital and operational transportation investment decisions made at the statewide and metropolitan levels are made within the context of improving the effectiveness and coordination of system operations across modes and political jurisdictions. Therefore, decision making for planning and programming requires the support of tools to envision the improvements that are achievable through ITS deployment. Such tools allow planners to comprehend ITS benefits in terms of transportation system management improvements, thus elevating the awareness of ITS and facilitating the inclusion of ITS projects into the state and metropolitan capital budget program.

Within this context, States, localities, and transit operators are applying ITS strategies within a regional (or statewide) "architectural" framework consistent with the National Architecture, with the supporting infrastructure components. The program initiatives outlined below aim to continue to provide the critical tools to the planning community so that ITS can be considered properly in the planning process. These tools also will expand the state of current practice to

levels approaching state-of-art, while developing a broader base of knowledge of the costs and impacts of ITS deployment. This will result in more success in placing ITS projects in the area's Transportation Improvement Program (TIP), overcoming obstacles of traditional planning time cycles and funding, as well as improving transportation operations as a whole.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

- Case studies describing the application of ITS Deployment Analysis System (IDAS) for TIP development, corridor analysis, congestion management, transportation plan development, and transit plan development.

- Establishment of requirements to integrate IDAS and existing planning analysis models, for comparing ITS and conventional improvements for US EPA air quality purposes. Requirements developed to enhance the transit ITS capabilities of the IDAS.

- Documentation of empirical effects on the performance of the transportation system and potential for travel demand management derived through the implementation of advanced traveler information. Empirical evidence will be used for model improvements that demonstrate benefits of traveler decision support.

KEY FY 2002 PRODUCTS AND MILESTONES

- ITS Investment Decision Support Tools, coupled with IDAS, will fortify the abilities of planners to choose ITS options based on empirical reports of the transportation demand management value for each ITS component. The empirical reports will establish harmonized mobility-based performance measures that planners can use to directly compare ITS deployment to capital improvements.

- Version 3 of the IDAS which will enable comparative analysis between ITS deployment and physical changes to the transportation system. This application tool will provide planning and operations decision makers with capabilities to consider a wide range of alternatives while reducing the modeling error and bias encountered when switching between different analysis tools.

FY 2002 PROGRAM REQUEST

1. ITS Investment Decision Support Tools - $250 Thousand

This effort will build upon the ITS deployment and benefits tracking database maintained by USDOT by providing more empirical detail beyond the reported averages for deployment. The objective of this effort is to provide a document to the planning community that describes the transportation system management improvements achievable through ITS. The provision of detailed information on achievable ITS benefits, classified according to categories that are

commonly used for analysis by the planning community, will yield increased comprehension on the value of ITS and facilitate consideration for ITS in capital programs.

Investment decision support tools will encourage the planning community to regularly consider ITS deployment as a transportation system management solution. The availability of an ITS Investment Decision Support Tool will augment IDAS and make it a more successful product for planners to use. The benefits database included with IDAS represent averaged amounts, which may be modified by the user, but many planning users won't understand what are reasonable estimates unless they can compare with other deployments in areas that share population, demand, geographical characteristics. The ITS investment decision support tool will document how different localities achieved mobility benefits through the application of ITS components. The document will provide a detailed breakdown of the associated costs and benefits so planners can effectively decide on ITS for its demand management merits, particularly when they are using IDAS for analysis.

This is a one-year project with a total cost of $250,000 proposed for FY 2002.

2. IDAS Version 3 Update - $250 Thousand

This project will ensure that the planning community has a unified evaluation tool for comparing ITS investments among traditional capital improvements. FHWA will establish the functional requirements to build an impact analysis tool that combines the best features of IDAS and the Surface Transportation Efficiency Analysis Model (STEAM), to integrate the analysis of conventional and ITS investments. The integrated tool is proposed to feature a module for emissions estimation based on the Mobile 6.0 model.

By establishing a single tool, there is a minimized risk that alternatives analysis will become biased since the analysis is integrated in one application. In current practice, such alternatives analysis among ITS and capital improvements involves separate simulations, introducing uncertainty in how input is treated, algorithmic biasing, and incompatible reporting of results. A unified software will present all the integrated analysis in a standard format to allow easier interpretation of results, thus eliminating another source of uncertainty through the clear demonstration of preferred benefits.

This is a one-year project with a total cost of $250,000 proposed for FY 2002.

Program Title: INTEGRATION - TRAINING

Budget Item No:

Amount Requested for FY 2002: $4 MILLION

National ITS Training Initiative

GOALS

The Integration – Training program supports the USDOT, FHWA, FMCSA and FTA goals of enhancing safety, mobility, productivity, and the human and natural environment, by ensuring that Federal, State, and local professionals have the knowledge, skills, and abilities to successfully implement ITS.

PERFORMANCE MEASURES

The Integration – Training program supports the deployment of integrated ITS technologies that will improve mobility and accessibility, reduce the rate of highway-related fatalities and injuries, reduce delays on Federal-aid highways, reduce the cost of highway freight movement, reduce on-road mobile source emissions, support the FMCSA goal of a 50 per cent reduction in truck-related fatalities by 2010, and implement the CVISN Program Plan and top level design to help meet level 1 deployment requirements.

BACKGROUND

To support the USDOT's efforts to advance the deployment of ITS in metropolitan areas, an interagency team led by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), in cooperation with ITS America (ITSA), developed the Five-Year Strategic Plan for Professional Capacity Building for Transportation Management and Traveler Information Services. This plan was the result of findings from a number of workshops, conferences, and reports developed by numerous partners (including ITSA), during the first four years of the ITS program. The "Strategic Plan," published in March 1996, outlines the mission, objectives, and activities of an effective PCB program aimed at FHWA and FTA staff, their State

and local partners, transportation professionals, elected officials, and public decision makers. The "Strategic Plan" was then used during FY 1997 and FY 1998 as the basis for developing a comprehensive series of seminars and short courses that were delivered to about 8,000 people through September 30, 1999.

The publication dated September 30, 1997, titled *Framework and Overview for Establishing a Professional Capacity Building Program*, provided the framework for and described the actions required to meet the goals and objectives for building professional capacity in concert with the DOT's deployment goals. Using the goals and activities described in the ITS Strategic Plan, the *Framework and Overview* identified target audiences, responsibilities, and the first draft of the core KSAs and competencies needed to carry out the activities for metropolitan deployments. The *Framework and Overview* also identified ways of leveraging training and educational activities produced by other organizations such as Federal agencies, professional organizations, and universities. It also provided the overall management strategy to implement the program. To more clearly define the audiences to be served, it identified three "tracks" for program delivery:

- Track 1 – Existing transportation professionals and trained professionals from other fields who have the potential to bring required KSAs to the ITS field, including faculty and private sector deployment experts working with public agencies.

- Track 2 – Future transportation professionals and leaders, including students at universities, colleges, and technical/vocational schools.

- Track 3 – Elected and appointed officials who have influence over transportation policies, especially those who establish funding, land use, environmental, and quality of life policies. It also deals with the general traveling public who stand to benefit from ITS deployment.

The Federal PCB program has focused the majority of its resources on Track 1, and to a lesser degree, in supporting the university community in carrying out Track 2. Track 3 has been, and continues to be, the responsibility of transportation associations such as ITS America and the Institute of Transportation Engineers.

The *Framework and Overview* recognizes the necessity of integrating ITS training and education into existing programs such as those sponsored by the National Highway Institute (NHI) and the National Transit Institute (NTI), as well as within the curricula of universities, professional associations, and independent private training organizations.

At the present time, the PCB ITS program is directed at supporting ITS deployment in two primary areas: (1) Travel Management and (2) Commercial Vehicle Operations. The program is designed to develop, maintain, and deliver materials that address the specific needs of all current and future transportation professionals in their effort to deploy, operate, and maintain ITS systems and infrastructures.

The PCB program focus during FY 1997-2001 was on developing and delivering a series of newly created one-day seminars and two- to three-day short courses on topics ranging from general awareness to the details of using the National ITS Architecture. The program also launched three Web-based training courses. There is a continuing demand for these courses from Federal headquarters and field staff, as well as State and local partners.

A major thrust in the FY 2002 program is to utilize distance learning as an important medium for course delivery to supplement traditional classroom techniques. Distance learning media include interactive CD-ROM, video conferencing and Web-Based Training (WBT). WBT, in particular, takes advantage of currently available technologies to deliver up-to-date information to a large audience in a faster and more cost-effective manner than can be done by traditional classroom delivery. The use of distance learning media will provide the opportunity to meet customer needs, as learned through extensive customer interviews during 1998, and follow-up analysis in 1999. At that time it was made clear that in order to rapidly advance the deployment of ITS projects, it is essential that we develop effective ways of providing just-in-time delivery of needed training. Further, the customers for this training need to have it delivered in a manner that is most convenient to them in terms of location and schedule. WBT, for example, meets those needs by providing training anytime and anywhere the Internet is available. Some existing courses will be modified to be presented through distance learning and several new courses will be developed specifically for distance learning delivery, as noted below.

The Federal Motor Carrier Safety Administration (FMCSA) Advanced Safety Technology Training Initiative will focus on providing training to a diverse target audience on the latest proven commercial vehicle safety technologies and available commercial vehicle safety information systems. This audience consists of:

- FMCSA field staff
- State commercial vehicle agency administrators & regulators
- State safety enforcement roadside personnel
- Motor carrier industry executives, specifically technology deployment decision-makers
- National, State and local trucking and motor coach association executives
- Motor carrier insurance industry executives and decision-makers

Major Activities and Anticipated FY 2001 Accomplishments

At the end of FY 2001 (September 30, 2001), the ITS PCB program is anticipated to have reached over12,000 professionals at the Federal, State, and local levels through 22 course offerings, presented about 300 times. We now have three comprehensive catalogs of courses available or currently under development that cover all aspects of ITS planning and deployment by USDOT teaching organizations; the private sector (through ITS America); and the universities.

In addition, by the end of FY 2001, we will have completed the following:

- The analysis and recommendations for future PCB actions will be more targeted, based upon an intense field interview process with ITS practitioners throughout the country. Its purpose is to better understand fundamental KSAs and competencies needed to deploy ITS programs.

- More targeted recommendations will be available for use in designing an ITS "curriculum" for use by USDOT to guide the program and to provide fundamental data for use by universities, associations, and the private sector to develop new courses and programs.

- Provided awareness training to over 2,000 State and local officials and transportation professionals through Professional Capacity Building Awareness Seminars, now also available on an interactive CD-ROM.

- Provided technical training in a wide variety of ITS topics, such as national architecture and standards, telecommunications systems engineering, and ITS procurement to over 2,000 professionals at the Federal, State, and local levels.

- Developed new core curriculum courses on NTCIP and other standards, ITS procurement issues, as well as awareness seminars on ITS Standards and a wide range of crosscutting issues of interest to organizations deploying ITS technologies.

- Developed three new ITS advanced technical training modules through distance learning and computer-based techniques for professionals and technicians who cannot afford to travel to receive needed training.

- Completed development and updating of transit training courses and seminars and delivery of training such as transit technologies and benefits, transit management, and awareness seminars held at 10 sites. In addition, ITS training short courses will also be held at 10 sites.

- Continued active participation at major ITS conferences and workshops, especially the TRB Annual Meeting, APTA Annual Meeting and Bus Operations Conference, ITS America Annual Meeting, and ITE Annual Meeting.

- Continued coordination with all partners, including APTA and ITSA.

- Six to ten additional States completed the CVISN Deployment Workshops bringing the total number of States with CVISN Program Plans and Top Level Designs to 36 – 40.

- The FMCSA ITS/CVO Service Center staff and interested FMCSA Division office staff have been trained on CVISN architecture conformance and interoperability testing. They have been trained in oversight and management procedures to ensure that federal Highway Trust Fund dollars invested in ITS/CVO are in full conformance with the CVISN architecture and applicable standards.

- The FMCSA's National Training Center facilitated train-the-trainer sessions for federal and state ITS/CVO trainers and thus replaces the existing for-hire consultant staff that has been performing the training in previous years.

- 18 training course deliveries have been conducted thus training over 500 transportation professionals in the ITS/CVO program in FY 2001.

- Existing ITS/CVO courses have been updated to reflect changes in technology and the increased number of deployed ITS/CVO sites.

Major Activities and Anticipated Accomplishments FY 2002

In pursuing the achievement of program goals for FY 2002, the following accomplishments are anticipated:

- Major progress will be made in delivering critical training using distance learning media as a widespread and cost-effective mechanism.

- The analysis of fundamental KSAs and core competencies based upon data collection and analysis in FY 1999 will be updated to direct the continuing development of more targeted curricula and training activities for ITS professionals at all levels. This knowledge will also lead to new courses and programs being developed by the nation's universities at the undergraduate and graduate levels. Further, it will guide the development of training to be undertaken by professional associations and the private sector.

- The training materials developed over the past four years (FY 1997, 1998, 1999, and 2000) will be used as the basis for the continuing development of tailor-fit and more detailed training for State and local participants to deal with grass-roots issues. These customized training activities will be undertaken in 10 additional States by FHWA, FTA, and field personnel together with universities and associations, our principal partners in this effort. In particular, this will include ITS America and the Institute of Transportation Engineers.

- Specifically concerning USDOT PCB-funded training, the following will be achieved:

  –1,000 public sector and private sector transportation professionals, elected and appointed officials will receive classroom awareness training. Topics will include national architecture consistency and the importance of system integration.

  –Technical training in a wide variety of ITS topics will be presented to an additional 1,000 Federal, State, and local transportation professionals on topics that include the national architecture, standards, public-private partnerships, planning, systems engineering, telecommunications, and procurement of ITS projects.

  –Distance learning mechanisms will be used to deliver 8 training activities to 2,000 Federal, State, and local partners.

  –New college curriculum will be in place in an additional 10 universities.

  –Two new training courses on transit technologies will be developed and delivered, working with FTA and the National Transit Institute.

  –Transit and rural components will be incorporated into all ITS training efforts.

  –500 transit, public sector, and private sector transit transportation professionals and elected and appointed officials will receive training.

  –150 public sector transportation professionals and elected and appointed officials in rural/non-metro areas will receive training.

  –Public transportation education components will be made available to university programs.

  –Mainstreamed PCB development and delivery will be in place at NHI, NTI, and at universities.

- Two advanced safety technology training courses (1. Safety Information Systems and 2. Roadside Safety Technology and Diagnostics) will be developed and pilot tested.

- These two courses will be delivered to 500 state, federal, motor carrier industry, shipper industry, and insurance industry representatives

- 50 percent of those participating in this training initiative will deploy safety technologies or access safety information systems to improve their operations.

FY 2002 PROGRAM REQUEST

1. National ITS Travel Management Training Initiative – $3.15 million

The Travel Management Training Initiative consists of five areas: (a) program delivery, (b) course updating, (c) advanced training development activities, (d) advanced curriculum development, and (e) program management.

a. Program Delivery – $600 thousand

- Deliver ITS Core Curriculum courses such as Integrating ITS Using the National ITS Architecture, NTCIP Standards, IDAS Training, Advanced CORSIM Training, Archive Data User Services (ADUS), National ITS Architecture for Systems Integrators, Systems Engineering, and Procurement of Advanced Technology Systems to over 1,000 Federal, State and local transportation professionals through the National Highway Institute (NHI) and the National Transit Institute (NTI).

- Deliver updated ITS awareness seminars and newly developed crosscutting issue presentations in response to State and local official requests and through partnership arrangements with national associations and professional organizations, LTAP Centers, and interested universities.

- Mainstream delivery through NHI, NTI, universities, and associations.

This is the seventh year of this effort. It is anticipated this will be a continuing effort. The actual and projected spending is FY 1996 – $300 thousand; FY 1997 – $1.6 million; FY 1998 – 1.2 million; FY 1999 – $1.7 million; FY 2000 – $600 thousand; FY 2001 – $400 thousand; FY 2002 – $600 thousand; FY 2003 – $600 thousand; continuing at that level.

b. Course Updating – $450 thousand

During the past three years, significant advances have been made in ITS deployment. This requires that special emphasis now be given to update existing, high-priority courses to reflect the ongoing evolution of technology as well as new policies and guidance, such as conformity with the National ITS Architecture and Standards.

Four additional courses will be updated through NHI and NTI; for example:

- Computerized traffic signal systems.
- Travel demand management.
- Freeway operations.
- Incident management.
- Work zone safety.
-

This is the first year of this explicit budget item. It is anticipated to be a continuing effort. Expected spending in FY 2003 – $500 thousand; continuing at that level.

c. Advanced Training Development – $1.5 million

The successful deployment of ITS projects calls for continuous training of existing professionals and for new professionals and technicians who continue to be added to Federal, State, and local staffing. Training must be current, and be continually updated to reflect rapidly changing technologies. The training must be delivered to a wide and growing number of customers throughout the country, and it must be delivered in a manner that is targeted, timely, and easily accessible. A very cost-effective way of providing this just-in-time training to a large number of people is through distance learning media. Thus, the FY 2002 budget will utilize currently available distance learning media as well as traditional classroom delivery to develop and deliver courses that incorporate the following topics:

- Practical applications of the National ITS Architecture and Standards.
- Methodologies for assessing the benefits of ITS projects.
- Rural applications of ITS deployments.
- Advanced Traveler Information Systems.
- Planning and operational tools for ITS deployment.
- Transit travel information applications.
- Adaptive signal controls.
- Weather and emergency management systems.
- Software acquisition and deployment.
- Procuring and managing systems integrators.
- Methods for integrating multi-modal ITS project deployments.
- Systems engineering methodologies.
- Archive Data User Services (ADUS).

The priorities for development will be established in conjunction with USDOT and partners, to ensure that the most critical needs are addressed as quickly as possible. It is anticipated that the budget will be allocated as follows:

- Develop two new advanced courses to fill critical gaps on technical aspects of ITS deployment (2 @ $250 thousand = $500 thousand.)

- Develop distance learning and computer-based teaching tools using existing and new training courses to reach a wider audience and reduce overall training cost as well as travel costs for participants. Four such courses will be developed, using Web-based training and other distance learning media (4 @ $250 thousand = $1.0 million.)

- Mainstream development through NHI, NTI, universities, and associations.

This is the second year of this effort, which is expected to be a continuing effort. The projected spending in FY 2001 is $2.0 million; for FY 2002 the request is $1.5 million; FY 2003 $1 million; continuing at that level.

d. Advanced Curriculum Development – $200 thousand

- Using the results of the comprehensive education and training needs assessment completed in FY 1999, continue to develop more detailed and targeted curricula for courses and programs to be created by USDOT, other public agencies, the universities, non-profit associations, and the private sector.

- Update ITS Strategic Plan to reflect main streaming of ITS education and training into FHWA, FTA, and university programs.

- Continue the analysis of core competencies required to deploy ITS.

- Continue to identify specific training requirements and sources for that training.

- Align PCB plans and programs with customer needs, as reflected in FHWA and FTA field service plans.

This is the fifth year of this effort, which is expected to be a continuing effort. The actual and projected spending is: FY 1998 – $700 thousand; FY 1999 – $250 thousand; FY 2000 – $250 thousand; FY 2001 – $200 thousand; FY 2002 – $200 thousand; FY 2003 – $200 thousand; continuing at that level.

e. Program Management – $400 thousand

- Provide professional Instructional Designers to ensure necessary guidance for all course designs and course conversion to distance learning media.

- Provide funding for program-wide coordination, administration, and logistics for the PCB program including course scheduling, training materials inventory and shipping, maintenance and updating of course catalogs, and maintenance of the PCB Web site on the Internet.

- Provide technical support for updating the PCB Strategic Plan and the companion documents based on needs assessment conducted in FY 1999.

  This is the seventh year of this effort, which is expected to be a continuing effort. The actual and projected spending is: FY 1996 – $350 thousand; FY 1997 – $600 thousand; FY 1998 – $840 thousand; FY 1999 –$400 thousand; FY 2000 – $400 thousand; FY 2001 – $400 thousand; FY 2002 – $400 thousand; FY 2003 – $400,000; continuing at that level.

2. National ITS/CVO Training – $850 thousand

a. Advanced Safety Technology Training Initiative - $650 thousand

The Advanced Safety Technology Training Initiative consists of the following areas: (1) Safety technology training development, (2) Safety Technology training delivery, and (3) Course management for these courses by the FMCSA's National Training Center.

1. Safety technology training development - $400 thousand

Training development will focus in the two areas of Safety Information Systems and Roadside Safety Technology and Diagnostics.

- Safety Information Systems - $200 thousand: Develop awareness training on web-based access and usage of national motor carrier safety systems (SAFER, CVIEW, MCMIS, UCR, License and Insurance, CDLIS) by a diverse audience of representatives from federal, state, and international (Canadian & Mexican) government, motor carrier industry, shipper industry, and insurance industry.

- Roadside Safety Technology and Diagnostics - $200 thousand: Provide roadside safety enforcement officers training in latest safety assessment technologies as well as training on interfacing with vehicle onboard diagnostic systems.

2. Safety Technology Training Course Delivery - $200 thousand

Over 500 federal, state, motor carrier, and private sector transportation professionals receive Safety Technology training.

3. Course Management - $50 thousand

- FMCSA's National Training Center (NTC) continued involvement in the ITS/CVO Training Program

- NTC activities will support the three Safety Technology for 2010 courses in terms of providing logistical support for the delivery of the courses and trainer support to the FMCSA Service Center and HQ trainers.

b. CVISN Training and Workshop Delivery to Remaining States - $200 thousand

Estimated that 3-5 states will be participating in a final round of CVISN workshops

This is a multi-year program which started in FY 1996 and is projected to continue to FY 2005; total cost of the project is $7,290,000 with funding by fiscal year as follows: FY 1996 -$100,000; FY 1997 - $1 million; FY 1998 - $1.08 million; FY 1999 -$1 million, FY 2000 -$1.08 million, FY 2001 - $700,000, FY 2002 - $850,000, FY 2003 - $500,000, FY 2004 - $550,000, FY 2005 - $500,000.

Program Title: INTEGRATION - OUTREACH AND COMMUNICATIONS

Budget Item No:

Amount Requested for FY 2002: $1.2 MILLION

GOALS

To disseminate and foster the sharing and exchange of information – both technical and informative -- that not only demonstrates successes and benefits of ITS programs, but also the means to effectively and expeditiously deploy integrated Intelligent Transportation Systems, consistent with the National ITS Architecture and approved ITS standards and protocols.

PERFORMANCE MEASURES

Transportation decision-makers and professionals at the Federal, State and local levels use ITS technical documents, research reports, and cost/benefit information that support the deployment of integrated ITS systems.

BACKGROUND

The effective deployment of integrated ITS systems across the United States requires that officials and technical staff at the Federal, State and local levels have access to the most current research results, technical guidance documents, National Architecture and standards information, cost/benefit data, etc. The Outreach and Communications program supports the planning, design and implementation of integrated ITS. This is accomplished via: exhibition and document distribution at major national conferences and state and regional forums; via partnerships with associations (including the National Governors' Association) and industry groups committed to improving transportation operations. This program has evolved from educational to forming partnerships in a mutual goal of ITS deployment.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

At major national and regional conferences, we will distribute ITS technical guidance, presentation materials, case studies and more to Federal, State, and local transportation and elected officials to facilitate the deployment of integrated, interoperable ITS infrastructure. Examples of the like distributed in FY 2000 include a CVISN "Tool Kit" CD-ROM, the contents of which include: implementation guides, training class workbooks, and technical process

guides. Other products distributed include the latest update of the National ITS Architecture; two series of case studies on ITS Architecture Development and on Transportation Management Center Concepts and implementation guides. The Department published and distributed its first comprehensive document on the Intelligent Vehicle Initiative.

At national conferences, navigation amongst various ITS websites will be demonstrated, including the ITS Benefits Database, the Professional Capacity Building page, which includes three free web-based training courses, the Electronic Document Library, which is the nation's largest and most complete collection of ITS documentation, the ITS Cooperative Deployment Network (ICDN) website, integrated website of national associations with a mutual goal of advancing deployment of ITS which includes information on standards development and testing.

We will exhibit and distribute technical guidance and findings at approximately 10 major events. including national meetings of National Associations Working Group for ITS members.

We will attend, address, and convene meetings of state and local transportation leaders to advance the mutual goal of early deployment nationwide of ITS.

KEY FY 2002 PRODUCTS AND MILESTONES

- Outreach at national conferences of traditional and emerging partners will continue.
- Benefits" data, case studies, implementation guides will be published and disseminated.
- Subscriptions to the ICDN will be increased; web services will be greatly expanded as a result of increasing ITS deployment and the need for technical assistance and the latest implementation guidance.
- Exhibits will be updated to reflect the latest ITS research findings, best practices and direction of the ITS program.

FY 2002 PROGRAM REQUEST

1. Outreach $150,000

The USDOT supports a partnership with industry and public interest groups to advance deployment of ITS by collaboratively delivering the necessary technical assistance to those who need it. The organization -- the National Associations Working Group for Intelligent Transportation Systems -- was formed to build awareness of ITS among the transportation community and public interest groups. In FY 2001 the focus will be delivery of technical assistance, via delivery of CD-ROMs, technical papers, web resources, speaking appearances, and through regularly scheduled workshops and meetings. The US DOT, in partnership with the NAWG for ITS, including the National Governors Association, will expand efforts to accelerate the deployment of ITS throughout the nation. It is anticipated that in FY 2002, new NAWG and there will be increasing technology transfer among greater numbers of members. The USDOT will be beyond the halfway point in its goal to deploy ITS in the major metropolitan areas across

the country, and increased collaboration with NAWG partners – articles, annual and semi-annual conferences -- will spur deployment activities.

2. Exhibits - $200,000

This funding supports ITS exhibits at major national meetings of a variety of national professional associations, including the Transportation Research Board, AASHTO, ITS America, as well as the ITS World Congress, including: (1) Shipping, assembly, tear-down, space rental for exhibits; and, (2) construction, repair, and updating of national and international trade show exhibits and portable exhibits for USDOT field use.

The research and dynamic, progressive nature of the ITS program requires exhibits to be continually updated to reflect the moment as well as the direction of the program. As exhibits travel across the country, they are subjected to the "wear and tear" of travel; mending and repairs are part of the exhibiting process.

The exhibits serve as an effective means of going to the client's "territory" to educate and deliver technical assistance. ITS is in a continual process of education as new initiatives are undertaken and updated processes for deployment defined. On-site exhibits not only deliver the message, but also provide opportunities for question, answer, and clarification. This continuing activity will continue at a similar funding level for the duration of the ITS program.

3. Publications - $400,000

This funding supports production and distribution of a variety of technical documents, successful case studies and initiatives led by the ITS Joint Program Office, in cooperation with other US DOT program offices. Major activities include:

Preparation, publication and distribution of technical guidance, case studies, cross-cutting studies, implementation guides, benefits reports, which support the effective and expeditious deployment of integrated, interoperable Intelligent Transportation Systems, consistent with the National ITS Architecture.

Development of a wide variety of presentation material, such as slides, videotapes, and CD-ROM disks, which contain both overview and detailed technical material related to various aspects of the ITS program and deployment of ITS products.

Publications funding is expected to remain constant or decrease moderately. Decreases are related to new technology improvements to the ITS Electronic Document Library and increasing usage.

4. Electronic Dissemination $450,000

This funding supports dissemination of ITS products on the Internet.

Continuing support for an ITS program home page on the World Wide Web where Internet users can immediately access up-to-the-minute information on the ITS program and as well as ongoing activities.

Continuing support for the ITS Electronic Document Library, the comprehensive collection of ITS research, case studies, technical guidance and other publications. This includes additions to the electronic collection as well as technology updates.
Support for the ITS Cooperative Deployment Network, a shared web page produced by the ITS community for exchanging state-of-the-art technologies, case studies, meetings and conferences, and other information. This site is accessible to the general public via the Internet.

This activity will continue at a similar funding level for the duration of the ITS program.

Program Title: PROGRAM SUPPORT

Budget Item No:

Amount Requested for FY 2002: $9.4 MILLION

GOAL

To provide the technical, advisory and administrative support necessary to carry out the Federal ITS program. To support the building of public/private consensus on ITS program issues and to ensure the proper technical review, support and integration of ITS projects.

PERFORMANCE MEASURES

None. These activities support the overall ITS program goals.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

- The ITS AMERICA Cooperative Agreement, provides support for Federal Advisory Committee activities, technical committees, program assessment and planning activities, and international clearinghouse management. Also, continuing to build consensus on the national system architecture, coordination of standards development, support for the development of public/private partnerships at the State and local level, building acceptance of privacy principles by ITS service providers, providing outreach and training through their State chapters, and supporting workshops on various program topics.

- The MITRETEK program management and system engineering support services contract, provided technical staff support in the areas of DOT program planning, the research and development program including the Intelligent Vehicle Initiative, architecture consistency of deployments, the Rural program, the Public Safety program and the evaluation of selected deployments. Also, MITRETEK provides technical review and analyses on issues relating to standards development and testing, radio frequency spectrum issues, and analytical work that addresses the benefits and costs of various ITS services.

- Various support services contracts provide assistance to program staff in: acquisition management; development of audiovisual materials to support ITS program

presentations; assistance in preparation of Congressional reports; and management of the local area network for the ITS Joint Program Office.

- Technical and program policy advice has been provided on specific topics.

KEY FY 2002 PRODUCTS AND MILESTONES

- Continue the ITS AMERICA Cooperative Agreement, providing support for Federal Advisory Committee activities, technical committee and program assessment and planning activities, and international clearinghouse management. Also, support will be provided for other specific projects that take advantages of the unique demographics and interests of the ITS AMERICA membership, including, for example, coordination of standards development, support for the development of public/private partnerships at the State and local level, outreach and training through their State chapters, supporting workshops on various program topics, and the development of new User services to expand the National Architecture in the areas of Weather Services and Public Safety/ Emergency Services.

- Continue the MITRETEK program management and system engineering support services contract, providing technical staff support in the areas, the Intelligent Vehicle Initiative, the Rural program, the use of the National Architecture in ITS deployments, the use of the new spectrum being proposed for ITS applications by the FCC, and the evaluation of benefits realized from selected ITS deployments. In addition MITRETEK will continue to provide the major source of technical review and assistance in the execution of the ITS program.

- Continue various support services contracts to provide assistance to program staff in: development of audiovisual materials to support ITS program presentations; assistance in preparation of Congressional reports; and management of the local area network for the ITS Joint Program Office.

- Continue service contracts with experts in selected important program areas to provide technical and program policy support on specific topics.

FY 2002 PROGRAM REQUEST

A. ITS America - $2.7 Million

Continuing, support for cooperative initiatives with ITS AMERICA, including Federal Advisory Committee activities, technical committee and program assessment and planning activities, and international clearinghouse management. Also, support for other specific projects that take advantage of the unique character and interests of the ITS AMERICA membership, including

for example, continued coordination of standards development activities, support for the development of public/private partnerships at the State and local level and supporting workshops on various program topics.

This will be the third year of the cooperative agreement with ITS America funded at approximately $2.7 million per year.

B. MITRETEK Technical Support - $5.7 million

Continuing support for program management and system engineering support services with the MITRETEK Corporation, including DOT program planning, , technical work to support standards development, radio frequency spectrum issues, benefits and costs estimation, and technical support for the deployment program in assuring that projects meet the necessary criteria for federal aid with respect to standards and architecture.

This will be the third year of a 4 year contract funded at approximately $5.7 million per year.

C. Misc. Technical Support - $500 thousand

Continue service contracts with experts in selected important program areas to provide technical and program policy support on specific topics, including program and project evaluation, public safety applications, system architecture deployment, and international activities.

D. General Program Support - $500 thousand

Continuation of the support services contract that includes acquisition management, information management, presentations (audio/visual), local area network management, the management tracking of all ITS projects, and the generation of the annual ITS projects book.

Program Title: ITS DEPLOYMENT INCENTIVES - SUMMARY

Budget Item No:

Amount Requested for FY 2002: $120.0 MILLION

Program Title: ITS DEPLOYMENT INCENTIVES - METRO/RURAL

Budget Item No:

Amount Requested for FY 2002: $85.0 MILLION

GOAL

The Integration Program supports the USDOT and FHWA goals of enhancing mobility, productivity and the human and natural environments by accelerating the *integration* and *interoperability* of intelligent transportation systems (ITS) across system, jurisdiction and modal boundaries, in metropolitan and rural areas.

PERFORMANCE MEASURES

This program will support the integration of ITS systems that will reduce the rate of highway-related fatalities and injuries, reduce delays on Federal aid highways and reduce on-road mobile source emissions. We will commit to measuring these factors utilizing the evaluation guidelines and requirements developed by the USDOT as required in TEA-21.

BACKGROUND

Results from research and operational tests have demonstrated that deployment of intelligent transportation infrastructure has been shown to provide cost effective increases in capacity (or throughput), safety, and enhanced quality of travel. Based on these results, in January 1996 the US DOT established a national goal to deploy integrated intelligent transportation infrastructure across the U.S. within the next decade.

Deployment of integrated ITS in metropolitan areas is at a critical juncture. While ITS elements are being deployed, many of those deployments are taking place individually and are serving to electronically reinforce the current "stove piped" way of doing business, i.e., modally and jurisdictionally isolated rather than realizing the promise of electronically integrating across jurisdictions and systems. The ITS Integration Program, authorized in TEA-21, will provide a mechanism to integrate existing ITS deployments, thereby capturing the additional gains that can be achieved through integration and serving as examples for future ITS deployments.

In rural areas, we are just beginning to see the deployment of ITS which address rural transportation problems (e.g., Mayday, weather and road condition information, etc.). A number of states are in the initial stages of developing systems which provide for statewide or regional operations. The lack of legacy systems in rural areas allows us to more easily and effectively influence the deployment of rural and/or statewide ITS so that they occur in an integrated manner. The ITS Integration Program will be applied at the rural and state level for this purpose.

This program will also provide the mechanism to support the application of the National ITS Architecture in the development of regional architectures. These regional architectures can serve as the legacy of the Integration program by providing a framework for ensuring future deployments are developed in an integrated manner. This program can also assist in implementing ITS standards by providing opportunities to fully test and implement these standards, thereby contributing to the critical market pull for standards need to develop a viable private sector product market.

We believe that through this program we will accomplish the following:

- Create a critical mass of integrated ITS deployers to create the necessary market pull for industry consensus standards;
- Provide incentive for the "institutional integration" necessary to support the initial electronic integration. Once established, we have seen the electronic integration enable unprecedented levels of institutional and modal collaboration in integrating ITS deployments;
- Provide incentive for ITS deployment to conform with the National ITS Architecture;
- Leverage equal and probably greater local funding for ITS integration in both metropolitan and rural areas; and
- Make ITS integration a state-of-the-practice, rather than the state-of-the-art.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

The funding authorized under this program for FY 2001 is expected to be used to fund Congressionally-designated projects contained in TEA-21 and the FY 2001 Appropriations Act.

KEY FY 2002 PRODUCTS AND MILESTONES

- Completion of the majority of the FY 2000 projects.
- Continuing progress on the planning, design and implementation of the FY 2001 projects.
- Initiation of additional metropolitan area and additional rural area ITS integration projects.

FY 2002 PROGRAM REQUEST

ITS Integration Program - $85 Million

This program makes available $85 million as allocated by TEA-21 [Section 5001(c)(4)(a)] in FY 2002 for ITS integration. TEA-21 earmarks $2,000,000 and $5,000,000 for Great Lakes ITS Implementation and Northeast ITS Implementation respectively, leaving $78,000,000 available for Metro/Rural ITS Integration. Not less than 10 percent ($7,800,000) of the funding remaining for ITS Metro/Rural shall be used in rural areas to carry out intelligent transportation infrastructure deployment activities. No more than $15,000,000 may be used in a single metropolitan area, no more than $2,000,000 in a single rural area, and no more than $35,000,000 may be used for projects in any given State. Funding for ITS projects in metropolitan areas shall be used primarily for activities necessary to *integrate* intelligent transportation infrastructure elements that are either deployed or to be deployed with other sources of funds. For projects outside metropolitan areas, this funding may also be used for the deployment of integrated intelligent transportation infrastructure elements.

The Federal share of the cost of a project payable from ITS Integration Program funds shall not exceed 50 percent. The *total* Federal share of the cost of a project payable from all eligible sources (including ITS Integration Program funds) shall not exceed 80 percent.

Historically, all of the funds available for the ITS Integration Program have been earmarked by the Congress; however, for any funds not so earmarked, project proposals for this program will be solicited in accordance with the following requirements:

- A demonstration that the proposed deployment integrates at least two different intelligent transportation infrastructure elements, including: traffic signal control, freeway management, transit management, incident management, electronic fare payment, electronic toll collection, highway-rail intersection, emergency management services, and regional multi modal traveler information services, or one infrastructure element across multiple jurisdictions;

- A demonstration that sufficient funding is available to successfully complete all aspects of the proposed integration project while complying with the cost sharing and matching requirements described above;

- Inclusion of a Technical Plan, a Management and Staffing Plan, and a Financial Plan in the proposal;

- A commitment to a schedule whereby the proposed integrated deployment will be operational within two years from the date of award of funds;

- A demonstration that the proposed integration projects are consistent with the metropolitan area or statewide transportation planning process, and, as applicable, are supported by the metropolitan planning organization (MPO); and

- A demonstration that initiatives key to the proposed deployment have been, or can be, advanced expeditiously through both systems and project-level environmental review processes, as appropriate, so they will not delay project deployment.

The proposals will be reviewed and ranked by a technical evaluation panel in accordance with the project selection criteria contained within TEA-21.

Program Title: CVO DEPLOYMENT

Budget Item No:

Amount Requested for FY 2002: $ 33.5 MILLION

GOAL

Through the development and deployment of applications of advanced technology, the CVO deployment program supports the Federal Motor Carrier Safety Administration's (FMCSA) goals to reduce the number of fatalities resulting from commercial motor vehicle crashes 50 percent by 2010 and the number of persons injured in commercial vehicle crashes 20 percent by 2008. The CVO deployment program also supports the TEA 21-established goal to "complete deployment of CVISN in a majority of States by September 30, 2003."

PERFORMANCE MEASURES

The FMCSA has established goals to reduce commercial vehicle-related fatalities 50 percent by 2010, with a baseline of 5,374 fatalities in 1998, and to reduce the number of persons injured in commercial vehicle-related crashes 20 percent by 2008, with a baseline of 127,000 injuries in 1998. Technology offers tremendous potential in supporting these program goals. By the end of 2002, the performance measures in support of these goals are to reduce commercial vehicle-related fatalities by 12 percent and injuries by 5 percent.

The CVO research program supports the TEA 21-established goal to "complete deployment of CVISN in a majority of States by September 30, 2003." The performance measure in support of this goal is that up to 15 states will complete CVISN Level 1 deployment in the areas of safety information exchange, credentials administration, and roadside electronic screening by December, 2002 (contingent upon receiving FY 2001 federal ITS deployment funds and/or state resources to support CVISN deployment).

BACKGROUND

The FMCSA's and the FHWA's highest priority for the use of federal ITS deployment funds has been and will continue to be completing CVISN Level 1 deployment in the two prototype states of Maryland and Virginia, and in the eight pilot states (California, Colorado, Connecticut,

Kentucky, Michigan, Minnesota, Oregon, and Washington). TEA-21 authorized a total of $184 million of federal ITS funds from FYs 1998-2003 to deploy CVISN in a majority of states by September 30, 2003. However, most of the federal ITS deployment funds originally intended to support CVISN deployment are being designated by Congress through the appropriations process to fund other ITS projects. In some cases, a state has been able to use either all or a portion of its designated funds to support the deployment of CVISN Level 1 capabilities.

The states of California, Colorado, Connecticut, Kentucky, Maryland, Minnesota, Virginia, and Washington have been fully funded to complete deployment of CVISN Level 1 capabilities. The ability to direct federal ITS deployment funds to complete CVISN deployment in the states of Michigan and Oregon will provide the essential foundation for subsequent CVISN deployment of Level 1 capabilities across the nation. If these states do not receive the necessary funds in FY 2001 to complete deployment, our highest priority would be to provide FY 2002 ITS Deployment Incentive funds to them for completing CVISN Level 1 deployment.

The ability to direct federal ITS deployment funds to states which are ready to begin CVISN deployment will help the Department achieve the Congressional goal of completing CVISN deployment in a majority of states by September 30, 2003. The lack of full federal ITS deployment funds for CVISN puts the FMCSA's, the FHWA's and the states' ability to meet the Congressional goal in jeopardy.

The FHWA has developed a deployment strategy for the next group of states receiving funds for CVISN Level 1 deployment in the areas of safety information exchange, credentials administration, and roadside electronic screening. The process for deploying CVISN Level 1 capabilities within a state begins with an initial Memorandum Of Agreement (MOA).. The MOA is signed by the major affected state agencies, and support by the motor truck/motor coach associations. The MOA highlights the requirements for completing an ITS/CVO state business plan, participating in the ITS/CVO technical training courses and CVISN deployment workshops, and commitment to complete the deployment of CVISN Level 1 capabilities.

The deployment strategy consists of three key steps: planning, design, and deployment. Our goal is to provide assurance that states will deploy CVISN Level 1 technology which is consistent with the National ITS and CVISN architectures and use available standards that promote interoperability and efficiency.

The first step is planning. It includes participation in two ITS/CVO training courses and the development of an ITS/CVO state business plan. These elements promote ITS/CVO awareness and are essential to effective coalition building among the state agencies involved in CVO and with industry. For several years, the FMCSA and the FHWA have been working with the states to educate them about the ITS/CVO program and to help them develop ITS/CVO state business plans. The completion of these plans represents the successful collaboration of multiple agencies along with the motor carrier industry. It signifies the state's commitment to the goal of using ITS/CVO technologies to improve the safety and efficiency of commercial vehicle operations.

The ITS/CVO state business plan is an important step in achieving that goal; however, it is not the end of the process. The FMCSA and the FHWA have developed a series of three technical training courses to increase the awareness and understanding of ITS/CVO among key stakeholder groups. These technical training courses help position interested states to take advantage of, and leverage the commercial vehicle ITS technologies being delivered through the National ITS/CVO program. We expect a states to complete this step within 15 months and estimate this step to require the use of $50,000 of federal ITS deployment funds.

The second step is design. One of the purposes of this step is for the state to establish its CVISN project team. The team would include, at a minimum a CVISN project manager and a system architect, and would also consist of a project facilitator/administrator, and operations and technical staff from their CVO agencies (about nine persons). Once these individuals have been selected, a state can participate in the "Understanding ITS/CVO Technology" training course and in the suite of three CVISN Deployment Workshops (Scope, Planning, and Design). These activities will assist the state in developing its CVISN Program Plan and Top-Level Design The plan will define the roles, responsibilities, goals and objectives, and detailed schedule for deployment of the systems necessary to demonstrate CVISN Level 1 capabilities. It will also contain a detailed budget explaining the amount of federal and state funds required to complete CVISN Level 1 deployment. This step is estimated to require the use of $350,000 of federal ITS deployment funds and we expect this step to be completed within 18 months.

The final step is deployment of CVISN Level 1 capabilities. This will allow the state to complete organizational and technical deployment of the core systems and components related to CVISN Level 1 capabilities in the areas of safety information exchange, credentials administration and roadside electronic screening. The final step will be completed within 36 months and is estimated to require the use of $2,600,000 of federal ITS deployment funds. If only partial federal or state funding is available, we will encourage the state to deploy the CVISN Level 1 safety information exchange capabilities first, followed by either credentialing or electronic screening.

Through an agreement, the state would agree to complete the CVISN Level 1 deployment project within a 3-year period. The agreement would ensure that CVISN Level 1 capabilities deployment activities, such as hardware procurement, software and system development, infrastructure modifications, etc., follow FMCSA-recommended standards (e.g., web-based, electronic data interchange and dedicated short range communications) for safety information exchange, credentials administration, and electronic screening. This will ensure that the systems developed are consistent with the National ITS and CVISN architecture and available standards and promote interoperability and efficiency to the extent practicable. The state would agree to complete FMCSA-approved interoperability tests and perform pairwise and end-to-end tests to demonstrate conformance with the standards and interoperability. The state would implement the ITS/Commercial Vehicle Operations (CVO) conformance assurance process. This involves the formation of a consistency assessment team to check for architecture conformance throughout the life of the project and to oversee the interoperability testing. A CVISN System

Architect shall be designated to facilitate this effort. Interoperability testing should be accomplished in stages to avoid disrupting operations. Pairwise tests verify that interfaces between selected pairs of products/systems meet the applicable standards. End-to-end tests verify dataflow and data usage among several products/systems.

By the end of FY 2001, we expect that between four and eight states will complete the first and second steps and have developed their CVISN Program Plan with top-level designs on how to deploy CVISN Level 1 capabilities in their states. This is in addition to the 30 states which have already completed their CVISN Program Plan. Once the program plan has been approved, these states will be eligible to receive Federal ITS funds and complete the third step, implementation and deployment.

MAJOR ACTIVITIES AND ANTICIPATED FY 2001 ACCOMPLISHMENTS

- We expect that Michigan and Oregon will be fully funded during FY 2001 to complete CVISN Level 1 deployment by December 31, 2002. We expect that up to 20 additional states will begin deployment of CVISN Level 1 capabilities during FY 2001 (contingent upon those states receiving FY 2001 federal ITS deployment funds and/or state resources to support CVISN deployment). These 20 states completed their CVISN Program Plans and Top-Level Designs during FY 2000.

- We expect up to 13 additional states will complete their ITS/CVO state business plans during FY 2001. We expect between four to eight of these states to complete their CVISN Program Plan and Top-Level Design during FY 2001.

- We expect up to eight additional states will begin the process to complete their ITS/CVO state business plans during FY 2001

KEY FY 2002 PRODUCTS AND MILESTONES

- As states complete a step in CVISN deployment, work with them to begin the next step. Once a state has completed Step 1, Planning, and has developed an ITS/CVO state business plan, provide it funds to complete Step 2, Design. After a state has established its CVISN project team and has developed its CVISN Program Plan and Top-Level Design, provide it funds to begin Step 3, Deployment of CVISN Level 1 capabilities. This is in support of the Congressional goal to have a majority of states deploying CVISN Level 1 capabilities by September 30, 2003.

FY 2002 PROGRAM REQUEST

TEA-21 authorizes $33.5 million [Section 5001(c)(4)(b)] for Commercial Vehicle ITS Deployment. The federal share of the cost of a project payable from the Commercial Vehicle ITS Deployment program shall not exceed 50 percent. The *total* federal share of the cost of a

project payable from all eligible sources (including the Commercial Vehicle ITS Deployment program) shall not exceed 80 percent. The funds for this program will be distributed as follows:

CVISN Planning (Step 1) Deployment Grants - $400 thousand - The request will provide grants of $50 thousand for up to eight states to complete Step 1, Planning, of the CVISN deployment strategy. Each of the following states is eligible to receive federal ITS deployment funds to begin Step 1 and develop a ITS/CVO state business plan: Alabama, Arkansas, District of Columbia, Hawaii, Illinois, New Hampshire, Oklahoma, and Vermont.

CVISN Design (Step 2) Deployment Grants - $3.85 million - The request will provide grants of $350 thousand for up to 11 states to complete Step 2, Design, of the CVISN deployment strategy. Each of the following states has completed or is in the process of completing Step 1, and is eligible to receive federal ITS deployment funds to begin Step 2 : Delaware, Florida, Louisiana, Maine, Mississippi, North Dakota, Rhode Island, Texas, West Virginia, Wisconsin, and Wyoming. These states will use these funds to establish its CVISN project team and complete a CVISN Program Plan and Top-Level Design.

CVISN Deployment (Step 3) Grants - $29.25 million The request will provide grants of $2.6 million for states to complete Step 3, Deployment of CVISN Level 1 capabilities in the areas of safety information exchange, credentials administration, and roadside electronic screening. If the states of Michigan and Oregon have not yet received full federal ITS funding for CVISN Level 1 deployment, the FMCSA's and the FHWA's highest priority would be to provide these states necessary funds for these states to complete deployment.

The second highest priority would be to fully fund those states that have completed or are in the process of completing Step 2, Design, and have developed their CVISN Program Plan and Top-Level Design These states are eligible to receive federal ITS deployment funds to begin Step 3, and include: Alaska, Arizona, Georgia, Idaho, Indiana, Iowa, Kansas, Massachusetts, Missouri, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee, and Utah.

The following states have been fully funded to complete deployment of CVISN Level 1 capabilities in the areas of safety information exchange, credentials administration, and electronic screening: California, Colorado, Connecticut, Kentucky, Maryland, Minnesota, Virginia, and Washington.

Program Title: ITS DEPLOYMENT INCENTIVES PROGRAM - HAZARDOUS MATERIALS MONITORING SYSTEMS

Budget Item No:

Amount Requested for FY 2002: $1.5 MILLION

This budget item is to provide funding for the Hazardous Materials Monitoring System as included in Section 5212(a)(2) of P.L. 105-178 (TEA-21).

Program Title: ITS DEPLOYMENT INCENTIVES PROGRAM - TRANSLINK TEXAS TRANSPORTATION INSTITUTE

Budget Item No:

Amount Requested for FY 2002:

Funding for the Texas Transportation Institute as included in Section 5212(c)(2) of P.L. 105-178 (TEA-21) was for fiscal years 1999 through 2001; no funds were authorized or are requested for FY 2002.

Supplemental FY 2002 ITS Budget Justification

ITS Research and Development - $13,175,534

Intelligent Vehicle Initiative - $7 million

Each year more than 40,000 Americans lose their lives in highway crashes and more than 5 million suffer injuries. Driver error is cited as the primary cause in more than 90% of all police-reported crashes involving passenger cars, trucks and buses. The goal of the Intelligent Vehicle Initiative (IVI) is to prevent crashes from occurring through the use of advanced technologies. Preliminary estimates indicate that rear-end, lane change and roadway departure crash avoidance systems have the potential, collectively, to reduce motor vehicle crashes by one sixth or 1.2 million crashes annually.

The IVI program has two primary areas of emphasis. The first is to work with the vehicle manufacturing industry to facilitate the development, deployment and evaluation of driver-assistance safety products and systems. The second is to ensure that safety is not compromised by the introduction of in-vehicle systems.

While the IVI program has a strong focus on human factors and driver-based research throughout the program, recent evidence indicates a growing influence of driver distraction on crashes. This requires that increased attention be placed on investigating the impact of driver workload and driver behavior using in-vehicle systems. The requested funding would be focused on this area. It would fund investigations of the task allocation and loading experienced by the driver. Of particular interest is the safety impact from combining systems such as route guidance and navigation, adaptive cruise control, automatic collision notification, cellular telephones, and internet in-the-vehicle. The research would include studies that would expand the basic science of driver behavior to assist in the design of new systems as well as tests of existing in-vehicle devices to develop an increased understanding of the conditions under which they may currently pose a safety hazard.

Regional ITS Implementation Research - $6,175,534

The regional and statewide portion of the ITS program is rapidly evolving. Initial ITS research and deployment efforts were primarily focused on metropolitan applications due to evident mobility problems in these areas, the large body of knowledge from which to build, and the readiness of metropolitan areas to test ITS services. As the program has matured, numerous regional and statewide ITS applications have been identified in the areas of traveler information, incident management, public safety and rural mobility. While funding for non-metropolitan ITS research and deployment has increased in recent years, TEA-21 ITS R&D funding limitations have not allowed the full scope of technical and institutional issues to be researched and tested.

The additional funding being requested would allow for the acceleration of several key initiatives. Specifically:

- Implementation of 511 - In July, 2000 the Federal Communications Commission approved a USDOT petition for the assignment of 511 as a single nationwide traveler information telephone number. This number has the potential to provide travelers with accurate real-time information on weather and road conditions, construction delays, and major incidents. The USDOT is working with a coalition of public and private sector organizations to facilitate the regional and nationwide deployment of this number in a consistent manner. There are a significant number of technical and institutional issues that require research and testing. This funding would provide for the exploration of these issues and accelerate the implementation of 511.

- Advanced Emergency Management System - Automatic collision notification (ACN) is becoming widely available on new passenger cars sold in the United States. Immediate knowledge of the location and severity of crashes has the potential to improve highway safety and reduce incident delay by decreasing notification time, facilitating the proper emergency response, and supporting on-scene medical care. While the ACN technology is well developed there are a number of organizational and institutional challenges which must be addressed before deployment is possible. These include coordination between private sector call centers and public safety answering points, communication between law enforcement, emergency medical services, and transportation departments and electronic data sharing of location and medical condition information.

- Rural Transit Coordination - The primary demand for and delivery of transit services in rural communities are in support of the provision of health and human services. The elderly, children and handicapped are often dependent on these services. The regional nature of the service delivery and the wide dispersion of the users results in transportation costs consuming a substantial portion of the funding required to deliver these services. Currently, there are multiple transportation providers with little to no coordination among them. The opportunity exists to substantially reduce the transportation costs while improving the quality of service to the customer. This project would support dynamic coordination between rural demand-actuated transit/paratransit systems.

ITS Deployment - $15,057,753

Commercial Vehicle Information Systems and Networks (CVISN) Deployment

The Commercial Vehicle Information Systems and Networks (CVISN) organizes CVO-related information systems and communication networks owned and operated by Federal and State governments, carriers, and other CVO stakeholders, allowing them to operate in an integrated manner. It will improve safety for the motoring public by providing enhanced safety information

to safety inspectors, streamline the commercial vehicle credentialing and regulatory systems, and enhance the efficiency of the trucking and motor coach industries. Both the public and private sectors will realize savings in time, resources, and the cost of doing business. It also directly supports the goal of the Federal Motor Carrier Safety Administration of reducing truck fatalities by 50% by 2010.

The ITS program authorized in Transportation Equity Act for the 21st Century (TEA-21) has as one of its primary purposes to "complete deployment of CVISN in a majority of States by September 30, 2003." The USDOT has been working with individual States on the planning, design, and implementation of CVISN. To date, four states have deployed CVISN and three additional states are fully funded and are expected to have deployed CVISN by the end of 2001. Twenty-three additional States have completed their designs and are ready to begin implementation.

TEA-21 provided funding to support this implementation under the Commercial Vehicle Infrastructure portion of the ITS Deployment Program. However, in the annual appropriations process this funding has been earmarked to State and local governments without regard to program. While some of these funds have been used to support CVISN, it has been significantly less than envisioned in TEA-21. As a result, at the current pace of implementation it is unlikely that TEA-21 CVISN deployment goal will be met.

This funding will be used to support six ($2.5 million per state) of the 23 States that are ready to begin CVISN implementation. This will increase the total of States funded to15 and put the CVISN program back on track to meet the TEA-21 CVISN deployment goal.

Bureau of Transportation Statistics

Section 6005 of ISTEA established the Bureau of Transportation Statistics (BTS) in the DOT. The Transportation Equity Act for the 21st Century (TEA-21) continues funding for BTS through FY 2003. The work of the Bureau consists of compiling transportation statistics, implementing a long-term data collection program, issuing guidelines for information collection, coordinating information collection, and making statistics accessible.

Financing for the Bureau's operation is proposed from several sources. Most of the funding is authorized as contract authority out of the Highway Trust Fund. The contract authority is included in the Federal-Aid Highways program and is subject to the obligation limitation applicable to that program. Funds are transferred to the Bureau from Federal-Aid Highways, where all obligations and outlays are counted.

For further information, please refer to the separate Congressional justification for BTS.

DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION

FINANCING ACCOUNT

Background

As required by the Federal Credit Reform Act of 1990, this non-budgetary account records all cash flows to and from the Government resulting from direct loans obligated in 1992 and later years (including modifications and direct loans, loan guarantee, or lines of credit that resulted from obligations in any year). The amounts in this account are a means of financing and are not included in the budget totals.

The Transportation Equity Act for the 21st Century as amended by the TEA-21 Restoration Act provides contract authority for this program to assist in the funding of nationally-significant transportation projects. The subsidy cost and administrative expenses associated with this program are included in the Federal-aid Highway schedules.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION
FINANCING ACCOUNT - DIRECT LOAN

Program and Financing (in millions of dollars)

Identification code 69-4123	2000 Actual	2001 Estimate	2002 Estimate
Program by Activities			
00 01 Loan obligations	1,496	1,800	2,000
00 02 Interest paid to Treasury	19	21	43
10 00 Total new obligations	1,515	1,821	2,043
Budgetary resources available for obligation:			
22 00 New financing authority (gross)	1,515	1,821	2,043
23 95 Total new obligations	-1,515	-1,821	-2,043
New mandatory budget authority (gross), detail			
Mandatory			
67 15 Authority to borrow (indefinite)	1,429	1,641	1,933
Mandatory			
69 00 Offsetting collections (cash)	25	46	57
69 10 From federal sources: Change uncollected customer payments	61	134	53
69 90 Spending authority from offsetting collections	86	180	110
70 00 Total new financing authority (gross)	1,515	1,821	2,043
Change in unpaid obligations, start of year:			
72 40 Unpaid obligations, start of year		1,196	2,757
72 95 Uncollected customer payments from program account, start of year		-61	-195
72 99 Obligated balance, start of year		1,135	2,562
73 10 Total new obligations	1,515	1,821	2,043
73 20 Total financing disbursements (gross)	-319	-260	-642
74 00 Change in uncollected customer payments, from Fedeal sources, end of year	-61	-134	-53
Unpaid obligations, end of year			
74 40 Unpaid obligations, end of year	1,196	2,757	4,157
74 95 Uncollected customer payments from program account, end of year	-61	-195	-248
74 99 Obligated balance, end of year	1,135	2,562	3,909
Outlays (gross) detail:			
87 00 Total financing disbursements (gross)	319	260	642
Offsets against gross budget authority and outlays:			
Offsetting collections (cash) from:			
88 00 01 Federal sources: Subsidy from program account	8	12	40
88 00 02 Federal sources: upward reestimate		19	
88 25 Interest on uninvested funds	17		
88 40 Non-Federal sources: interest payments		15	17
88 90 Total offsetting collections (cash)	25	46	57
88 95 Change in receivables from program accounts	61	134	53
Net budget authority and outlays:			
89 00 Financing authority	1,429	1,641	1,933
90 00 Financing disbursements	295	214	585

Status of Direct Loan (in millions of dollars)

Identification code: 69-4123	2000 Actual	2001 Estimate	2002 Estimate
Portions with respect to appropriations act limitation on obligations:			
11 11 Limitation on direct loans	1,600	1,800	2,000
11 12 Unobligated direct loan limitation	-104		
11 50 Total direct loan obligations	1,496	1,800	2,000
Cumulative balance of direct loans outstanding:			
12 10 Outstanding, start of year		300	539
12 31 Disbursement: Direct loan disbursements	300	239	599
12 90 Outstanding, end of year	300	539	1,138
63 00 Net financing disbursements	295	214	585

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION
FINANCING ACCOUNT - LOAN GUARANTEE

Program and Financing (in millions of dollars)

Identification code 69-4145-0	2000 Actual	2001 Estimate	2002 Estimate
Program by Activities			
Budgetary resources available for obligation			
21.40 Unobligated balance, start of year			
22.00 New financing authority (gross)			11
23.90 Total new budgetary resources			11
23.95 Total new obligations			
24.40 Unobligated balance, end of year:			11
New budget authority (gross), detail:			
Mandatory			
69.00 Offsetting collections (cash)			11
Offsets			
Against gross financing authority and financing disbursements:			
Offsetting collections (cash) from:			
88.00 Federal sources: loan guarantee subsidy			-10
88.25 Interest on unvested funds			-1
88.90 Total, offsetting collections (cash)			-11
Net budget authority and outlays			
89.00 Financing Authority			
90.00 Financing disbursements			-11

Status of Guarantee Loan (in millions of dollars)

Identification code 69-4145-0	2000 Actual	2001 Estimate	2002 Estimate
Portions with respect to appropriations act limitation on commit:			
21.11 Limitation on Guaranteed Loans		200	200
21.50 Total guaranteed on loan commitments		200	200
21.99 Guaranteed amount of guaranteed loan commitments		200	200
Cummulative balance of guarantee loans outstanding			
22.10 Outstanding, start of year			
22.31 Disbursements of new guaranteed loans			200
22.90 Outstanding, end of year			200

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION
FINANCING ACCOUNT - LINE-OF-CREDIT

Program and Financing (in millions of dollars)

Identification code 69-4173-0	2000 Actual	2001 Estimate	2002 Estimate
Program by Activities:			
Obligations by program activity			
00.01 Obligations for lines of credit	30	200	200
10.00 Total new obligations	30	200	200
Budgetary resources available for obligation:			
22.00 New financing authority (gross)	30	200	200
23.95 Total new obligations	-30	-200	-200
New budget authority (gross), detail:			
Mandatory:			
67.15 Authority to borrow (indefinite)	24	196	190
Mandatory:			
69.00 Offsetting collections (cash)		2	10
69.10 Change in uncollected customer payments from Federal sources	6	2	
69.90 Spending authority from offsetting collections (total)	6	4	10
70.00 Total new financing authority (gross)	30	200	200
Change in unpaid obligations, start of year:			
72.40 Unpaid Obligations, start of year	20	50	250
72.95 Uncolleted customer payments from program account, start of year	-2	-8	-10
72.99 Obligated balance, start of year	18	42	240
73.10 Total new obligations	30	200	200
74.00 Change in uncollected customer payments from Federal sources	-6	-2	
74.40 Unpaid obligations, end of year	50	250	450
Offsetting collections (cash) from			
74.95 Uncollected customer payments from program account, end of year	-8	-10	-10
74.99 Obligated balance, end of year	42	240	440
88.00 Offsetting collections (cash) from Federal sources		2	10
88.95 Change in receivables from program accounts	6	2	
Net budget authority and outlays:			
89.00 Financing authority (net)	24	196	190
90.00 Financing disbursements (net)		-2	-10

Status of Line-of-credit (in millions of dollars)

Identification code 69-4173-0	2000 Actual	2001 Estimate	2002 Estimate
Portions with respect to appropriations act limitation on commit.			
11.11 Limitation on direct loan	200	200	200
11.12 Unobligated direct loan limitation	-170		
11.50 Total direct loan obligations	30	200	200
63.00 Net financing disbursements		-2	-10

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

	(Dollars in Thousands) FY 2001	FY 2002	CHANGE
Appropriation	$254,963	....	....

BACKGROUND

The Federal Highway Administration received an appropriation of $254,963,000 for the Appalachian Development Highway System in FY 2001. Funding for this program will be used for the necessary expenses for the Appalachian Development Highway System (ADHS) as distributed to the following states: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia. Funding also has been included for construction of and improvements to Corridor D in the State of West Virginia, and Corridor X in the State of Alabama. No new budget authority is requested for FY 2002.

APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

PROGRAM AND FINANCING SCHEDULE

In millions of Dollars

Identification code: 69-0640-0-1-401	2000 Actual	2001 Estimate	2002 Estimate
Obligations by program by activities:			
00.01 Direct program	67	23	.....
10.00 Total Obligations	67	23	.....
Budgetary resources available for obligation			
21.40 Unobligated balance available, Start of Year	90	23	.....
22.00 New budget authority (gross)	.....	.....	.....
23.95 New obligations	-67	-23	.....
24.40 Unobligated balance available, End of Year	23	.....	.....
New budget authority (gross), detail			
Current			
40.00 Appropriation	.....	.....	.....
Change in unpaid obligations			
72.40 Obligated balance: Appropriation	196	161	105
73.10 New Obligations	67	23	.....
73.20 Total outlays (gross)	-101	-79	-44
74.40 Obligated balance: Appropriation	161	105	61
Outlays (gross), detail			
86.90 Outlays from new current authority	.....	.....	.....
86.93 Outlays from current balances	101	79	44
87.00 Total outlays (gross)	101	79	44
89.00 Budget Authority	.....	.....	.....
90.00 Outlays	101	79	44

APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

OBJECT CLASSIFICATION

In millions of dollars

Identification code: 69-0540-0-1-401	2000 Actual	2001 Estimate	2002 Estimate
Obligations by program by activities:			
12.52 Other Services	67	23	.....

APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

PROGRAM AND FINANCING SCHEDULE

In millions of Dollars

Identification code: 69-8072-0-1-401	2000 Actual	2001 Estimate	2002 Estimate
Obligations by program by activities:			
00.01 Direct program	.....	254	.....
10.00 Total Obligations	.....	254	.....
Budgetary resources available for obligation			
21.40 Unobligated balance available, Start of Year	.....	.....	.....
22.00 New budget authority (gross)	.....	254	.....
23.95 New obligations	.....	-254	.....
24.40 Unobligated balance available, End of Year	.....	.....	.....
New budget authority (gross), detail			
Current			
40.00 Appropriation	.....	254	.....
Change in unpaid obligations			
72.40 Obligated balance: Appropriation	.....	.....	185
73.10 New Obligations	.....	254	.....
73.20 Total outlays (gross)	.....	-69	-104
74.40 Obligated balance: Appropriation	.....	185	81
Outlays (gross), detail			
86.90 Outlays from new current authority	.....	69	.....
86.93 Outlays from current balances	.....	.....	104
87.00 Total outlays (gross)	.....	69	104
89.00 Budget Authority	.....	254	.....
90.00 Financing disbursements	.....	69	104

APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

OBJECT CLASSIFICATION

In millions of dollars

Identification code: 69-8072-0-1-401	2000 Actual	2001 Estimate	2002 Estimate
Obligations by program by activities:			
12.52 Other Services	.....	254	.....

MISCELLANEOUS TRUST FUNDS

Funds received by this account come completely from non-Federal sources. FHWA holds these funds in trust until they are outlayed. The following programs are included in this fund:

1. *Cooperative work, forest highway (Proprietary Receipts)* - contributions are received from States and countries in connection with cooperative engineering, survey, maintenance, and construction projects for forest highways. The FY 2002 estimate is $3,000,000.

2. *Technical assistance, U. S. dollars advanced from foreign governments (Proprietary Receipts)* - The Federal Highway Administration renders technical assistance and acts as agent for the purchase of equipment and materials for carrying out highway programs in foreign countries.

3. *Contributions for highway research programs (Governmental Receipts)* - In association with the General Service Administration and the Department of Defense, tests of highway equipment are conducted for the purpose of establishing performance standards upon which to base specifications for use by the Government in purchasing such equipment.

4. *Advances from State cooperating agencies (Proprietary Receipts)* - Funds are contributed by the State highway departments or local subdivisions for construction and/or maintenance of roads or bridges. The work is performed under the supervision of the Federal Highway Administration. The FY 2002 is $9,000,000.

5. *International highway transportation outreach (Proprietary Receipts)* - Funds are collected to inform the domestic highway community of technological innovations, promote highway transportation expertise internationally, and increase transfers of transportation technology to foreign countries.

MISCELLANEOUS TRUST FUNDS

Program and Financing (in millions of dollars)

Identification code: 69-9971-0-7-999		2000 Actual	2001 Estimate	2002 Estimate
	Obligations by program activity			
00.01	Cooperative work, forest highways	1	3	3
00.02	Technical assistance, U.S. dollars advanced from foreign governments	...	1	...
00.03	Contributions for highway research programs	4	8	...
00.04	Advances from State cooperating agencies	9	10	9
10.00	Total obligations	14	22	12
	Budgetary resources available for obligation			
21.40	Unobligated balance available, start of year: Uninvested balance	27	51	50
22.00	New budget authority (gross)	38	21	21
23.90	Total budgetary resources available for obligation	65	72	71
23.95	New obligations	-14	-22	-12
24.40	Unobligated balance available, end of year: Uninvested balance	51	50	59
	New budget authority (gross), detail Permanent			
60.27	Appropriation (trust fund, indefinite)	38	21	21
	Change in unpaid obligations			
72.40	Obligated balance: Appropriation	46	33	26
72.99	Obligated balance, start of year	46	33	26
73.10	New obligations	14	22	12
73.20	Total outlays (gross)	-27	-29	-21
74.40	Unpaid obligations, end of year	33	26	17
74.99	Obligated balance, end of year	33	26	17
86.97	Outlays from new mandatory authority	27	17	21
86.98	Outlays from mandatory balances	...	12	...
87.00	Total outlays (gross)	27	29	21
	Net budget authority and outlays			
89.00	Budget authority	38	21	21
90.00	Outlays	27	29	21

MISCELLANEOUS TRUST FUNDS

Object Classification (in millions of dollars)

Identification code: 69-9971-0-7-999	2000 Actual	2001 Estimate	2002 Estimate
Personnel compensation:			
11.1 Full-time permanent	2	2	2
25.2 Other services	12	20	10
99.9 Total obligations	14	22	12

Personnel Summary

Total compensable workyears: Full-time equivalent employment	67	48	66

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS APPROPRIATIONS

GENERAL STATEMENT

This miscellaneous account contains appropriations derived from general funds for which no new budget authority is requested in FY 2002. Obligations and outlays result from prior year appropriations.

MISCELLANEOUS APPROPRIATIONS

Program and Financing (in millions of dollars)

Identification Code: 69-9911-0-1-401	2000 Actual	2001 Estimate	2002 Estimate
Obligations by program activities:			
00.10 Feasibility, Design, Enviromental and Engineering	...	1	1
00.14 Climbing Lane Demonstration	1	1	1
00.24 Highway Demonstration Projects	...	1	1
00.26 Corridor D Improvement Project	1	2	2
00.30 Highway Demonstration Projects - Preliminary Engineering	1	2	2
00.45 Highway Bypass Demonstration	...	1	1
00.46 Railroad Highway Crossing Demo	1	1	1
00.79 Surface Transportation Projects	48	35	35
00.81 Miscellaneous Massachusetts Projects	1	2	2
00.82 Woodrow Wilson Bridge	...	599	1
00.83 Miscellaneous Hwy. Proj./Muscle Shoals	...	6	...
10.00 Total Obligations (object class 41.0)	53	651	47

FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS APPROPRIATIONS

Program and Financing (in millions of dollars)

Identification Code 69-9911-0-1-401	2000 Actual	2001 Estimate	2002 Estimate
Budgetary resources available for obligation:			
21.40 Unobligated balance available, start of year	254	203	156
22.00 New budget authority (gross)		605	
23.90 Total budget resources available for obligations	254	808	156
23.95 Total new obligations	-53	-651	-47
24.40 Unobligated balance available, end of year: Uninvested balance	203	156	109
New budget authority (gross),detail:			
40.00 Current Appropriation		606	
40.77 Reduction pursuant to P.L. 106-554 (0.22 percent)		-1	
43.00 Appropriation (total discretionary)		605	
Change in unpaid obligations:			
72.40 Unpaid obligations, start of year: Obligated balance: start of year	252	170	567
72.99 Obligated balance, end of year	252	170	567
73.10 Total new obligations	53	651	47
73.20 Total outlays (gross)	-133	-254	-320
74.40 Unpaid obligations, end of year: Obligated balance: Appropriation	170	567	294
74.99 Obligated, end of year	170	567	294
Outlays(gross), detail:			
86.90 Outlays from new discretionary authority		163	
86.93 Outlays from discretionary balances	133	91	320
87.00 Total outlays (gross)	133	254	320
Net budget authority and outlays:			
89.00 Budget authority		605	
90.00 Total Outlays	133	254	320

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS HIGHWAY TRUST FUND

GENERAL STATEMENT

This miscellaneous account contains appropriations derived from trust funds for which no new budget authority is requested in FY 2002. Obligations and outlays result from prior year appropriations.

MISCELLANEOUS HIGHWAY TRUST FUNDS

program and financing (in millions of dollars)

Identification Code: 69-9972-0-7-401		2000 Actual	2001 Estimate	2002 Estimate
	Obligations by program activity:			
10.00	Total obligations (object class 41.0)	9	1,190	7
	Budgetary resources available for obligation:			
21.40	Unobligated balance available, start of year:			
	Uninvested balance	31	23	15
22.00	New budget authority (gross)	2	1,182	...
22.93	Total budgetary resources available for obligation	33	1,205	15
23.95	New obligations	-9	-1,190	-7
24.40	Unobligated balance available, end of year:			
	Uninvested balance	23	15	8
	New budget authority (gross), detail Discretionary			
40.00	Appropriation	2	1,185	...
40.77	Reduction pursuant to P.L. 106-554 (0.22 percent)	...	-3	...
43.00	Appropriation (total discretionary)	2	1,182	...
	Change in unpaid obligations:			
72.40	Unpaid obligations, start of year	117	83	919
72.99	Obligated balance, start of year	117	83	919
73.10	New obligations	9	1,190	7
73.20	Total outlays (gross)	-42	-354	-510
74.40	Unpaid obligations, end of year: Obligated balance:			
	Unpaid obligations, end of year	83	919	416
74.99	Obligated balance, end of year	83	919	416
	Outlay (gross), detail:			
86.90	Outlays from new discretionary authority		320	...
86.93	Outlays from discretionary balances	42	35	511
87.00	Total outlays (gross)	42	354	510
	Net budget authority and outlays:			
89.00	Budget authority	2	1,182	...
90.00	Outlays	42	354	510

DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINSTRATION

STATE INFRASTRUCTURE BANKS

Background

In FY 1997, Congress appropriated $150 million for this program from the General Fund. This schedule shows the obligated and outlay of amounts made available in FY 1997. No further appropriation is requested for FY 2002.

FEDERAL HIGHWAY ADMINISTRATION
STATE INFRASTRUCTURE BANKS

Program and Financing (In millions of dollars)

Identification code: 69-0549-0-7-401 (General Fund)	2000 Actual	2001 Estimate	2002 Estimate
Program by activities:			
10.00 Total obligations	0	4	0
Budgetary resources available for obligation:			
21.40 Unobligated balance, start of year	4	4	0
22.10 Recoveries of prior year obligations	0	0	0
23.90 Total budgetary resource	4	4	0
23.95 Total new obligations	0	-4	0
24.40 Unobligated balance, end of year	4	0	0
Change in unpaid obligations:			
Obligated balance, start of year:			
72.40 Unpaid obligations, start of year	44	25	21
73.10 New obligations	0	4	0
73.20 Total outlays (gross)	-19	-8	-8
73.45 Adjustments in unexpired accounts	0	0	0
74.40 Unpaid obligations, end of year	25	21	13
Outlays (gross):			
86.93 Outlays from current balances	19	8	8
89.00 Budget authority	0	0	0
90.00 Outlays	19	8	8

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

[ELLSWORTH HOUSING SETTLEMENT]

[SEC. 3029. Notwithstanding any other provision of law, the amount received by the United States in settlement of the claims for the Ellsworth Housing Settlement Project in South Dakota.](Public Law 106-31 Sec. 3029(c)(ii)(1)).

FEDERAL HIGHWAY ADMINISTRATION

ELLSWORTH HOUSING SETTLEMENT

Program and Financing (in millions of dollars)

Identification Code: 69-5450-0	2000 Actual	2001 Estimate	2002 Estimate
Obligations by program activity			
01.99 Balance, start of year	...	...	...
Receipts			
02.80 Offsetting collections, Ellsworth housing settlement		3	...
Appropriations			
05.00 Ellsworth housing settlement		-3	...
07.99 Balance, end of year	...	...	...
Obligations by program activity			
10.00 Total new obligations (object class 25.2)		3	...
Budgetary resources available for obligation			
22.00 New budget authority (gross)		3	...
23.95 Total new obligations		-3	...
New budget authority (gross), detail			
Discretionary			
68.00 Spending authority from offsetting collections			
Offsetting collections (cash)		3	...
Change in unpaid obligations:			
72.40 Unpaid obligations, start of year:			
Unpaid obligations, start of year	...		3
72.99 Obligated balance, start of year			3
73.10 Total new obligations		3	...
73.20 Total outlays (gross)	...		-3
74.40 Unpaid obligations, end of year: Obligated balance, end of year		3	...
74.99 Obligated balance, end of year		3	...
Outlays(gross), detail:			
86.93 Outlays from discretionary balances	...		3
Offsets			
Against gross budget authority and outlays			
88.00 Offsetting collections (cash) from: Federal sources		3	...
Net budget authority and outlays:			
89.00 Budget authority	...		
90.00 Outlays		-3	3

ORANGE COUNTY (CA) TOLL ROAD DEMONSTRATION PROJECT

No new appropriations are requested for FY 2002.

BACKGROUND

San Joaquin Hills Project

The Congress appropriated $9.6 million in FY 1993 to cover the estimated subsidy costs of making a direct loan (or loans) not to exceed $120 million to the Transportation Corridor Agencies (TCA) San Joaquin Hills public toll road. Any such loan (or loans) will be available for five years only upon completion of the toll road and only to the extent that revenues from toll operations and standard reserves are insufficient for debt service. The appropriations language also stipulates that: 1) no more than 20 percent of the total loan amount may be disbursed in any one year of operation; 2) any such loan (or loans) shall draw interest at the 30-year United States Treasury Bond rate on the date of disbursal; and 3) any loan (or loans) shall be repaid in not more than 30 years.

As required by the Federal Credit Reform Act of 1990, program and financing accounts have been established to record estimated subsidy costs and cash flows arising from direct loan obligations for the Orange County toll road. A financial analysis performed for FHWA indicates that the $9.6 million appropriated in FY 1994 should be adequate to cover any unreimbursed costs to the Federal government associated with making loans up to $120 million for the Orange County toll road (implying an eight percent subsidy rate).

Foothills\Eastern Transportation Corridor

The Congress appropriated $8 million in FY 1995 to cover the estimated subsidy costs of making a direct loan (or loans) not to exceed $120 million to the Transportation Corridor Agencies (TCA) Foothills-Eastern Transportation Corridor public toll road. In FY 1997 a new financial analysis was performed due to new legislation enacted in FY 1997. This new legislation assumed that the interest rate charged to loans should be sufficient to ensure that the subsidy budget authority of $8 million will be able to support the full line of $145 million Any such loan (or loans) will be available for draws during the period beginning on the date of completion of construction and ending on the last day of the tenth calendar year following the date construction of the facilities is completed, and only to the extent that revenues from toll operations and capitalized interest are insufficient for debt service The appropriations language also stipulates that: 1) no more than 10 percent of the total loan amount may be disbursed in any one year of operation; 2) any such loan (or loans) except for operation and maintenance shall draw interest at the 30-year United States Treasury Bond rate beginning on the date such draws are made, shall be

repaid in not more than 30 years; (3) any such loan (or loans) for operation and maintenance expenses shall draw interest at the 3-year United States Treasury rate beginning on the date such draws are made and shall be repaid in not more than 3 years.

As required by the Federal Credit Reform Act of 1990, program and financing accounts have been established to record estimated subsidy costs and cash flows arising from direct loan obligations for the Orange County toll road.

Y (CA) TOLL ROAD DEMONSTRATION PROJECT
PROGAM ACCOUNT

GRAM AND FINANCING SCHEDULE

(in millions of dollars)

Identification code 69-0543-0-1-401		2000 Actual	2001 Estimate	2002 Estimate
	Budgetary resources available for obligation			
22.10	Resources available from recoveries of prior year obligations		2	
23.98	Unobligated balance expiring or withdrawn		-2	
	Change in unpaid obligations			
72.40	Unpaid obligations, start of year	18	18	16
72.99	Obligated balance, start of year	18	18	16
73.45	Recoveries of prior year obligations		-2	
74.40	Unpaid obligations, end of year	18	16	16
74.99	Obligated balance, end of year	18	16	16
	Net budget authority and outlays			
89.00	Budget authority			
90.00	Outlays			

VELS, SUBSIDY BUDGET AUTHORITY, AND OUTLAYS

Identification code: 69-0543-0-1-401		2000 Actual	2001 Estimate	2002 Estimate
	Direct loan levels supportable by subsidy BA:			
11.50	Foothills			
11.59	Total direct loan levels (Foothills)			
	Direct loan subsidy rates (in percents):			
13.20	San Joaquin Hills Corridor	8.00%	8.00%	8.00%
13.20	Eastern Foothills Corridor	5.52%	5.52%	5.52%
13.29	Weighted average subsidy rate	6.64%	6.64%	6.64%
13.39	Total subsidy budget authority			

ORANGE COUNTY (CA) TOLL ROAD DEMONSTRATION PROJECT
DIRECT LOAN FINANCING ACCOUNT

PROGRAM AND FINANCING SCHEDULE

in millions of dollars

Identification code 69-4200-0-1-401		2000 Actual	2001 Estimate	2002 Estimate
	Budgetary resources available for obligation			
22.10	Resources available from recoveries of prior year obligations		26	
23.98	Unobligated balance expiring or withdrawn		-26	
	New financing authority (gross), detail:			
	Spending authority from offsetting collections:			
	Discretionary:			
68.10	Change in uncollected customer payments from Federal Sources		-2	
68.15	Adjustments to uncollected customer payments from Federal Sources		2	
	Change in unpaid obligations:			
72.40	Unpaid Obligations, start of year	265	265	237
72.95	Uncollected customer payments from prg acct	-18	-18	-16
72.99	Obligated balance, start of year	247	247	221
73.45	Recoveries of prior year obligations		-26	
74.00	Change in uncollected customer payments from Federal Sources		2	
74.40	Unpaid Obligations, end of year	265	237	237
74.95	Uncollected customer payments from prg acct	-18	-16	-16
74.99	Obligated balance, end of year	247	221	221
	Offsets:			
	Against gross budget authority and outlays:			
88.95	Change in receivables from program accounts		-2	
88.96	Adjustment to uncollected customer payments from Federal Sources		2	
89.00	Financing authority			
90.00	Financing disbursements			

ORANGE COUNTY (CA) TOLL ROAD DEMONSTRATION PROJECT
DIRECT LOAN FINANCING ACCOUNT

Financial Condition (in millions of dollars)

Identification code. 69-4200-0-3-401	2000 Actual	2001 Estimate	2002 Estimate
ASSETS			
Net value of assets related to direct loans receivable			
14.01 Direct loans receivable, gross (San Joaquin)	10	10	10
14.01 Direct loans receivable, gross (Foothills)	8	8	8
14.02 Interest receivable (San Joaquin)			
14.05 Allowance for subsidy cost (-)(San Joaquin)			
14.99 Net present value of assets related to direct loans			
19.99 Total Assets	18	18	18
LIABILITIES.			
21.03 Federal liabilities: Debt (San Joaquin)			
29.99 Total Liabilities(San Joaquin)			
49.99 Total Liabilities and net position(San Joaquin)	18	18	18

RIGHT-OF-WAY REVOLVING FUND *LIQUIDATING ACCOUNT*
(LIMITATION ON DIRECT LOANS)
(HIGHWAY TRUST FUND)

None of the funds under this head are available for obligations for right-of-way acquisition during fiscal year [2001] 2002. *(Department of Transportation and Related Agencies Appropriations Act, 2001.)*

RIGHT-OF-WAY REVOLVING FUND *LIQUIDATING ACCOUNT*
(LIMITATION ON DIRECT LOANS)
(HIGHWAY TRUST FUND)
ACCOUNT

The Federal-Aid Highway Act of 1968 authorized $300 million for the establishment of a right-of-way revolving fund. This fund is used to make cash advances to States for the purpose of purchasing right-of-way parcels in advance of highway construction and thereby preventing the inflation of land prices from significantly increasing construction costs.

This program was terminated in TEA-21,but will continue to be shown for reporting purposes as loan balances remain outstanding. The program shall remain available to the State for use on the projects for which the funds were advanced for a period of 20 years from the date on which the funds were advanced.

RIGHT-OF-WAY REVOLVING FUND LIQUIDATING ACCOUNT

Program and Financing (in millions of dollars)

Identification code: 69-8402-0-8-401	2000 Actual	2001 Estimate	2002 Estimate
New budget authority (gross), detail mandatory			
Budget Authority:			
69.00 Spending authority from offsetting collections cash	46	24	24
69.45 Portion not availabe for obligation (limitation on obligations)	-46	-24	-24
69.90 Spending authority from offsetting collections(total)	.....	.....	.....
Change in unpaid obligations:			
72.40 Unpaid obligations, start of year: Obigated balance start of year	30	33	23
72.99 Obligated balance, start of year	30	33	23
73.20 Total outlays (gross)	-3	-10	-10
74.40 Unpaid obligations, end of year: Obligated balance, end of year	33	23	13
74.99 Obligated, end of year			
Outlays (gross),detail			
86.93 Outlays from current balances	-3	10	10
Offsets against gross budget authority and outlays			
88.40 Offsettsetting collections (cash) from: Non-Federal sources	46	24	24
Net budget authority and outlays			
89.00 Budget authority	-46	-24	24
90.00 Outlays	-49	-14	-14

RIGHT-OF-WAY REVOLVING FUND LIQUIDATING ACCOUNT

Status of Direct Loans (in millions of dollars)

Identification code 69-8402-0-8-401		2000 Actual	2001 Estimate	2002 Estimate
	Cummulative balance of direct loans outstanding			
12.10	Outstanding, start of year	155	129	115
12.31	Disbursements: Direct loan disbursements	20	10	10
12.51	Repayments: Repayments and prepayments	-46	-24	-24
12.90	Outstanding, end of year	129	115	101

Statement of Operations (in thousands of dollars)

Identification code 69-8402-0-8-401		1999 Actual	2000 Actual	2001 Estimate	2002 Estimate
01.01	Revenue	4	3	24	24
01.02	Expense	-40	-49	-14	-14
01.09	Net income or loss (-)	-36	-46	10	10

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
HIGHWAY RELATED SAFETY GRANTS

BACKGROUND

In 1997, this account was transferred from the Federal Highway Administration to the National Highway Traffic Safety Administration. No new budgetary resources are provided. Obligations and outlays reflected in this account are from previous 1997 appropriations.

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FEDERAL HIGHWAY ADMINISTRATION
HIGHWAY RELATED SAFETY GRANTS

	In millions of Dollars		
Identification code: 69-8019-0-7-401	2000 Actual	2001 Estimate	2002 Estimate
Change in unpaid obligations			
Unpaid obligations, start of year			
72.40 Unpaid obligations, start of year	1	1	...
72.99 Obligated balance, start of year	1	1	...
73.20 Total outlays (gross)	-1	-1	...
Unpaid obligations, end of year			
74.40 Unpaid obligations, end of year	1	...	...
74.99 Obligated balance, end of year	1	...	...
Outlays (gross), detail			
86.93 Outlays from discretionary balance	1	1	...
Net budget authority and outlays			
89.00 Budget authority	...	...	...
90.00 Outlays	1	1	

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

TITLE III–GENERAL PROVISIONS

The following provision(s) related to programs/activities of the Federal Highway Administration are proposed for deletion:

[SEC. 326. In addition to the funds limited in this Act, $54,963,000, to be derived from the Highway Trust Fund (other than the Mass Transit Account), shall be available for section 1069(y) of Public Law 102-240.]

[SEC. 330. Item number 1473 in the table contained in section 1602 of the Transportation Equity Act for the 21st Century (112 Stat. 311) is amended by striking 'Stony' and inserting 'Commerce'.]

[SEC. 332. Of the funds provided for fiscal year 2001 in section 232 of the Miscellaneous Appropriations Act, 2000, as enacted by section 1000(a)(5) of the Consolidated Appropriations Act, 2000, $20,000,000 shall be available only for fire and life safety improvements to enable the James A. Farley Post Office in New York City to be used as a train station and commercial center.]

[SEC. 337. Item number 273 in the table contained in section 1602 of the Transportation Equity Act for the 21st Century (Public Law 105-178) is amended by striking 'Reconstruct I-235 and improve the interchange for access to the MLKing Parkway.' and inserting "Construction of the north-south segments of the Martin Luther King Jr. Parkway in Des Moines.".]

[SEC. 338. Item number 328 in the table contained in section 1602 of the Transportation Equity Act for the 21st Century (Public Law 105-178) is amended by inserting before "of" the following: "or construction".]

[SEC. 339. Section 1602 of the Transportation Equity Act for the 21st Century (112 Stat. 256) is amended--
(1) by striking item number 63, relating to Ohio; and
(2) in item number 186, relating to Ohio, by striking "3.75" and inserting "7.5".]

[SEC. 340. (a) Of the funds apportioned to the Commonwealth of Massachusetts under each of subsections (b)(1), (b)(2), (b)(3), and (b)(4) of section 104 and section 105 of title 23, United States Code, the Secretary shall withhold obligation of Federal funds and all project approvals for the Central Artery/Tunnel project in fiscal year 2001 and each fiscal year thereafter unless the Secretary of the Department of Transportation determines that the Commonwealth meets each of the following criteria:

(1) The Commonwealth is in full compliance with the partnership agreement that was executed on June 22, 2000, between the Federal Highway Administration, the Massachusetts Turnpike Authority, the Massachusetts Highway Department, and the Massachusetts Executive Office of Transportation and Construction.
(2) The Commonwealth is in full compliance with the balanced statewide program memorandum of understanding entered into by the Massachusetts Highway Department, the Executive Office of Transportation and Construction, and metropolitan planning organizations in the Commonwealth of Massachusetts.
(3) The Commonwealth of Massachusetts shall spend no less than $400,000,000 each year for construction activities and specific transportation projects as defined in the Balanced Statewide Program Memorandum of Understanding on projects other than the Central Artery/Tunnel project.
(b) After June 22, 2000, the Secretary of Transportation shall not approve new net advance construction for the Central Artery/Tunnel project in an amount greater than $222,000,000 and no conversion of advance construction to obligation authority shall cause the Federal share of funding for the Central Artery/Tunnel project to exceed $8,549,000,000.
(c) Of the funds apportioned to the Commonwealth of Massachusetts under each of subsections (b)(1), (b)(2), (b)(3), and (b)(4) of section 104 and section 105 of title 23, United States Code, the Secretary shall withhold obligation of Federal funds and all project approvals for the Central Artery/Tunnel project in fiscal year 2001 and each fiscal year thereafter until the Inspector General of the Department of Transportation finds the annual update of the Central Artery/Tunnel project finance plan consistent with Federal Highway Administration financial plan guidance and the Secretary of the Department of Transportation approves the annual update of the finance plan, except for fiscal year 2001 when approval of the annual update of the finance plan will not be required until December 1, 2000.
(d) Total Federal contributions to the Central Artery/Tunnel project shall not exceed $8,549,000,000.
(e) Should the Secretary withhold Federal funds apportioned to the Commonwealth of Massachusetts under subsections (b)(1), (b)(2), (b)(3), and (b)(4) of section 104 and section 105 of title 23, United States Code, for the Central Artery/Tunnel project in any fiscal year for noncompliance with this section, such funds shall be available to the Commonwealth of Massachusetts for projects other than the Central Artery/Tunnel project in that fiscal year.
(f) This section shall be in effect for each fiscal year in which any Federal funds are made available to construct the Central Artery/Tunnel project in Boston, Massachusetts.
(g) Notwithstanding the foregoing provisions of this section to the contrary, the Secretary is authorized to approve conversion of advance construction to obligation authority and otherwise make Federal funds available to the Commonwealth of Massachusetts without regard to the requirements of this section, other than subsection (d), if and only if to the extent necessary, as evidenced by a certificate of the Secretary of Administration and Finance of the Commonwealth of Massachusetts satisfactory to the Secretary, to enable the Commonwealth of Massachusetts to pay all or any portion of the principal amount of notes issued by the Commonwealth of Massachusetts pursuant to section 9 through 10D of chapter 11 of the Massachusetts acts of 1997, as amended, to finance costs of the Central Artery/Tunnel project in anticipation of the

receipts of Federal funds: Provided, That no funds derived from the sale of grant anticipation notes shall be used to exceed the caps described in subsections (b) and (d).]

[SEC. 342. Notwithstanding any other provision of law, unobligated balances from section 149(a)(45) and section 149(a)(63) of Public Law 100-17 and the Ebensburg Bypass Demonstration Project of Public Law 101-164 may be used for improvements along Route 56 in Cambria County, Pennsylvania, including the construction of a parking facility in the vicinity.]

[SEC. 343. None of the funds in this Act shall be used for the planning, development, or construction of California State Route 710 freeway extension project through South Pasadena, California.]

[SEC. 345. Notwithstanding any other provision of law, up to $800,000 of unobligation balances from capital investment grants available for Fayette County, Pennsylvania intermodal facilities and buses in the Department of Transportation and Related Agencies Appropriations Act, 1999 (Public Law 105-277) and the Department of Transportation and Related Agencies Appropriations Act, 2000 (Public Law 106-69) may be made available for an intermodal parking facility in Cambria County, Pennsylvania.]

[SEC. 351. Notwithstanding any other provision of law, beginning in fiscal year 2004, the Secretary shall withhold 2 percent of the amount required to be apportioned for Federal-aid highways to any State under each of paragraphs (1), (3), and (4) of section 104(b) of title 23, United States Code, if a State has not enacted and is not enforcing a provision described in section 163(a) of chapter 1 of title 23, United States Code, in fiscal year 2005, the Secretary shall withhold 4 percent of the amount required to be apportioned for Federal-aid highways to any State under each of paragraphs (1), (3), and (4) of section 104(b) of title 23, United States Code, if a State has not enacted and is not enforcing a provision described in section 163(a) of title 23, United States Code; in fiscal year 2006, the Secretary shall withhold 6 percent of the amount required to be apportioned for Federal-aid highways to any State under each of paragraphs (1), (3), and (4) of section 104(b) of title 23, United States Code, if a State has not enacted and is not enforcing a provision described in section 163(a) of title 23, United States Code; and beginning in fiscal year 2007, and in each fiscal year thereafter, the Secretary shall withhold 8 percent of the amount required to be apportioned for Federal-aid highways to any State under each of paragraphs (1), (3), and (4) of section 104(b) of title 23, United States Code, if a State has not enacted and is not enforcing a provision described in section 163(a) of title 23, United States Code. If within four years from the date the apportionment for any State is reduced in accordance with this section the Secretary determines that such State has enacted and is enforcing a provision described in section 163(a) of chapter 1 of title 23, United States Code, the apportionment of such State shall be increased by an amount equal to such reduction. If at the end of such four-year period, any State has not enacted and is not enforcing a provision described in section 163(a) of title 23, United States Code, any amounts so withheld shall lapse.]

[SEC. 353. The table contained in section 1602 of the Transportation Equity Act for the 21st Century is amended in item 1006 (112 Stat. 294) by striking "Extend NW 86th Street from NW 70th Street" and inserting "Construct a road from State Highway 141".]

[SEC. 354. For the purpose of constructing an underpass to improve access and enhance highway/rail safety and economic development along Star Landing Road in DeSoto County, Mississippi, the State of Mississippi may use funds previously allocated to it under the transportation enhancements program, if available.]

[SEC. 355. Section 1214 of Public Law 105-178, as amended, is further amended by adding a new subsection to read as follows:
"(s) Notwithstanding section 117 (c) of title 23, United States Code, for project number 1646 in section 1602 of Public Law 105-178, the non-Federal share of the project may be funded by Federal funds from an agency or agencies not part of the United States Department of Transportation.".]

[SEC. 357. None of the funds in this Act may be available for the planning, development or construction of a multi-lane, limited access expressway at section 800, Pennsylvania Route 202 in Bucks County, Pennsylvania.]

[SEC. 360. Notwithstanding any other provision of law, new fixed guideway system funds available for the Jackson, Mississippi, Intermodal Corridor in the Department of Transportation and Related Agencies Appropriations Act, 1998, Public Law 105-66, may be made available for obligation during this fiscal year for studies to evaluate and define transportation alternatives for this project, including an intermodal facility at Jackson International Airport, and for related preliminary engineering, final design or construction.]

[SEC. 361. Notwithstanding any other provision of law, up to $499,000 of the funds made available in item 760 of section 1602 of the Transportation Equity Act for the 21st Century shall be available for corridor planning studies between western Baldwin County and Mobile Municipal Airport.]

[SEC. 362. Item number 78 in section 1107(b) of the Intermodal Surface Transportation Efficiency Act of 1991 (Public Law 102-240) is amended by inserting `Akron Innerbelt (State Route 59) corridor, Broadway viaduct replacement, and High Street viaduct replacement,' after "extension."]

[SEC. 363. Section 117(c) of title 23, United States Code, is amended by inserting before the period at the end the following: "; except that the Federal share on account of the project to be carried out under item 1419 of the table contained in section 1602 of the Transportation Equity Act for the 21st Century (112 Stat. 309), relating to reconstruction of a road and causeway in Shiloh Military Park in Hardin County, Tennessee, shall be 100 percent of the total cost thereof".]

[SEC. 366. Under the heading "Discretionary Grants" in Public Law 105-66, "$4,000,000 for the Salt Lake City regional commuter system project;" is amended to read "$4,000,000 for the transit and other transportation-related portions of the Salt Lake City regional commuter system and Gateway intermodal terminal;".]

[SEC. 367. Of the amounts to be made available in fiscal year 2001 under section 1404 (safety incentives to prevent operation of motor vehicles by intoxicated persons) of Public Law 105-178, $2,492,121 shall be made available to the Commonwealth of Kentucky for adopting a 0.08 blood alcohol content standard. Thereafter the remaining funds shall be distributed by formula to the eligible states, including Kentucky.]

[SEC. 368. Notwithstanding any other provision of law, the Secretary of Transportation shall waive repayment of any Federal-aid highway funds expended by the City of Spokane, Washington on the Lincoln Street Bridge Project.]

[SEC. 370. Item number 6 in the table contained in section 1602 of the Transportation Equity Act for the 21st Century (Public Law 105-178) is amended by inserting after "Kaysville", "and within the amount provided, $2,000,000 for repair and reconstruction of the North Ogden Divide Highway".]

[SEC. 371. Notwithstanding any other provision of law, States may use funds provided in this Act under section 402 of title 23, United States Code, to produce and place highway safety public service messages in television, radio, cinema, and print media, and on the Internet in accordance with guidance issued by the Secretary of Transportation. Any State that uses funds for such public service messages shall submit to the Secretary a report describing and assessing the effectiveness of the messages.]

[SEC. 373. Item number 163 in the table contained in section 1602 of the Transportation Equity Act for the 21st Century (Public Law 105-178) is amended by inserting before the numeral "which includes the study, design, and construction related to local street improvements needed to complement the extension of Kapkowski Road".]

[SEC. 374. Item number 331 in the table contained in section 1602 of the Transportation Equity Act for the 21st Century (112 Stat. 269) is amended by striking "highway access" and inserting "highway and freight rail access".]

[SEC. 375. For capital costs associated with track relocation, track construction and rehabilitation, highway-rail separation construction activities including right-of-way acquisition and utility relocation, and signal improvements in Muscle Shoals, Tuscumbia, and Sheffield, Alabama, $5,000,000 to the Alabama Department of Transportation, to remain available until expended: Provided, That obligation of federal funds is contingent upon a match of no less than 75 percent from non-federal sources.]

[SEC. 376. For capital costs associated with track acquisition and rehabilitation between Strasburg Junction and Shenandoah Caverns, Virginia, $1,000,000 to Valley Trains and Tours, to remain available until expended: Provided, That the obligation of federal funds is contingent upon an agreement with Norfolk Southern Corporation on track usage and financial support by the Commonwealth of Virginia.]

[SEC. 377. Item 1135 of the table contained in section 1602 of the Transportation Equity Act for the 21st Century (112 Stat. 298) is amended by striking "Replace Barton Road/M 14 interchange, Ann Arbor" and inserting "Conduct a study of all possible alternatives to the current M-14/Barton Drive interchange in Ann Arbor, including relocation of M-14/U.S. 23 from Maple Road to Plymouth Road, mass transit options, and other means of reducing commuter traffic and improving highway safety".]

[SEC. 378. Notwithstanding any other provision of law, in addition to amounts made available in this Act or any other Act, the following sums shall be made available from the Highway Trust Fund (other than the Mass Transit Account): $50,000,000 for the intelligent transportation infrastructure program as authorized by section 5117(b)(3) of Public Law 105-178; $8,500,000 for construction of, and improvements to, 17th Avenue and 23rd Avenue highway ramps in Denver, Colorado; $1,000,000 for engineering, construction of, and improvements to, the Cascade Gateway Border Project in Whatcom County, Washington; $100,000,000 for construction of, and improvements to, Corridor D on the Appalachian development highway system in the State of West Virginia; $1,500,000 for construction of, and improvements to, the Alameda Corridor-East Gateway to American Trade corridor project, California; $4,000,000 for construction of, and improvements to, Avenue G viaduct and connector roads in Council Bluffs, Iowa; $34,100,000 for design and construction of the Birmingham, Alabama Northern Beltline; $13,500,000 for construction of, and improvements to, US 231 from Bowling Green to Scottsville, Kentucky; $150,000 for improvements to the Broad Street and Wyckoff Road intersection, including traffic light upgrades, in the Borough of Eatontown, New Jersey; $12,000,000 for construction of road expansion and improvements to, the Broad Street Parkway in Nashua, New Hampshire; $10,000,000 to construct interchanges US 281 at FM 2812, FM 162, FM 490, SP 122, and SH 186 in Texas; $12,500,000 to construct interchanges US 77 at Business 77 North, FM 3186, FM 490, SP 122, and SP 413 in Texas; $30,000,000 for construction of, and improvements to, the Cooper River Bridge in South Carolina; $100,000,000 for construction of, and improvements to, Corridor X on the Appalachian development highway system in the State of Alabama; $4,000,000 for construction, including related activities, of an interchange at County Highway J and US 10 and to upgrade a segment of US 10 to a four-lane highway in Portage

County, Wisconsin; $5,000,000 for construction, including related activities, of the Craig Road overpass between I-15 and Lossee Road in the City of North Las Vegas, Nevada; $30,200,000 for construction of, and improvements to, bridges and other projects on the Dalton Highway, Alaska; $3,200,000 for improvements to Dayton Road in Ames, Iowa; $15,000,000 for construction of, and improvements to, the Detroit, Michigan Ambassador Bridge Gateway project; $24,000,000 for construction of, and improvements to, FAST Corridor in Washington; $10,000,000 for construction of, and improvements to, the Fort Washington Way reconfiguration project, Cincinnati, Ohio; $35,000,000 for construction of, and improvements to, the Four Bears Bridge in North Dakota; $50,000,000 for construction of, and improvements to, the Glen Highway/George Parks Highway interchange in Alaska; $8,000,000 for preliminary design of the Interstate Route 69 Great River Bridge crossing the Mississippi at Bolivar County, Mississippi; $8,000,000 for reconstruction of, and other improvements to, Halls Mill Road in Freehold Township and Monmouth County, New Jersey; $4,500,000 for construction of, and improvements to, Hamakua-Hilo corridor road and bridge projects, Hawaii; $35,000,000 for construction, including related activities, of an extension of Highway 180 from the City of Mendota to I-5 in Fresno County, California; $10,000,000 to upgrade Highway 36 in Marion County, Missouri, to four-lane divided highway; $9,750,000 for widening, relocation of, and other improvements to South Carolina Highway 5, including the removal and relocation of municipal utilities, between Interstate 85 in Cherokee County, South Carolina and Interstate 77 in York County, South Carolina; $10,000,000 for upgrading Highway 60 in Shannon and Carter counties, Missouri, to four-lane divided highway; $6,400,000 for Hoeven Valley corridor, Sioux City, road, intersection, and rail crossing improvements in Iowa; $20,000,000 for environmental work, design, and construction of the Hoover Dam bypass four-lane bridge; $13,500,000 for construction of, and improvements to, I-15 between milepost 0 and milepost 16, from the Utah border to Deep Creek, Idaho; $10,000,000 for construction of, and improvements to, the I-15 Southbound project, Nevada; $10,000,000 for construction of, and improvements to, I-195 in Rhode Island; $6,400,000 for municipality relocation costs for I-235 in Polk County, Iowa; $12,000,000 for environmental work, preliminary survey and design, and reconstruction of I-35 from Des Moines to Ankeny, Iowa; $36,000,000 for construction, including related activities, of the I-39/US 51/SH 29 corridor (Wausau Beltline) in and around Wausau, Wisconsin; $94,000,000 for construction of, and improvements to, I-49 in the State of Arkansas; $18,400,000 for environmental work, preliminary survey and design of I-69 in Tennessee; $10,000,000 for construction of, and improvements to, the I-80/US 395 interchange, in Reno, Nevada; $2,800,000 for border crossing improvements on I-87, in New York; $8,000,000 for construction of, and improvements to, the I-95 to Transitway access project in Stamford, Connecticut; $4,000,000 for construction of, and improvements to, U.S. Department of Transportation structure numbered 289-961-H at FAS Route 37 in Illinois; $250,000 for improvements at the Rosedale Road and Provinceline Road intersection in the Township of Princeton, New Jersey; $1,200,000 for improvements to County Route 605 in Delaware Township and West Amwell Township Hunterdon County, New Jersey; $2,500,000 for improvements to the Route 9 and Route 520 intersection in Marlboro Township, New Jersey; $5,000,000 for improvements to US 73 from State Avenue North to Marxen Road in Wyandotte County, Kansas; $5,000,000 for installation of sound barriers along the Route 309 Expressway

between Limekiln Pike and State Route 63 in Montgomery County, Pennsylvania; $8,700,000 for construction, including related activities, of a new interchange on I-435 at Donahoo Road in Wyandotte County, Kansas; $15,000,000 for construction of, and improvements to, the intersection at 27th Street and Airport Road in Billings, Montana; $5,000,000 for construction of, and improvements to, Kahuku Bridges, Hawaii; $5,500,000 for construction of, and improvements to, the Kansas Lane Connector Road alignment project in Monroe, Louisiana; $4,000,000 for construction of, and improvements to, Kekaha, Kauai access roads, Hawaii; $10,000,000 for planning, environmental work, and preliminary engineering of highway, pedestrian, vehicular, and bicycle access to the John F. Kennedy Center for the Performing Arts in the District of Columbia; $2,500,000 for construction of, and improvements to, Kihei Road, Hawaii; $10,000,000 for Lafayette Street access improvements from the US 202 Dannehower Bridge to the Pennsylvania Turnpike, including extension of Lafayette Street to the Conshohocken Road, intersection improvements and bridge reconstruction, in Norristown, Pennsylvania; $12,400,000 for widening and overlay/guard rail work on SR 789 between Lander and Hudson, Wyoming; $500,000 for reconstruction of Lewisville Road in Lawrence Township, New Jersey; $3,200,000 for construction of, and improvements to, the Martin Luther King, Jr. Bridge in Toledo, Ohio; $9,300,000 for construction of, and improvements to, the Midtown West intermodal ferry terminal, New York City, New York; $5,000,000 for construction, including related activities, of an extension of Mississippi Highway 44, including a bridge over the Pearl River, in Lawrence County, Mississippi; $13,000,000 for construction of, and improvements to, the Missouri River pedestrian crossing in Omaha, Nebraska; $5,000,000 for the NJCDC Training Facility Project in Paterson, New Jersey; $16,000,000 for construction of, and improvements to, North Shore Road in Swain County, North Carolina; $3,500,000 for construction of, and improvements to, the Norwich, Connecticut intermodal facility project; $1,500,000 for construction of, and improvements to, Padanaram and Little River Road bridge projects in Dartmouth, Massachusetts; $11,000,000 for reconstruction activities on the Potee Street Bridge in Baltimore, Maryland; $250,000 for reconstruction of Institute Street, Lockwood Avenue, First Street, Second Street, Third Street, Ford Avenue, Liberty Street and Bond Street in the Borough of Freehold, New Jersey; $4,200,000 for relocation and related construction activities thereto of MacArthur Boulevard in Oklahoma City, Oklahoma; $1,200,000 for grade crossing eliminations along Route 17 in Chemung County, New York; $4,000,000 for construction of, and improvements to, Route 2 between St. Johnsbury, Vermont and the New Hampshire State Line; $500,000 for improvements to Route 35 at Clinton Avenue and other intersections in the Borough of Eatontown, New Jersey; $500,000 for Route 35 corridor improvements, including signal upgrades, in the Borough of Eatontown, New Jersey; $2,600,000 for construction of, and improvements to, the Niangua Bridge on Route 5 in Camden County, Missouri; $1,000,000 for improvements to Route 641 in Hunterdon County, New Jersey; $25.000,000 for construction, including related activities, of the Route 7 North bypass in Brookfield, Connecticut; $6,000,000 for construction of, and improvements to, the Route 9 Bennington Bypass, Vermont; $5,000,000 for construction of, and improvements to, Saddle Road, Hawaii; $1,200,000 for reconstruction of School Road East in Marlboro Township, New Jersey; $29,000,000 for construction of, and improvements to, a Southeast Connector Route between I-90 and SD 79 in South Dakota; $5,000,000 for improvements, including traffic signal system upgrades, to State Route 99 in

Shoreline, Washington; $500,000 for the Township of Princeton, New Jersey municipal complex road improvements, including improvements to the Valley, Mount Lucas, Terhune and Cherry Hill roadways in the Township of Princeton, New Jersey; $23,600,000 for construction of, and improvements to, US 12 between Aberdeen and I-29 in South Dakota; $40,000,000 for construction of, and improvements to, US 19 in Pinellas County, Florida; $25,000,000 for construction of, and improvements to, US 50 Parkersburg bypass in West Virginia; $10,000,000 for construction of, and improvements to, US 63 in Jonesboro, Arkansas; $5,000,000 for construction of, and improvements to, US 101 in Oregon; $4,000,000 for construction of, and improvements to, US 54 in Kansas; $100,000,000 for construction of, and improvements to, the US 82 bridge over the Mississippi River at Greenville, Mississippi; $10,000,000 for construction of, and improvements to, including widening, of US 95 between Laughlin Cutoff and Railroad Pass, Nevada; $1,000,000 for improvements to the Van Wyck Expressway, Queens County, New York; and $20,000,000 for widening US 53 from two lanes to four lanes from Minnesota Highway 169 north of Virginia, Minnesota to Cook, Minnesota: Provided, That the amounts appropriated in this section shall remain available until expended and shall not be subject to, or computed against, any obligation limitation or contract authority set forth in this Act or any other Act.]

[SEC. 379. (a) Section 412(a) of the Woodrow Wilson Memorial Bridge Authority Act of 1995 (109 Stat. 627; 112 Stat. 159) is amended--
(1) in paragraph (1)--
(A) by striking "There is" and inserting the following:
"(A) HIGHWAY TRUST FUND- There is"; and
(B) by adding at the end the following:
"(B) GENERAL FUND-
"(i) IN GENERAL- In addition to amounts made available under subparagraph (A), there is appropriated to pay the costs described in subparagraph (A) $600,000,000 for fiscal year 2001.
"(ii) CONDITION- Notwithstanding any other provision of law, the additional funds made available by clause (i) shall be made available only when 1 or more of the Capital Region jurisdictions accepts conveyance from the Secretary of all right, title, and interest of the United States in and to the new Bridge.
"(iii) MANNER OF USE- The use of the additional funds made available by clause (i) shall be subject to title 23, United States Code.";
(2) in paragraph (2)--
(A) by striking "Funds" and inserting "Except as provided in paragraph (3), funds"; and
(B) by striking "this section" and inserting "paragraph (1)(A)"; and
(3) by striking "Code; except that–" and inserting the following: "Code.
"(3) CONDITIONS- With respect to funds authorized or appropriated by this section--'.
(b) Section 412 of the Woodrow Wilson Memorial Bridge Authority Act of 1995 (109 Stat 627; 112 Stat. 159) is amended by adding at the end the following:
"(d) LIMITATION ON FEDERAL CONTRIBUTION-

"(1) IN GENERAL- Except as provided in paragraph (2), the aggregate of the amounts made available from the Highway Trust Fund and the general fund of the Treasury under this section shall not exceed $1,500,000,000.
"(2) EXCLUDED AMOUNTS- Amounts made available for the Project under section 110 of title 23, United States Code, shall be excluded from the limitation established by paragraph (1).'.]

DEPARTMENT OF TRANSPORTATION
GENERAL PROVISIONS - - THIS CHAPTER

[SEC. 1102. Item number 630 of the table contained in section 1602 of the Transportation Act for the 21st Century (112 Stat. 280), relating to Buffalo, New York, is amended by striking "Design and construct Outer Harbor Bridge in Buffalo" and inserting "Transportation infrastructure improvements, Inner Harbor/Redevelopment project, Buffalo."]

[SEC. 1103. If the State of Arkansas incorporates into the relocation of U.S. Route 71 through Fort Chaffee, Arkansas, land obtained by the State from the Federal Government as a result of the closure of a military installation, the Secretary of Transportation shall credit to the State share of the cost of the relocation the fair market value of such land.]

[SEC. 1106. Section 1105(c) of the Intermodal Surface Transportation Efficiency Act of 1991 (105 Stat. 2032–2033) is amended by striking paragraph (38) and replacing it with the following—

"(38) The Ports-to-Plains Corridor from Laredo, Texas, via I–27 to Denver, Colorado, shall include:

"(A) In the State of Texas the Ports-to-Plains Corridor shall generally follow—

"(i) I–35 from Laredo to United States Route 83 at Exit 18;

"(ii) United States Route 83 from Exit 18 to Carrizo Springs;

"(iii) United States Route 277 from Carrizo Springs to San Angelo;

"(iv) United States Route 87 from San Angelo to Sterling City;

"(v) From Sterling City to Lamesa, the Corridor shall follow United States Route 87 and, the corridor shall also follow Texas Route 158 from Sterling City to I–20, then via I–20 West to Texas Route 349 and, Texas Route 349 from Midland to Lamesa;

"(vi) United States Route 87 from Lamesa to Lubbock;

"(vii) I–27 from Lubbock to Amarillo; and

"(viii) United States Route 287 from Amarillo to Dumas.

"(B) The corridor designation contained in paragraph (A) shall take effect only if the Texas Transportation Commission has not designated the Ports-to-Plains Corridor in Texas by June 30, 2001."]

[SEC. 1108. Section 5309(m)(3)(C) of Title 49, United States Code shall not apply to the funds made available in the Department of Transportation and Related Agencies Appropriations Act, 2001: Provided, That notwithstanding any other provision of law, the 14th Street Bridge, Virginia; Chouteau Bridge, Jackson County, Missouri; Clement C. Clay Bridge replacement, Morgan/Madison counties, Alabama; Fairfield-Benton-Kennebec River Bridge, Maine; Florida Memorial Bridge, Florida; Historic Woodrow Wilson Bridge, Mississippi; Missisquoi Bay Bridge, Vermont; Oaklawn Bridge, South Pasadena, California; Pearl Harbor Memorial Bridge replacement, Connecticut; Powell County Bridge, Montana; Santa Clara Bridge, Oxnard, California; Star City Bridge, West Virginia; US 231 Bridge over Tennessee River, Alabama; US

54/ US 69 Bridge, Kansas; Waimalu Bridge replacement on I–1, Hawaii; Washington Bridge, Rhode Island are eligible in fiscal year 2001 under section 144(g)(2) of title 23, United States Code: Provided further, That section 378 of Public Law 106–346 is amended by inserting after "US 101" the following: "and Interstate 5 Trade Corridor."]

[SEC. 1109. Notwithstanding any other provision of law, in addition to funds otherwise appropriated in this or any other Act for fiscal year 2001, $4,000,000 is hereby appropriated from the Highway Trust Fund for Commercial Remote Sensing Products and Spatial Information Technologies under section 5113 of Public Law 105–178, as amended: Provided, That such funds are used to study the creation of a new highway right of way south of I–10 along the Mississippi Gulf Coast by relocating the existing railroad right of way out of downtown areas.]

[SEC. 1111. Of the funds made available in the "Alteration of bridges" account of the Department of Transportation and Related Agencies Appropriations Act, 2001 for the Fox River Bridge, $575,000 shall be transferred by the Secretary of Transportation to the City of Oshkosh for removal of the bridge located at mile point 56.9 of the Fox River in Oshkosh, Wisconsin. The United States shall assume no responsibility for project management relating to removal of the bridge.]

[SEC. 1121. Notwithstanding any other provision of law, $2,400,000, to be derived from the Highway Trust Fund, shall be available for planning, development and construction of rural farm-to-market roads in Tulare County, California: Provided, That the nonfederal share of such improvements shall be twenty percent.]

[SEC. 1126. Item number 473 contained in section 1602 of the Transportation Equity Act for the 21st Century (112 Stat. 274), relating to Minnesota, is amended by striking "between I–35W and 24th Avenue to four lanes in Richfield" and inserting "reconstruction project from Penn Avenue to 24th Avenue, including the Penn Avenue Bridge over I–494."]

[SEC. 1128. Notwithstanding any other provision of law, in addition to amounts made available in this Act or any other Act, the following sums shall be made available from the Highway Trust Fund (other than the Mass Transit Account): $1,700,000 for transportation and community preservation projects along the Main Street Corridor in Houston, Texas; $5,000,000 for rehabilitation, repair, and restoration of the historic Stillwater Lift Bridge between Stillwater, Minnesota and Houlton, Wisconsin; $1,000,000 for improvements to McClung Road, Boston Street, Larson Street and Whirlpool Drive in the City of LaPorte, Indiana; and $1,000,000 for design, environmental mitigation, engineering, and construction of, and improvements to, the US 36/Wadsworth interchange (Broomfield interchange) in Broomfield County, Colorado: Provided, That the amounts appropriated in this section shall remain available until expended and shall not be subject to, or computed against, any obligation limitation or contract authority set forth in this or any other Act.]

The following provision(s) related to programs/activities of the Federal Highway Administration are proposed for inclusion with changes as noted:

SEC. [310] *306.* (a) For fiscal year [2001] *2002*, the Secretary of Transportation shall--

(1) not distribute from the obligation limitation for Federal-aid Highways amounts authorized for administrative expenses and programs funded from the administrative takedown authorized by section 104(a) of title 23, United States Code, and paragraph (7) of this section, for the highway use tax evasion program *amounts provided for transportation research programs (under chapter 5 of title 23, United States Code, as amended; section 5505 of title 49, United States Code, as amended; and sections 5112 and 5204-5209 of Public Law 105-178, as amended),* and amounts provided under section 110 of title 23, United States Code, excluding $128,752,000 pursuant to subsection (e) of section 110 of title 23, as amended, and for the Bureau of Transportation Statistics;

(2) not distribute an amount from the obligation limitation for Federal-aid Highways that is equal to the unobligated balance of amounts made available from the Highway Trust Fund (other than the Mass Transit Account) for Federal-aid highways and highway safety programs for the previous fiscal year the funds for which are allocated by the Secretary;

(3) determine the ratio that--

(A) the obligation limitation for Federal-aid Highways less the aggregate of amounts not distributed under paragraphs (1) and (2), bears to

(B) the total of the sums authorized to be appropriated for Federal-aid highways and highway safety construction programs (other than sums authorized to be appropriated for sections set forth in paragraphs (1) through (7) of subsection (b) and sums authorized to be appropriated for section 105 of title 23, United States Code, equal to the amount referred to in subsection (b)(8)) for such fiscal year less the aggregate of the amounts not distributed under paragraph (1) of this subsection;

(4) distribute the obligation limitation for Federal-aid Highways less the aggregate amounts not distributed under paragraphs (1) and (2) of section 117 of title 23, United States Code (relating to high priority projects program), section 201 of the Appalachian Regional Development Act of 1965, the Woodrow Wilson Memorial Bridge Authority Act of 1995, and $2,000,000,000 for such fiscal year under section 105 of title 23, United States Code (relating to minimum guarantee) so that the amount of obligation authority available for each of such sections is equal to the amount determined by multiplying the ratio determined under paragraph (3) by the sums authorized to be appropriated for such section (except in the case of section 105, $2,000,000,000) for such fiscal year;

(5) distribute the obligation limitation provided for Federal-aid Highways less the aggregate amounts not distributed under paragraphs (1) and (2) and amounts distributed under paragraph (4) for each of the programs that are allocated by the Secretary under title 23, United States Code (other than activities to which paragraph (1) applies and programs

to which paragraph (4) applies) by multiplying the ratio determined under paragraph (3) by the sums authorized to be appropriated for such program for such fiscal year;
(6) distribute the obligation limitation provided for Federal-aid Highways less the aggregate amounts not distributed under paragraphs (1) and (2) and amounts distributed under paragraphs (4) and (5) for Federal-aid highways and highway safety construction programs (other than the minimum guarantee program, but only to the extent that amounts apportioned for the minimum guarantee program for such fiscal year exceed $2,639,000,000, and the Appalachian development highway system program) that are apportioned by the Secretary under title 23, United States Code, in the ratio that--

(A) sums authorized to be appropriated for such programs that are apportioned to each State for such fiscal year, bear to

(B) the total of the sums authorized to be appropriated for such programs that are apportioned to all States for such fiscal year; [and]

(7) Notwithstanding any other provision of law, after determining the amount of funds to be allocated to the surface transportation program, to the bridge program, to the congestion mitigation and air quality improvement program, and to the Interstate and National Highway System program, under section 110 of title 23, United States Code, deduct a sum, in an amount not to exceed 1 1/6 percent of the sum made available to each program, to administer the provisions of law to be financed from appropriations for the Federal-aid highways program.

(8) INCREASE IN MOTOR CARRIER FUNDING.

(A) IN GENERAL. - Notwithstanding any other provision of law, whenever an allocation is made of the sums authorized to be appropriated for expenditure on the Federal lands highway program, and whenever an apportionment is made of the sums authorized to be appropriated for expenditure on the surface transportation program, the congestion mitigation and air quality improvement program, the National Highway System, the Interstate maintenance program, the bridge program, the Appalachian development highway system, and the minimum guarantee program, the Secretary of Transportation shall deduct a sum in such amount not to exceed two-thirds of 1 percent of all sums so made available, as the Secretary determines necessary, to administer the provisions of law to be financed from appropriations for motor carrier safety programs and motor carrier safety research. The sum so deducted shall remain available until expended.

(B) EFFECT. - Any deduction by the Secretary of Transportation in accordance with this paragraph shall be deemed to be a deduction under section 104(a)(1)(B) of title 23, United States Code.

(b) Exceptions From Obligation Limitation - The obligation limitation for Federal-aid Highways shall not apply to obligations: (1) under section 125 of title 23, United States Code; (2) under section 147 of the Surface Transportation Assistance Act of 1978; (3) under section 9 of the Federal-Aid Highway Act of 1981; (4) under sections 131(b) and 131(j) of the Surface Transportation Assistance Act of 1982; (5) under sections 149(b) and 149(c) of the Surface Transportation and Uniform Relocation Assistance Act of 1987; (6) under sections 1103 through 1108 of the Intermodal Surface Transportation Efficiency Act of 1991; (7) under section 157 of

title 23, United States Code, as in effect on the day before the date of the enactment of the Transportation Equity Act for the 21st Century; and (8) under section 105 of title 23, United States Code (but, only in an amount equal to $639,000,000 for such fiscal year).

(c) Redistribution of Unused Obligation Authority - Notwithstanding subsection (a), the Secretary shall after August 1 for such fiscal year revise a distribution of the obligation limitation made available under subsection (a) if a State will not obligate the amount distributed during that fiscal year and redistribute sufficient amounts to those States able to obligate amounts in addition to those previously distributed during that fiscal year giving priority to those States having large unobligated balances of funds apportioned under sections 104 and 144 of title 23, United States Code, section 160 (as in effect on the day before the enactment of the Transportation Equity Act for the 21st Century) of title 23, United States Code, and under section 1015 of the Intermodal Surface Transportation Act of 1991 (105 Stat. 1943-1945).

(d) Applicability of Obligation Limitations to Transportation Research Programs - The obligation limitation shall apply to transportation research programs carried out under chapter 5 of title 23, United States Code, except that obligation authority made available for such programs under such limitation shall remain available for a period of 3 fiscal years.

(e) Redistribution of Certain Authorized Funds - Not later than 30 days after the date of the distribution of obligation limitation under subsection (a), the Secretary shall distribute to the States any funds: (1) that are authorized to be appropriated for such fiscal year for Federal-aid highways programs (other than the program under section 160 of title 23, United States Code) and for carrying out subchapter I of chapter 311 of title 49, United States Code, and highway-related programs under chapter 4 of title 23, United States Code; and (2) that the Secretary determines will not be allocated to the States, and will not be available for obligation, in such fiscal year due to the imposition of any obligation limitation for such fiscal year. Such distribution to the States shall be made in the same ratio as the distribution of obligation authority under subsection (a)(6). The funds so distributed shall be available for any purposes described in section 133(b) of title 23, United States Code.

(f) Special Rule - Obligation limitation distributed for a fiscal year under subsection (a)(4) of this section for a section set forth in subsection (a)(4) shall remain available until used and shall be in addition to the amount of any limitation imposed on obligations for Federal-aid highway and highway safety construction programs for future fiscal years.

(g) Notwithstanding Public Law 105-178, as amended, of the funds authorized under section 110 of title 23, United States Code, for fiscal year 2002: $45,000,000 shall be to carry out a pilot program that promotes innovative transportation solutions for people with disabilities; $100,000,000 shall be to carry out a matching grant program to promote access to alternative methods of transportation; and $56,300,000 shall be to carry out a program for state and Federal border infrastructure construction.

SEC. [321] *314*. Funds made available for Alaska or Hawaii ferry boats or ferry terminal facilities pursuant to 49 U.S.C. 5309(m)(2)(B) may be used to construct new vessels and facilities, or to improve existing vessels and facilities, including both the passenger and vehicle-related elements of such vessels and facilities, and for repair facilities[: Provided, That not more than $3,000,000 of the funds made available pursuant to 49 U.S.C. 5309(m)(2)(B) may

be used by the State of Hawaii to initiate and operate a passenger ferryboat services demonstration project to test the viability of different intra-island and inter-island ferry routes].

Sec. [322] *315*. Notwithstanding 31 U.S.C. 3302, funds received by the Bureau of Transportation Statistics from the sale of data products, for necessary expenses incurred pursuant to 49 U.S.C. 111 may be credited to the Federal-aid highways account for the purpose of reimbursing the Bureau for such expenses[: Provided, That such funds shall be subject to the obligation limitation for Federal-aid highways and highway safety construction].

[redacted]

Federal Highway Administration

FY 2002 Performance Plan

and

FY 2000 Performance Report

04/20/01

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Introduction

Connecting America

Our Nation is held together by the most extensive transportation network in history. The highway system connects people to jobs, hospitals, places of worship, cultural and sporting events, national parks, and to family members across the country. It also provides a vital link in our country's economic development and national defense – connecting manufacturers to retailers, farms to markets, military installations to deployment stations and shippers to seaports, airports and railroads.

The Federal Highway Program: Throughout its history, the Federal Highway Administration (FHWA) has met the ongoing challenge of adapting to the changing times. With the Interstate System essentially complete, our focus has turned toward the post-Interstate era. Through the landmark Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and its 1998 successor, the Transportation Equity Act for the 21st Century (TEA-21), our emphasis has been updated to meet the demands of an increasingly urban, mobile, diverse, and prosperous society.

In addition to preserving the taxpayers' investment in the Interstate System, the FHWA is working with its partners in the State transportation departments to improve the larger National Highway System (NHS) of 160,000 miles. The NHS includes the Interstate System and other roads of national importance, such as roads important for national defense and highway connectors to intermodal facilities.

The Federal-Aid Highway Program, begun in 1916, operates today with a budget of nearly $30 billion a year. Our varied funding programs include financial aid for nearly 1 million miles of roadways, as well as bridges, ferries, traffic operations centers, transit, recreational trails, bicycle facilities, pedestrian facilities, scenic byways, and historic transportation facilities. Now State and local officials can select the best mix of projects to address their unique transportation challenges.

We also continue our historic role, dating to the 1910's, of helping Federal land management agencies develop, preserve, and improve transportation access to Federal lands. The Federal Lands Highways Program, authorized at more than $700 million a year, provides planning, design, and construction support for forest highways, parkways, park roads, Indian reservation roads, refuge roads, and other Federal roads.

Transportation research and development is crucial to the future of our highway system. We operate a world-class research laboratory, the Turner-Fairbank Highway Research Center in McLean, Virginia. Working with our public and private partners, the FHWA is identifying research needs, coordinating and conducting studies and, most importantly, sharing results around the world. The objective of our research is to provide better, safer, longer lasting, more environmentally sound, and less costly transportation products.

Introduction

Another important function is more efficient operations though ITS technologies for advanced traffic operations, communications, vehicle detection, and camera technologies to provide real-time travel information. FHWA will expand its emphasis on operations to provide solutions to many of the challenges of the 21st century.

Funding

The Highway Trust Fund: The Federal Highway Trust Fund (HTF) is the principal source of funds for Federal surface transportation programs. Established by the Highway Revenue Act of 1956, and extended periodically through subsequent legislation, the HTF receives revenues from excise taxes on gasoline, diesel, and other motor fuels, as well as several excise taxes related to heavy trucks. The HTF has two accounts: Highway and Mass Transit. The programs of FHWA are supported by the Highway Account.

Program Activity: The Transportation Equity Act for the 21st Century and prior highway authorization acts provide for the apportionment and allocation of funding to the States in the form of contract authority. This allows the FHWA to enter into project agreements with States in advance of appropriations providing for cash reimbursements. The obligation of Federal funds constitutes the Federal government's commitment to pay a State for the Federal share of a project's cost, and occurs when a project is approved and a project agreement is executed. Annual spending is regulated through obligation limitation, which, in simplest terms, says that only a certain percent of each dollar may be spent, or "obligated." This limitation allows Congress to respond to changing budgetary conditions while assuring continuity of the program. Reimbursements, or cash outlays, occur upon request by a State after costs have been incurred.

Introduction

FHWA Vision: Create the best transportation system in the world.

The FHWA, in partnership with the State, local and private transportation communities, is preparing for the future. Our vision is to create the safest, most efficient and effective highway intermodal transportation system in the world for the American people—a transportation system where everyone has access within and beyond their community and to the world; a transportation system where crashes, delays, and congestion are significantly reduced; a transportation system where freight moves easily and at the lowest costs across towns, States, and international borders; a system which does not degrade the human and natural environment; a system that supports our country's national defense mobility; and a system where essential transportation services are restored immediately after disasters and emergencies.

FHWA Mission: We continually improve the quality of our Nation's highway system and its intermodal connections.

We carry out this mission by providing leadership, expertise, resources and information in cooperation with our partners to enhance the country's economic vitality, quality of life, and environment.

Goals

For more than 100 years FHWA has concentrated on building and repairing the highway infrastructure. In the last decade of the 20th Century, FHWA's role expanded dramatically and is now reflected in six strategic goals, Safety, Mobility, Productivity, Human and Natural Environment, National Security, and Organizational Excellence.

Safety: Continually improve highway safety.

Safety on our highways is our top priority. Tragically, more than 41,000 Americans die, and 3.2 million are injured in motor vehicle accidents on our highways each year. As more people travel more miles on the highways and as the demographics of our driving population change, significant improvements in highway safety are essential to continue our progress in reducing highway fatalities and injuries. Safety is a key objective in all our programs and activities.

Mobility: Continually improve the public's access to activities, goods, and services through preservation, improvement, and expansion of the highway transportation system and enhancement of its operations, efficiency, and intermodal connections.

Mobility, as much as any other factor, defines us as a Nation. Almost 90 percent of all personal transportation takes place on highways. It connects people with work, school, community services, marketplaces, and each other. By connecting air, transit, rail, and port facilities and terminals, highways are the backbone of the Nation's intermodal transportation system.

Introduction

Through this goal, we provide national leadership for continually improving the quality of our infrastructure and its operations. We research longer-life pavements, build more environmentally-friendly facilities, and use better techniques for reconstructing highways that minimize delays and maximize the capacity of our existing highways by improving operations of existing facilities.

Productivity: Continuously improve the economic efficiency of the Nation's transportation system to enhance America's position in the global economy.

Transportation accounts for nearly 11 percent of our Nation's gross domestic product. In our increasingly intermodal transportation network, highways are crucial in almost all freight movements, serving as connectors to water, rail, and air facilities. Approximately 70 percent of all freight is transported over our highways.

Despite the fact that the United States has one of the best long-distance highway networks, capacity problems, especially in large urban areas, are reaching critical proportions. At an average hourly operating cost of $40 to $60 for long-haul vehicle operations, disruptions can be costly to carriers and shippers— and ultimately, to the consumer.

Human and Natural Environment: Protect and enhance the natural environment and communities affected by highway transportation.

Transportation has major effects on our quality of life—where we choose to live and how we get to jobs, services, shopping, and recreation. FHWA enhances the community and social benefits of transportation by supporting welfare-to-work, mobility for people with low incomes, and accessibility for people with disabilities. FHWA also helps reduce the adverse effects of transportation on the natural environment by protecting wetlands, air quality, water quality, endangered species, and habitat.

National Security: Improve the Nation's national defense mobility.

The FHWA is committed to improving the Nation's national defense mobility by improving the capacity and operation of the highway system. Highways are critical links for mobilizing and deploying military forces from U.S. bases to railheads, seaports, and airports.

Sometimes, an emergency or destruction by natural disaster goes beyond local and State capabilities. In these situations, the Federal Government is called upon to help. The Federal Government provides State and local governments with personnel, technical expertise, equipment, and other resources.

Introduction

Organizational Excellence: Advance FHWA's ability to manage for results and innovation.

FHWA's Corporate Management Strategies (CMS) serve as internal guidance designed to enable us to effectively achieve all our strategic goals. Our CMS are based on the private sector's Malcolm Baldrige National Quality Award Criteria. These criteria are the international standards of excellence and provide a systematic means of measuring performance. It is our CMS that guide us in the continual improvement of our organization.

Our goals are fully aligned with DOT's strategic goals, and our progress in achieving them will contribute to the overall transportation goals of the Nation.

Safety

Strategic Goal: Continually improve highway safety.

To achieve our Safety Strategic Goal, FHWA will pursue the Strategic Objective below and measure our success through the following Performance Goals and Performance Measures.

Strategic Objective: Reduce the number of highway-related crashes and their consequences (fatalities and injuries).

Performance Goal: Reduce the rate and number of highway-related fatalities and injuries. In FY 2002, FHWA's goal is to reduce the rate of highway-related fatalities to 1.4 per 100 million vehicle miles traveled and reduce the rate of injuries to 111 per 100 million vehicle miles traveled.

Performance Measures:

1. The number of highway-related fatalities
2. The number of highway-related fatalities per 100 million vehicle miles traveled
3. The number of highway-related injuries
4. The number of highway-related injuries per 100 million vehicle miles traveled

Safety

Strategic Objective: Reduce the number of highway-related crashes and their consequences (fatalities and injuries).

Fatalities and Injuries

Highway-related crashes, injuries, and fatalities take a heavy personal toll on American families and cost the Nation's economy more than $150 billion annually. Over 41,000 Americans died in 1999 and over 3.2 million were injured as a result of motor vehicle crashes.

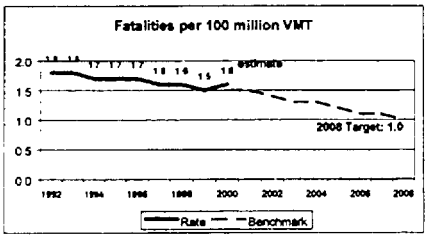
Performance Goal: Reduce the rate and number of highway-related fatalities and injuries. In FY 2002, FHWA's goal is to reduce the rate of highway-related fatalities to 1.4 per 100 million vehicle miles traveled and reduce the rate of injuries to 111 per 100 million vehicle miles traveled. These fatality and injury rate reduction performance goals are shared with the National Highway Traffic Safety Administration (NHTSA).

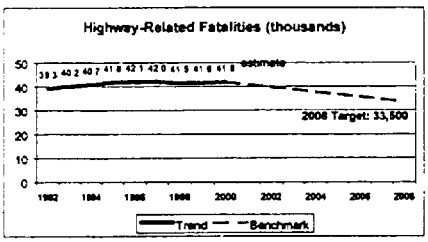
In seeking to achieve the overall U.S. DOT goal regarding numbers of fatalities and injuries by the year 2008 [33,500 and 2,809,000, respectively], we are setting an FY 2002 benchmark of reducing the number of highway fatalities to 38,907 and reducing the number of highway injuries to 3.09 million.

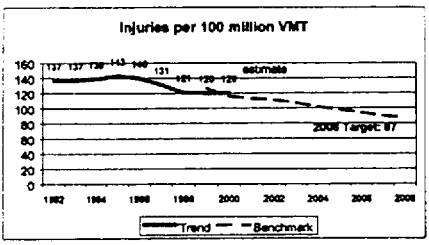
Performance Measures and Benchmarks:

- Highway-related Fatalities per 100 million VMT
- Number of Highway-related Fatalities
- Highway-related Injuries per 100 million VMT
- Number of Highway-related Injuries (millions)

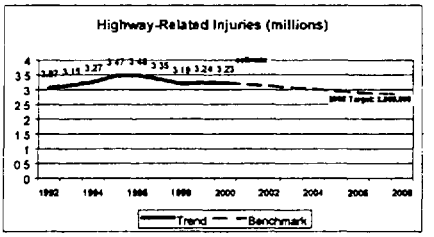
External Factors: Vehicle travel is expected to grow at approximately 2 percent per year. Fluctuations in VMT, as happened in 200 when VMT did not grow, will affect fatality and injury rates. Lane mileage has increased less than ½ of 1-percent per year in recent years, which means more and larger vehicles will be competing for limited road space. In addition, the highest risk population groups—







older drivers and drivers aged 15 to 24—will grow at faster rates than the overall population. In response to these and other external factors, FHWA works with other organizations such as NHTSA and the National Association of Governors' Highway Safety Representatives (NAGHSR) to assure that a comprehensive approach to highway traffic safety is taken at the National, State, and local levels.



2000 Results: Based on preliminary estimates (as of March 2002), DOT met neither the highway fatality nor injury rate target. The estimated 41,800 fatalities in 2000 increased slightly (0.5%) from the 1999 total of 41,611.

This creates a challenging situation for FHWA and other modal agencies within the U.S. DOT, as we continue to focus on programs and policies that can further drive these unacceptable numbers downward.

Congress passed legislation to transfer FHWA's motor-carrier safety functions to the Federal Motor Carrier Safety Administration (FMCSA) as of January 1, 2000. As a result, FHWA no longer tracks indicators specific to large truck safety. We will continue to work closely with the FMCSA. Our efforts to reduce the occurrence and mitigate the consequences of crashes benefit all highway users.

FY 2001 Performance Plan Evaluation: As stated in the "2000 Results" section, long-term reductions in fatalities and injuries appear to be leveling off. This situation presents serious challenges to achieving continuing progress in improving highway safety, and FHWA is responding aggressively through advancing programs that address leading causes of fatalities and injuries. For FY 2001, FHWA is directing resources to the focus areas of run-off-road crashes, speed-related crashes, intersection crashes, and pedestrian / bicyclist crashes. Further, in cooperation with the NHTSA, FHWA will also continue to support programs to increase seat belt use and reduce alcohol-impaired driving. In delivering these programs, FHWA will continue to work with the States to identify State-level opportunities to influence the National trends.

Strategies and Initiatives to Achieve 2002 Goal: As pointed out above, FHWA and U.S. DOT share a challenging task in advancing our highway safety objectives. While we should recognize the reductions in rates of fatalities and injuries to which U.S. DOT programs have contributed, the safety community needs to intensify its focus on problem areas and efforts to

pursue appropriate countermeasures. To further reduce crashes, injuries, and fatalities, attention must be placed on target crash types that most affect fatalities and injuries.

To carry this approach forward, FHWA will focus on a set of infrastructure and operations topics that most affect fatalities on America's roadways. This is part of a comprehensive approach in which NHTSA focuses attention on issues such as driver training, prevention of impaired driving, and increasing the use of seat belts, and FMCSA carries out programs aimed at commercial motor carriers and drivers. In many of these areas, FHWA works in close partnership with NHTSA, NAGHSR, the American Association of State Highway and Transportation Officials (AASHTO), and the National Association of County Engineers (NACE). For each of these topics, we seek to expand implementation of proven countermeasures and to develop and improve products which use advanced technology. We are actively investigating Intelligent Transportation Systems (ITS) technologies, including Intelligent Vehicle Initiative (IVI) elements, and deploying these products where appropriate.

The focus areas that FHWA will concentrate on include:

Single-Vehicle Run-off-the-Road (ROR) Crashes - Typically caused by inattention, drowsiness, or avoidance maneuvers, ROR crashes are a contributing cause for 38% of fatalities. FHWA's two-pronged approach will concentrate efforts on both keeping vehicles within the roadway travel lane and minimizing harmful effects when vehicles do leave the roadway. Major initiatives relating to ROR crashes include improving pavement skid resistance, increasing the visibility of signs and pavement markings, increasing the use of rumble strips (where appropriate), upgrading roadside safety hardware (i.e., guardrail, crash barriers), improving design practices, and mitigating effects of utility poles and other roadside hazards.

Intersections - Extensive work will be devoted to development of a comprehensive program to address crashes at or near intersections, which account for 23% of fatalities. Significant efforts in areas such as red-light-running, road safety audits, and intersection design are underway, and significant increases to address this overall issue are planned. In addition, intersection safety benefits from several related initiatives, such as speed management and pedestrian-oriented efforts, which are being undertaken jointly between FHWA and NHTSA.

ITS/IVI products and technologies that hold strong promise to address intersection crashes are under development.

Speed-Related Crashes - Speed contributes to 30% of fatalities, and FHWA and NHTSA work together on a comprehensive Speed Management Team. FHWA's activities will be focused in two main areas: 1) Promotion of variable speed limits, which use ITS tools for gathering speed and volume, weather, and road surface information to determine appropriate speeds at which drivers should be traveling given current conditions, and 2) Promotion of

reasonable and safe posted (static) speed limits that are enforceable and accepted by the driving public as being set on a rational basis. We also conduct outreach to both the technical audience and the general public on speeding and its implications.

Pedestrian / Bicycle Safety - The U.S. DOT supports making the Nation's roads safer for all road users, including bicyclists and pedestrians, who account for 13% of fatalities. FHWA and NHTSA will work with our partners to increase safe walking and bicycling by focusing on integrating pedestrian and bicyclist issues in the planning and design of facilities, researching and developing comprehensive countermeasures and appropriate tools and technologies, and implementing key recommendations from experts. FHWA will continue efforts to provide engineering and ITS approaches to increase the safety of bicyclists and pedestrians and accelerate the deployment of processes, tools and technologies to the State and local communities through showcasing, operational tests and evaluations, and public outreach campaigns.

In addition to the four priority topic areas above which address specific crash types, FHWA will advance initiatives which improve overall safety design and management processes through efforts including:

- Promoting Safety Management Processes - FHWA will facilitate the implementation of comprehensive safety management processes with Federal, State and local governments, Federal Land Management Agencies, Metropolitan Planning Organizations, and the commercial transportation industry.
- Safety in the Planning Process – Incorporating safety within State and local planning and programming processes was a required element of TEA-21, and FHWA is actively developing guidance on best practices and information on analysis tools that can be easily used by the planning community. These efforts will continue and advance in FY 2002.
- Safety Data and Analysis Systems – FHWA will work with our partners and stakeholders to develop information and analysis systems to better identify the causes of crashes and aid in the development of countermeasure designs that will reduce the number and severity of crashes. To aid in our internal development of "high-payoff" programs, we will investigate development of performance measures for each of the crash-type focus areas, so that we can determine our success in addressing these issues on a continuing basis.
- Advancement of Intelligent Transportation System (ITS) and other Advanced Technologies – The FHWA's long-term strategy is to approach highway safety improvements in a systematic manner that considers technology and human factors issues. Advances in ITS technologies, along with continued safety improvements to the overall roadway environment, will be a key part of safety initiatives.
- Focusing on Outreach and Partnerships – FHWA continues to advance our outreach and partnerships with others throughout the highway safety community to ensure that a comprehensive approach is taken in our efforts to reduce fatalities and injuries.

Safety

Other Federal programs with common outcomes: Within the U.S. DOT, FHWA works closely with NHTSA and FMCSA toward the common objectives of reducing highway crashes, fatalities, and injuries. To both support these objectives and carry out highway safety efforts throughout the Federal government, FHWA also coordinates with a number of non-U.S. DOT agencies. These agencies include the:

- National Academy of Sciences: The NAS, usually through the Transportation Research Board (TRB), supports key program areas through the creation of expert panels and committees that provide essential perspective and advice.
- National Transportation Safety Board: The NTSB helps identify infrastructure enhancements to improve highway safety, and provides recommendations on program improvements.
- Department of the Interior: As the highway system provider for the National Park Service and Bureau of Indian Affairs, FHWA coordinates safety improvement for National Park and Native American Government roadway systems.

Program Evaluation: In FY 2001, FHWA will evaluate selected highway safety improvement programs using a combination of longitudinal and cross sectional methodologies and benefit/cost analysis.

Mobility

Strategic Goal: Continually improve the public's access to activities, goods, and services through preservation, improvement, and expansion of the highway transportation system and the enhancement of its operations, efficiency, and intermodal connections.

To achieve our Mobility Strategic Goal, FHWA will pursue the Strategic Objectives below and measure our success through the following Performance Goals and Performance Measures.

Strategic Objective 1: Preserve and enhance the infrastructure of Federal-aid highways with emphasis on the NHS.

Performance Goal: In FY 2002, improve the condition of the National Highway System, NHS, to increase the percent of vehicle miles traveled on NHS pavements with acceptable ride quality (International Roughness Index (IRI) ≤ 170 in/mi) to 92 percent.

Performance Measure:
Percentage of vehicle miles traveled on NHS pavements with acceptable ride quality (IRI ≤ 170 in/mi)

Performance Goal: In FY 2002, improve the condition of NHS and non-NHS bridges taking into account deck area and ADT. (Improve NHS deficient bridges' deck area to 28.9 percent; and improve non-NHS bridges' deficient deck to 31.2 percent.)

Performance Measures:
1. Percentage of NHS Bridges' deck area classified as deficient for all ADT (structurally deficient or functionally obsolete)
2. Percentage of Non-NHS Bridges' deck area classified as deficient for all ADT (structurally deficient or functionally obsolete)

Performance Goal: In FY 2002, increase overall user satisfaction with the Nation's highway systems to 70 percent.

Performance Measure:
Percent overall user satisfaction with the Nation's highway systems

Strategic Objective 2: Improve the operation of the highway systems and intermodal linkages to increase transportation access for all people and commodities.

Performance Goal: Increase user satisfaction with the Nation's intermodal linkages.

Performance Measure:
Percent user satisfaction with the Nation's intermodal linkages.

Performance Goal: In FY 2002, slow the projected growth of congested travel from 33.9% to 33.7%, slow the projected growth of travel time from 27.6% to 27.2% and slow the projected growth of traveler delay from 34.5 hours to 34.0 hours. (Note: This goal is also contained within the Productivity goal area, page P-2.)

Performance Measures
The projected growth of congested travel.
The projected growth of travel time.
The projected growth of traveler delay.

Performance Goal: Increase system reliability

Performance Measure
FHWA is developing measures that address on-time arrival and include different travel time factors needed to derive acceptable reliability thresholds based on real-time data collection.

Mobility

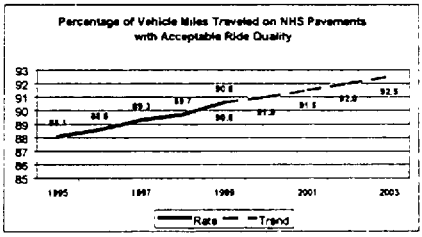
Strategic Objective: Preserve and enhance the infrastructure of Federal-aid highways with emphasis on the NHS.

Pavement Condition

The National Highway System (NHS) consists of only 161,117 miles of rural and urban roads—just 4 percent of total highway miles—but carries 1 trillion or 43 percent of vehicle miles traveled (VMT). The system serves major population centers, international border crossings, intermodal transportation facilities and major travel destinations. The condition of this system can affect wear-and-tear on vehicles, fuel consumption, travel time, congestion and comfort, as well as public safety. Improving the pavement condition is also important to the long-term structural integrity and cost effectiveness of the transportation system.

Performance Goal: In 2000 the performance goal of 93 percent of the NHS pavements with acceptable ride quality (IRI ≤ 170 in/mi) was met. The performance goal for pavement condition has been revised to more closely address mobility. NHS condition is now being evaluated in light of the vehicle miles traveled on the pavement. In FY 2002, our goal is to improve the condition of the NHS, to increase the percent of vehicle miles traveled on pavements with acceptable ride quality (IRI ≤ 170 in/mi) to 92 percent.

Performance Measure/Target: Percentage of vehicle miles traveled on NHS pavements with acceptable ride quality (IRI ≤ 170 in/mi), in 2002 – 92 % in 2008 – 95%.



External Factors: Growth in the U.S. economy has translated into over 2% annual growth in VMT. While this level of growth did not occur in 2000, it is too soon to tell if this is a change in the trend. In addition, industry's demand for heavier and longer trucks has increased pavement deterioration. A significant proportion of the NHS is over 20 years old and nearly all of the system was designed to sustain loadings that have been exceeded for some time.

2000 Results: 1999 data for NHS pavement condition showed 93.0 percent of the pavements had acceptable ride quality. Since this met the goal set for FY 2008, a team was charged with assessing the performance goal. The revised goal is designed to more accurately reflect mobility by including the percent of vehicle miles traveled on NHS pavements with acceptable ride quality (IRI ≤ 170 in/mi).

The focus of this measure of pavement performance is smoothness. Adopting more effective construction and maintenance methods and applying "best practices" in pavement management can improve pavement smoothness. In 1999, FHWA began a Pavement Smoothness Initiative to get the results of Research and Development and "best practices" in pavement construction and management to State DOTs and others involved in the construction and maintenance of highways. Pavement smoothness packages for both asphalt

and Portland Cement Concrete pavements have been prepared. More than 3000 copies were distributed nationwide. These packages include videotapes by volunteer celebrity spokespersons Richard Petty, for asphalt pavements, and John Madden, for concrete pavements. Over 40 workshops were held to promote smoother pavement construction. Model specifications have been developed to assist State departments of transportation in improving pavement construction practices.

FHWA is also promoting pavement preservation nationwide. This initiative will result in improved pavement smoothness, extended pavement life, and reduced life cycle cost. Efforts are also underway to promote pavement preservation practices to extend pavement life and improve condition. Work is also underway with the States to improve pavement condition measurement practices and equipment. This effort will increase the reliability of the data on which decisions on for pavement preservation and rehabilitation are based.

FY 2001 Performance Plan Evaluation: Due to the significant increase in investment in pavement preservation and rehabilitation from the increased funding made available in TEA-21, and efforts to improve pavement condition, the ride quality of NHS pavements has improved faster than anticipated allowing us to reach 93% of the NHS with acceptable ride quality in 1999.

A revised goal has been established. To better recognize customer focus, the revisions address users in addition to pavement condition by incorporating vehicle miles traveled on NHS pavements into the goal. In addition to reducing the mileage of the NHS with unacceptable ride quality, the revised plan also increases good ride quality pavements (IRI < 95 in/mi).

Strategies and Initiatives to Achieve 2002 Goal: FHWA partners with State and other authorities to promote infrastructure development and improvement through direct funding, grants, and technical assistance and advances in construction, rehabilitation, maintenance, preservation, materials and management technology. FHWA technology deployment initiatives, in partnership with the States and industry, ensure advancements in pavement practices and high performance materials are adopted to improve the performance of NHS pavements. Initiatives to promote construction of smoother, longer lasting pavements and preservation that extends pavement performance will be continued. Innovations will be developed and delivered as they become available.

- The FHWA Federal-aid Program provides funds for projects that improve NHS pavement condition through rehabilitation and pavement preservation. Most of the funding for these projects comes from the NHS and Interstate Maintenance (IM) programs. Over $5.5 billion in NHS funds and over $4.6 billion in IM funds will be obligated in FY 2001.
- The FHWA asphalt pavement technology program is optimizing materials selection to maximize the cost-benefits ratio associated with pavement design and construction. This program is funded at $4.5 million in 2001. Benefits include reduced maintenance, better ride quality, increased pavement life and reduced life cycle cost.

Mobility

- Results from evaluation of the effectiveness of using the Superpave system will be shared with States and industry to promote the continued use and development of the system.
- In cooperation with Division Offices an evaluation of the resources needed to achieve these revised goals will be undertaken. In addition an implementation strategy will be developed to assist Divisions in evaluation of NHS pavement condition in their State and in working with the DOT to frame a local strategy for improving pavement condition by addressing unacceptable ride quality sections as well as increasing percentages of good ride quality (IRI = < 95 in/mi) pavements.
- FHWA will conduct pavement research and development, other than SUPERPAVE, ($16 million) and continue the Long Term Pavement Performance Program (LTPP) ($10 million). Planned activities include: (1) improved concrete pavement for highways, (2) use of LTPP performance data to develop new pavement design and evaluation tools (3) improved technology for specifying, measuring and constructing enhanced pavement ride quality and smoothness, and (4) investigating new techniques to analyze, image and simulate asphalt pavements to identify quality and predict performance.
- FHWA, in cooperation with the States and the Industry, will continue to promote and publicize the results of the Pavement Smoothness Initiatives. Presentations will be made at regional and national meetings. Videotape presentations have been produced. A promotional display has been prepared promoting the benefits of smoother pavements and best practices for building and preserving them. The display will be used to aid in promoting these practices at technology fairs, State paving conferences, and trade shows.
- Efforts will be pursued with profile measuring equipment manufacturers to offer equipment for measuring pavement smoothness using the recommended protocols at reduced prices to encourage equipment upgrades and adoption of recommended protocols.
- In 2002 FHWA through its Division Offices will work with State DOT's to improve the quality of the pavement condition data collected.
- In conjunction with the States and industry FHWA will work to implement a program of extending pavement life. This activity will advance to practice the concept of the 50-year pavement system.

Other Federal Programs with Common Outcomes: None.

Mobility

Strategic Objective: Preserve and enhance the infrastructure of Federal-aid highways with emphasis on the NHS.

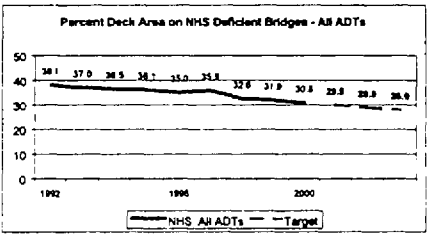
Bridge Condition

Deficient bridges impair the public's access to activities, goods and services. The National Highway System (NHS) includes approximately 114,000 bridges serving major population centers, international border crossings, intermodal transportation facilities and major travel destinations. Approximately 30.8 percent of the deck area on these bridges (for all average daily traffic (ADT)) is either structurally deficient or functionally obsolete (in terms of dimensions, load, or other characteristics). Of the approximately 472,000 non-NHS bridges identified in the National Bridge Inventory (NBI), 32.6 percent of the deck area (for all ADT) is considered to be deficient.

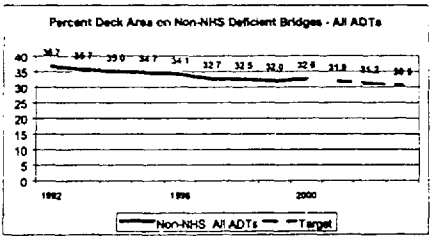
Performance Goal and Result: In FY 2002, improve the condition of NHS and non-NHS bridges taking into account deck area and ADT. (Improve NHS deficient bridges' deck area to 28.9 percent; and improve non-NHS bridges' deficient deck to 31.2 percent.)

Please see specific targets for FY 2002 by specific ADT breakdowns under the section "Strategies and Initiatives to achieve 2002 Goal"

Performance Measure/Target: Percentage of NHS Bridges' deck area classified as deficient for all ADT (structurally deficient or functionally obsolete)



Percentage of non-NHS Bridges' deck area classified as deficient for all ADT (structurally deficient or functionally obsolete)



External Factors: Growth in the U.S. economy has translated into over 2% annual growth in vehicle miles traveled, increasing the stress on bridges. While this level of growth did not occur in 2000, it is too soon to tell if this is a change in the trend. In addition, increases in truck traffic and the aging of our infrastructure contribute to the deficiencies in our Nation's bridges.

2000 Results: According to our 2000 NBI data, the percentage of deficient NHS bridges was 21.5%, exceeding the FY 2000 target of 22.5%. This 1.5% decrease between 1999 and 2000 is primarily due to improved data collection for the NHS. Prior to 1995, NHS data was collected based upon FHWA's best estimate, by functional classification, of the number of bridges located on the NHS. In 1995 a data item was added to the NBI, which tracked the

NHS bridges. The new data item was fully populated by the States in the year 2000 NBI submittal. This resulted in a more accurate tracking of the NHS bridges. As a result of the improved accuracy of our data, the actual number of NHS bridges decreased significantly. Because it was apparent we would be accomplishing our original target early, FHWA began to determine a revised goal that more directly relates to mobility.

FY 2001 Performance Plan Evaluation: Based on program performance in FY 2000, the targets established for FY 2001 of improving the condition of the nation's bridges will need to be adjusted to reflect the improved data in the NBI. In addition the FHWA is reviewing this particular performance goal and measure to assure that we are on track and measuring the right indicator in regards to the nation's mobility.

Strategies and Initiatives to Achieve 2002 Goal: A primary strategy for FY 2002 will be to obtain buy-in from all the Division Offices and Resource Centers, customers, stakeholders and partners for this new performance goal and measure. This will be done through information provided from the Office of Bridge Technology to our Divisions/Resource Centers; briefings to AASHTO and our partners and simple explanations of the validity of the new measure relative to the way projects are planned. FHWA's division offices will need to become more familiar with their NBI data in regards to its implications for mobility. The Office of Bridge Technology and the Turner Fairbank Highway Research Center will be providing detailed analyses of the NBI data for each State. Strategies and initiatives will be devised to work with the States on improving the condition of bridges that most heavily impact the mobility of the American public. The following national targets have been set to improve the condition of NHS and non-NHS bridges taking into account ADT:

(1) On NHS routes with an ADT more than 50,000, improve deficient bridges' deck area from 44.5% in 1998 to 27.4% by 2008. The target for 2002 is 38.4%.

(2) On NHS routes with an ADT of zero to 50,000, improve deficient bridges' deck area from 29.1% in 1998 to 20.8% by 2008. The target for 2002 is 25.3%.

(3) On non-NHS routes with an ADT more than 10,000, improve deficient bridges' deck area from 47% in 1998 to 32.1 by 2008. The target for 2002 is 41.3.%

(4) On non-NHS routes with an ADT of zero to 10,000, improve deficient bridges' deck area from 29.9% in 1998 to 25.5% by 2008. The target for 2002 is 28.2%.

FHWA will continue to provide technical assistance and funding to States for bridge replacement and rehabilitation. In addition, all regulations and policies pertaining to the bridge programs will be reviewed and recommendations provided, where feasible, to increase flexibility in the use of bridge funds for system preservation and bridge management system initiatives. FHWA will work with States and other partners in both the public and private sector to improve management of bridge assets. FHWA will focus research on improving the technology of bridge construction, repair and maintenance. FHWA technology deployment initiatives will support the adoption of advancements in high performance materials and seismic retrofit techniques that improve the performance of bridges.

Mobility

- The FHWA Federal-aid Highway programs provide funds for projects that improve the condition of NHS and non-NHS bridges. Through the Highway Bridge Replacement and Rehabilitation Program, $3.5 billion will be provided in FY 2002.
- The Surface Transportation Research program provides durable structural materials, nondestructive evaluation technologies for condition assessment in support of bridge management and technical assistance, all of which lead to extended bridge service life. A total of $9.4 million is requested for these activities in FY 2002.
- Innovative bridge research supports the deployment of innovative materials which are more durable and resistant to traffic loads and corrosive attack, resulting in less maintenance and traffic restriction. The FY 2002 innovative bridge construction program, funded at $21 million, demonstrates the application of innovative materials on selected bridges.

Other Federal Programs with Common Outcomes: None.

Mobility

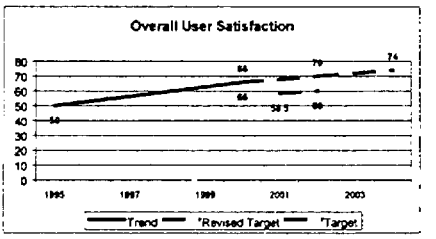
Strategic Objective: Preserve and enhance the infrastructure of Federal-aid highways with emphasis on the NHS.

User Satisfaction

FHWA is committed to excellence in service to its customers and partners. It is important to understand highway users' perceptions of how well highways, as part of the Nation's intermodal transportation system, meet their needs.

Performance Goal: In FY 2002, increase overall user satisfaction with the Nation's highway systems to 70%.

Performance Measure/Target: Percent user satisfaction with the Nation's highway systems.



2000 Results: The level for overall Highway User Satisfaction increased from 50% to 66%, according to the Bureau of Transportation Statistics Omnibus Survey. The top 3 stated priorities for improvement based on the 1995 and 2000 survey are shown in the chart below:

Top Factors for Improvement	1995 Survey	2000 Survey
• Safety	58 %	72 %
• Pavement Condition	48 %	58 %
• Traffic Flow	47 %	44 %

FY 2001 Performance Plan Evaluation: No changes are proposed at this time, with the exception of possibly using two identical questions on Overall Satisfaction in 2002 Survey (one question to be asked at the beginning of each interview and the follow-up question to be asked at the end of the interview).

Strategies and Initiatives to Achieve 2002 Goal:

- 2002 Satisfaction Survey
- Satisfaction Improvement Initiatives. These initiatives could include workshops, best-practices guides, community-of-practice websites, training courses, AASHTO and Industry involvement, National Partnership for Highway Quality involvement, etc. Focus areas include:
  - Congestion (Traffic Flow)
  - Work Zone Operations,
  - Pavement Conditions
  - Community Oriented Improvements
  - Maintenance Response Time

Mobility

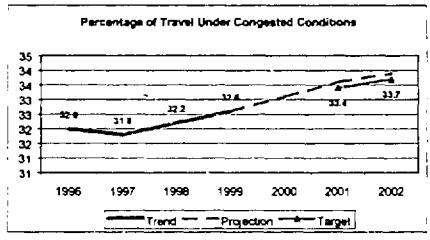
Strategic Objective: Improve the operation of the highway systems and intermodal linkages to increase transportation access for all people and commodities.

Congestion and Delay

Congestion is a problem. Over the last two decades, the amount of travel has grown at almost the same rate as our economy – 140% in the 80's and 147% in the 90's. Growth in roadway capacity however has almost flat-lined at a meager 0.3% a year in the last decade. The costs of congestion are adding up. In 1997, the individual cost of congestion in metropolitan areas exceeded $900 per driver, resulting in over $72 billion in lost wages and wasted fuel. In the near-term, the FHWA will focus on improved, active and real-time operations of the existing transportation system (including accommodations for non-motorized users), which can result in short-term reduction in travel time and delay of between 10-30% depending on a variety of local conditions.

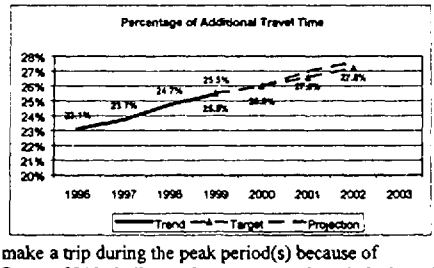
Performance Goal: In FY 2002, slow the projected growth of congested travel from 33.9% to 33.7%, slow the projected growth of travel time from 27.6% to 27.2% and slow the projected growth of traveler delay from 34.5 hours to 34.0 hours.

Performance Measure/Target: The projected growth of congested travel.



Understanding the Table: The percentage of congested travel measures undesirable traffic congestion. For instance, the 1996 figure tells us 32% of daily travel occurred under congested conditions. Our goal is to slow the growth of congested travel by 0.2% each year. Based on historical trends coupled with a preliminary analysis of 2000 data, we project the rate of increase will be 0.5% per year for 2000-2002. The 2002 target is based upon meeting the 2001 target.

Performance Measure/Target The projected growth of travel time.

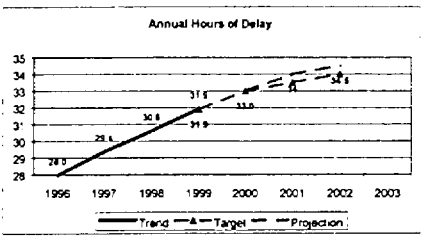


Understanding the Table: The Travel Time Measure addresses the following question – "How much longer does it take me to travel during congested conditions?" The measure focuses on the additional travel time necessary for an individual to make a trip during the peak period(s) because of congestion. For instance, the 1996 figure of 23% indicates the average peak period trip took

Mobility

23% longer than the same trip in uncongested conditions. Put simply, a 30-minute trip traveling at the posted speed limit(s) in uncongested conditions becomes 36.9 minutes due to congestion. Our goal is to slow the growth of travel time by 0.4% each year. Based on historical trends coupled with a preliminary analysis of 2000 data, we project the rate of increase will be 1% per year for 2000-2002. The 2002 target is based upon meeting the 2001 target.

Performance Measure/Target
The projected growth of traveler delay



Understanding the Table:
The graph identifies the average number of hours drivers are stuck in traffic per year. The hours of delay reflect congestion, work zones, incidents and accidents. From 1996, delay increased approximately 1-hour per year. Our goal is to slow the growth of delay time by 30-minutes each year. Based on historical trends coupled with a preliminary analysis of 2000 data, we project the rate of increase will be 1 hour per year for 2000-2002. The 2002 target is based upon meeting the 2001 target.

2000 Results: In the FY 2000 Performance Plan, we used hours of delay per 1,000 vehicle miles traveled (VMT) to measure this goal. This metric attempted to provide a system-wide measure of congestion. However, it represented only one dimension of congestion – delay -- and did not effectively reflect the actual performance of the highway system in places where congestion regularly happens, i.e., the measure showed delay decreasing when in fact congestion was worsening. Moreover, the measure was difficult to interpret by the general public. Based on discussions with our partners and customers, we replaced this indicator with three new measures: Congested Travel, Travel Time, and Traveler Delay. Together, these new indicators will reflect changing travel conditions more comprehensively by focusing on three different aspects of inefficient road performance in a broad collection of urban areas across the nation where congestion regularly occurs. The data supporting the three new measures stem from the Highway Performance Monitoring System (HPMS). The availability of the data is approximately 9 months from the base year, e.g., 2001 actual numbers will not be available from HPMS until Sep/Oct 2002.

In addition to the above efforts, the Federal Highway Administration (FHWA) conducted surveys asking the American public about travel and transportation on the nation's roads. The findings offered many valuable insights across a broad range of topics, e.g., congestion. The results of the survey are located at: http://www.fhwa.dot.gov/reports/movingahead.htm.

Mobility

External Factors: A variety of State, local county and special district stakeholders control the decisions to deploy ITS—a key strategy for supporting the mobility goal. On January 8, 2001, a Federal Highway Administration regulation and a Federal Transit Administration were published in the Federal Register. Implementing the regulation and policy will help foster integration of these independent deployments by requiring development of regional ITS architectures. This will help minimize stovepipe deployments that would otherwise compromise the potential benefits of integrated deployments.

FY 2001 Performance Plan Evaluation: Despite the long-term trend of increasing vehicle miles traveled (the 2000 slowdown notwithstanding), we project the intervention of numerous operational programs and strategies will help slow the growth of travel time and delay for our customers. We will monitor our progress through the use of the Highway Performance Monitoring System and Texas Transportation Institute's reporting mechanisms on mobility.

Strategies and Initiatives to Achieve 2002 Goal: Our Strategies and Initiatives work together to support all of the goals and measures under the Strategic Objective "Improve the operation and efficiency of existing surface transportation system." For a description, see "Strategies and Initiatives" under the "User Satisfaction" measure.

Other Federal Programs with Common Outcomes: None.

Mobility

Strategic Objective: Improve the operation of the highway systems and intermodal linkages to increase transportation access for all people and commodities.

System Reliability

Although congestion may never be eliminated by operations in the long term, real-time, 24/7 management of the system, with complete information about system conditions given to citizens, can substantially improve reliability and users' ability to plan for "just-in-time" delivery/arrival of people and goods. This is critical when we consider the United States' role in the global economy. Therefore, we will continue to monitor the performance measures listed below while we concurrently develop the ability to collect data for and measure system reliability. A reliability measure depends on continuous (minute by minute) measurement of system speeds which is only possible with automated instrumentation. As the ITS network is put in place, reliability will become a key barometer of this strategic goal.

Performance Goal: Increase system reliability

The FHWA is working with the Texas Transportation Institute in developing reliability measures. In 2001, ten cities were identified with sufficient instrumentation to permit the development of candidate reliability measure(s). We are assessing the following measures:

Percent Variation and Buffer Index: These measures address on-time arrival and include different travel time factors to derive acceptable reliability thresholds. As an example - "To be on-time 95% of the time, I need to allow enough time so that I am not late to work more than one day a month. I may be 5-10 minutes early on some days, but the number of days I'm late is limited to 1 or less."

Exception Index: This index seeks to measure the length of delay of only the worst trips. Translation – "On really bad days, my travel time will be X minutes longer than usual."

We are examining the early results from the initial data gathering effort from the 10 cities. The level of data quality and completeness varies by city. In June 2001, we will include the new reliability performance measures and data findings within FHWA's Revised 2002 Performance Plan.

In 2002, we will add 15-20 additional cities. Consequently, 25-30 of our largest cities will be collecting ITS-based, real-time data. By the end of 2002, FHWA will possess 2 full years of data from the initial 10 cities and 1 year of data from the additional 15-20. During this period, we will have had the opportunity to fully analyze all the data and begin developing specific goals and targets to track within subsequent performance plans.

Performance Measure/Target: System Reliability

Strategies and Initiatives to Achieve 2002 Goal: Our Strategies and Initiatives work together to support all of the goals and measures under the

Steps to Identifying New Reliability Measures
- Identify candidate measures: March 01
- Vet measures with internal/external stakeholders: April-May 01
- Included new reliability measures and data results in FHWA 2002 Revised Performance Plan: September 01
- Add 15-20 new cities: 2002
- Develop specific goals and targets: End 2002

Mobility

Strategic Objective "Improve the operation and efficiency of existing surface transportation system." For a description, see "Strategies and Initiatives" under the "User Satisfaction" measure.

Other Federal Programs with Common Outcomes: None.

Mobility

Strategic Objective: Improve the operation of the highway systems and intermodal linkages to increase transportation access for all people and commodities.

User Satisfaction

The greatest benefit of improved operations is to the user, in the form of reliable, complete, and timely information. Users want to know their options and feel in control of their mobility, instead of at the mercy of the system. In 2002, we will further analyze the results from FHWA's 2001 traveler surveys to develop a composite measure and develop strategies that are consistent and responsive to those we serve. In addition, we will execute a new survey in 2002 and analyze and present the results in 2003.

Performance Goal: Increase user satisfaction with the operation of the existing system.

Performance Measure/Target: User satisfaction with the operation of the existing system.

External Factors: None.

User Satisfaction with the Operation of the System
- Analyze results of latest survey(s): March 01
- Develop candidate composite measures focusing on operation of the system: May/June 01
- Vet Measures: June 01
- Distribute New Survey: July 02
- Final Report: Feb/Mar 03

2000 Results: The Federal Highway Administration conducted a comprehensive Traveler Perception survey in 2000 and collected the following baseline data in 2001. The following information lists some of the key measures regarding highway congestion:

- 65% of those surveyed are satisfied with the major highways they travel most often (up 15 percentage points since 1995), while dissatisfaction has increased by 6 percentage points.
- Heavy traffic is perceived by the public to be, by far, the most important reason for travel delays (53%). This is twice the number for roadwork and five times the number for either accidents or traffic signals.
- Two in three respondents indicated highway congestion conditions affected their decisions on when to travel and which roads to use. About 20% of respondents indicated that traffic affected their decisions about where to work and which hours to work, and 30 percent said it affected their decision about where they live now.
- The public's preferred transportation improvements encourage smarter road management and operation. For example, adopt a strategy of "get in, get out, stay out" for both roadwork and clearing accidents. Plan and execute effectively so the work is done correctly and expeditiously the first time, resulting in less traffic disruption. Also focus on quality improvements and high performing materials to minimize the need for recurring roadwork.

Mobility

Strategies And Initiatives To Achieve 2002 Goals: We will pursue the following 4 major strategies and initiatives to achieve our Operations-related performance goals:

1. Deploy ITS Infrastructure. The following efforts will be employed to support the integration of intelligent transportation systems into the Nation's surface transportation system: 1) execute a program of research and technology transfer activities, 2) provide both policy guidance and technical support, and 3) use an incentives program that supports the integrated deployment of an ITS infrastructure in metropolitan areas. Specifically, DOT will focus in the following areas to support the acceleration of ITS deployment.

- Advance the Development of Regional Architectures. We will support the development of regional architectures through the development of training modules, delivery of training on a nationwide basis, and implementation of service plans focused on small and medium sized metropolitan areas. Our goal is to complete 50 architectures in 2002 and have an additional 50 underway.
- Increase Use of Standards. The U.S. DOT ITS Standards Program is working toward the widespread use of standards to encourage the interoperability of ITS systems. Through cooperative agreements with five standards development organizations (SDOs), the Standards Program is accelerating development of about 80 non-proprietary, industry-based, consensus ITS standards, and is encouraging public-sector participation in the development process. We anticipate completing all 80 of the original standards in 2002. We will continue advancing these standards by completing the testing of 10. In addition, we will complete the development of the 5.9 standard.
- Advance Deployment of the 511 Traveler Information Number. The DOT will advance the deployment of 511 Traveler Information number by establishing a showcase deployment of 511, issuing twenty-five 511 planning and conversion grants and developing guidelines for use of public information in private travel information services. We expect to see fifteen 511 services operational in 2002.
- Complete the National Highway System Information Requirements. We will complete the development and vetting of a standard set of minimum information requirements for the National Highway System.

2. "Raise the Bar" of current operations practice. Raising the state of current operations practice closer to the state of the art will substantially improve traffic flow and reduce crash rates, delay and user frustration. An overarching approach to doing this will be to engage State and local governments in operations self assessments that will raise an awareness that more could be done and help agencies target particular points where their state of practice could improve. In 2002, we have set an internal goal of completing one assessment in each State. Additionally, we will engage in standard technology transfer techniques of state of the art guidance, training, and other technical assistance. This year's initiatives will include: updating incident management guidance, continuing training on the Millennium Manual on Uniform Traffic Control Devices (MUTCD), launching major national outreach on improved

work zone operations, and conducting an operational test of emergency preparation and evacuation operations – to name a few.

3. Build institutional, policy and tool underpinning/capacity for operations mission at the State and local level. The benefits of many operating techniques have been known and demonstrated for many years if not decades. Their implementation (including the enabling ITS infrastructure) has been slow, it is hypothesized, because the underlying institutional structure tends not to support operations as a "core mission." Organizational structures, processes, tools and measures tend to be focused on projects and capital investment. Under this strategy, we will advance the "institutionalization" of the planning and coalitions necessary to execute the integrated operation of the surface transportation system, the development of planning and decision support tools, and development of operations performance measures. Some major initiatives this year include: developing guidance and training for operations planning, carrying out up to 5 institution building regional workshops, conducting research in Regional Operating Organizations, completing the performance measurement Tool Box for Operations, developing and deploying the TRANSIMS traffic forecasting and analysis tool, and developing guidelines for data collection to support one or more reliability performance measures.

4. Research, develop, test and evaluate new operations techniques, technology applications and tools. We will advance the state of the art with strategic research and development, tests and demonstrations of new applications and techniques and technology, and evaluation. A sample of initiatives this year include: performing operational tests of: Integrated Public Safety Vehicle Dispatching and Public Safety Mobile Data Interchange, and evaluating the value of integrating road weather information into a Transportation Operations or Emergency Operations Center.

Other Federal Programs With Common Outcomes: None

Productivity

Strategic Goal: Continually improve the economic efficiency of the Nation's transportation system to enhance America's position in the global economy.

To achieve our Productivity Strategic Goal, FHWA will pursue the Strategic Objectives below and measure our success through the following Performance Goals and Performance Measures.

Strategic Objective 1: Improve the economic efficiency of goods movement on the surface transportation system.

Performance Goal: In FY 2002, slow the projected growth of congested travel from 33.9% to 33.7%, slow the projected growth of travel time from 27.6% to 27.2%, and slow the projected growth of traveler delay from 34.5 hours to 34.0 hours. (Note: This goal is also contained within the Mobility goal area, page M-8.)

Performance Measures

1. The projected growth of congested travel.
2. The projected growth of travel time.
3. The projected growth of traveler delay.

Performance Goal: Reduce the cost of highway freight per mile.

Performance Measure

Freight cost per mile.

Performance Goal: Reduce the hours of delay per 1000 commercial vehicles processed at NHS border crossings.

Performance Measures

Hours of delay per commercial vehicle trip.

Performance Goal: Reduce travel time on key freight corridors

Performance Measures

To be developed

Strategic Objective 2: Improve the return on investment of the highway system.

Performance Goal: Improve the efficiency of highway infrastructure investments, by developing and promoting the use of engineering/economic analysis tools for decision making.

Performance Measures

1. Number of States using systematic engineering-economic analysis tools, via best practice application, to inform their program development process.
2. Number of States using systematic engineering-economic analysis tools, via best practice application, to inform their project design or selection process.

Productivity

Strategic Objective: Improve the economic efficiency of goods movement on the surface transportation system.

Congestion and Delay

The time that it takes goods to move in this country defines the limitations of the breadth and depth of this nation's economy. As sites of manufacturing become globally mobile, as national economies merge into a world market and as the science of logistics moves from push to pull supply chain management, we will examine the adequacy of the physical system as well as its current operations to meet these changing demands. We will search for infrastructure, technology, and operations improvements that both meet the new demands of logistics and maintain the nation's leadership in the global economy.

These performance parameters have tremendous cost impacts on an industry that has moved almost entirely to just-in-time delivery windows - sometimes as small as 15 minutes.

Performance Goal: In FY 2002, slow the projected growth of congested travel from 33.9% to 33.7%, slow the projected growth of travel time from 27.6% to 27.2%, and slow the projected growth of traveler delay from 34.5 hours to 34.0 hours.

Performance Measure/Target: Trend charts for this performance measure are on page M-8. While the Performance Goal of reducing congestion and delay is carried in both the Mobility and Productivity chapters, the strategies and initiatives to achieve the goal use different programs and offices and serve different constituencies. Please see page P-6 for a discussion of Productivity strategies.

Productivity

Freight Costs

Although freight costs are affected by numerous variables, we nevertheless believe that they provides an overall barometer of the effect of key regulations and legislation. In 2001, we have created a collection and reporting program which assesses data from a reliable sample of motor carriers to determine significant changes in costs per mile of operation. During 1980 to 1997, cost per mile decreased 27% industry-wide. The reduction was attributable to Federal and State deregulation of trucking, uniformity programs for vehicle registration and tax reporting, the pricing flexibility introduced by deregulation, and improvements in vehicle technologies and fuel economy. (Note: Not an exhaustive list.) Conversely, the rise in cost-per-mile after 1997 reflects increases in driver wages (responding in part to national driver shortage), vehicle maintenance, and fuel costs.

Using baseline data, we will track annualized cost-per-mile averages, include performance goal targets and identify public and private influences on those changes in the FHWA 2002 Performance Plan Revision in September 2001.

Performance Goal: Reduce the cost of highway freight per ton-mile.

Performance Measure/Target: The Cost of Highway Freight per Ton-Mile

Note: Operations' Productivity performance goals work together to address productivity challenges. As such, the *External Factors*, *2000 Results*, *FY 2001 Performance Plan Evaluation*, and *Strategies and Initiatives to Achieve 2002 Goal* sections support all of the performance goals and are listed after the "Freight Corridors" performance goal, page P-5.

Other Federal Programs with Common Outcomes: None.

Steps to Identify Highway Freight Per Ton-mile Measure

- With Bureau of Transportation Statistics, institute "Dow Jones" sample of approximately 100 consistently reporting carriers, using FY 1995 as base-year. (Spring 2001)
- Produce an initial, 5-year analysis ('95-'99) of industry C/M. (Summer 2001)
- Introduce trend data and performance targets into the Performance Plan and vet with FHWA Management Council. (Jul 01)
- With BTS and contractor, explore improved reporting methodology (e.g., expanding data field to better capture over-the-road expenses, survey carriers directly about changes observed, get more details on Owner-Operator expenditures (Fall 2001))
- Consider further options for C/M data analysis (Fall 2002)

Productivity

Border Crossings

Our highway gateways to Canada and Mexico can represent many costly hours of delay in the flow of trade as well as several-mile continuous traffic back-ups that are a significant irritant to border crossing communities. In 2000, we gathered baseline data at 3 border crossings (Laredo, TX; Otay Mesa, CA, and Calais, ME). This has permitted testing of initial monitoring design and benchmarking of data. Currently, we are assessing a measure called "hours of delay per commercial vehicle trip." In 2001, we will expand collection to nine crossings, with repeat visits to the initial sites. In 2002, and each subsequent year, we plan to both broaden the site visits and, as feasible, introduce automated collection procedures. Ultimately, we hope to collect data from the approximately 15 crossings that handle the gross majority of cross-border freight shipments. These annual collections will help us identify where resources are needed to facilitate the efficient and effective movement of freight across our national boundaries.

Performance Goal: Reduce the hours of delay per 1000 commercial vehicles processed at NHS border crossings.

Performance Measure/Target: Hours of delay per 1000 commercial vehicles processed at NHS border crossings.

Steps to Identify Hours of Delay per 1000 Commercial Vehicles Processed at Borders

- Assessing hours of delay per commercial vehicle trip: April 01
- Expand collection to 9 crossings: Sept 01
- Establish base-year for multiyear analysis effort Dec 01
- Present trend data based on 9 sites, develop targets for subsequent FHWA Performance Plans, and vet new targets with the FHWA Management Council: Dec 01
- Introduce automated data collection procedures: 2002

Note: Operations' Productivity performance goals work together to address productivity challenges. As such, the *External Factors*, *2000 Results*, *FY 2001 Performance Plan Evaluation*, and *Strategies and Initiatives to Achieve 2002 Goal* sections support all of the performance goals and are listed after the "Freight Corridors" performance goal, page P-5.

Productivity

Freight Corridors

The FHWA's Freight Analysis Framework expects that by the year 2020, freight volumes will double compared to current levels. While the majority of the U.S. freight shipments are primarily domestic, international traffic is expected to continue growing at a much faster rate than domestic traffic. We are pursuing an evaluation of "travel time in freight significant corridors." Such a measure would permit an evaluation of resource needs and investments in important freight corridors.

Performance Goal: Reduce travel time on key freight corridors

Performance Measure and Results: Travel time on key freight corridors

External Factors: None.

Steps to Identify Travel Time Measures on Key Freight Corridors
- Evaluate potential travel time measures: April 01
- Select potential measures: Oct 01
- Pilot initial corridor review: Oct 01
- Initiate final reviews: Apr 02
- FHWA Management Council Review/Approval: 3rd Qtr 02

2000 Results: Looking into the economic assessment of freight transportation costs (Performance Goal 2), we determined that "cost-per-mile" data collection and reporting can be quite revealing of larger trends in the motor carrier industry. As described earlier, we are analyzing the data and will derive cost per mile national averages, develop yearly targets, and identify causal factors in subsequent versions of the FHWA Performance Plan.

In the case of our international border crossing reviews (Performance Goal 3), the information received confirms that on-site reviews can provide substantive information about the variations in travel time at the individual border sites. The process also can tell us something, but not everything, about why these variations occur, with some indication of possible corrective actions (e.g., additional inspection booths) that might enhance travel times. We have learned that we need to do more to assure that all jurisdictions and agencies involved, on both sides of the border, are clearly aware of what is being undertaken during these reviews, and know the details of the collection process. In addition, we found out that on-site observers need to have a general sense of peak traffic periods and conditions before commencing the actual review effort, in order to optimize collection procedures.

FY 2001 Performance Plan Evaluation: We will monitor and track the status of all the major initiatives that are required to develop comprehensive performance measures. In addition, we will be initiating a customer satisfaction survey that will focus on a number of freight related issues, e.g., intermodal connectors. We are initiating numerous other outreach efforts to solicit stakeholder feedback on productivity-related performance goals and strategies.

Productivity

Strategies and Initiatives to Achieve 2002 Goal: To carry out the strategic objective of improving the productivity of freight movement on the surface transportation system, we will pursue the following strategies:

Strategy 1: Develop the analytical framework and conduct analyses necessary for identifying high payoff infrastructure investments, or legislative and policy strategies.

Because much of the freight industry is private and fragmented among numerous shippers, carriers, forwarders, brokers, etc., it has been difficult to get a holistic picture of trade flows and projected trade flows against total system capacity. Over time, we will attempt to develop that capability as well as an analytic framework to evaluate the infrastructure implication of alternative future trade scenarios, policy alternatives, and major investments. Initiatives in 2002 include:

- Completing the Freight Analytical Framework highway capacity methodology for national analytical capability.
- Conducting a series of multi-state, corridor, gateway, and connector capacity investment analysis.
- Completing the report on national/regional benefits of freight investments.
- Conducting outreach to develop policy recommendations regarding freight-related infrastructure and information system requirements.
- In cooperation with FHWA field offices, beginning outreach and training to State and local governments on the use of the Freight Analysis Framework database and analytical framework for freight analysis.

Strategy 2: Develop institutional and policy underpinning for public/private, multi-state and/or multi-institution freight planning and investment, and legislative/programmatic initiatives to enhance North American freight productivity.

The investment horizons and the geography of benefits of freight and intermodal connection investment have been ill-fitted to existing planning and investing institutions. We will nurture those coalitions that are emerging, evaluate their institutional underpinnings, and examine policy options for institutionalizing processes better suited for freight planning and investment. This examination of institutional issues, funding options, and infrastructure requirements will be translated into legislative and program options for enhancing North American freight productivity. Specific initiatives in support of this broad framework include:

- Evaluate current program options for funding freight investments
- Develop policy options on freight planning and investment
- Complete report on "what works" in ad-hoc multi-State partnerships with options and recommendations for formalizing multi-State coalitions.
- Complete examination of NAFTA-related freight productivity issues, with program and legislative options to enhance international freight productivity.

Productivity

Strategy 3: Directly invest in ITS and infrastructure enhancements to freight productivity.

Instrumentation of the transportation infrastructure that directly meets the needs of freight mobility is key to improving freight productivity. Investments are being made through the TEA-21 1118/1119 corridor and borders grant program, ITS and ITS Deployment programs, and through FHWA's support of the U.S. Customs ITDS system. Initiatives include:

- The Federal Motor Carrier Safety Administration is deploying an operation referred to as Commercial Vehicle Information Systems and Networks (CVISN). CVISN is targeted to be operational in 15 States in 2002.
- FHWA is developing a guidebook of best practices for all stakeholder improvements at both the U.S./Mexico and US/Canada border crossings. A guidebook for the U.S./Mexico border crossings is expected to be complete in the Spring of 2001. Similarly, a guidebook for the U.S./Canadian border crossing is scheduled for completion in 2002.

Strategy 4: Research and demonstrate technology applications that will improve freight productivity.

There exist many information gaps within industry's operations. The information disconnects compromise the efficiency goals of supply-chain management. Industry segments have developed technology to fit their own advantage, but no cross-cutting technology innovations would be instituted without government facilitation. Government can play a role in demonstrating and catalyzing the use of technology that will allow sharing of appropriate information across agency, corporate, and geographic boundaries that will allow infrastructure and equipment to be used more productively. The 2002 initiatives include:

- Both DOT and the Intermodal Freight Technology Working Group, under the auspices of ITS America, plan to initiate intermodal freight operational tests in 2001 and complete them in 2002. Tests will focus on asset and cargo visibility, terminal dray operations, and a freight information highway. A test is being planned between the US, Mexico and Canada on the feasibility of using a proposed standard transponder device to satisfy the needs of border inspection agencies and state motor carrier inspectors. The plan is expected to be complete in 2001-2 for a test at Otay Mesa/Tijuana, using TEA-21 Section 1118/1119 funds.
- A project is underway on the I-35 Corridor to develop a freight mobility plan, using TEA-21 Section 1118/1119 funds. This effort will carry-over into 2002.
- Tests are being planned by the International Trade Data System Board of Directors (ITDS) at border crossings between the US and Canada in early 2001 and between US and Mexico in latter 2001. This effort will continue through 2006. The tests will demonstrate the efficiency of operations using pre-arrival information, thus making clearance automatic at the crossing. FHWA and FMCSA are participating in those tests and have provided funding to support them.

Productivity

Strategy 5: Size and Weight Regulation and Regulatory Response

Productivity is balanced against the necessary preservation of the infrastructure and maintenance of safety. In that vein, we carry-out the necessary oversight of size and weight regulatory compliance, as well as evaluate the productivity impacts of various safety and other regulations. In 2002, we will:

- Continue to evaluate potential changes in the certification, enforcement and operation of commercial vehicles as they relate to vehicle size and weight. Undertake policy review and contribute to rulemakings.
- Develop analysis capability to assess policy/regulatory issues affecting the trucking industry (e.g., hours of service, rest areas, diesel fuel.)
- Initiate active liaison with FMCSA to coordinate on emerging policy/regulatory issues affecting commercial motor carrier operations.

Productivity

Strategic Objective: Improve the return on investment of the highway system.

Cost Effectiveness

Engineering/economic analysis (EEA) tools, including life-cycle cost analysis (LCCA) and benefit-cost analysis (BCA), can be used to improve the efficiency of highway investment decisions, since they provide guidance for decisionmakers on the economic benefits and costs for alternative highway investment options. Such information is valuable because it reveals investments where the economic returns are greatest, and allows decisionmakers to achieve a performance goal at the lowest total cost. This maximizes the efficiency of the taxpayers' highway investment dollars and saves motorists money as a result of less vehicle wear and tear and reduced congestion-related costs. Although a considerable number of States currently use such tools as LCCA and BCA in some capacity, there is much diversity in application, and most States do not consider the full range of costs and benefits when conducting these analyses. For instance, only one-quarter of the States which use LCCA include user costs, even though user costs (e.g., travel delay, vehicle operating costs, and accidents) can be a significant portion of the total impacts associated with alternative highway project decisions.

Performance Goal: Improve the efficiency of highway infrastructure investments by developing and promoting the use of EEA tools for decisionmaking.

Performance Measures: A survey will be conducted to determine the current state-of-practice with respect to State application of EEA tools. The resulting information will be used to finalize performance measures of roughly the following form:

- The number of State DOTs using systematic EEA tools, via best practice application, to inform their program development process.
- The number of State DOTs using systematic EEA tools, via best practice application, to inform their project design or selection processes.

External Factors: Reasons for the lack of comprehensive use of EEA investment tools such as LCCA and BCA by States include lack of awareness as to the benefits of such tools, limited research budgets, a lack of in-house expertise, and an absence of necessary data and tools.

2000 Results: In FY 2000, FHWA began work to establish a Pilot Program to test the use of Highway Economic Requirements System (HERS) at the State level. In addition, work was initiated to develop an LCCA probabilistic teaching model.

FY 2001 Performance Plan Evaluation: FHWA is gathering information as to what types of EEA tools States would find useful in the evaluation of alternative program structures. Specifically, FHWA started a Pilot Program to test the State use of HERS with an introductory workshop in New Orleans. Seventeen participating States will report to FHWA as to the usefulness of the HERS model. They will also provide input as to their requirements for incorporating EEA into their program development process. In addition, FHWA work at

the project level to advance the application of best-practice probabilistic LCCA by States in designing projects will result in a teaching model and companion course. Initial work is focused in pavement design. Outreach efforts for both HERS and LCCA will result in the production and release of executive-level primers.

Strategies and Initiatives to Achieve 2002 Goal:
Through December 2001, FHWA Division Administrators (DAs) will receive executive-level training in EEA tools and instruction on how to benchmark their State's current state-of-the-practice with respect to applying EEA tools in their decisionmaking processes. This exercise will not only allow us to benchmark the use of these tools but will also encourage Das to partner with headquarters in advancing these tools. FHWA Resource Centers are already involved in this goal area, most notably because they have the responsibility for providing LCCA courses.

Priority initiatives include increasing the number of States:
- attending the new LCCA course,
- completing the HERS pilot program,
- attending a "short" course on the potential of economic analysis, and
- using PONTIS to support decisionmaking.

These initiatives will be refined as information from the DA benchmarking effort becomes available.

Human and Natural Environment

Strategic Goal: Protect and enhance the natural environment and communities affected by highway transportation.

To achieve our Human and Natural Environment Strategic Goal, FHWA will pursue the Strategic Objectives below and measure our success through the following Performance Goals and Performance Measures.

Strategic Objective 1: Enhance community and social benefits of highway transportation.

Performance Goal: In FY 2002, FHWA will increase public satisfaction with highway systems and highway projects as a beneficial part of their community by promoting responsive and well targeted transportation programs.

Performance Measures:

1. Level of Community Satisfaction with the Nation's highway system and projects toward meeting community quality of life goals (using a National FHWA Omnibus survey: see also Mobility and Productivity Customer Satisfaction Goals)
2. Environmental Protection Agency Rating of FHWA of Environmental Impact Statements

Strategic Objective 2: Improve the quality of the natural environment by reducing highway-related pollution and by protecting and enhancing ecosystems.

Performance Goal: In FY 2002, FHWA will continue to work toward the reduction of on-road mobile source emissions to reach the target of 61.1 million tons. In addition, FHWA will increase the percentage of nonattainment and maintenance areas meeting their mobile-source emissions budget goals.

Performance Measures:

1. On-road mobile source emissions in short tons.
2. Percent of non-attainment and maintenance areas meeting their mobile source emissions budget goals.

Performance Goal: In FY 2002, on a program-wide basis, replace at least an average of 1.5 acres of wetlands for every 1 acre directly affected by Federal-aid highway projects where impacts are unavoidable.

Performance Measure:

Ratio of wetland replacement resulting from Federal-aid highway projects.

Human and Natural Environment

Strategic Objective: Enhance community and social benefits of highway transportation.

Community and Social Benefits

The Federal Highway Administration is committed to protecting and enhancing the natural environment and communities affected by highway transportation. Our objective is to enhance community and social benefits of highway transport by ensuring that transportation plans and operations address the community concerns and social impacts of transportation facilities by:

- recognizing the role of transportation in enhancing communities;
- preserving historic features;
- supporting welfare-to-work, mobility for people with low incomes, and accessibility for people with disabilities;
- providing facilities for bicycles and pedestrians; and
- reducing the adverse effects of siting, construction, and operation of transportation facilities on the communities, particularly disadvantaged communities.

FHWA has made environmental justice part of its mission. Title VI of the 1964 Civil Rights Act prohibits discrimination on the basis of race, color, and national origin. FHWA will proactively ensure that discrimination does not occur by identifying and addressing the effects of its programs, policies, and activities on minority populations and low-income populations. FHWA's environmental justice initiatives fit within a broader objective of enhancing communities and social benefits of transportation for all populations. FHWA works with State and local governments to make sure the plans and projects fit harmoniously within all kinds of communities without sacrificing safety or mobility.

Performance Goal: In FY 2002, FHWA will increase public satisfaction with highway systems and highway projects as a beneficial part of their community by promoting good planning practices, inclusive public involvement, careful consideration of environmental impacts, and context-sensitive project designs. (Note: We are examining the results of the 2000 survey to establish a baseline and set targets for future years.)

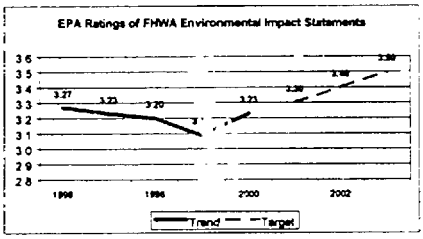
Performance Measure/Target: Level of Community Satisfaction with the Nation's highway system and projects toward meeting community quality of life goals (using a National FHWA Omnibus survey: see also Mobility and Productivity Customer Satisfaction Goals)

Community Satisfaction

- FHWA is examining the results of the 2000 survey to establish a baseline and targets for future years.
- FHWA will conduct a follow-up survey in 2002.

Human and Natural Environment

Performance Measure/Target: Environmental Protection Agency Rating of FHWA of Environmental Impact Statements



External Factors: The American public has multiple and disparate expectations for transportation and quality of life.

Requests to States for funding through Federal-aid highway programs which benefit the human and natural environment, such as the Congestion Mitigation and Air Quality Improvement Program, Transportation Enhancement activities, the Recreational Trails Program, the National Scenic Byways Program, and the Transportation and Community and System Preservation Pilot Program, have consistently exceeded the available funds. This response indicates a pressing need in communities to leverage resources to make their communities more livable.

2000 Results: The first National FHWA Omnibus Survey (a June 2000 national telephone survey) found that 56 percent of the public said that they were "satisfied" or "very satisfied" in response to the question: "How satisfied are you with the transportation system and the transportation options in your community?" FHWA will use this as a base measure. FHWA plans a follow up survey for 2002.

FHWA also led or actively participated in:

Environmental Programs

- NEPA Website Improvements. FHWA redesigned its National Environmental Policy Act (NEPA) website. FHWA also created a new Environmental Streamlining website and a Community of Practice site called Re:NEPA. The streamlining website is continually updated with initiatives from across the country. Re:NEPA is a discussion site for topics related to cumulative and indirect impacts, environmental streamlining, environmental justice, natural environment, and the NEPA process and documentation.
- Environmental Training. FHWA held a National environmental training workshop for Federal agency field staff.

Community Programs

- Environmental Justice (EJ). FHWA conducted 30 EJ training sessions, held an EJ Summit, and posted a user-friendly and informative website with a brochure, case studies, and frequently asked questions.
- Native American Issues. FHWA created a new Native American coordinator position.

- Community Impact Assessment (CIA). FHWA, FTA, Caltrans, and the CIA Design Team held the 2nd National CIA Workshop in August 2000. The CIA Design Team primarily included State DOT practitioners. The next workshop is scheduled for 2002. CIA is a process to evaluate the effects of a transportation action on a community and its quality of life. The assessment process is an integral part of project planning and development that shapes the outcome of a project.
- Pedestrian Accessibility. FHWA was a member of the Access Board's Public Rights-of-Way Access Advisory Committee, which proposed accessibility guidelines for sidewalks, street crossings, and intersections. FHWA completed a report, *Designing Sidewalks and Trails for Access* (to be published in mid-2001). FHWA staff gave presentations and workshops on accessibility issues at several national pedestrian and bicycle and trail conferences.
- Transportation Enhancements. FHWA published new National guidance for Transportation Enhancement activities to reflect the significant changes made in TEA-21.

Real Estate Programs

- Program Flexibility. FHWA developed and published a synthesis to describe the flexibility permitted for right-of-way programs under TEA-21 and Federal regulations (23 CFR Part 710).
- Real Estate Website. FHWA expanded its Real Estate Services website as a primary method of providing information to its customers, partners, and the public. Enhancements included creating and distributing an internet webcard, linking to National Highway Institute training courses, posting a calendar of events, and creating an interactive Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 ("Uniform Act") tutorial.
- International Scan. FHWA organized an International Right-of-Way Scan which identified innovative ways to secure property for highways to reduce negative impacts on landowners. FHWA is evaluating these ideas for potential implementation in the United States.
- Local Agency Programs. FHWA developed and published on the Internet a Best Practices study of administration of Acquisition and Relocation Programs carried out by local public agencies.
- Best Practices in Real Estate Program Management. FHWA analyzed the application of quality management principles in five State Transportation Departments and published them as an aid to other organizations.

Planning Programs

- Local Coordination. FHWA and the National Academy of Public Administration developed a set of principles of effectiveness that can be used to improve consultation between State and local officials in the overall transportation planning process.
- Job Access and Reverse Commute (JARC). FHWA coordinated with FTA to develop a report *Job Access Planning: Challenges and Approaches*, which was prepared to assist

individuals and organizations in planning and developing transportation services for people moving from public assistance to the workforce. FHWA also served on the review panel for FTA's JARC grant review process for $30 million in JARC projects.

- TRANSIMS. FHWA continued developing TRANSIMS, an advanced analytic methodology using microsimulation techniques which allows local areas to develop detailed analyses of the community and social impacts of transportation projects and programs.
- Scenic Byways. The U.S. DOT designated 30 new National Scenic Byways and All American Roads, and allocated $21 million in National Scenic Byway funds.
- Noise. FHWA developed the Highway Noise Barrier Handbook (with accompanying videotape and CD-ROM) to advance the state-of-the-art of highway noise barrier design. This will aid the mitigation of noise from motor vehicles and the blending of highways with their environments.

FHWA funding programs provided Tribal governments, the States, localities, and private organizations with funds to enhance communities, reduce traffic congestion, preserve historic transportation facilities, provide pedestrian accessibility and bicycle transportation, develop and maintain recreational trails, and enhance scenic byways.

FY 2001 Performance Plan Evaluation: Level of community satisfaction with the Nation's highway system and projects toward meeting community quality of life goals (using a National FHWA Omnibus survey; see also Mobility goal).

The first National FHWA Omnibus Survey (a June 2000 national telephone survey) found that 56 percent of the public said that they were "satisfied" or "very satisfied" in response to the question: "How satisfied are you with the transportation system and the transportation options in your community?" FHWA will use this as a base measure. A follow up survey is planned for 2002.

FHWA changed its Environmental Impact Statement (EIS) rating measure to make it more understandable. FHWA will use the measure "Ratings of Environmental Impact Statements" as an indicator of public satisfaction with highway projects. This measure will be an average "grade point" of the Environmental Protection Agency (EPA) ratings given to FHWA EIS documents. The points assigned are:

Lack of Objection rating (LO)	=	4 points
Environmental Concerns rating (EC)	=	3 points
Environmental Objections rating (EO)	=	2 points
Environmentally Unsatisfactory rating (EU)	=	0 points

Strategies and Initiatives to Achieve 2002 Goal: Enhancing Communities Through Highway Transportation—The FHWA will foster community and regional level transportation solutions through enhancements in urban and rural community planning,

operations, and project development. FHWA will partner with Federal land management agencies, and Tribal, State, regional, and local government planners and project development specialists. We will develop and share tools to effectively incorporate livability; environmental justice; the preservation of scenic, historic, natural, and community resources; just and fair property acquisition; bicycle and pedestrian access; and traffic safety into transportation plans and projects. We will continue the development and deployment of TRANSIMS, a sophisticated traffic analysis and forecasting tool which will address traffic congestion, environmental justice, and air quality concerns. FHWA will continue to evaluate the accuracy of the highway traffic noise prediction model, FHWA TNM, and make adjustments if necessary. To accelerate and improve decisionmaking, FHWA will promote processes which effectively integrate Federal, Tribal, State, and local transportation, land use, and environmental decisionmaking in an effective, streamlined, and timely manner.

FHWA is working with FTA, EPA, and other Federal environmental regulatory agencies, the States, and other partners to streamline transportation decisionmaking, enabling States and Metropolitan Planning Organizations (MPOs) to advance environmentally sound projects more expeditiously. These process improvements will provide for closer linkages between project development under NEPA and planning under Titles 23 and 49. The process improvements should result in higher public satisfaction ratings as measured by future surveys, and in higher EPA ratings for Environmental Impact Statements.

Specific funding programs, with FY 2002 authorized amounts, include:

- $1.8 billion for the Congestion Mitigation and Air Quality Improvement Program, to fund transportation projects which reduce emissions in nonattainment and maintenance areas, and which can also reduce congestion and enhance community livability.
- $732 million for Transportation Enhancement Activities, 12 categories of projects including pedestrian and bicycle facilities, scenic and historic highway programs (including provision of tourist and welcome center facilities), historic transportation buildings or facilities, transportation museums, etc.
- $50 million for the Recreational Trails Program, for motorized and nonmotorized recreational trails and trail-related projects.
- $25.5 million for the National Scenic Byways Program, for scenic byway related projects.
- $25 million for the Transportation and Community and System Preservation Pilot Program, a comprehensive initiative of research and discretionary grants to investigate the relationships between transportation and community and system preservation and private sector-based initiatives.

Other Federal programs with common outcomes:

- EPA programs to promote environmental justice, collaborate with Native American Tribes, improve air quality, protect wetlands, rehabilitate brownfields, etc.
- Bureau of Land Management Back Country Byways Program
- National Trails System Act: National Scenic Trails, National Historic Trails, and National Recreation Trails, administered by the National Park Service, Bureau of Land Management, and the U.S. Forest Service.
- Land and Water Conservation Fund, administered by the National Park Service
- The National Historic Preservation Program, overseen by the National Park Service
- The Advisory Council on Historic Preservation advocates for full consideration of historic values in Federal decisionmaking, reviews Federal programs and policies, and provides training on historic preservation issues.

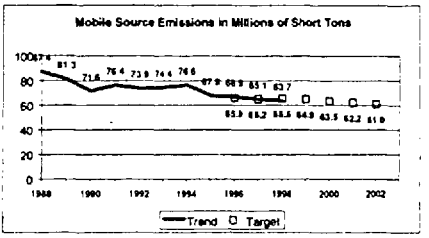
Human and Natural Environment

Strategic Objective: Improve the quality of the natural environment by reducing highway-related pollution and by protecting and enhancing ecosystems.

Air Quality

The quality of our air is a public good, and the cost of pollution is not captured in the marketplace. The National Ambient Air Quality Standards target six major pollutants as among the most serious airborne threats to human health. Transportation is a major contributor to some of the pollutants, particularly ozone, carbon monoxide, and particulate matter, and about two-thirds of transportation-related emissions come from on-road motor vehicles. For this reason, FHWA is working to mitigate the impact of these emissions.

Performance Goal: In FY 2002, FHWA will continue to work toward the reduction of on-road mobile source emissions to reach the target of 61.1 million tons. In addition, FHWA will increase the percentage of nonattainment and maintenance areas meeting their mobile-source emissions budget goals. (See table for targets.)



Performance Measure/Target: On-road mobile source emissions in short tons.

Performance Measure/Target: Percent of nonattainment and maintenance areas meeting their mobile source emissions budget goals.

Percent of nonattainment and maintenance areas meeting their mobile source emissions budget goals

	Ozone	Ozone Target	PM-10	PM-10 Target	Carbon Monoxide	CO Target
1996	95.7		98.2		92.6	
1997	96	96	99.4	96	96.2	96
1998	90.3	96	96	96	96.4	96
1999	93	96	100	96	96.2	96
2000	96	96	100	96	96	96
2001		96		96		96
2002		96		96		96
2003		96		96		96

External Factors: Growth in the U.S. economy has translated into over 2 percent annual growth in vehicle miles traveled (VMT). While this level of growth did not occur in 2000, it is too soon to tell if this is a change in the trend. However, advancements in fuel and vehicle technologies, as well as the implementation of other emission-efficient transportation strategies, helped continue the reduction in mobile source emissions from 87.4 million tons in 1988 to 63.7 million tons in 1998.

2000 Results: During FY 2000, a high percentage of the nonattainment and maintenance areas have shown positive results in meeting their emissions goals. Ninety eight percent of ozone nonattainment and maintenance areas met their mobile emissions budgets, as did 96 percent of areas for carbon monoxide and 100 percent of areas for particulate matter (PM-10). Although national emissions estimates for 1999 and 2000 are not available from EPA, EPA estimates published in March, 2000 show that on-road mobile source emissions were reduced from 1996 levels by 2.6 percent in 1997 and by an additional 2.11 percent in 1998. This level of mobile source emissions actually exceeded our revised 1999 goal of 64.9 million tons.

Human and Natural Environment

Through the Congestion Mitigation and Air Quality Improvement (CMAQ), FHWA has provided funding for State and local governments to encourage the use of alternative-fuel vehicles. For example, between 1992 and 1998, the portion of CMAQ funds used to support alternative-fuel vehicle projects ranged from 3 to 11 percent. In addition to alternative-fuel projects, CMAQ has provided funding to State and local governments for many other transportation projects that provide air quality benefits since its inception in 1991. While individual projects yield small benefits, taken together CMAQ-funded projects have helped nonattainment areas meet their mobile source emission budgets.

A multi-year Public Information Initiative on Transportation and Air Quality, jointly funded by the Department of Transportation (the Federal Highway and Transit Administrations) and EPA, was launched in 1997 to help State and local governments meet their clean air goals under TEA-21 and the Clean Air Act. In 1999, the initiative was expanded to 14 additional communities and came to full fruition in 2000. Areas received Federal support in the form of research, advertising and resource materials, an orientation workshop, and limited funding. Evaluation of these demonstrations is underway. The initiative has generated requests for program materials from 60 communities nationwide interested in local customization and distribution.

FHWA also assisted in the formation of the Alliance for Clean Air and Transportation, a national alliance of more than 20 public and private organizations to support an education program to reduce traffic congestion and improve air quality.

FY 2001 Performance Plan Evaluation: Barring unforeseen shifts in external factors, mobile source emissions for 2000 should meet or exceed the goal. This outcome has shown a consistently positive trend, and TEA-21 has provided increased funding for several programs that positively influence air quality, especially in the CMAQ program.

Strategies and Initiatives to Achieve 2002 Goal: FHWA aims to reduce mobile source emissions by encouraging the use of less polluting transportation; designing and implementing infrastructure that reduces congestion and emissions; researching and modeling the emissions impacts of investment choices; and supporting the development of fuel- and emission-efficient vehicles. Through research, new technologies, and analytical models, FWHA will promote the design, construction, maintenance, and use of highways that are compatible with the national environmental goals. In partnership with our stakeholders, we will support the development of environmental analytical models to assist decisionmakers. FHWA will provide resources, guidance, and technical assistance for States and local agencies to ensure compliance with the National Ambient Air Quality Standards, especially reducing transportation-related emissions.

- FHWA will invest over $1 billion to reduce emissions through the CMAQ program. FHWA will work with State and local partners to insure that CMAQ funds are obligated in a timely fashion.

- FHWA will identify and help resolve challenges in implementing amended conformity regulations for clean air by issuing guidance and providing technical assistance.
- FHWA will expand the transportation and air quality public education initiative and partnership building. FHWA will continue to support the Alliance for Clean Air and Transportation, a national alliance of more than 20 public and private organizations committed to reducing congestion and air pollution through public education.
- Through continued research, FHWA will develop approaches to improve air quality and evaluate emissions impacts and cost-effectiveness of transportation strategies. Activities include research on a 2.5-micron particulate matter emission model to support new National Ambient Air Quality Standards.
- FHWA will continue to participate in the DOT Center for Climate Change and Environmental Forecasting to research the connection between transportation, energy use and greenhouse gas emissions. Five new research projects will get underway in FY 2001 including a major effort to understand the impacts climate change could have on transportation and infrastructure and programs.

Other Federal Programs with Common Outcomes: FHWA efforts support the government-wide goals for National Ambient Air Quality Standards. FHWA works closely with FTA and EPA to achieve the national clean air goal by reducing mobile source emissions. FHWA, FTA and EPA work cooperatively to implement a number of initiatives including the Transportation and Air Quality public education initiative, the transportation conformity regulation, and the CMAQ. DOT and EPA have also jointly funded a number of research efforts that target the reduction of mobile source emissions.

Human and Natural Environment

Strategic Objective: Improve the quality of the natural environment by reducing highway-related pollution and by protecting and enhancing ecosystems.

Wetlands Replacement

Wetlands are an important natural resource. They provide natural filtration of pollutants, and they store and slow down the release of floodwaters, thereby reducing damage to downstream farms and communities. Wetlands also provide an essential habitat for biodiversity. But many of the Nation's wetlands have been lost to development over the years, before their value was fully recognized. Highways and transportation facilities (siting, construction, and operation) can be a significant factor affecting these ecosystems. The 1993 Federal policy on wetland protection called for no net loss in wetlands from Federally funded projects. The FHWA Strategic Plan then set a higher goal to replace the total area of wetlands impacted by a ratio of 1.5:1. This higher goal was included in the Federal Government's 1998 Clean Water Action Plan.

Performance Goal: In FY 2002, on a program-wide basis, replace at least an average of 1.5 acres of wetlands for every 1 acre directly affected by Federal-aid highway projects where impacts are unavoidable.

Performance Measure and Results: Ratio of wetland replacement resulting from Federal-aid higheway projects.

Wetland Replacement

Year	Acres Replaced	Acres Affected	Ratio	Target
1996	3,554	1,568	2.3:1	1.5:1
1997	4,484	1,699	2.6:1	1.5:1
1998	2,557	1,167	2.2:1	1.5:1
1999	5,409	2,354	2.3:1	1.5:1
2000	7,671	2,041	3.8:1	1.5:1
2001				1.5:1
2002				1.5:1
2003				1.5:1

External Factors: Wetland impacts are sometimes unavoidable, particularly in construction of bridge crossings. In addition, projects on existing alignments can cause wetlands degradation that is impractical to avoid. In areas where the concentration of wetlands is high (southern bottomlands, Midwestern prairie potholes, and eastern pine flatwoods), transportation projects often must cross wetlands to provide accessibility to the area.

2000 Results: Federal-aid Highway projects avoid impacting wetlands wherever possible. Where wetlands impact was unavoidable, projects achieved an average replacement ratio of 3.8 to 1 for every acre affected in FY 2000. This exceeded DOT's performance standard of 1.5 to 1. Estimates of total wetland loss indicate that, between 1982 and 1992, approximately 160,000 acres of wetlands per year were being converted to other land cover types by all sources of impacts. During that same period, only about 75,000 acres of wetlands were being restored or created each year—a deficit of about 85,000 acres per year. After 1992, an additional 68,000 acres per year have been restored or established as the result of the Wetlands Reserve and other new wetland conservation programs. FHWA programs contributed an average of 4,735 acres to this annual total between 1996 and 2000. The actual wetland replacement acreage for highways represents about 3% of the estimated total nationwide wetland replacement (most of which comes from restoration of agricultural lands). The acreage suggests that the project eligibility and funding provisions for wetland mitigation in TEA-21 have been effective in enhancing the natural environment. Those provisions are

important to maintaining this trend into the future and should be effective in accomplishing the Nation's environmental goals under the Clean Water Action Plan and the National Wetlands Plan.

FY 2001 Performance Plan Evaluation: The last five years of data show that FHWA has exceeded its goal every year. No change is proposed to the performance standard for a 1.5:1 wetlands recovery ratio. This target is consistent with the long-term goal in the Clean Water Action Plan, Key Action #44, committing the FHWA to achieving a net wetland increase of 50% in ten years.

Strategies and Initiatives to Achieve 2002 Goal: FHWA promotes the design, construction, maintenance, and use of transportation projects that are compatible with national environmental objectives and that conform with the Clean Water Act. It does this primarily through research, new technologies, analytical models, management training, and development of technical transfer documents.

- FHWA will test and implement environmental analytical models to assist decisionmakers, and will continue to promote initiatives that protect and enhance ecosystems on a programmatic basis. This will include the use of inventories, partnerships with resource agencies, and practices such as wetland banking and watershed-based resource protection.
- FHWA will prepare a case study report based on the results of wetland restoration associated with Federal-aid highway projects. The report will provide recommended techniques and practices to minimize transportation impacts on wetland functions and values.
- FHWA will support additional R&D to continue the development and implementation of new wetland protection and enhancement techniques.

Other Federal Programs with Common Outcomes: The FHWA will continue to coordinate wetlands programs and research initiatives with the EPA, the Department of the Interior, the Department of Commerce, the Department of Agriculture, and the Army Corps of Engineers. This coordination is aimed at improving wetlands policies, and implementing the Clean Water Action Plan by ensuring a net gain in wetlands. The FHWA meets regularly with other cabinet agencies as a member of the Federal Working Group on Wetlands and participates in joint research with other Federal agencies for studies on wetland evaluation and mitigation. Information is shared through all these activities.

National Security

Strategic Goal: Improve the Nation's national defense mobility.

To achieve our National Security Strategic Goal, FHWA will pursue the Strategic Objective below and measure our success through the following Performance Goal and Performance Measures.

Strategic Objective: Improve the capacity and operations of the Strategic Highway Network (STRAHNET) and STRAHNET connectors to support defense mobilization.

Performance Goal and Result: In FY 2001, improve access between key military installations (including power projection and power support platforms) and the air or seaport point of embarkation to support DOD deployment requirements.

Performance Measures:

1. Percentage of Miles on STRAHNET with IRI ≤ 170 in/mi
2. Percent of bridges on STRAHNET rated deficient
3. Percent of STRAHNET routes under bridges with clearance greater than 16 feet

National Security

Strategic Objective: Improve the capacity and operations of the Strategic Highway Network (STRAHNET) and STRAHNET connectors to support defense mobilization

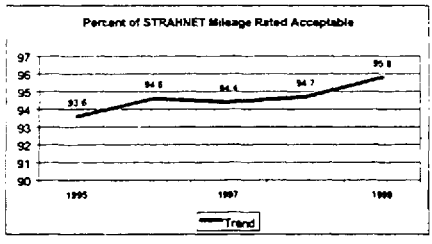
Defense Mobility

The FHWA, in partnership with State transportation agencies, administers the Federal-aid Highway Program that funds roads and bridges located on the Strategic Highway Network (STRAHNET) and STRAHNET connectors. The U.S. highway system plays a critical role in the movement of military equipment and personnel during peacetime and particularly in wartime. In light of the fact that the Department of Defense (DOD) is no longer forward deployed, huge amounts of military equipment and personnel must be deployed expeditiously from various Continental United States (CONUS) -based military installations to various seaports and airports of embarkation in the event of a military emergency somewhere in the world. The Federal Highway Administration (FHWA) is committed to improving the Nation's national defense mobility by promoting the improvements of the condition, capacity, and operation of the highway system serving military installations.

STRAHNET is a system of public highways that is a key deterrent in U.S. strategic policy. It provides defense access, continuity, and emergency capabilities for movements of personnel and equipment in both peace and war. It is about 61,000 miles, including the 45,400-mile system of Interstate and Defense Highways and 15,600 miles of other important public highways. STRAHNET connectors (about 1,700 miles) are additional highway routes linking over 200 important military installations and ports to the STRAHNET. These routes are typically used when moving personnel and equipment during a mobilization or deployment. Generally, these routes end at the port boundary or installation gate.

Performance Goal: In FY 2001, improve access between key military installations (including power projection and power support platforms) and the air or seaport point of embarkation to support DOD deployment requirements.

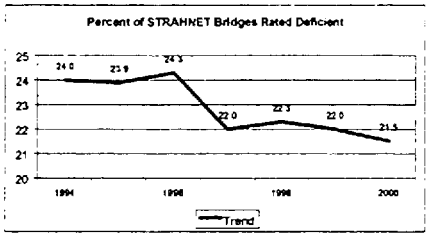
Performance Measure and Results: Percentage of Miles on STRAHNET with IRI ≤ 170 in/mi

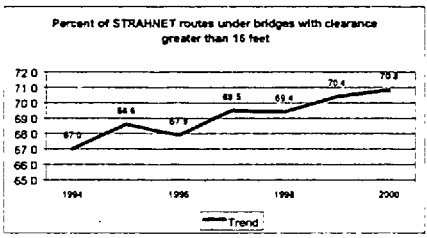


An increase in the number of miles of STRAHNET and STRAHNET connectors in good condition indicate that State DOTs are investing resources in this important highway network. A decrease indicates that more funding may be needed to provide a safer, more efficient roadway for defense mobility.

Performance Measure:
Percent of bridges on STRAHNET rated deficient

Performance Measure:
Percent of STRAHNET routes under bridges with clearance greater than 16 feet





Safe and unrestricted operation of bridges on the STRAHNET and STRAHNET connectors are an indication of our ability to support defense mobility. The number of deficient bridges is a means of measuring the capability of the system.

External Factors: STRAHNET routes are part of the overall NHS and therefore maintained by the States in accordance with their transportation plans. FHWA and the Military Traffic Management Command Transportation Engineering Agency (MTMCTEA) work with FHWA Division Offices to focus State attention on STRAHNET-specific needs. However, without a separate funding category for the STRAHNET, it is difficult to track the States' investment in the system. Replacement of bridges that are less than 16 feet is not required for every military deployment route, so a goal of 100% is not needed.

2000 Results: IRI data for 2000 will not be available until the fall of 2001, but the trend indicates continued progress.

Discontinued Measure: FHWA and its partners at the MTMCTEA met throughout FY 2000 to develop an index of DOD satisfaction for use as a performance measure. The working group found that the measures developed for FY 2001 (above) were clearer and more useful. They therefore discontinued efforts on the satisfaction index.

FY 2001 Performance Plan Evaluation: FHWA established these measures in FY 2000. While the historic data indicates improvement, we will continue to work with our DOD partners to ensure that we have the most accurate measure of our unique contribution to military deployment needs.

Strategies and Initiatives to Achieve 2002 Goal: The most important STRAHNET and STRAHNET connectors routes are those used to support the Army's and Marine Corps'

movement requirements between the Power Projection Platforms and seaports of embarkation. The FHWA also manages the national data on condition of roads and bridges including the STRAHNET and STRAHNET connectors. This information is provided to the DOD Military Traffic Management Command Transportation Engineering Agency to support their national defense strategies.

A second key strategy is to focus on operational aspects of DOD's deployment requirements. In 2001, the FHWA will organize and conduct emergency preparedness meetings in each State with military and State officials. Specific guidance and measurable deployment requirements will be identified. Subsequent FHWA Performance Plans will then focus on measures that are critical to our DOD customer's deployment requirements. Together, FHWA's strategies will support national security by ensuring both infrastructure and operations satisfy our defense deployment needs.

Other Federal Programs with Common Outcomes: FHWA is working with the MTMC and Office of the Secretary of Transportation to ensure coordination of our National Security goal to support defense mobilization.

Organizational Excellence

To achieve our Organizational Excellence Goal, FHWA will pursue the Strategic Objectives below and measure our success through the following Performance Goals and Measures.

Strategic Objective 1: Improve customer/partner satisfaction

Performance Goal: Add value in the delivery of our products and services.
Performance Measure: Customer/Partner rating of the timeliness of our decisions, usefulness of our information, and competency of our personnel.

Strategic Objective 2: Improve employee satisfaction and effectiveness

Performance Goal: Increase job-related training and professional development opportunities available to employees.
Performance Measure: Percent of payroll for training and development.

Performance Goal: Increase employee job satisfaction
Performance Measure: Percent employee job satisfaction.

Strategic Objective 3: Improve organizational performance

Performance Goal: Increase the timeliness of the recruitment and selection process
Performance Measure: Percent of the selections are made within 90 days of the position becoming vacant.

Performance Goal: Improve FHWA's delivery of the Federal-aid and Federal Lands Highway programs
Performance Measure: Percent of obligations expended on open (active) projects.
Performance Measure: Average number of months from the Notice of Intent to approval of the Record of Decision and from the start of the Environmental Assessment process to FHWA's issuance of the Finding of No Significant Impact (FONSI).

Organizational Excellence, which is a new goal in the USDOT 2000-2005 Strategic Plan, builds upon the Corporate Management Strategies. FHWA's efforts to improve Organizational Excellence are guided by our seven Corporate Management Strategies:

- Leadership
- Strategic Planning
- Customer/Partner Focus
- Information and Analysis
- Human Resource Development
- Process Management
- Business Results

Organizational Excellence

Strategic Objective: Improve customer/partner satisfaction.

Adding Value Customer/Partner satisfaction means paying attention, listening, and learning and then using that information to deliver what the customer/partner wants. To constantly add value in the delivery of the Federal-aid and Federal Lands Highway programs and improve our relationship with all our partners and customers, we invite feedback. From the Internet, to listening sessions, to sophisticated surveys, we encourage customers to tell us what they expect from us and how satisfied they are with us. Then we go about incorporating that feedback to increase the value we add to every part of our operation.

Performance Goal: Add value in the delivery of our products and services.

Performance Measure/Target: Customer/Partner rating of the timeliness of our decisions, usefulness of our information,[1] and competency of our personnel.

[1]The 2001 survey response was based on customer/partner rating of the usefulness of our "technical assistance" information in terms of being current, helpful, and relevant.

External Factors: FHWA has to serve many different partners/customers who have unique needs and expectations. To deliver these products and services requires an understanding of our customer/partner needs and expectations.

2000 Results: FHWA will gather this information through existing survey instruments, such as the American Customer Satisfaction Index (ACSI) survey currently going out to approximately 250 State Department of Transportation District Engineers regarding FHWA service. Results will be available in Spring 2001.

FY 2001 Performance Plan Evaluation: This is a new performance goal in FY 2002.

Other Federal Programs with Common Outcomes: One of the benefits of the ACSI survey instrument is that FHWA could use the results of the survey to benchmark against other agencies, both public and private sectors. There are many other agencies using customer satisfaction as a measure of their organizational excellence and the results of those agencies could be used to set FHWA goals and targets.

Organizational Excellence

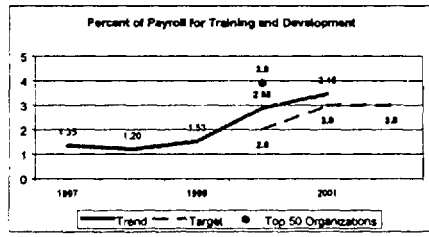
Strategic Objective: Improve employee satisfaction and effectiveness

Training Investment

Central to the success of achieving our goals are our 2800+ employees that make up the FHWA workforce. By significantly increasing funding devoted to professional development and training, we are offering more opportunities for employees to learn and make greater contributions to our customers.

Performance Goal: Increase job-related training and professional development opportunities available to employees.

Performance Measure/Target: Percent of payroll for training and development[2].



External Factors: N/A

2000 Results: The FY 2000 training investment exceeds the target by 44 percent. On the average, Top 50 Training Organizations spent more than $5.3 billion (i.e., an average of 3.9 percent of payroll—a full 1.3 percent higher than the industry norm of 2.6 percent) on training and development initiatives in 2000. These companies have embraced training as a mission-critical strategy and accordingly, have dedicated significant resources to their training efforts.

FY 2001 Performance Plan Evaluation: The FY 2001 projected training investment exceeded the target by 15 percent.

Other Federal Programs with Common Outcomes: N/A

[2]Investment calculated as a percent of payroll (salary plus benefits). Percentages represent total investment in training including tuition, contract costs, participants travel and per diem and instructor travel for all training and career development courses and programs for FHWA employees.

Organizational Excellence

Strategic Objective: Improve employee satisfaction and effectiveness

Employee Job Satisfaction FHWA's successful performance depends on empowered employees who work in a positive, supportive organizational environment. Employees who are satisfied with their workplace, developmental opportunities, and resources are more likely to provide quality service to their customers.

Performance Goal: Increase employee job satisfaction.

Performance Measure and Results: Percent employee job satisfaction. The All-Employee Survey will provide the basis for determining overall employee satisfaction. Job Satisfaction was determined to be the overarching measure for this category of indicators. The percentages represent either "strongly agree" or "somewhat agree.

"I am satisfied with my job." (FHWA 2000 Q4)

"Considering everything, how satisfied are you with your job?" (National Performance Review (NPR) 2000 Q28)

"Overall, I am satisfied with my job." (Merit Systems Protection Board (MSPB) 2000 Q27)

Employee Satisfaction Survey Results (Percent Favorable)

Survey Questions	FHWA 1995	FHWA 1999	FHWA 2000	NPR 2000	MSPB 2000
Job Satisfaction	82%	73%	80%	63%	67%
Career Development	74%	42%	55%	-	-
Internal Communications	54%	46%	53%	-	-
Know What is Expected of My Work Group	92%	89%	92%	-	-
Applying Skills and Expertise	53%	74%	80%	-	-
Rewards and Recognition	74%	55%	63%	-	-
Sensitive to Employee Needs	74%	65%	75%	-	-
Adequate Office Equipment/Supplies	74%	70%	79%	-	-
Satisfied with FHWA as as Place to Work	-	-	78%	-	-

External Factors: N/A

FY 2001 Performance Plan Evaluation: Employee satisfaction has increased in all measure areas in FY 2000 over FY 1999. The 2001 results summary is expected to be available in August 2001.

Other Federal programs with Common Outcomes: None.

Organizational Excellence

Strategic Objective: Improve organizational performance.

Recruitment and Selection In today's tight labor market, it is a great challenge to recruit, hire, and retain qualified employees. Due to the greatly expanded program size, vis-à-vis smaller staff size, we need to fill vacancies with the most qualified candidates in a timely manner to get the maximum use of resources and to continue to provide a high level of customer/partner service.

Performance Goal: Increase the timeliness of the recruitment and selection process Performance Measure/Target: Percent of the selections are made within 90 days of the position becoming vacant.

External Factors: In tracking and evaluating the agency's performance, positions in several programs will be excluded from the 90-day requirement due to their unique processes. These positions include the SES, the Professional Development Program, and vacancies that fall under the Technical Career Track program. In addition, on a case-by-case basis, special consideration will be given when positions have unusual requirements or results, such as recruitment advertisements in professional journals.

2000 Results: While we currently have the ability to extract the necessary data, it has not been specifically collected and/or analyzed prior to FY 2002. For future years, this data will be tracked and maintained to develop a benchmark and show overall timeliness results for the agency.

FY 2001 Performance Plan Evaluation: This is a new performance goal in FY 2002.

Other Federal Programs with Common Outcomes: N/A

Organizational Excellence

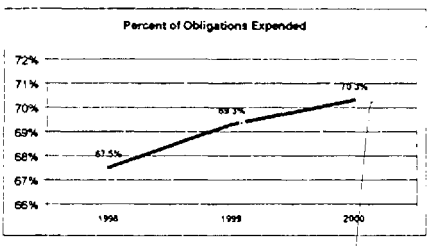
Strategic Objective: Improve organizational performance.

Transportation Investment

The need for surface transportation investment continues to exceed the availability of funds at the Federal, State, and local levels. As Federal funds are made available, it is important that those funds be put to use as readily as possible. Many of our field employees have a hard time relating to the National plan because they do not see how they fit in the National outcome goals. This measure provides the strongest link to what they do everyday. In other words, no matter where you work in FHWA, you can help contribute to this goal by assisting our partners improve in the planning, environment, design, and construction phases. In addition, the Congress and the public would be interested in knowing how much money is actually expended in making roads better. This measure represents our best collective effort in developing a measure to gauge FHWA's ability to deliver the Federal highway program.

Performance Goal: Improve FHWA's delivery of the Federal-aid and Federal Lands Highway programs.

Performance Measure/Target: Percent of obligations expended on open (active) projects



External Factors: Several years are required on the average project for obligated funds to be fully expended. However, streamlining the preconstruction phases, using incentive contracts, improving project funds management, and applying innovative finance techniques can expedite project delivery.

2000 Results: The amount expended compared to the total amount obligated on open (active) Federal-aid and Federal Lands Highway projects showed a one percent increase from Fiscal Year 1999.

Purpose: This measurement simply reflects the rate at which Federal funds obligated on Federal-aid and Federal Lands Highway projects are fulfilling their intended purpose. In other words, expenditures reflect actual project activity. However, measuring only the expenditure amount does not necessarily reflect improvements to the process when the size of the program is increasing. The better measurement is to compare expenditures as a percentage of obligations. An increase in the rate suggests that the average project is advancing faster than it was the year before.

FHWA's Contribution: As a facilitator and promoter of best business practices, FHWA can contribute to this goal by assisting the Federal, State, and locals in the planning phase to identify projects that are ready for advancement; streamlining the environmental process;

encouraging the use of innovative contracting; applying innovative finance techniques such as advance construction, GARVEE bonds, State infrastructure banks, or tapered match; and encouraging better project funds management through the early release of excess obligations.

Method of Calculation: The percentage is based on the total amount obligated on all Federal-aid and Federal Lands Highway projects (regardless of year authorized) that have not been final vouchered (FMIS report M79) as of September 30 each year. This amount is compared to the unpaid obligations (FMIS report M80) as of the same day. This provides the amount expended on all open (active) projects. This measure does not reflect activity for a single fiscal year.

Significance: The rate increase from September 30, 1999, to September 30, 2000, was one percent. If the rate had not changed, the amount expended (project activity accomplished) as of September 30, 2000, would have been $1.3 billion less.

FY 2001 Performance Plan Evaluation: This is a new performance goal in FY 2002.

Other Federal Programs with Common Outcomes: N/A

Organizational Excellence

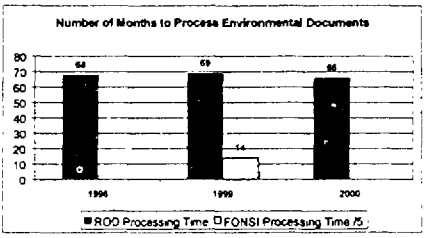
Strategic Objective: Improve organizational performance.

NEPA Process

The recent Congressional streamlining mandate in TEA-21 focuses on expedited project delivery - doing the NEPA process faster and better. While streamlining and faster, better processing is not a new idea or goal, it has gotten a great deal of attention lately and is a primary focus of FHWA at the highest level in the organization.

Performance Goal: Improve FHWA's delivery of the Federal-aid and Federal Lands Highway programs.

Performance Measure/Target: Average number of months from the Notice of Intent to approval of the Record of Decision (ROD) and from the start of the Environmental Assessment process[4] to FHWA's issuance of the Finding of No Significant Impact (FONSI).



[4]The start of the Environmental Assessment (EA) process is defined as either a) the date the applicant notified FHWA and other agencies that they have started the EA process, b) the date the authorization was issued if Federal funds were requested for preparation of the EA, c) the date of the notice to proceed, or d) the date a project number was established.

External Factors: Public expectations and demands for transportation solutions, today, not ten years from now, are understandable, given the magnitude and pervasiveness of America's transportation challenges. Equally understandable is the public's desire for environmentally friendly ways of doing business. Sometimes these two societal goals work in conflict.

2000 Results: The Environmental Impact Statement processing times were based on surveying of Division Offices for information on a) Records of Decision (RODs) approved in a given calendar year; b) dates for the approved ROD and the publication of the Notice of Intent (NOI); and c) the duration between these two dates. The average time for processing RODs was used.

[5]The FONSI Processing Time shown in the chart is based on pilot testing of 7 states conducted by the FHWA-State Partnership Task Force

The Environmental Assessment processing time was based on a survey of 7 pilot states for information on a) number of calendar months from the approval of action (such as the date a project was established, the project number, or the date of the notice to proceed) to complete Environmental Assessment documents receiving a FONSI in the last fiscal year (FY99); and b) number of environmental assessment documents. The average time for processing FONSIs was used.

FY 2001 Performance Plan Evaluation: This is a new performance goal in FY 2002. For future reporting, information on processing time from Notice of Intent to a) Draft EIS; b) Final EIS; c) Record of Decision; d) EIS with 4(f); and e) EIS without 4(f) will be tracked.

Organizational Excellence

Other Federal Programs with Common Outcomes: In its simplest terms, environmental streamlining consists of cooperatively establishing realistic project development time frames among the transportation and environmental agencies, and then working together cooperatively to adhere to those time frames. Because major transportation projects are affected by dozens of Federal, State, and local environmental requirements administered by a multitude of agencies, improved interagency cooperation is critical to the success of environmental streamlining.

Organizational Excellence

Corporate Management Strategies: Continually improve FHWA management strategies for customer service and quality product delivery, as guided by the seven Corporate Management Strategies.

FHWA's Corporate Management Strategies (CMS) serve as internal guidance designed to enable us to effectively and efficiently achieve our strategic goals. The CMS are based on the seven universally accepted criteria that comprise the Malcolm Baldrige and President's Quality Award criteria. These criteria are the strategies of the FHWA Quality Journey.

Leadership: Strengthen the FHWA Leadership System, through training and other developmental initiatives, for the agency's new organizational structure.

FHWA leaders are responsible for leading the FHWA Quality Journey and for carrying out its Corporate Management Strategies. Leaders set the vision and direction, ensure accountability, and provide the resources to deliver the products and services to our customers in an excellent and timely manner.

Initiatives:
- Strengthen horizontal and vertical communications.
- Conduct and analyze results from the biennial Unit-level Self Assessment.
- Establish 2003 Reauthorization Framework for FHWA.

Strategic Planning: Translate strategies into unit, division, team and individual action plans with performance measures based on the strategic objectives and performance goals.

Strategic Planning is essential to the long term viability of the Agency. FHWA Leadership uses the Strategic Plan to set the direction for the Agency, to prepare annual performance plans, and to allocate resources for attaining our strategic goals. The Plan is deployed throughout the Agency to the unit, division, team and individual level.

Initiatives:
- Conduct FY 2002 Program Evaluations, i.e., CMAQ Program Study.
- Enhance Shared Unit Performance Plan System—SUPPS.
- Design and conduct Strategic Planning intake sessions.

Customer/Partner Focus: Identify customer and partner needs and measure their level of satisfaction.

FHWA achieves success through extensive cooperation and partnering with State and local transportation agencies. We receive and act upon feedback from customer surveys, listening sessions, focus groups and other learning techniques. We use that information to improve products and services to ensure customer and partner needs are met.

Initiatives:
- Operationalize Customer Feedback Toolbox/Focus Model to assist organizational units in delivering programs and services that increase the satisfaction level of our customers/partners with our services and products. Use the American Customer Satisfaction Index survey information gathered and other feedback methods such as the

Partnership Relationship Survey tool to identify trends, opportunities, and performance gaps to target areas for improvement.
- Design and begin implementation of a systematic, constituency-based plan for reauthorization outreach from an agency-wide perspective.

Information and Analysis: Identify and develop key business information systems that meet and track DOT and FHWA strategic goals.

FHWA needs information to support key processes and improve performance. Leaders create an environment in which knowledge, as a key asset of the organization, is managed, shared and used effectively.

Initiatives:
- Expand the application of Knowledge Management across the agency.

Human Resource Development and Management: Increase employee technical competence, authority and the tools needed to meet agency and customer needs.

FHWA's successful performance depends on a work force with skills aligned with the Agency's objectives. We continue to develop and utilize the full potential of our human resources and to create an environment conducive to performance excellence and personal and organizational growth.

Initiatives:
- Implement action items identified by the Work Force Planning and Professional Development Task Force.
- Implement FY 2001 All-Employee Survey results.
- Operationalize Phase 2 of the Learning and Development Systems (LADS) to track whether training needs are being met.
- Develop a process for evaluating the impacts of the training investment.
- Implement FHWA Multi-Year Affirmative Action Employment Plan.
- Deploy Expertise Locator and Community of Practice across the agency.

Process Management: Design, manage and improve key processes to achieve better performance.

FHWA uses customer-focused support, service and delivery processes to continually improve performance and enhance our products and services. We utilize employee appropriate feedback mechanisms and assessments from customers and partners.

Organizational Excellence

Initiatives:
- Each organizational unit will identify, map, improve and track at least one key business process in FY 02.
- FHWA Key Business Processes would be expanded so each organizational unit could align their own activities with those of the agency.
- Expand partnership metrics to include additional partner segment.
- Track and improve performance measures recommended by the Division Key Process team.
- Coordinate and develop agency-wide performance measures on Technology and Innovation Deployment.
- Promote best practices, innovative financing, and better project funds management.

Business Results: Develop critical FHWA business metrics to measure the overall quality of processes and services and report results.

We will use customer feedback and benchmark high-performance organizations to continuously improve our overall performance for our customers.

Initiatives:
- Report results in year-end Performance Report.

Appendix I

Details of Performance Measures

Safety

Measure: Rate of highway-related fatalities per 100 million vehicle miles traveled (VMT) [illegible]

Data Source: NHTSA's Fatality Analysis Reporting System (FARS) for fatality data. FHWA's VMT data provided by its Highway Performance Monitoring System (HPMS). Information is transmitted to NHTSA and entered into the system after undergoing data review by NHTSA.

Scope of Data: Number of fatalities come from Fatality Analysis Reporting System (FARS) data, a census of fatal traffic crashes within the 50 states, D.C. and Puerto Rico. To be included in FARS, a crash must result in the death of an occupant of a vehicle or a non-motorist within 30 days of the crash. FARS data is a 100% count of fatal crashes collected from police crash reports, and other State data. FARS data cover all roadways open to the public, using the National Highways System classification of roads. Pedestrian and bicycle fatalities that occur on public highways but do not involve a motor vehicle are not recorded in FARS; however, this is a small number of fatalities. Vehicle miles of travel (VMT) data is derived by FHWA from state reported estimates of travel based on various levels of sampling dependent on road type.

Measurement Methodology: FARS data are collected in each State by State employees, translated into a standard format, and transmitted to the NHTSA. Data are collected from police crash reports, State vehicle registration files, driver licensing files, highway agency records, vital statistics, death certificates, coroner/medical examiner reports, hospital medical reports, and emergency medical service reports.

The HPMS is an integrated data base that relies on the State highway agencies to annually report area wide data, universe data, standard sample data, "donut" area sample data, and linear reference system data for GIS.

Comments: FARS data elements are modified slightly from year to year to respond to emphasis areas, vehicle fleet changes, and other needs for improvement.

FARS is a census of all highway traffic fatalities. As such it does not include information on crashes that produce only non-fatal injuries or that result in only property damage.

Quality improvements are needed for location information in FARS that permits linkage to highway information for targeting problems and improvement strategies for the highway infrastructure. In 1998, NHTSA began a GPS strategy to correct this shortcoming.

[illegible]

Data Source: DOT information systems: NHTSA General Estimates System (GES) for number of nonfatal injuries and FHWA Highway Performance Monitoring System (HPMS) for VMT both using States' data

Appendix I

Scope of Data: Injured persons data is derived from General Estimates System (GES), a nationally representative probability sample that makes national estimates of total nonfatal injury crashes, injured persons, and property damage only crashes. GES data cover all roadways open to the public, using the National Highways System classification of roads. vehicle miles of travel (VMT) data is derived by FHWA from state reported estimates of travel based on various levels of sampling dependent on road type.

Measurement Methodology: The GES collects general information about the location of crashes in its sample. The HPMS is an integrated data base that relies on the State highway agencies to annual report area wide data, universe data, standard sample data, "donut" area sample data, and linear reference system data for GIS. The area-wide data consist of five statewide summaries. The summaries include data on travel and fatal and nonfatal crashes. This summary will be dropped from future HPMS.

Comments: The GES sample plan only allows estimates of national totals, not detailed State by State breakdowns. Only general information is collected on the type of crash and highway system involved. The GES sample is designed to analyze vehicle and occupant injury information, not the roadway elements.

Although various sources suggest that about half the motor vehicle crashes in the country are not reported to police, the majority of these unreported crases involve only minor property damage and no significant personal injury. By restricting attention to police reported crashes, the GES concentrates on those crashes of greatest concern to the highway safety community and the general public.

Appendix I

Mobility

Measure: Percent of vehicle kilometers/miles traveled on the National Highway System's [illegible] pavement performance standards for acceptable ride quality (International Roughness Index – [illegible] 170 in/mi)

Data Source: Information system: Highway Performance Information System (HPMS)

Scope of Data: Data include vehicle miles traveled on the HPMS reported NHS sections and pavement ride quality data reported using the International Roughness Index (IRI). IRI is a quantitative measure of the accumulated response of a "quarter-car" vehicle suspension experienced while traveling over a pavement.

Measurement Methodology: Data are collected by the State Highway Agencies and reported to FHWA for the HPMS. They are obtained from measurement devices that meet industry set standards. Recommended measurement procedures are included in the HPMS Field Manual.

Data Issues: IRI data for the approved NHS exist from 1995 onward. Past data (1993 and 1994) were collected on the proposed, rather than the approved NHS. No NHS IRI data are available prior to 1993. The HPMS requires States to report IRI data every two years. In the HPMS Field Manual, FHWA refers to AASHTO Provisional Standards for measurement of pavement profile as the preferred method for equipment and data collection.

Measure: Percentage of NHS Bridges' deck area classified as deficient for all ADT (structurally deficient or functionally obsolete)

Measure: Percentage of Non-NHS Bridges' deck area classified as deficient for all ADT (structurally deficient or functionally obsolete)

Data Source: National Bridge Inventory (NBI) information.

Scope of Data: The National Bridge Inventory System (NBIS) requires the inspection of all bridges located on public roads and the submission of the collected bridge inventory and inspection data to the FHWA for inclusion in the NBI. The FHWA maintains the NBI. The NBI contains data on the Nation's 582,750 highway bridges. The information in the NBI contains 95 data items for each of the bridges as required by the Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges. From the data provided, the FHWA monitors the condition of the Nation's bridges, which includes identifying those bridges that are either functionally obsolete or structurally deficient.

Measurement Methodology: The bridge information is collected by the State DOTs and other bridge owners and is provided to the FHWA at least annually (Note: Some States do it quarterly). As part of the FHWA's NBI, NBIS, and Highway Bridge Replacement and Rehabilitation Program (HBRRP) monitoring and oversight responsibilities, the accuracy and reliability of the submitted NBI information is constantly evaluated through data checks and field reviews by both Headquarters and field office personnel.

Appendix I

Data Issues: The NBI is the world's most comprehensive database of bridge information.

Measure: Percent overall user satisfaction with the Nation's highway systems.

Data Source: BTS Omnibus Survey conducted in 2000 and the Nationwide Personal Transportation Survey and National Quality Initiative (NQI) Survey conducted in 1995.

Scope of Data: A national sample of households.

Measurement Methodology: The DOT Bureau of Transportation Statistics conducted a telephone survey in calendar year 2000 of 2,030 randomly-selected U.S. households. Participants were asked multiple-choice questions concerning changes in the public's satisfaction with specific characteristics of the Nation's roads, as well as question focused on satisfaction from a community perspective.

Data Issues: None.

Measure: Percent user satisfaction with the Nation's intermodal linkages.

Data Source: Traveler Perception Survey

Scope of Data: A national sample of freight shippers and passengers.

Measurement Methodology: Survey both freight shippers/stakeholders and passengers to ascertain satisfaction with both highway system and connectors.

Data Issues: None

Congested travel
Measure 2001: Slow the projected growth figure of 33.6% to 33.4%
Measure 2002: Slow the projected growth figure of 34.1% to 33.9%

Data Source: Highway Performance Monitoring System (HPMS).

Scope of Data: HPMS data elements reported from approximately 400 urbanized areas within the United States. Data is based upon daily travel on the freeways and on arterial streets.

Measurement Methodology: Methodology used to calculate performance measures has been developed by the Texas Transportation Institute and used in their annual Mobility Study.

Data Issues: The proportion of congested travel figures used in calculating the measures are computed rather than measured values. The computed values may understate congestion, as delay from incidents is not calculated.

Appendix I

Traveler Delay

Measure 2001: Slow the projected growth of 34 hours to 33.5 hours
Measure 2002: Slow the projected growth of 35 hours to 34.5 hours

Data Source: Highway Performance Monitoring System (HPMS).

Scope of Data: HPMS data elements reported from approximately 400 urbanized areas within the United States. Data is based upon daily travel on the freeways and on arterial streets. Hours of delay is derived from congested traffic volumes, crashes, and/or vehicle breakdowns.

Measurement Methodology: Methodology used to calculate performance measures has been developed by the Texas Transportation Institute and used in their annual Mobility Study.

Data Issues: None

Travel Time Measure

Measure 2001: Slow the projected growth percentage of 27% to 26.6%
Measure 2002: Slow the projected growth percentage of 28% to 27.6%

Scope of Data: HPMS data reported from approximately 400 urbanized areas within the United States. Data represents peak period travel.

Measurement Methodology: Methodology used to calculate performance measures has been developed by the Texas Transportation Institute and used in their Mobility Study.

Data Issues: The travel time figures used in calculating the measures are computed rather than measured values. The computed values may understate travel time, as delay from incidents is not calculated.

Appendix I

Productivity

Measure: Cost of highway freight per mile (to be developed)

The following interim steps will be taken in FY 2001 to develop the performance measure "Cost of highway freight per ton-mile"

- In October 2000, we will have an initial subset of motor carriers to report trends and changes in expenses on ton-mile movements over time.
- Results will be vetted with partners and customers by the 3rd quarter of FY 2001.
- Actual or surrogate measure and targets will be tested in FY 2001.

Measure: Hours of delay/1000 commercial vehicles processed at NHS border crossings.

The following interim steps will be taken in FY 2001 to develop the performance measure "Hours of delay per 1000 vehicles processed at 4 NHS border crossing pilot sites."

- Identify surrogate measures by end of 1st quarter FY 2001.
- Vet measure(s) with partners and stakeholders in 2nd quarter of FY 2001.
- Finalize measure(s) and present to FHWA Management Council by December 2001.

Measure: Improve the efficiency of highway infrastructure investments by developing and promoting the use of engineering/economic analysis tools for decision making.

To be developed.

For FY 2002, FHWA has identified two immediate initiatives which will help FHWA to meet this long-term goal: (1) Establish a pilot program with five States in FY 2000 to test the applicability of existing engineering/economic investment models, specifically the Highway Economic Requirements System (HERS) Model, to help States make highway program investment decisions; and (2) Initiate development of a life-cycle cost analysis (LCCA) model for subsequent testing by states in FY 2001.

Baseline data will be collected following the delivery of executive-level training in engineering-economic analysis tools to the FHWA Division Administrators in late summer and early fall 2001.

Appendix I

Human and Natural Environment

Measure: Percent community satisfaction with the Nation's highways contribution to meeting community goals. (To be developed as part of the Nationwide Personal Transportation Survey (NPTS) and the BTS Omnibus survey; see also mobility goal).

Data Source: FHWA NPTS FY 2000 Survey and the BTS Omnibus survey.

Scope of Data: National sample of population.

Measurement Methodology: FHWA's Office Highway Policy Information administers the survey. BTS is developing the Omnibus survey.

Data Issues: NPTS is conducted about every 5 years rather than annually so year to year trends will not be available. BTS will include community satisfaction questions in its survey, but a measure of community satisfaction will have to be developed.

Measure: EPA rating of FHWA Environmental Impact Statements (EIS). Percent of EIS's rated LO.

Data Source: FHWA Database of EPA FIS Ratings

Scope of Data: Data captured is EPA staff ratings of EISs prepared by other Federal agencies.

Measurement Methodology: EPA's Office of Federal Activities compiles data from EPA regional office comment letters.

Measure: On-road mobile source emissions in short tons.

Data Source: National Air Quality and Emissions Trends Report, EPA. (EPA uses data from FHWA's Highway Performance Monitoring System (HPMS)).

Scope of Data: Figure is the sum of on-road mobile source emissions of carbon monoxide, hydrocarbons, nitrogen oxides, and particulate matter less than 10 microns in diameter (PM-10).

Measurement Methodology: The annual emissions level is the estimated total annual tonnage of on-road mobile source emissions of carbon monoxide, hydrocarbons, nitrogen oxides, and PM-10 as reported in the latest EPA Trends Report.

Data Issues: The Trends Report is usually available around October of each year. There is a 1-year time lag for the emissions data. For example, the March 2000 report contains 1998 data.

The EPA's use of a mathematical model poses issues of model validation. The annual variation in the model's estimates, as measured by the regression standard error, is 2.57. The HPMS data used as input to the model are subject to sampling and non-sampling errors.

Appendix I

Measure: Percent of nonattainment and maintenance areas meeting their mobile source emissions budget goals.

Data Source: FHWA Field offices

Scope of Data: Data is collected every year on July 1 in order to generate data trend.

Measurement Methodology: Each FHWA field office is requested to report the number of nonattainment and maintenance areas that meet their mobile source emissions budget by pollutant.

Data Issues: The makeup and severity of nonattainment areas will vary year to year. The data collected reflect only a snapshot status of the nonattainment and maintenance area. When an area does not meet the air quality standard for one of the criteria pollutants, it may be subject to the formal rulemaking process which designates it "nonattainment." The Clean Air Act Amendments (CAAA) of 1990 and subsequent rulemakings further classify ozone (O_3), carbon monoxide (CO), and some particulate matter (PM-10) nonattainment areas based on the magnitude of the area's problem. Nonattainment classifications are used to specify what air pollution reduction measures an area must adopt and when the area must reach attainment.

Measure: Ratio of wetland replacement resulting from Federal-aid highway projects.

Data Source: State DOT wetland mitigation databases.

Scope of Data: Data is available for FY96 through FY 2000.

Measurement Methodology: Data records are compiled by DOTs using locall, developed databases. A new FHWA Wetlands Management Database, when available, will also be used.

Data Issues: At this time, FHWA only requests data on an annual basis. The data is summary in nature; reflecting total acres of wetlands impacted versus total acres of mitigation provided.

The uniformity of the data is not guaranteed. The data is subject to interpretation by the reporting State DOTs. In particular, there is no uniform understanding of what should be reported as mitigation acreage. The FHWA has provided guidance on mitigation activities to report and will soon issue the Wetlands Management Database which should reduce the current variations in data received from the States.

Appendix I

National Security

Measure: Percentage of STRAHNET and STRAHNET connectors with IRI<170 in/mi

Data Source: The FHWA Highway Performance Monitoring System (HPMS) for roads and National Bridge Inventory (NBI) for bridges on STRAHNET (including STRAHNET connectors) and Customer Surveys.

Scope of data: Adequate condition of STRAHNET and STRAHNET connectors to support DOD deployment and mtmctea Satisfaction Data with highways serving military installations.

Measurement methodology: Annual update to HPMS, NBI, and Customer-Partner Surveys.

Data issues: HPMS and NBI condition data continually being updated and made more accurate for use in geographical information system (GIS) application. Customer-Partner satisfaction criteria and data is being developed.

Measure: Percentage of STRAHNET bridges classified as deficient (structurally deficient or functionally obsolete).

Percent of STRAHNET routes under bridges with clearance of more than 16 feet

Data Source: National Bridge Inventory (NBI) information.

Scope of Data: The National Bridge Inventory System (NBIS) requires the inspection of all bridges located on public roads and the submission of the collected bridge inventory and inspection data to the FHWA for inclusion in the NBI. The FHWA maintains the NBI. The NBI contains data on the Nation's 582,750 bridges. The information in the NBI contains 95 data items for each of the bridges as required by the Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges. From the data provided, the FHWA monitors the condition of the Nation's bridges, which includes identifying those bridges that are either functionally obsolete or structurally deficient.

Measurement Methodology: The bridge information is collected by the State DOTs and other bridge owners and is provided to the FHWA at least annually (Note: Some states do it quarterly). As part of the FHWA's NBI, NBIS, and Highway Bridge Replacement and Rehabilitation Program (HBRRP) monitoring and oversight responsibilities, the accuracy and reliability of the submitted NBI information is constantly evaluated through data checks and field reviews by both Headquarters and field office personnel.

Data Issues: The NBI is the world's most comprehensive database of bridge information.

U.S. Department of
Transportation

BUDGET ESTIMATES

FISCAL YEAR 2002

FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

SUBMITTED FOR USE OF
THE COMMITTEES ON APPROPRIATIONS

(1181)

DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

FISCAL YEAR 2002
BUDGET REQUEST

SUBMISSION TO CONGRESS

April 2001

DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

FY 2002 BUDGET REQUEST
SUBMISSION TO CONGRESS

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DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

GENERAL STATEMENT

On January 2, 2001, the Federal Motor Carrier Safety Administration (FMCSA) celebrated its first full year as an independent agency within the Department of Transportation. This organizational milestone in FMCSA's young history afforded all stakeholders an opportunity to not only reflect on the significant strides made to reduce the number and severity of commercial motor vehicle (CMV) crashes, but also to acknowledge the organizational and programmatic opportunities yet to be addressed.

Established by the Motor Carrier Safety Improvement Act of 1999 (MCSIA) (P.L. 106-159), FMCSA's mission is to *save lives and reduce injuries by preventing truck and bus crashes*. Through a variety of safety and enforcement programs, FMCSA endeavors to strategically leverage and coordinate its resources to achieve fair, effective, and efficient results. With safety at the core of its activities, FMCSA seeks to promote compliance with the Nation's Federal motor carrier regulations through education, technical assistance, outreach, and, when necessary, enforcement. FMCSA uses all tools at its disposal to fashion an effective and results-oriented safety and enforcement program.

The FMCSA, with our State partners, has taken aggressive action to target carriers, vehicles, and drivers with poor safety performance. Under authority provided by the MCSIA, FMCSA is developing or has implemented rules and policies establishing stronger sanctions for violations of safety laws and regulations. Carriers that show patterns of noncompliance face penalties ranging from maximum fines to a shut down of operations. Failure to pay penalties will result in loss of operating authority. Commercial driver licensing regulations are being strengthened as well. FMCSA is seeing the results of its enhanced regulations and expects marginal operators to come into compliance quickly or close down their operations. In the near future, FMCSA expects to implement a program to monitor carriers coming into the trucking business during the first 18 months of operations to ensure they understand and comply with motor carrier regulations.

FMCSA has achieved several noteworthy accomplishments over the past several months. Much effort has been given to identifying the kind of organization FMCSA needs to be to effectively promote motor carrier safety and to be a model organization in government. Throughout FY 2001, FMCSA has moved to fill key positions and staff its agency with the expertise necessary to create an organization of excellence. Staff is working to identify, establish, and implement the policies, procedures, and analytical frameworks to support the agency's mission-critical programs and activities. The growing pains experienced by FMCSA in this first year have influenced the directions to be taken in FY 2002.

During the past year, FMCSA has strategically focused its outreach initiatives toward its goal of a 50% reduction in truck-related traffic fatalities by the end of 2009. This has resulted in two major program initiatives: "Share the Road Safely," which targets all highway users on how to operate safely in and around trucks; and, "Safety is Good Business," which targets the motor carrier industry with best safety and business practices. FMCSA has also stepped up its efforts to make information on motor carrier safety available to a wider population, including enhancements to the FMCSA web site, development and production of broad-based education and technical assistance materials, and development and display of new safety exhibits promoting safe driving behavior at 16 major public events throughout the country.

In the enforcement arena, FMCSA has dramatically increased its enforcement efforts over the last two years. Since 1998, the number of Federal compliance reviews has increased 130 percent, and enforcement cases have increased 75 percent. As of April 1, 2001, three new States have submitted letters of intent to join the Performance and Registration Information Systems Management (PRISM) program. FMCSA fully expects to increase membership by five new States by the end of FY 2002, bringing the total number of States to 23. Additionally, FMCSA's presence at the southwest border has increased by 20 inspectors, for a total of 60 Federal inspectors in FY 2001 who augment State inspection staffing across 23 border crossings in four States.

FMCSA's partnerships with the States, as well as with advocacy and industry groups, are vital to the promotion of commercial motor vehicle safety. Only with a concerted, coordinated effort among all stakeholders will it be possible to advance and achieve safety-related objectives. Efforts around FMCSA's Commercial Driver's License (CDL) program activities underscore the importance of these partnerships. As requested by the FY 2001 Senate Appropriations Committee Report 106-309, FMCSA is providing the following information on activities underway to improve the effectiveness of the CDL program to remove problem drivers from the road and prevent unqualified drivers from obtaining a CDL:

- CDL State Grant Program – Funds made available under the Transportation Equity Act for the 21st Century (TEA-21) and MCSIA are being used to correct deficiencies in State CDL programs; enhance the accuracy and completeness of driver history records and the timely reporting and recording of traffic convictions; and, develop CDL program management control procedures and oversight practices to detect fraudulent activities.

- CDL Test Revisions – FMCSA is reviewing the current CDL knowledge and skills testing to identify methods to improve testing and licensing standards and practices and to issue regulations to reflect the improvements to the testing process.

- Stepped Up Monitoring and Review of State Compliance – FMCSA is training its field staff to conduct more effective State CDL compliance reviews and monitor State CDL programs and to conduct a more thorough technical review and testing of State compliance with the CDL requirements.

- Commercial Vehicle Safety Partnership Program – FMCSA is working to achieve appropriate and uniform adjudication of CDL violations in all States through a presenter's network of targeted messages and formal training to judges, prosecutors, and law enforcement officials, including train-the-trainer courses.

- CDL Symposium – FMCSA's recent CDL symposium provided the opportunity for the FMCSA to interact with State licensing agency personnel to discuss important issues and challenges to implementing the CDL provisions of the MCSIA and explore solutions to common problems in the management and effectiveness of the CDL program.

Similarly, partnerships have played an important role in FMCSA's hazardous materials (HM) program activities. In the past year, FMCSA has worked to strengthen its program to ensure safe transportation of hazardous materials through strong enforcement, partnerships and education, and risk assessment. The agency has implemented a new enforcement and compliance tool to identify hazardous materials violations and collect data on HM shippers with compliance problems. FMCSA conducts two national strike force operations annually and continues to review 8-10% of cargo tank manufacturers each year. Additionally, collaborative efforts with the National Tank Truck Carriers association have resulted in workshops that have trained over 1,000 industry personnel on cargo tank test and inspection regulations. In January 2000, FMCSA completed a comparative risk assessment of hazardous materials transportation that will be incorporated into its carrier compliance review selection system.

The foundation laid by FMCSA in FY 2001 is a solid one upon which to build a sound future. The lessons learned over the past year by the agency are invaluable to setting a determined direction in FY 2002. Motor carrier safety represents an especially challenging problem, but FMCSA has begun to make progress. The 2002 budget contains a number of safety initiatives that play a key role in meeting FMCSA's overall mission. For further discussion on FMCSA's performance goals and targets please see the attached FY 2002 Performance Plan.

To ensure that the agency has the resources necessary to continue its current level of service, to fund legislatively mandated activities at fully authorized levels, and undertake key safety initiatives, an increase to FMCSA's administrative takedown from 1/3% to 2/3% is needed. At this level, FMCSA will be able to enhance its safety activities, increase FMCSA's presence at the U.S./Mexico border, and increase its safety research and technology programs. The FY 2002 budget also provides for a three-year obligation limitation on funds under FMCSA's research and technology program, facilitating the pursuit of long-term projects aimed at crash reduction efforts.

Highlights of FY 2002 Funding

The FY 2002 request provides an increase of $46.6 million to fund current operations, agency mandates, and program enhancements, including 90 new FTE, under FMCSA's Motor Carrier Safety (Operations and Research) account. The request also provides an increase of $28.2 million, including $22.8 million in RABA, to fund activities within the National Motor Carrier Safety program.

Motor Carrier Safety (Operations and Research)
$139 million, 51% above 2001, is requested to support critical motor carrier safety activities that will save lives and prevent injuries on our Nation's highways. The FY 2002 budget proposes funding for the following safety program activities:

- $19 million to station 80 additional Federal enforcement personnel at the U.S./Mexico border and to enhance motor carrier safety enforcement, oversight, and outreach activities. To ensure that the southwest border is opened with the utmost attention placed on safety, an immediate Federal presence will need to be established to perform enhanced inspection and safety monitoring processes on commercial motor vehicles entering the United States. Other safety operations enhancements include: developing a system through which to identify, review, and monitor new carrier entrants; initiating a pilot program to determine an effective approach to revisit carriers that have been identified as "conditional" in recent compliance reviews; and expanding outreach efforts to better educate the public, partners, and stakeholders about motor carrier safety responsibilities.

- $14 million for motor carrier safety research and technology—$4 million above FY 2001. New initiatives include: field testing advanced truck safety technologies; testing dynamic roadside enforcement equipment; developing new driver selection, testing, licensing, and training techniques; using simulation and instrumented vehicles to determine unsafe motor carrier driver actions; and researching counter measures guided by early crash causation study results.

- $11 million to advance the motor carrier crash data improvement program, the commercial driver's license improvement program, and to staff FMCSA's 24-hour telephone hotline.

- $86 million, an increase of $7 million or 9 percent above 2001, for motor carrier safety operations to further increase motor carrier inspections and compliance reviews.

- $9 million for the Bureau of Transportation Statistics' Safety Data Quality Improvement Program.

National Motor Carrier Safety Program (Grants and Information Systems)
$205 million, 16% above FY 2001, will make possible an aggressive expansion of the States' enforcement of interstate commercial motor vehicle regulations.

- $183 million is dedicated to State Motor Carrier Safety grants, with: $160 million provided for the Motor Carrier Safety Assistance Program (MCSAP); $18 million for enhanced State enforcement operations at the southern border; and $5 million for State Commercial Driver's License (CDL) program improvements. MCSAP grants may be used to increase the number of compliance reviews in States; identify and apprehend traffic violators; increase the volume of roadside inspections; improve State CDL oversight activities; and support State border enforcement efforts.

- $5 million to continue a comprehensive study on commercial vehicle crash causation initiated in 2001. The study will identify data requirements and collection procedures, reports, and other measures that will improve both FMCSA and the States' ability to evaluate future crashes involving commercial motor vehicles; monitor crash trends and identify causes and contributing factors; and develop effective safety improvement policies and programs.

- $17 million is included for the Information Systems and Strategic Safety Initiatives (ISSSI) program. The program's implementation is shared by FMCSA and the States and supports motor carrier information system and data analysis activities, including: SAFESTAT technology, used to target high-risk motor carriers for compliance reviews; and the Performance Registration Information and Systems Management (PRISM) program, which links State motor vehicle registration systems with carrier safety data in an effort to identify unsafe motor carriers.

Border Infrastructure Improvements: $56 million, derived from Federal Highway Administration Revenue Aligned Budget Authority (RABA), for State and Federal inspection facilities construction at the U.S./Mexico border. Funding for these activities is included in the Federal Highway Administration's (FHWA) FY 2002 Federal-aid Highways program levels. Advancing these infrastructure projects will be the joint responsibility of FHWA, FMCSA, and the States, with States submitting proposals that will be evaluated to qualify for Federal funding.

DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

ORGANIZATIONAL INFORMATION

The Federal Motor Carrier Safety Administration's primary mission is to prevent commercial motor vehicle-related fatalities and injuries. FMCSA's activities contribute to ensuring safety in motor carrier operations through strong enforcement of safety regulations; targeting high-risk carriers and commercial motor vehicle drivers; improving safety information systems and commercial motor vehicle technologies; strengthening commercial motor vehicle equipment and operating standards; and increasing safety awareness. To accomplish these activities, FMCSA works with Federal, State, and local enforcement agencies; the motor carrier industry; labor and safety interest groups; and other advocacy groups.

With four service centers and offices in each State, the District of Columbia, and Puerto Rico, FMCSA delivers a comprehensive program of activities focused on motor carrier safety. Program activities include the following:

Motor Carrier Safety Assistance Program

The Motor Carrier Safety Assistance Program (MCSAP) is a Federal grant program that provides States with financial assistance for roadside inspections and other commercial motor vehicle safety programs. It promotes detection and correction of commercial motor vehicle safety defects, commercial motor vehicle driver deficiencies, and unsafe motor carrier practices before they become contributing factors to crashes and hazardous materials incidents. The program also promotes the adoption and uniform enforcement by the States of safety rules, regulations, and standards compatible with the Federal Motor Carrier Safety Regulations and Federal Hazardous Materials Regulations.

Regulatory Compliance and Enforcement

FMCSA's compliance reviews and enforcement activities and the States' roadside inspection activities are the principal means of ensuring that the Federal Motor Carrier Safety Regulations and the Federal Hazardous Materials Regulations are enforced. Compliance and enforcement efforts are enhanced through the Performance and Registration Information Systems Management (PRISM) program, a Federal and State partnership to improve safety performance or remove high-risk carriers from the nation's highways. Through PRISM, compliance reviews are conducted on unsafe motor carriers and their safety performance is monitored and tracked. Continued poor safety performance may result in a Federal Operations Out-of-Service Order/unfit determination in conjunction with the suspension and/or revocation of vehicle registration privileges.

Commercial Driver's License Program (CDL)

FMCSA develops, issues, and evaluates standards for testing and licensing commercial motor vehicle drivers. These standards require States to issue a Commercial Driver's License only after drivers pass knowledge and skill tests that pertain to the type of vehicle operated. States are audited every three years to monitor compliance with Federal standards; noncompliance could result in loss of Federal funding.

Data and Analysis

FMCSA collects and disseminates safety data concerning motor carriers. Data collected by Federal safety investigators and State partners from roadside inspections, crashes, compliance reviews, and enforcement activities are indexed by carrier. This information provides a national perspective on carrier performance and assists in determining FMCSA and State enforcement activities and priorities. Combined with data from other sources (including the National Highway Traffic Safety Administration), extensive analysis is performed to determine trends in performance by carrier and other factors such as cargo, driver demographics, location, time, and type of incident. Based on identified trends, FMCSA directs resources in the most efficient and effective manner to improve motor carrier safety.

Research and Technology Program

FMCSA identifies, coordinates, and administers research and development to enhance the safety of motor carrier operations, commercial motor vehicles, and commercial motor vehicle drivers. FMCSA promotes the use of information systems and advanced technologies to improve commercial vehicle safety, simplify government administrative systems, and provide savings to States and the motor carrier industry.

Border and International

FMCSA supports the development of compatible motor carrier safety requirements and procedures throughout North America in the context of the North America Free Trade Agreement (NAFTA). The FY 2002 request includes a mix of border inspectors and safety investigators to be used for enhanced safety activities along the southwest border. As part of the FY 2002 request, the additional FMCSA border inspectors being requested will be deployed along U.S./Mexico border entries to support State enforcement staff in the inspection of Mexican commercial vehicles and drivers. Efforts will be focused to ensure compliance with safety regulations and to verify that proper operating credentials are held. Moreover, additional FMCSA safety investigators will provide safety evaluations of Mexican carriers during the application process and conduct safety audits during the first 18 months of a carrier's operation to determine knowledge of and basic compliance with the Federal Motor Carrier Safety Regulations (FMCSR). FMCSA staff also will engage in education and technical assistance activities to assist carriers in meeting FMCSRs. Programs exist to: improve the safety performance of motor carriers operating in border areas through special grants to States for enforcement activities and, in cooperation with other Federal agencies; and support the development of State safety inspection facilities. FMCSA participates in international technical

organizations and committees to share best practices in motor carrier safety.

Other

Hazardous Materials
FMCSA enforces regulations for the safe transportation of hazardous materials by highway and rules governing the manufacture and maintenance of cargo tank motor vehicles, as set forth in Chapter 51 of Title 49 of the United States Code.

Household Goods
In July 2000, the FMCSA established two teams that replaced the Household Goods Task Force. These two teams were established to administer a comprehensive compliance and enforcement program concentrated on household goods carriers and brokers and to reduce the number of hostage freight and household goods consumer complaints. In addition, a consumer hotline was established to receive and resolve routine complaints from the general public. Consumers can download and complete a complaint form via the Internet.

Insurance
In August 2000, the FMCSA modified its licensing and insurance information database and web site to allow registered insurance companies and other financial institutions to file information for motor carriers' regarding their insurance policies directly online. Also, financial institutions may now enter certificates of insurance, notices of cancellation, surety bonds, trust fund agreements and other evidence of security via the Internet. Since August of 2000, a total of 23,582 filings have been submitted via the Internet.

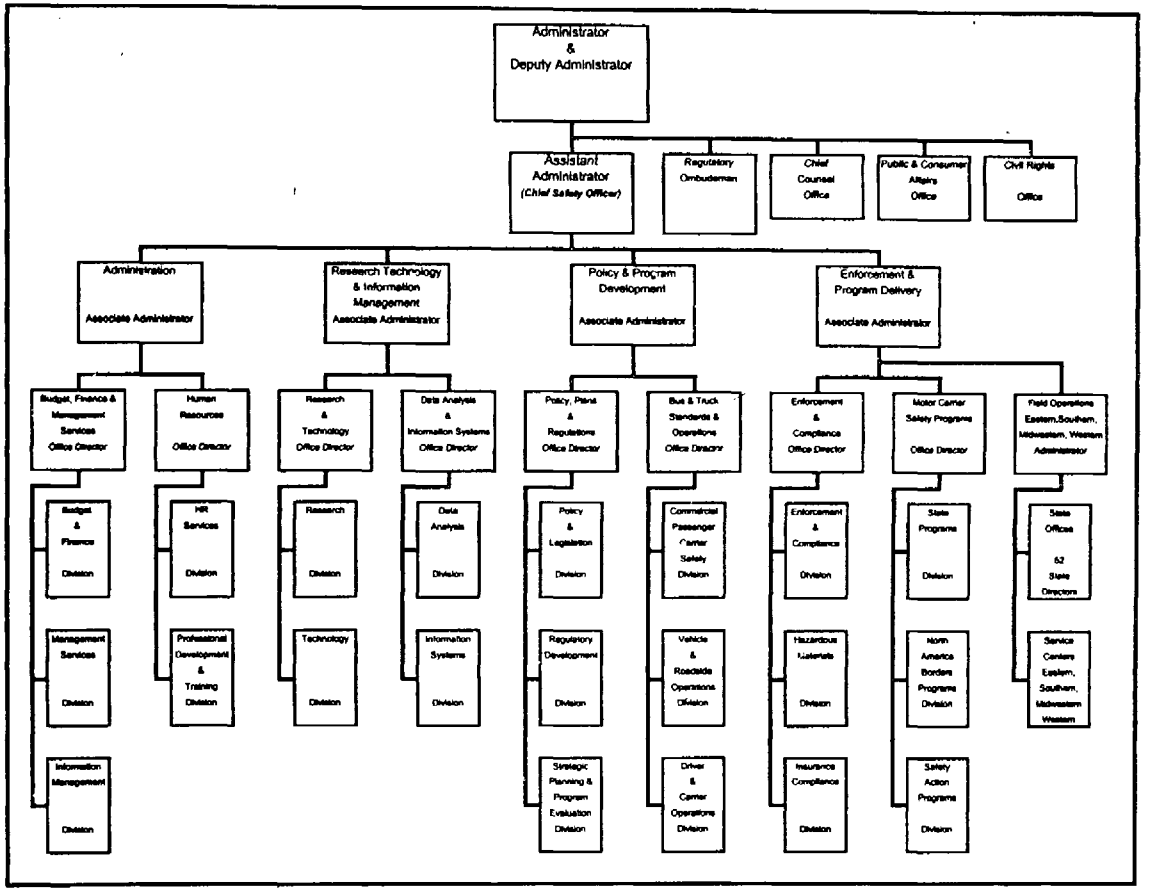
24-Hour Telephone Hotline
The Federal Motor Carrier Safety Administration provides a toll-free hotline for reporting dangerous safety violations involving a commercial truck or bus: 1-888-DOT-SAFT (1-888-368-7238).

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

Organizational Chart

ORGANIZATIONAL CHART ATTACHED

FEDERAL MOTOR CA[illegible]R SAFETY ADMINISTRATION



DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

Trust Funds

MOTOR CARRIER SAFETY
LIMITATION ON OBLIGATIONS ADMINISTRATIVE EXPENSES

For necessary expenses for administration of motor carrier safety programs and motor carrier safety research, pursuant to section 104(a)(1)(B) of title 23, United States Code, not to exceed [$92,194,000] *$139,007,000* shall be paid in accordance with law from appropriations made available by this Act and from any available take-down balances to the Federal Motor Carrier Safety Administration, together with advances and reimbursements received by the Federal Motor Carrier Safety Administration, *of which $14,128,000 is for the research and technology program and shall remain available for obligation until September 30, 2005; $5,000,000 is for the motor carrier safety operations program; $5,000,000 is for the collection and analysis of data on commercial motor vehicle crashes, including crash causation, as authorized under section 225(e) of Public Law 106-159; $375,000 is for a toll-free hotline for reporting safety violations, as authorized under section 4017 of Public Law 105-178, as amended by Public Law 106-159, section 213; $5,163,000 is for the commercial driver's license improvement program; and $9,000,000 is for the Bureau of Transportation Statistics' safety data quality improvement program: Provided,* That such amounts shall be available to carry out the functions and operations of the Federal Motor Carrier Safety Administration. *(Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101(a) of P.L. 106-346.)*

DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

Trust Funds

MOTOR CARRIER SAFETY
LIMITATION ON OBLIGATIONS ADMINISTRATIVE EXPENSES

Program and Performance Statement

This limitation provides resources to expand the nationwide motor carrier safety program. Safety program enhancements include enforcement and oversight expansion, outreach, border initiatives, and technology development.

DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

MOTOR CARRIER SAFETY (OPERATIONS & RESEARCH)

FINANCIAL REQUIREMENTS
(in thousands of dollars)

A limitation on Motor Carrier Safety (Operations & Research) obligations of $139.007 million for FY 2002 is proposed, along with an increase from 1/3 to 2/3 percent to the Federal Motor Carrier Safety Administration administrative takedown, which represents a net increase of $46.642 million when compared to the FY 2001 limitation level of $92.365 million. Increases are requested for adjustments to base of $14.431 million and for program initiatives of $32.211 million.

Analysis of changes from FY 2001 to FY 2002		
Limitation: Motor Carrier Safety (Operations & Research)		
FY 2001 appropriations (P.L. 106-346)		$92,194
Add: transfer of FHWA Federal-aid Highways Obligation Limitation		375
Less: .22% Rescission (P.L. 106-554)		(204)
Total Obligation Limitation		$92,365
Adjustments to base		
2002 Pay Raise	1,503	
2001 Pay Raise Annualization	515	
Annualization of FTE	4,010	
Other Mandatory Personnel Costs	409	
GSA Rent	798	
24-hour Telephone Hotline (MCSIA Sec 213)	1	
Crash Data Collection [MCSIA Sec 225(e)]	2,032	
Commercial Driver's License Improvements	5,163	
Subtotal, Adjustments to Base		14,431
Program Increases		
Border Enforcement Operations	9,911	
Border Safety Audits	4,000	
Motor Carrier Safety Operations Program (MCSOP)	5,000	
Research and Technology	4,300	
BTS Safety Data Improvements*	9,000	
Subtotal, Adjustments to Program		32,211
Total FY 2002 Requirements		**$139,007**

*Funding will be provided for Bureau of Transportation Statistics program activities.

FY 2002 FMCSA CONGRESSIONAL BUDGET SUBMISSION

Motor Carrier Safety (Operations & Research)
Limitation on Obligations
(in thousands of dollars)

	FY 2001 Enacted	Mandatory Adjustments to PC&B	Annualization of FTE	GSA Rent	Authorized Increases Mandated In MCSIA	FY 2001 Adjusted Base	Program Increases	FY 2002 Request
PERSONNEL RESOURCES:								
Total FTE	770		39			809	90	899
FINANCIAL RESOURCES:								
Salaries and Benefits	55,673	2,427	2,702			60,801	6,348	67,150
Travel	5,689		293			5,982	800	6,782
Transportation	200		13			213		213
GSA Rent	4,443			798		5,241		5,241
Communications, Rent, & Utilities	423		29			452		452
Printing	473					473		473
Other Services:								
TASC	1,292		89			1,381		1,381
Other	8,245		672			8,917	6,111	15,028
Supplies	480		57			538	292	829
Equipment	2,277		155			2,432	360	2,792
Subtotal Operations:	79,195	2,427	4,010	798		86,430	13,911	100,341
Other Initiatives:								
MCSOP							5,000	5,000
Crash Data Collection	2,968				2,032	5,000		5,000
Research and Technology	9,828					9,828	4,300	14,128
24-hour Telephone Hotline	374				1	375		375
Commercial Driver's License*	[5,163]					5,163		5,163
BTS Safety Data Improvements							9,000	9,000
Subtotal Other Initiatives:	13,170				2,033	20,366	18,300	38,666
TOTAL LIMITATION	92,365	2,427	4,010	798	2,033	106,796	32,211	139,007

* Funded from FHWA RABA in FY 2001.

MOTOR CARRIER SAFETY (OPERATIONS & RESEARCH)
NARRATIVE EXPLANATION
(in thousands of dollars)

OPERATIONS

Building upon FMCSA's base funding level of $92,365 in FY 2001, FMCSA will continue to support its comprehensive and coordinated safety and enforcement program activities. These activities include the following: increasing enforcement of high risk carriers, drivers, and vehicles; enhancing safety investigations and compliance reviews; implementing new safety regulations; and maintaining current safety-related data bases.

ADJUSTMENTS TO BASE: $14,431

Personnel Cost Increase: $2,427

The total requested increase of $2,427 in personnel compensation and benefits is composed of:

- $1,503 to fund January 2002 pay raises (3.6% increase to FY 2001 salaries and benefits base for applicable workdays in FY 2002).
- $515 to annualize 2001 pay raises (3.7% increase to FY 2001 salaries and benefits base for applicable workdays in FY 2002).
- $409 for other mandatory personnel costs.

Annualization of FTE: $4,010

$4,010 for annualization of 39 FTE, including personnel compensation and benefits and operational support increases.

GSA Rent: $798

This adjustment to base reflects GSA increases for rent adjustments, lease expirations, and forced moves. The funding level reflects an increase in space due to staffing requirements.

24-Hour Telephone Hotline: $1

This adjustment to base provides funding for this activity at the fully authorized level as specified under section 4017 of Public Law 105-178, as amended by Public Law 106-159.

Crash Data Collection: $2,032

This adjustment to base provides full funding for the collection and analysis of data on commercial motor vehicle crashes, including crash causation, as authorized under section 225(e) of Public Law 106-159. The program was funded at $2,968 million in FY 2001, $2,032 million below the fully authorized level.

Commercial Driver's License Improvements: $5,163

This adjustment to base enables commercial driver's license (CDL) improvement efforts to be funded at the current services level. The program was funded at $10 million in FY 2001 with funding derived from Federal Highway Administration Revenue Aligned Budget Authority (see National Motor Carrier Safety Program justification for the remaining $4,837 million for CDL activities, as well as program details).

PROGRAM INCREASES: $32,211

Border Enforcement Operations: $9,911

In order to open the U.S./Mexico border in accordance with the Administration's commitment to both the North American Free Trade Agreement (NAFTA) and safety, it is imperative that an immediate Federal presence be established to assist the States with enhanced enforcement efforts. To ensure that only safe Mexican carriers, vehicles, and drivers operate in the U.S., FMCSA proposes to deploy a multi-tiered enforcement program at all four States along the U.S./Mexico border that includes an enhanced inspection and safety monitoring process ($9.9 million). Moreover, the DOT Inspector General's December 1998 report *Motor Carrier Safety Program for Commercial Trucks at U.S Border* recommends, "a Federal presence is needed to ensure a consistent enforcement program and to provide additional oversight and monitoring, particularly in the early stages of NAFTA's implementation." Higher levels of investment are needed to:

- Address the critical issue of safety enforcement at the border.
  - More funding ($9.9 million) is needed to add 80 new FMCSA staff for safety enforcement at the border.
  - This level of enforcement presence, totaling 140 Federal enforcement staff, is consistent with the recommendations contained in the DOT Inspector General's December 1998 report *Motor Carrier Safety Program for Commercial Trucks at U.S. Border."*
  - Activities would be funded by increasing the FMCSA administrative takedown from 1/3 to 2/3 of one percent.

For a comprehensive, consistent, and coordinated program to be operational within the first quarter of FY 2002, it is imperative that FMCSA have the flexibility to hire, train, house, equip, and deploy a highly experienced, bi-lingual border enforcement staff quickly and efficiently.

The following investments will be needed to adequately address the critical issue of safety enforcement at the border by adding 85 new FMCSA staff in FY 2002, establishing a safety audit component, and providing for an immediate Federal presence at the border:

- Compensation and Benefits ($4.2 million)

  A mix of 80 FTE who are highly experienced and bi-lingual will be needed to perform a variety of border enforcement and compliance activities.

- Training ($2.4 million)

  To train, equip, and move 80 FTE to the border early in FY 2002, FMCSA anticipates spending $671,000 on training-related activities, $1,652,000 on per diem and permanent change of station costs, and $100,000 for Drug Interdiction Assistance program activities.

- Facilities ($840,000)

  The 80 FTE will be deployed throughout the four States along the southwest border at 23 border inspection sites according to number of border crossings and consistent with truck traffic volume. It is imperative that a Federal presence be enhanced within all four States and that enforcement activities be performed to adequately address truck volume at all inspection sites. Cost estimates to purchase trailer; transport trailers; provide water, electric, and sewer hookup for trailers; pay for acreage rentals; cover utilities; and furnish trailers total approximately $840,000.

- Other ($1.5 million)

  Along with supplies ($292,000) and equipment ($360,000), it is estimated that $800,000 will be needed to cover local travel costs. Because a number of the border crossings are located in remote areas far from urban centers, it will be necessary for a significant amount of travel to be incurred to and from these sites.

- Administrative Appeals ($500,000)

  Anytime a carrier is put out of service, it has the right to appeal this decision to FMCSA. It is anticipated that the volume of appeals will increase with the opening of the border and additional staff will be needed to process the work. The proposal calls for 5 additional bi-lingual FTE, with some located in the border States, to be hired at a cost of $500,000.

- Data Access and IT Support ($500,000)

  An interface between FMCSA's information database and the database in Mexico needs to be developed and deployed. Currently, FMCSA has limited access to this data and needs to construct interfaces and translators in order to provide universal access to all border enforcement personnel. Development and deployment costs are estimated at $500,000.

Border Safety Audits: $4,000

As part of FMCSA's proposed multi-tiered enforcement program at the border, $4 million is needed to establish a safety audit review component. This facet of the program, similar to one currently being considered in FMCSA's New Entrant rulemaking, would require Mexican carriers to undergo an interview of their key official, as well as a review of their safety management practices. As part of the audit, Mexican carriers would be required to provide

necessary documentation to verify compliance with the FMCSRs. The safety audit program could take place at designated border locations or at the carrier's place of business in Mexico. While less intrusive than a compliance review conducted on U.S. carriers, a safety audit would be a much more in depth review of the carriers operations than is currently underway for carriers that operate within the commercial zone. To assist Mexican carriers in preparing for a safety audit, FMCSA plans to conduct a series of workshops for Mexican carriers to educate them on the requirements for operation in the U.S.

There are substantial costs associated with safety audits, such as staff training, travel to carrier's place of business, and the use of interpreters. Databases and computer software programs currently being used in the U.S. must be modified for the safety audit process and then translated into Spanish. Total costs are estimated at $4.0 million for these activities.

Border Infrastructure

To ensure that the opening of the U.S./Mexico border is done with the utmost attention paid to motor carrier safety, a total of $56.3 million, to be funded from Federal-Aid Highways Revenue Aligned Budget Authority (RABA), is requested for southern border motor carrier safety inspection facilities construction in FY 2002. Funding for these activities is included in the Federal Highway Administration's (FHWA) FY 2002 Federal-aid Highways program levels.

The States will require Federal funding to support infrastructure improvements necessary to accommodate permanent facilities (i.e., property, roadways, buildings, and inspection facilities). With 23 border-crossing sites located in the four States along the U.S./Mexico border, it is anticipated that a total of $162 million, of which $54 million is requested in FY 2002, is needed to build new State motor carrier inspection facilities. Funding for these activities will be distributed on an as needed basis, with States submitting proposals that will be evaluated to qualify for Federal funding. Advancing these infrastructure projects will be the joint responsibility of FHWA, FMCSA, and the States.

$2.3 million is also necessary in FY 2002, for Federal construction of areas to park unsafe vehicles placed out-of-service at the border. These funds will be managed by FMCSA to ensure that paved, secured areas are constructed to fulfill immediate requirements, as the States move toward the construction of permanent facilities. This justification is also contained within Federal Highway Administration's FY 2002 budget submission.

Motor Carrier Safety Operations Program (MCSOP): $5,000

A request of $5.0 million for the MCSOP is critical to reducing motor carrier involved fatalities and injuries. MCSOP will support FMCSA initiatives that are designed to address Federal oversight and standards, enforcement, and outreach responsibilities. MCSOP initiatives are program activities initiated and executed by the FMCSA, as compared to the Motor Carrier Safety Assistance Program (MCSAP), which primarily provides funding to the States to initiate and execute motor carrier safety initiatives. A combination of Federal and State programs is necessary to advance a comprehensive safety program. MCSOP includes the following:

- A motor carrier **Enforcement** component to support the delivery of FMCSA's enforcement responsibilities. An important MCSIA enforcement feature requires FMCSA to examine the qualifications of new motor carrier entrants and monitor their operational performance to assure continued safety. This MCSIA requirement will be addressed by developing a system to identify, review, and monitor new carrier entrants. Another important initiative will address the DOT Inspector General recommendation to revisit carriers that have been identified as "conditional" in recent Compliance Reviews. In FY 2002 FMCSA will initiate a pilot program, staffed by 5 new FTE (10 safety investigator positions at one half year funding), to assess the effectiveness of this enforcement initiative and determine an approach to future implementation.

- A motor carrier **Oversight and Standards** component to improve FMCSA's regulatory process by examining and measuring the real world impacts of regulatory proposals. The program will: evaluate the underlying science of selected standards; quickly react to emerging, high visibility issues; pilot test regulations; perform post-promulgation regulatory evaluation; and, collect, analyze, and disseminate information associated with FMCSA requests for public comments. In addition, a multi-year medical review board contract is proposed that will provide medical educational oversight of examiners, identify research and development and regulatory needs, and mediate driver medical qualification questions.

- Motor carrier safety **Outreach** components to better educate the public, partners, and stakeholders of their respective roles in contributing to reducing accidents involving motor carriers. Demonstration projects, media events, and cooperative agreements with a variety of partners are candidate actions. Nationally developed outreach activities are expected to initiate and guide grassroots activism. Efforts to strategically promote high-visibility law enforcement activities, as a component of a focused outreach program, will be explored.

BTS Safety Data Improvements: $9,000

FMCSA proposes that an additional $9 million be devoted to the Bureau of Transportation Statistics to support the Safety Data Action Plan (SDAP), a DOT-wide initiative, aimed at improving the accuracy, timeliness, and comparability of safety data. A detailed discussion of the SDAP initiative is included in the BTS FY 2002 Budget Submission.

RESEARCH & TECHNOLOGY

Base Research and Technology funding of $9.8 million will continue to be used to support ongoing research and technology efforts in the areas of driver, both commercial and non-commercial; carrier; and vehicle. The major efforts include:

- educating non-commercial drivers about sharing the road safely in the vicinity of heavy vehicles; testing fatigue management technologies for commercial drivers;
- developing screening tests for sleep apnea and strategies for carrier-based intervention;
- evaluating simulators for truck driver training;
- capturing and analyzing real-time incident data;
- evaluating the use of younger commercial drivers in interstate commerce;
- developing new safety technologies; and
- researching commercial motor vehicle crash risks.

PROGRAM INCREASES: $4,300

FMCSA proposes an additional $4.3 million be provided in FY 2002 to fund several new starts, as well as to accelerate technology testing and deployment. A primary focus of the agency's research and technology program is to identify and address the multiple underlying safety issues that will help drivers avoid potential collisions, reduce the number and degree of injuries, and lessen the potential for fatalities. Clearly, initiatives directed at helping FMCSA to better understand vehicle crashes and their impact on the vehicle, driver, and operating environment must be pursued as part of a comprehensive strategy to reduce, by half, the number of deaths and injuries resulting from truck and bus crashes. The efforts proposed below are part of this comprehensive strategy and, as required by the FY 2001 Senate Appropriations Committee Report 106-309, indicate those areas where activities will impact crash reduction:

- Accelerating deployment of collision, rollover, and lane-departure warning technologies– These three technologies address the types of single and multi-vehicle commercial motor vehicle crashes that most frequently occur. In order to reduce crashes, these technologies must be deployed widely in the commercial vehicle population. In FY 2001, FMCSA will develop a multi-year deployment plan for each of these technologies. During FY 2002, FMCSA would implement these plans with our partners.
- Developing a commercial motor vehicle "near-miss" profile to pinpoint safety problems– This collaborative study with the Bureau of Transportation Statistics would adopt "near-miss" and other safety observational reporting approaches to gain information on

unsafe conditions and crash precursors. These strategies will be modeled after successful programs in the Federal Aviation Administration and the U.S. Coast Guard.

- Pilot testing and evaluating innovative industrial safety management techniques and programs–Behavior-based safety is an approach to industrial safety that has been successful in more than 90 percent of companies and has reduced industrial accidents by more than 60 percent.

- Performing outreach to shippers and receivers to improve safety–This effort will educate shippers and receivers on the effects of their practices on commercial driver fatigue and driving behavior. Such practices include the imposition of unreasonable and unsafe delivery schedules and workplace practices at loading/unloading depots that exacerbate driver fatigue.

- Benchmarking and pilot testing on-board systems for driver and vehicle safety performance–These efforts will ensure that on-board sensor systems, such as speed monitoring, braking, acceleration, and headway monitoring, can be used effectively to improve commercial driver and vehicle safety performance.

- Employing the new National Advanced Driving Simulator–The FMCSA would identify and establish the most important measures of driving quality and define performance requirements for developing improved, low cost simulators in the future that could be used for licensing purposes and enhancing driver skills.

- Demonstrating rear-mounted rear-end collision warning systems for heavy vehicles–Approximately 10 percent of all truck-involved fatalities occur when passenger vehicles strike the rear of trucks. A rear-mounted warning light should significantly reduce these fatalities and other related injuries. In FY 2001, FMCSA will review the literature and assess the results of a test of rear-mounted lights on transit vehicles and another with snowplows. In FY 2002, FMCSA will begin a two-year demonstration and evaluation of one or more rear-end collision-warning systems for commercial vehicles.

- Quantifying the safety benefits of new technologies–In FY 2002, FMCSA would create tools to quantify the safety impacts and benefits of deploying new technologies and operational concepts. These tools would assist the FMCSA's research and technology program in decision-making for technology investments and for overall program direction.

DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

MOTOR CARRIER SAFETY (OPERATIONS & RESEARCH)
Program and Financing (in millions of dollars)

Identification Code: 69-8055-0-7-401		2000 Actual	2001 Estimate	2002 Estimate
Obligations by Program Activity:				
0001	Administration	70	79	100
0002	Research and development	4	12	14
0003	Other program activities	0	3	25
0100	Subtotal, direct program	74	94	139
0901	Reimbursable program	8	10	10
1000	Total new obligations	82	104	149
Budgetary Resources Available for Obligation:				
2140	Unobligated balance carried forward, start of year	0	2	0
2149	Unobligated balance carried forward, start of year: contract authority	0	0	7
2199	Total unobligated balance carried forward, start of year	0	2	7
2200	New budget authority (gross)	84	101	195
2222	Unobligated balance transferred from other accounts (69-8083)	0	8	0
2390	Total budgetary resources available for obligation	84	111	202
2395	Total new obligations	-82	-104	-149
2440	Unobligated balance carried forward, end of year	2	0	0
2449	Unobligated balance carried forward, end of year: contract authority	0	7	52
2499	Total unobligated balance carried forward, end of year	2	7	52
New Budget Authority (gross), detail:				
4026	Appropriation (trust fund, definite)	76	92	139
4049	Portion applied to liquidate contract authority	-76	-92	-139
4300	Appropriation (total discretionary)	0	0	0
6610	Mandatory contract authority	76	91	185
6800	Discretionary spending authority from offsetting collections (cash)	8	10	10
7000	Total new budget authority (gross)	84	101	195
Change in Unpaid Obligations:				
7240	Unpaid obligations, start of year	0	18	9
7299	Obligated balance, start of year	0	18	9
7310	Total new obligations	82	104	149
7320	Total outlays (gross)	-64	-113	-145
7440	Unpaid obligations, end of year	18	9	14
7499	Obligated balance, end of year	18	9	14
Outlays (gross), detail:				
8690	Outlays from new discretionary authority	64	93	135
8693	Outlays from discretionary balances	0	20	9
8700	Total outlays (gross)	64	113	145
Offsets				
8840	Against gross budget authority and outlays offsetting collections (cash) from non-Federal sources	-8	-10	-10
Net Budget Authority and Outlays:				
8900	Budget authority	76	91	185
9000	Outlays	56	103	135

DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

MOTOR CARRIER SAFETY (OPERATIONS & RESEARCH)

Object Classification
(in millions of dollars)

Identification Code: 69-8055-0-7-401		2000 Actual	2001 Estimate	2002 Estimate
Direct Obligations:				
Personnel compensation:				
1111	Full-time permanent	34	44	49
1113	Other than full-time permanent	1	1	1
1119	Total personnel compensation	35	45	50
1121	Civilian personnel benefits	9	11	17
1210	Travel and transportation of persons	5	6	7
1231	Rental payments to GSA	0	4	5
1252	Other services	18	14	42
1255	Research and development contracts	4	12	14
1260	Supplies and materials	1	0	1
1310	Equipment	1	2	3
1990	Subtotal, Direct Obligations	73	94	139
Reimbursable Obligations:				
2111	Personnel compensation: full-time permanent	4	5	5
2121	Civilian personnel benefits	1	1	1
2252	Other services	3	4	4
2290	Subtotal, Reimbursable Obligations	8	10	10
9995	Below reporting threshold	1	0	0
9999	Total new obligations	82	104	149

DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

MOTOR CARRIER SAFETY (OPERATIONS & RESEARCH)

Personnel Summary

Identification Code: 69-8055-0-7-401	2000 Actual	2001 Estimate	2002 Estimate
Direct:			
Full-time equivalent employment	613	710	834
Reimbursable:			
Full-time equivalent employment	60	60	65
Total Full-time equivalent employment	673	770	899

DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

NATIONAL MOTOR CARRIER SAFETY PROGRAM
(LIQUIDATION OF CONTRACT AUTHORIZATION)
(LIMITATION ON OBLIGATIONS)
(HIGHWAY TRUST FUND)

For payment of obligations incurred in carrying out 49 U.S.C. 31102, [$177,000,000] *31106 and 31309, $204,837,000*, to be derived from the Highway Trust Fund and to remain available until expended: *Provided*, That none of the funds in this Act shall be available for the implementation or execution of programs the obligations for which are in excess of [$177,000,000] *$204,837,000* for "Motor Carrier Safety Grants" and *"Information Systems": Provided further, That notwithstanding any other provision of law, of the $22,837,000 provided under 23 U.S.C. 110, $18,000,000 shall be for border State grants and $4,837,000 shall be for State commercial driver's license program improvements. (Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101(a) of P.L. 106-346.)*

DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

NATIONAL MOTOR CARRIER SAFETY PROGRAM
(LIQUIDATION OF CONTRACT AUTHORIZATION)
(LIMITATION ON OBLIGATIONS)
(HIGHWAY TRUST FUND)

PROGRAM AND PERFORMANCE STATEMENT

In 2002, $205 million is requested for the National Motor Carrier Safety Program (NMCSP). This includes $23 million made available from revenue aligned budget authority, as authorized by section 110 of title 23 U.S. Code, as amended by Public Law 106-159, section 102. The $23 million will be made available to States to enhance their commercial driver's license programs and for border enforcement activities. NMCSP will support a broad range of comprehensive commercial vehicle programs in each State and provide for improving information systems and analysis. Programs will integrate Federal and State activities through a performance-based approach to commercial vehicle safety nationwide; improve driver and vehicle inspections, traffic enforcement, safety performance data collection, analysis, and reporting. NMCSP also will continue to support State-conducted compliance reviews, hazardous materials training and enforcement (including border programs), drug interdiction efforts, public education campaigns and a fully implemented SAFETYNET data collection and reporting system. Training of MCSAP officers will also continue.

DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

NATIONAL MOTOR CARRIER SAFETY PROGRAM
(GRANTS AND INFORMATION SYSTEMS)
(LIMITATION ON OBLIGATIONS)
(in thousands of dollars)

A Limitation on Obligations of $204.837 million for FY 2002 is proposed, which represents an approximate 16% increase when compared to the enacted FY 2001 limitation level of $176.611 million.

Program Components

Motor Carrier Safety Assistance Program (MCSAP)	160,000	
Crash Causation Study [MCSIA 224(f), P.L. 106-159]	5,000	
Information Systems & Strategic Safety Initiatives	17,000	
Subtotal		182,000
State Commercial Driver's License Improvement Program *	4,837	
Border Initiatives (State border assistance) *	18,000	
Subtotal		22,837
Total FY 2002 Requirements		**$204.837**

* Funded through FMCSA RABA, provided under 23 U.S.C. 110, as amended.

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NATIONAL MOTOR CARRIER SAFETY PROGRAM (NMCSP)

Background

The FMCSA's National Motor Carrier Program (NMCSP) was authorized by the Transportation Equity Act of 1998 (TEA-21) and amended by the Motor Carrier Safety Improvement Act of 1999 (MCSIA). This legislation established multi year contract authority for two major program areas: The Motor Carrier Safety Assistance Program (MCSAP) that provides grants and project funding to the States; and the Information Systems and Strategic Safety Initiatives (ISSSI) program that provides funds to develop and enhance data related programs. The NMCSP is subject to an annual obligation limitation.

In TEA-21, Congress set forth five criteria under which the NMCSP would operate:

1. Focus resources on strategic safety investments to promote safe for-hire and private transportation, including transportation of passengers and hazardous materials, to identify high-risk carriers and drivers, and to invest in activities likely to generate maximum reductions in the number and severity of commercial motor vehicle crashes;

2. Increase administrative flexibility and develop and enforce effective, compatible, and cost-beneficial motor carrier, commercial motor vehicle, and driver safety regulations and practices, including improving enforcement of State and local traffic safety laws and regulations;

3. Assess and improve Statewide program performance by setting program outcome goals, improve problem identification and countermeasures planning, design appropriate performance standards, measures, and benchmarks, improve performance information and analysis systems and monitor program effectiveness;

4. Ensure that drivers of commercial motor vehicles and enforcement personnel obtain adequate training in safety operational practices and regulatory requirements; and

5. Advance promising technologies and encourage adoption of safe operational practices.

The proposed FY 2002 budget request provides the resources necessary to meet the Congressional directive to improve commercial motor vehicle safety. The following narrative provides program details in support of the $205 million National Motor Carrier Safety Program.

Goal: To reduce commercial vehicle related fatalities by 50% over 10 years, from a baseline of 5,374 in 1998 to 2,687 by the end of 2009.

Purpose: The purpose of the NMCSP is to ensure that the Secretary, States, and other political jurisdictions work in partnership to establish programs to improve motor carrier, commercial motor vehicle, and driver safety to support a safe and efficient transportation system.

Programs: The requested FY 2002 NMCSP program level is $205 million consisting of the following major program categories: Motor Carrier Safety Assistance Program ($160 million); the Information System and Strategic Safety Initiative Program ($17 million); Crash Causation Study ($5 million); Commercial Driver's License (CDL) Program Improvements ($5 million); and, Border Enforcement Initiatives ($18 million).

Major Activities and Anticipated FY 2001 Accomplishments:

- Performance-based Grants: Each State continues to conduct in-depth data analysis to identify commercial vehicle trends and patterns in their State and make resource allocation decisions based on the identified problems. The outcome of this analysis, coupled with the knowledge and experience of MCSAP managers, will enable each State to prepare their Commercial Vehicle Safety Plan (CVSP) with specific strategies and activities that will be most effective in achieving the stated objectives.

- Traffic Enforcement: MCSAP-funded traffic enforcement will continue to play a significant role in commercial vehicle safety. FMCSA will work with the States to focus on driver related issues while continuing its roadside inspection program.

- CDL Program Improvements: States use CDL program improvement grant funding to correct deficiencies in State CDL programs; enhance the accuracy and completeness of driver history records and the timely reporting and recording of traffic convictions; and, develop CDL program management control procedures and oversight practices to detect fraudulent activities.

- Industry Profile: FMCSA must design safety policies and programs that impact the diverse elements of industry fairly and consistently. In the first step of this three-phase effort, a comprehensive analysis of key aspects of the diverse U.S. commercial motor carrier industry was conducted. This included an assessment of financial and operating characteristics and detailed safety performance data for each of the major industry segments. In FY 2000, industry leaders in safety performance in each of the segments of the motor carrier industry were identified on the basis of safety performance data from FMCSA's Motor Carrier Management Information System. In FY 2001, FMCSA is conducting an investigation of the safety leaders in the various segments to identify the underlying basis for safety performance success. Phase 2, which will begin in 2002, will include individual interviews with several safety leaders in each segment, and detailed information will be collected on the programs, practices, and procedures they have adopted as part of their overall safety management

programs. Benchmarking profiles will be developed for these leaders so that firms in each segment will have a basis for comparison.

- Compensation Analysis: In this multi-year effort, a multiple factor analysis is being conducted to determine whether there are statistically significant relationships between how carriers compensate their drivers and various safety factors, such as citation and crash rates. In FY 2001, a variety of data sources are being tested for possible relationships, including a roadside survey of approximately 1,000 truck drivers, which includes detailed data on driver pay, safety, and a variety of other demographic and workforce characteristics; and a detailed case study of over 11,000 drivers. These sources provide data at the driver level, the firm level, and the industry level.

- Crash Causation: Although national truck crash data are available from several sources, none address the causes of commercial vehicle crashes. By identifying the factors that contribute to crashes, limited resources could be better used to develop countermeasures aimed towards these factors. In the first attempt to identify crash causes, FMCSA has entered into an interagency agreement with the National Highway Traffic Safety Administration to develop an implementation plan to collect these data within the National Analysis Sampling System. Pilot testing of a data collection protocol began in FY 2000 and continues in FY 2001 along with data entry and analysis.

- Analysis and Information Online: Data analysis is essential to understanding and acting on commercial vehicle crashes. A&I Online quickly and efficiently furnishes useful motor carrier safety information over the Internet to FMCSA and State enforcement personnel, motor carriers, and other interested parties (insurers, shippers, drivers, other government agencies, etc.) to promote analytically-sound, safety-conscious decisions. A parallel intranet site containing sensitive data not available outside the Department continues to be maintained for the use of FMCSA enforcement personnel. In FY 2001, a Program Measures Module is being added to provide national and State-by-State data on three FMCSA safety programs: compliance reviews, roadside inspections, and traffic enforcement.

FY 2002 Program Request

The FY 2002 National Motor Carrier Safety Program (NMCSP) will support a broad range of effective and comprehensive commercial vehicle and driver programs in each State and provide for improving information systems and analysis. Programs will integrate Federal and State activities through a performance-based approach to commercial vehicle safety nationwide, improve driver and vehicle inspections, driver licensing, traffic enforcement, safety performance data collection, analysis and reporting. NMCSP also will continue to support State-conducted compliance reviews, hazardous materials training and enforcement (including border programs), drug interdiction efforts, public education and a fully implemented SAFETYNET data collection and reporting system. Training of MCSAP officers will also continue to be supported with Administrative funds. The following provides budget justification for three major funding initiatives, each having subparts (in thousands of dollars):

Motor Carrier Safety Assistance Program:		$160,000
Basic Motor Carrier Safety Programs	130,640	
Performance Incentive Grants	11,360	
Border and High Priority Initiatives	16,000	
State Training and Administration	2,000	
Information Systems and Strategic Safety Initiatives:		17,000
Information Systems	3,700	
Motor Carrier Analysis	2,300	
Implementation of PRISM	5,000	
Driver Programs	1,000	
Truck and Bus Crash Data Collection	5,000	
Comprehensive Crash Causation Study		5,000
Revenue Aligned Budget Authority:		22,837
Commercial Driver's License Improvements	4,837	
Border Initiatives (State Border Assistance)	18,000	

MOTOR CARRIER SAFETY ASSISTANCE PROGRAM (MCSAP)

FMCSA requests $160 million for FY 2002. The MCSAP comprises three areas: Performance-based MCSAP, including the basic motor carrier safety programs and safety performance incentive grants; border and high-priority projects; and State training and administration.

Basic Motor Carrier Safety Programs - $130,640,000
In FY 2002, $130,640,000 will be allocated to the States to continue uniform driver and vehicle inspections, traffic enforcement, safety performance data collection, CDL enforcement, data collection and entry, public awareness, and hazardous materials training and enforcement. Each

State will develop strategies and activities, which will address their State-specific CMV safety problems.

Performance Incentive Grants - $11,360,000
$11,360,000 will be allocated for Safety Performance Incentive Grants. The FMCSA is providing States incentives for continuing progress in reducing commercial motor vehicle involved crashes and resulting fatalities by providing additional funding to States that achieve improved fatal crash performance. This will allow the national program to focus the attention of State grant recipients more than ever before on achieving crash and fatality-reducing results as well as the mix of activities necessary to achieve improved safety performance. In addition, incentive funding will be awarded to States that collect and report timely, accurate and complete crash and inspection data which can be used to better refine their problem identification and support allocation of resources to address the most pressing safety problems which will also serve to improve overall safety performance.

The Performance Incentive Grants will be allocated to States that achieve the highest degree of commercial vehicle safety to enable them to enhance current performance-based system activities or pursue additional CMV initiatives important to their State. These funds are intended for use by these States to implement new initiatives beyond their basic program, such as technology deployment, data systems development, data analysis, research and development, accident investigation initiatives and judicial outreach and education.

Border and High Priority Initiatives - $16,000,000
$8,000,000 will be allocated for efforts of the Border States to ensure no compromise in safety enforcement or performance as a result of the full implementation of the North American Free Trade Agreement (NAFTA). The Border States, especially those along the southern border, are facing increased international traffic as the NAFTA provisions are implemented. This increased funding for Border States will allow them to focus on developing the safety enforcement training and programs necessary to monitor and enforce safe operations by foreign carriers operating in the U.S. This funding will also provide on-going operations support for safety and enforcement programs in the Border States. This funding will provide for the training and deployment of inspection personnel and equipment to identify unsafe equipment and drivers.

The remaining $8,000,000 will be allocated for important national safety initiatives such as quality initiatives, CDL improvements, judicial outreach, public outreach, and drug interdiction. The increase in these funds will support increased CMV safety activities which will ultimately reduce the number and severity of truck-involved crashes, help to ensure only safe drivers and vehicles are using public highways, and will enable the CMV safety community to expand education initiatives which educate the traveling public in sharing the road with trucks.

State Training and Administration - $2,000,000
These funds are used primarily to provide training to over 3,000 State enforcement officers each year. In FY 2002, there will continue to be a significant increase in demand for training to ensure uniform inspections, training in new inspection techniques involved with advanced technologies, training in CDL compliance issues, training in data collection and communications technologies, and technical support for technology transfer to the States. Uniformity and quality

initiatives for the 8,000 North American inspectors through such mechanisms as newsletters and innovative training are also supported with this funding.

INFORMATION SYSTEMS AND STRATEGIC SAFETY INITIATIVES

Information Systems - $3,700,000
Information system improvements are necessary to ensure that the highest quality data are available to identify high-risk carriers, develop countermeasures and measure program performance. FMCSA will continue to provide information system technical support to State and Federal field staff to ensure continuous operations with minimum downtime. FMCSA will implement a new capability to process commercial driver traffic violation data as an indicator of carrier safety performance. FMCSA will continue to enhance current systems and develop new data exchange strategies to facilitate safety data uniformity and "real time" access to safety performance data. Through this rapid exchange of safety data including roadside vehicle safety clearance and carrier safety performance, Federal and State field staff can optimize resource and safety decisions. FMCSA will expand the carrier database to facilitate the uniform safety enforcement of both interstate and intrastate carriers by including intrastate carriers in the national information systems.

Motor Carrier Analysis - $2,300,000
As analysis of motor carrier safety data becomes an integral part of FMCSA's program planning and focusing policy, the need for improved data on the factors that contribute to truck and bus crashes must be collected. In addition to broadening the scope of data collection, FMCSA needs to improve its ability to employ available data for quality analyses projects. FMCSA will continue its effort to identify and quantify the CMV industry and describe the "best practices" employed by the different industry segments. FMCSA will continue its efforts to reliably measure the effectiveness of FMCSA's individual safety programs (i.e., compliance reviews, roadside inspections, and traffic enforcement) in improving motor carrier safety. FMCSA will conduct several analyses of economic factors in truck and bus safety including the effects of driver compensation on safety. Five statistical surveys will be conducted on the regulated population and FMCSA customers.

Performance Registration Information and Systems Management Program - $5,000,000
The PRISM program was mandated in 1991 by ISTEA and reauthorized for national implementation by the TEA-21 in 1998. This program provides critical information on the size and operating characteristics of carriers and a direct safety enforcement link by tying carrier safety performance to vehicle registration. The program initially began as a five State pilot to test the feasibility of an information system linking State motor vehicle registration systems to the safety fitness of motor carriers. The PRISM project links State registration with carrier safety data, assigning the safety responsibility for each vehicle being registered to the appropriate motor carrier, identifies high risk carriers, provides mechanisms for carriers to improve their performance, actively monitors safety progress, and improves compliance by strengthening enforcement. The pilot program officially ended in September 1997 and was highly successful. Since completion of the pilot more States are interested in participating in the program.

FY 2002 funds will be used as grants to States to one by one bring them into the program and to assist States that have already "signed on." States will use the funds to cover data processing and programming services, equipment purchases, personnel and training costs associated full deployment of the program. On the Federal side, the funds will support continued development, implementation, database programming and maintenance, staff support, training, and improvements to Federal information systems to support the program.

Driver Programs - $1,000,000
Driver Systems Improvement funds will allow States to update their driver licensing, data collection and exchange systems to insure that driver conviction data is received and recorded in a timely, accurate, and complete manner. This funding assists States in receiving conviction records from courts, accurate and timely recordation of those convictions on the driver record, and timely, complete transfer of that information to other States as requested. This funding will allow States to fine tune and improve the largely successful operations of the Commercial Driver's License Information System, created by the Commercial Motor Vehicle Safety Act of 1986, and unfunded by the Federal government since its full implementation in all 50 States and the District of Columbia in April 1992. It will also support education for judges, prosecutors and law enforcement officials on the enforcement and adjudication of commercial motor vehicle offenses

Truck and Bus Crash Data Collection - $5,000,000
$5,000,000 will be used to improve the collection and analysis of safety data on commercial motor vehicles and drivers. Information systems improvements will include working in partnership with the National Highway Traffic Safety Administration (NHTSA) and the States to ensure the completeness, timeliness and accuracy of crash data. The new Commercial Vehicle Analysis Reporting System (CVARS) is a joint FMCSA and NHTSA effort with the States. FMCSA and NHTSA will enter into cooperative agreements with the States, as NHTSA does with its Fatality Analysis Reporting System, to collect data on all reportable large commercial truck and bus crashes that involve a fatality, injury, or a vehicle towed from the crash scene. FMCSA and NHTSA will train State employees to ensure the quality of the data and will make an electronic database available to users.

COMPREHENSIVE CRASH CAUSATION STUDY

Section 224 of MCSIA authorized $5 million per year for fiscal years 2001, 2002, and 2003, to determine the factors contributing to crashes that involve commercial motor vehicles. The study will result in a database that can be used by analysts to determine what the key factors are in these crashes and determine what countermeasures might best be developed to prevent these crashes in the future. The FMCSA now either collects, or has access to, data on carriers, drivers, vehicles, crashes, injuries and fatalities. A fundamental element, which underlies all of these data, is what actually leads to large truck crashes. This initiative will provide operational funding for this major effort to establish a database on the reasons for and factors contributing to serious large truck crashes. Teams of trained investigators from NHTSA's National Automotive Sampling System and FMCSA-funded truck inspectors will collect nationally

representative data on the driver, vehicle, motor carrier and environmental factors involved in the crash.

REVENUE ALIGNED BUDGET AUTHORITY (RABA)

Commercial Driver's License Improvements - $4,837,000
A total of $10 million ($4.8 million from FMCSA RABA and $5.2 million from the FMCSA Administrative Takedown) is necessary to continue current services level implementation of CDL program improvements directed by the Motor Carrier Safety Improvement Act and the Agency's strategic plan for improving State CDL. The funding will be provided to States specifically to enhance their driver record information systems in order to speed the entry of convictions onto the driving record, improving the exchange of information between States, and ensuring that driver records are complete and contain all driving convictions. The result of these improvements will allow judges and driver licensing agencies to better identify potential problem drivers for remedial action, including removal of the driving privilege. In addition, prospective employers will have access to the full driver conviction record of employees and driver applicants thus allowing more informed hiring decisions to improve overall commercial driver safety.

Border Initiatives (State Border Assistance) - $18,000,000
It is estimated that an additional $18 million is needed for discretionary grants to border States to increase State motor carrier inspection activities. This is based on estimated State resource requirements to staff 23 border inspection facilities with State personnel.

The Administration is fully committed to opening the U.S./Mexico border in accordance with the North American Free Trade Agreement (NAFTA). To ensure that this effort is accomplished with the highest priority placed on safety, it is crucial that additional resources be made available to States along the U.S./Mexico border for enhanced border enforcement activities. One key to an adequate inspection presence is permanent inspection facilities that provide a safe environment to conduct inspections. $18 million is requested to ensure that these safety inspection facilities are staffed during the same hours that U.S. customs facilities are open.

DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

MOTOR CARRIER SAFETY PROGRAM

Program and Financing (in millions of dollars)

Identification Code: 69-8048-0-7-401		2000 Actual	2001 Estimate	2002 Estimate
Obligations by Program Activity:				
0001	Motor carrier grants	94	153	181
0002	Administration, studies and research	1	7	7
0003	Information systems	10	17	17
1000	Total new obligations	105	177	205
Budgetary Resources Available for Obligation:				
2149	Unobligated balance carried forward, start of year: contract authority	2	2	2
2200	New budget authority (gross)	105	177	205
2390	Total budgetary resources available for obligation	107	179	207
2395	Total new obligations	-105	-177	-205
2449	Unobligated balance carried forward, end of year: contract authority	2	2	2
New Budget Authority (gross), detail:				
4026	Discretionary appropriation (trust fund, definite)	105	177	205
4049	Portion applied to liquidate contract authority	-105	-177	-205
4300	Appropriation (total discretionary)	0	0	0
6610	Mandatory contract authority	105	177	205
7000	Total new budget authority (gross)	105	177	205
Change in Unpaid Obligations:				
7240	Unpaid obligations, start of year	79	85	127
7299	Obligated balance, start of year	79	85	127
7310	Total new obligations	105	177	205
7320	Total outlays (gross)	-99	-134	-185
7440	Unpaid obligations, end of year	85	127	147
7499	Obligated balance, end of year	85	127	147
Outlays (gross), detail:				
8690	Outlays from new discretionary authority	29	50	57
8693	Outlays from discretionary balances	70	84	127
8700	Total outlays (gross)	99	134	185
Net Budget Authority and Outlays:				
8900	Budget authority	105	177	205
9000	Outlays	99	134	185

DEPARTMENT OF TRANSPORTATION
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

TEN-YEAR FUNDING HISTORY
(in millions of dollars)

Prior to January 1, 2000, the Office of Motor Carriers was part of the Federal Highway Administration (FHWA). The historical figures for 1990-1999 were extracted from FHWA's financial data. Effective January 1, 2000, these programs were funded under the Federal Motor Carrier Safety Administration.

	Motor Carrier Safety (Operations & Research)*	National Motor Carrier Safety Program *	Total*
1992	48	65	113
1993	52	65	117
1994	54	65	119
1995	55	74	129
1996	53	77	131
1997	56	78	134
1998	57	85	141
1999	59	100	159
2000	76	105	181
2001	92	177	269
2002	*139*	*205*	*344*

* Obligation Limitation

MOTOR CARRIER SAFETY GRANTS
LIQUIDATION OF CONTRACT AUTHORIZATION (HIGHWAY TRUST FUND)

ESTIMATES	
1993	71,000,000
1994	68,000,000
1995	73,000,000
1996	68,000,000
1997	74,000,000
1998	
1999	

APPROPRIATIONS	
1993	65,000,000
1994	68,000,000
1995	73,000,000
1996	68,000,000
1996 Rescission of Contract Authority	-33,000,000 [1]
1997	74,000,000
1997 Omnibus Rescission of Contract Authority	-12,300,000 [2]
1998	85,000,000
1999	100,000,000
2000	105,000,000

[1] Enacted rescission pursuant to P.L. 104-134.
[2] Enacted rescission pursuant to P.L. 104-208.

NATIONAL MOTOR CARRIER SAFETY PROGRAM
LIQUIDATION OF CONTRACT AUTHORIZATION (HIGHWAY TRUST FUND)

ESTIMATES	
1998	90,000,000
1999	100,000,000
2000	155,000,000 [1]
2001	187,000,000 [2]
2002	204,837,000 [3]

APPROPRIATIONS	
1998	
1999	
2000	(105,000,000) [4]
2001	177,000,000
2002	

[1] Includes $50 million in revenue aligned budget authority.
[2] Includes $10 million in revenue aligned budget authority.
[3] Includes $22.837 million in revenue aligned budget authority as authorized in 23 U.S.C. 110, as amended by P.L. 106-159.
[4] Transferred to the newly established FMCSA from the FHWA Motor Carrier Safety Grants account.

MOTOR CARRIER SAFETY GRANTS
LIMITATION ON OBLIGATIONS

ESTIMATES		LIMITATION	
1993	76,000,000	1993	65,000,000
1994	65,000,000	1994	65,000,000
1995	83,000,000	1995	74,000,000
1996	85,000,000	1996	77,225,000
1997	85,000,000	1996 Rescission of obligation limitation	-1,000 [1]
1998		1997	78,225,000
1999		1998	84,825,000
		1999	100,000,000
		2000	105,000,000

[1] Enacted rescission pursuant to P.L. 104-134.

NATIONAL MOTOR CARRIER SAFETY PROGRAM
LIMITATION ON OBLIGATIONS

ESTIMATES		LIMITATION	
1998	100,000,000	1998	
1999	100,000,000	1999	
2000	155,000,000 [1]	2000	(105,000,000) [4]
2001	187,000,000 [2]	2001	177,000,000
2002	204,847,000 [3]	2001 Rescission of obligation limitation	-389,400 [5]
		2002	

[1] Includes $50 million in revenue aligned budget authority.
[2] Includes $10 million in revenue aligned budget authority.
[3] Includes $22.837 million in revenue aligned budget authority as authorized in 23 U.S.C. 110, as amended by P.L. 106-159.
[4] Transferred to the newly established FMCSA from the FHWA Motor Carrier Safety Grants account.
[5] Enacted .22% rescission pursuant to Public Law 106-554.

MOTOR CARRIER SAFETY

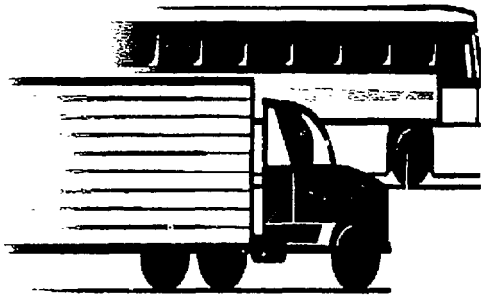
ESTIMATES		APPROPRIATIONS	
1993	(56,826,000) [1]	1993	(51,500,000) [2]
1994	(55,494,000) [1]	1994	(53,019,000) [2]
1995	(57,757,000) [1]	1995	(48,899,000) [2,3]
1996	50,000,000	1996	(46,000,000) [2,3]
1997	(49,500,000) [1,3]	1997	(49,000,000) [2,3]
1998	(52,765,000) [1,3]	1998	(51,000,000) [2,3]
1999	(55,383,000) [1,3]	1999	(53,375,000) [2,3]
2000	(55,418,000) [1,3]	2000	

[1] Proposed to be funded under FHWA limitation on general operating/administrative expenses.
[2] Funded under FHWA limitation on general operating/administrative expenses.
[3] Does not include Motor Carrier Research funding (research included in funding levels prior to "1995 Appropriations".)

MOTOR CARRIER SAFETY
LIMITATION ON ADMINISTRATIVE EXPENSES

ESTIMATES		LIMITATION	
2000		2000	76,058,400 [1]
2001	92,194,000	2001	92,194,000
2002	139,007,000	2001 Rescission of obligation limitation	- 202,827 [2]
		2002	

[1] Transferred to the newly established FMCSA from Federal-aid Highways. (With the enactment of P.L. 106-159, the account again includes funding for Motor Carrier Research.)
[2] Enacted .22% rescission pursuant to Public Law 106-554.



FMCSA

Federal Motor Carrier Safety Administration

Fiscal Year 2002
Performance Plan

March 2001

I. INTRODUCTION

The Federal Motor Carrier Safety Administration (FMCSA) was established in January 2000 by the Motor Carrier Safety Improvement Act (MCSIA) of 1999, P.L. 106-159. The mission of FMCSA is to save lives and reduce injuries by preventing truck and bus crashes. To achieve this mission, the agency focuses the majority of its resources, working with the States and other partners to: 1) target the enforcement of the Federal Motor Carrier Safety Regulations on high-risk carriers; 2) support State commercial vehicle safety programs; 3) conduct safety research and technology transfer activities; 4) fund improvements to Commercial Driver's License programs; and 5) collect and disseminate national commercial motor vehicle safety data.

The primary goal of FMCSA is to reduce the number and rate of crashes, injuries, and fatalities involving commercial motor vehicles. In 1999, the U.S. Department of Transportation (DOT) committed to reduce large truck-related fatalities 50 percent by the end of 2009. Earlier, the DOT also committed to reduce large truck-related injuries 20 percent by the end of 2007. FMCSA is the lead agency in the DOT with the responsibility for achieving these safety goals.

II. PROGRAM NEED

Thousands are killed in highway crashes every year. In 2000, 5,307 Americans died and an estimated 145,000 were injured traffic crashes involving large trucks. Large trucks represent only about 4 percent of the registered vehicles and account for 7 percent of travel volume on our Nation's highways. However, large trucks are over-represented in fatal crashes.[1] Of all the people killed in motor vehicle crashes, 13 percent died in crashes involving a large truck. While these numbers are unacceptably high, the fatality rate for large truck crashes dropped 28 percent and the injury rate decreased 30 percent from 1990 to 2000. These rates, which are calculated based on the number of commercial vehicle-miles-traveled, declined even as the number of motor carriers doubled and their travel mileage increased 38 percent during the last decade.

There were about 62,000 crashes in 1999 involving commercial passenger vehicles, including intercity motor coaches.[2] However, commercial passenger vehicle-related crashes accounted for less than 1 percent of all traffic-related fatalities. While there are fewer fatalities in crashes involving commercial passenger vehicles than for large trucks, intercity motor coach safety continues to be a national priority. (Intercity motor coaches include scheduled service providers, charter or tour buses, large vans, and other commuter vehicles.) Given the number of potential passengers, the results of a crash can be catastrophic. For example, in 1999, a single crash involving an intercity bus resulted in 22 passenger fatalities.

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[1] FMCSA defines a large truck as a motor vehicle with a gross vehicle weight greater than 10,000 pounds

[2] FMCSA defines a commercial passenger vehicle as a motor vehicle designed or used to transport more than 8 passengers, including a driver, for compensation.

III. PERFORMANCE GOALS AND MEASURES

Two performance measures are used to monitor agency progress towards the desired safety outcomes: 1) number of fatalities in large truck-related crashes, and 2) number of injured persons in large-truck related crashes. A more detailed description of these measures is provided in Appendix I.

The actual number of fatalities, 5,362, in large truck-related crashes in 1999 decreased slightly from 1998 even as the total number of fatalities in all motor vehicle crashes increased. The number of injured persons, 142,000, in large truck-related crashes, reflected an increase of approximately 12 percent. These trends continued in 2000. While the final 2000 numbers were not available at the time this plan was written, the preliminary estimates are 5,307 fatalities and 145,000 injured persons. There was a small decrease in the number of fatalities, but the number of injured persons increased slightly between 1999 and 2000. In order to meet our targets, substantial progress still needs to be made in the areas of both injury and fatality reduction. The annual targets and actual as well as preliminary numbers of fatalities and injuries are presented below.

1. Reduce the number of fatalities in crashes involving large trucks 50 percent by the end of 2009, using a 1998 baseline of 5,374. Figure 1.

	Target	Actual
1998	n/a *	5,395
1999	n/a	5,362
2000	4,934	5,307 **
2001	4,830	
2002	4,710	
2009	2,687	

** Baseline of 5,374 established*
*** Preliminary estimate*

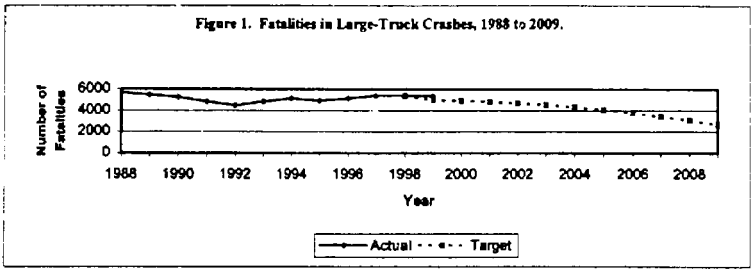

Figure 1. Actual and Targeted Fatalities in Large Truck- Related Crashes (1988 to 2009)

2. Reduce the number of persons injured in crashes involving large trucks 20 percent by the end of 2007, using a 1998 baseline of 127,000. Figure 2.

	Target	Actual
1998	n/a *	127,000
1999	n/a	142,000
2000	125,000	145,000 **
2001	122,000	
2002	121,000	
2007	102,000	

* *Baseline of 127,000 established*
** *Preliminary estimate*

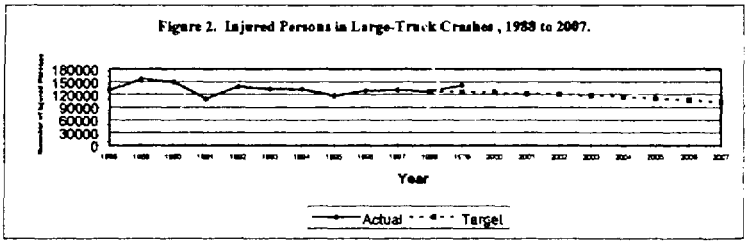

Figure 2. Actual and Targeted Injuries in Large Truck-Related Crashes (1988 to 2007)

Two additional performance measures are used to monitor progress towards the safety outcomes: 1) rate of large truck-related fatalities, and 2) rate of large truck-related injuries. A more detailed description of these measures is provided in Appendix I.

The rate is expressed as per one hundred million commercial vehicle-miles-traveled (VMT). Based on preliminary estimates for 2000, the rate of fatalities declined from 2.7 in 1999 to 2.6 in 2000 while the rate of injuries increased slightly from 71 in 1999 to 72 in 2000. The reduction in the fatality rate reflects the slight decline in the number of fatalities even as truck travel mileage continues to increase. However, substantial progress still needs to be made. The annual targets and actual fatality and injury rates are presented below. The annual target rates are calculated using preliminary estimates of annual vehicle-miles-traveled for the next two years.

3. Reduce the rate of large truck-related fatalities per 100 million commercial vehicle-miles-traveled (VMT). See Figure 3.

	Target	Actual
1998	n/a	2.7
1999	n/a	2.7
2000	n/a	2.6 *
2001	n/a	
2002	2.2	

** Preliminary estimate*

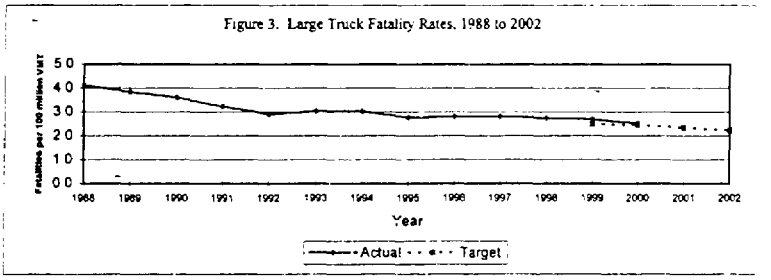

Figure 3. Actual and Targeted Large Truck-Related Fatalities (1988 to 2002)

4. Reduce the rate of persons injured in crashes involving large trucks per 100 million commercial vehicle-miles-traveled (VMT). See Figure 4.

	Target	Actual
1998	n/a	65
1999	n/a	71
2000	n/a	72 *
2001	n/a	
2002	56	

** Preliminary estimate*

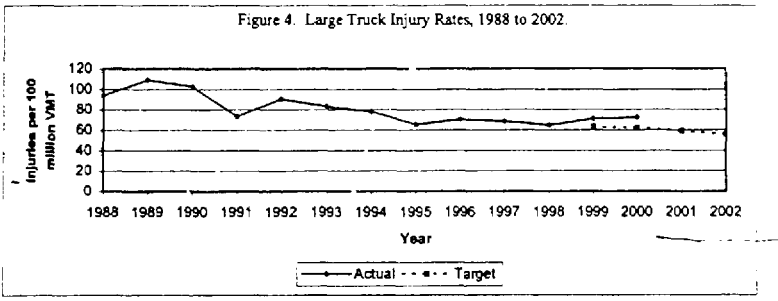

Figure 4. Actual and Targeted Large Truck-Related Injuries (1988 to 2002)

IV. SPECIAL CHALLENGES

A crash involving a large truck or bus is often due to multiple and interrelated factors, rather than a single cause. Federal and State governments are able to influence some of these factors through the introduction of safety policies, regulations, and programs. The challenge to FMCSA and its partners is to better understand the crash problem and develop countermeasures that address the underlying factors. In the following paragraphs, some important dimensions of the crash problem are discussed.

Industry Trends

In recent years, there was an unprecedented increase in business activity in the American economy that is reflected by the growth in truck travel demand. The potential exposure of a large truck or bus to a crash, expressed as commercial vehicle-miles-traveled, increased by 38 percent between 1990 and 2000 (based on preliminary estimate of commercial VMT in 2000). Truck travel volume is expected to increase approximately 20 percent over the next decade. These travel demand trends will likely continue.

The number of interstate motor carriers increased by more than 50 percent during the last decade. At the same time, the makeup of the carrier industry is changing. The truckload carrier industry is consolidating, and the number of less-than-truckload carriers is expected to increase. The future challenge for FMCSA is to ensure that new and existing carriers adopt and use management practices that improve truck and bus safety.

Cost pressures on the commercial trucking industry are likely to continue to exist due to the need for real-time monitoring of the location of freight shipments, just-in-time delivery requirements of customers, and the shifting patterns in truckload volume and travel. Another important trend is the growth in e-commerce. As a result, an increase in small shipment lots and more commercial truck deliveries in residential areas is forecast. Under these pressures, the challenge is to ensure that the safety practices of commercial carriers are not compromised.

The number of commercial driver's license holders has increased 38 percent since 1993 to over 9 million today. Commercial drivers must meet more demanding schedules. Continued turnover and local shortages are placing more inexperienced drivers on the road. The challenge is to ensure that commercial vehicle safety is not compromised by these work conditions and the presence of a less experienced workforce.

Crash statistics suggest that errors by the other driver are a significant contributing factor in many car-truck crashes. The challenge is to improve the driving performance of all drivers, commercial and non-commercial, in situations when cars and trucks are in close proximity on the highways and roads.

Organizational Challenges

The limitations on existing data, and the lack of some crash and motor carrier data, hinder efforts to design and implement effective countermeasure strategies. Information on commercial motor vehicle crashes that can be used to assess the cause of crashes is incomplete and not always available. Intrastate carrier data is not readily available. Driver conviction data is not available in all circumstances. The census of motor carriers, an inventory of interstate carriers, has not been regularly updated.

Because of its limited resources, FMCSA conducts compliance reviews on only a small portion of the motor carrier population that are rated by the agency as the highest risk. In addition, FMCSA has limited resources available to ensure that foreign carriers entering the United States meet safety regulations.

The agency adheres to statutory and administrative requirements that make the rulemaking process more open but longer, particularly if the rulemaking is complex. FMCSA will continue to look for opportunities to reduce the length of time required for completing rulemaking actions, while meeting or exceeding the requirements for public participation.

V. STRATEGIES

The MCSIA of 1999 directed FMCSA to pursue the following strategy:

- Increase the number of inspections and compliance reviews to ensure that all high-risk commercial motor vehicles, operators, and carriers are examined;
- Eliminate, with meaningful safety measures, the backlog of rulemakings;
- Improve the quality and effectiveness of data bases by ensuring that all States and inspectors accurately and promptly report complete safety information;
- Eliminate, with meaningful civil and criminal penalties for violations, the backlog of enforcement cases;
- Provide for a sufficient number of Federal and State safety inspectors, and provide facilities and equipment, at international border areas.

During FY 2000, FMCSA continued to follow the policies and strategy adopted in 1999, when the organization was established as an independent agency within the DOT. Soon after the agency was established, the FMCSA *Safety Action Plan 2000-03* was released. The plan describes FMCSA's priorities, which are identified under four main challenges: 1) increasing enforcement; 2) increasing safety awareness; 3) improving safety information and technology; and 4) improving standards for operations and equipment. FMCSA's major accomplishments during fiscal year 2000 are summarized in the following paragraphs.

FMCSA's highest priority continues to be increasing the enforcement of the Federal motor carrier safety regulations. This approach will reduce the number of unsafe drivers and carriers who operate on our highways and roads. When compared to FY 1999,

FMCSA increased the number of Federal compliance reviews conducted by 68 percent, initiated 39 percent more enforcement cases, eliminated its backlog of enforcement cases, increased the average fine per enforcement case, limited the negotiation of enforcement penalties, and instituted progressive sanctions for repeat offenders. A Final Rule for the implementation of motor carrier safety assistance programs (MCSAP) was released. An additional 6 States signed up to participate in the Performance Registration Information System (PRISM) program.

To increase safety awareness among both commercial and non-commercial drivers, as well as carrier owner-operators, FMCSA expanded its public education and industry outreach efforts by participating in over 25 national events, reoriented its Share the Road initiative to include all highway users, and partnered with industry associations on several safety initiatives.

To make improvements in safety information and technology, FMCSA initiated a five-year crash causation study with the National Highway Traffic Safety Administration, made more motor carrier safety data available to the public, and streamlined operations by providing services through the Internet. The number of States in the design and deployment stages of the Commercial Vehicle Information Systems and Networks (CVISN) program increased from 30 to 34.

To improve Federal motor carrier safety standards, the agency completed Final Rules with stronger enforcement provisions against motor carriers, brokers, and freight forwarders for failure to pay safety fines and provisions to shutdown motor carriers that are unfit and fail to correct safety deficiencies. FMCSA continued to work on several Notices of Proposed Rulemaking (NPRM) actions for CDL improvements, new entrants, and driver training standards. A NPRM for driver hours-of-service regulation was released. In last fall's Appropriations Act, Congress prohibited the Department from implementing a final rulemaking action on this regulation during FY 2001.

In FY 2002, FMCSA will continue to implement the short-term strategy and priority activities outlined in the *Safety Action Plan 2000-03*, with added emphasis on strengthening U.S./Mexico border operations. Moreover, the FY 2002 budget request provides for an immediate Federal presence at the southern border by adding a mix of 80 border inspectors and safety investigators to perform enhanced inspections and safety monitoring processes on commercial vehicles entering the United States. Funds were also requested for Federal and State infrastructure construction at the border crossing sites, and for increased State grants to support State border operations.

FMCSA released a draft long-term safety and organizational strategy in January. The final report will describe the agency's future safety and organization goals, objectives and priority strategies, program needs, and a performance monitoring and evaluation plan. Over 100 partners and stakeholders submitted comments on the draft report. When submitted to Congress later this year, the final report will provide a framework for FMCSA's annual performance plans and performance agreements beginning in fiscal year 2003.

VI. ACTIVITIES AND ASSOCIATED RESOURCES

Program activities are funded through the Highway Trust Fund. In the FY 2002 budget brief, the activities are described under two accounts: 1) National Motor Carrier Safety Program (Grants and Information Systems) - $204.8 million; and 2) Motor Carrier Safety (Operations and Research) - $139 million. A more detailed description of these activities is contained in FMCSA's fiscal year 2002 budget submission.

The key program activities that directly contribute to the goal of reducing crashes, fatalities, and injuries in large truck crashes are identified in Table A.

Table A. Key Program Activities that Support the FMCSA Safety Outcome Goal

Budget Accounts & Program Activities	Safety Outcomes & Targets
National Motor Carrier Safety Program (Grants & Information Systems) - $204.8M • Motor Carrier Safety Assistance Program ($160M) • Information Systems/Strategic Safety Initiatives ($17M) • Crash Causation Study ($5M) • State CDL Program Improvements ($4.8M) • Southern Border State Operations Enhancements ($18M)	Outcome Reduce the number and rates of crashes, injured persons, and fatalities involving commercial motor vehicles Targets (FY 2002) Reduce the number of fatalities in large truck-related crashes to 4,710. Reduce the number of injured persons in large truck-related crashes to 121,000.
Motor Carrier Safety (Operations and Research) - $139M • Motor Carrier Safety Operations ($124.9M) • Research & Technology ($14.1M)	Reduce the rate of fatalities in large-truck related crashes to 2.2 per 100 million Commercial VMT. Reduce the rate of injured persons in large-truck related crashes to 56 injures per 100 million Commercial VMT.

National Motor Carrier Safety Program (NMCSP) – See Table B.

Motor Carrier Safety Assistance Programs ($160 million)
The NMCSP program supports a broad range of comprehensive commercial vehicle safety programs through direct grants to States. The program funds State-conducted vehicle inspections and compliance reviews, hazardous materials training, State enforcement efforts including border crossing programs; drug interdiction; public education; and the maintenance of an enforcement data collection and reporting system.

Information Systems and Strategic Safety Initiatives ($17 million)
Funds provide Federal and State improvements in information systems and data analysis.

Crash Causation Study ($5 million)
Section 224 of MCSIA authorized $5 million to determine the factors contributing to crashes that involve commercial motor vehicles.

Revenue Aligned Budget Authority ($22.8 million)
Funds will be used to continue implementation of the State CDL program improvements directed by the MCSIA of 1999. FMCSA will also provide States with additional funds to support commercial vehicle safety-related activities at the U.S.-Mexico border.

Table B. National Motor Carrier Safety Program

Motor Carrier Safety Assistance Program	
Basic MCSAP Grants	$130.6
Performance Incentive Grants	$ 11.4
Border States Assistance	$ 8.0
High Priority Initiatives	$ 8.0
State Training & Administration	$ 2.0
Subtotal	$160.0
Information Systems and Strategic Safety Initiatives	
Information Systems	$ 3.7
Motor Carrier Analysis	$ 2.3
Performance Registration Information and Systems Management (PRISM) Program	$ 5.0
Driver Programs	$ 1.0
Truck & Bus Crash Data Collection	$ 5.0
Subtotal	$ 17.0
Crash Causation Study	$ 5.0
Revenue Aligned Budget Authority	
State CDL Improvement Program	$ 4.8
Southern Border State Operations Enhancements	$ 18.0
Subtotal	$ 22.8
Total	$204.8

Motor Carrier Safety (Operations and Research) – See Table C.

Operations ($124.9 million)
The FMCSA operations budget will increase to ensure necessary administrative services are performed in FY 2002. The total number of personnel resources will increase from 770 FTE in FY 2001 to 899 in FY 2002, including 90 FTE over the annualized current services level of 809. This account also includes a funding increase of approximately $14 million that will enable FMCSA to improve and expand its safety oversight, outreach, and enforcement activities; and improve safety data collection. An additional funding increase of $13.9 million is included to expand Federal enforcement efforts at the U.S.-Mexico border, including hiring an additional 80 Federal enforcement personnel. Operations funding will also support the BTS Safety Data Action Plan aimed at improving the accuracy, timeliness, and comparability of safety data.

Research & Technology ($14.1 million)
The research and technology program will continue to support ongoing research and technology efforts in the areas of driver, both commercial and non-commercial; carrier; and vehicle. Additional funding, $4.3 million over the FY 2001 level, will support several new starts as well as accelerate technology testing and deployment.

Table C. Motor Carrier Safety (Operations and Research)

Operations	
Border Enforcement & Safety Initiatives	$ 13.9
Motor Carrier Safety Operations Program	$ 5.0
Crash Data Collection	$ 5.0
24-hour Telephone Hotline	$ 0.4
State CDL Improvement Program	$ 5.2
Motor Carrier Safety Operations	$ 86.4
BTS Safety Data Improvements	$ 9.0
Subtotal	$124.9
Research and Technology	$ 14.1
Total	$139.0

Border Infrastructure Improvements

To ensure the safety of trucks and buses crossing the U.S.-Mexico border, $56 million is requested from Federal Highway Administration's Revenue Aligned Budget Authority for construction of State and Federal inspection sites at the U.S./Mexico border. Advancing these projects will be the joint responsibility of FMCSA, FHWA, and the States.

VII. PROGRAM EVALUATION

In FY 2000, FMCSA completed an evaluation of the Top Ten States project. A summary of the results of the Top Ten States evaluation is provided here. In 1996, funds were provided to 10 States, in which nearly 50 percent of all large truck-related fatal crashes occur, to establish innovative crash avoidance and severity reduction measures.[3] The final report highlighted the results in two of the States, Michigan and New York, and recommended a further evaluation of selected countermeasures. In the follow-up evaluation, successful State programs were examined: 1) Michigan's Fatal Accident Complaint Team (FACT) program; 2) New York's program to increase Level 3 inspection training for the New York State police; and, 3) a detailed large truck crash data analysis in New York. The key recommendations from the evaluation study were that FMCSA should: 1) continue to fund States to collect and analyze large truck crash data in order to better target their commercial motor vehicle safety programs; and 2) reinstate, on a limited basis, the grants to States for a sustained, aggressive enforcement effort tied to targeted public information and education campaigns along the identified high-crash corridors.

In addition, work began on the Safe Miles and Compliance Review Impact Assessment study that is to be completed in FY 2002. Initial program impact models were developed for the roadside inspection and compliance review programs in 1999. The premise of the *Safe-Miles* model is that the roadside inspection program has both direct and deterrent effects, each of which reduces crashes. The *CR Impact Assessment* model is based on the before and after changes, both individual and cumulative, in safety performance of carriers that received a compliance review. In addition, a new model is currently being designed to measure the impact of the MCSAP-funded traffic enforcement activity on fatalities, and another model will be designed to measure the overall effects of the FMCSA safety programs and their interactions. The agency also initiated the five-year Commercial Motor Vehicle Crash Causation Study, as directed by Section 224 of the MCSIA of 1999. The study is aimed at identifying data requirements and collection procedures, reports, and other measures that will improve both FMCSA and the States' ability to evaluate future crashes involving commercial motor vehicles; monitor crash trends and identify causes and contributing factors; and develop effective safety improvement policies and programs. Preliminary results for this study will be reported in FY 2002.

VIII. OTHER FEDERAL PROGRAMS WITH COMMON OUTCOMES

FMCSA coordinates its activities with agencies in the Departments of Treasury and Justice to enhance commercial vehicle safety at the U.S. borders. An example project is the development of an International Trade Data System with U.S. Customs. FMCSA is also a participant in the 21st Century Truck Initiative research program involving the DOD, DOE, DOT, and EPA.

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[3] States that participated in the program included: California, Florida, Michigan, Illinois, New York, North Carolina, Ohio, Pennsylvania, and Texas. The tenth state, Georgia, opted out of the program.

IX. CONCLUSION

In its first performance plan, FMCSA forecast a 10 percent reduction in large truck-related fatalities between 1998 and 2001. In 1999, there was a decline of less than one percent in large truck-related fatalities and an increase in injuries. The preliminary estimate for 2000 is that fatalities in large truck-related crashes will decline by another one percent from the 1999 level. In order to meet the original forecast, a more significant decline must be achieved in 2001.

The increase in the number of injured persons between 1998 and the preliminary estimate in 2000 is a trend that requires more analysis. Based on the preliminary estimate, there was another slight increase in the number of injured persons between 1999 and 2000. Substantial progress must be made in order to meet the original forecast.

FMCSA and its partners took significant steps last year to strengthen Federal and State enforcement efforts, while also raising industry and public awareness of the truck and bus safety problem. However, a more sustained and broader effort will be needed in the next few years to achieve the national safety outcomes. Strong leadership that fosters greater participation by all parties, the introduction of more innovation in safety practices and technologies, and improved performance in Federal and State programs designed to address the safety problem will be needed. The key to success is to understand the causes of truck and bus crashes, develop and deploy suitable countermeasures, and evaluate the effectiveness of national policies and programs in reducing both the incidence and severity of crashes involving commercial motor vehicles.

X. ADDITIONAL INFORMATION

This plan represents a brief summary of the policies and programs that FMCSA will undertake in FY 2002. For further information about the program activities and funding, please review other sections of this FY 2002 budget estimate, or write to the FMCSA Chief Safety Officer at the address below:

Ms. Julie Anna Cirillo
Acting Deputy Administrator
Federal Motor Carrier Safety Administration
Room 6316, 400 Seventh Street, S.W.
Washington, D.C. 20590

This plan was written by the Strategic Planning and Program Evaluation Division, Office of Policy, Plans, and Regulations. For further information about this document, please contact Woody Stanley at 202-366-2572. Copies of this plan will also be available on the Internet at www.fmcsa.dot.gov on or before May 1, 2001.

APPENDIX I. DESCRIPTION OF PERFORMANCE MEASURES

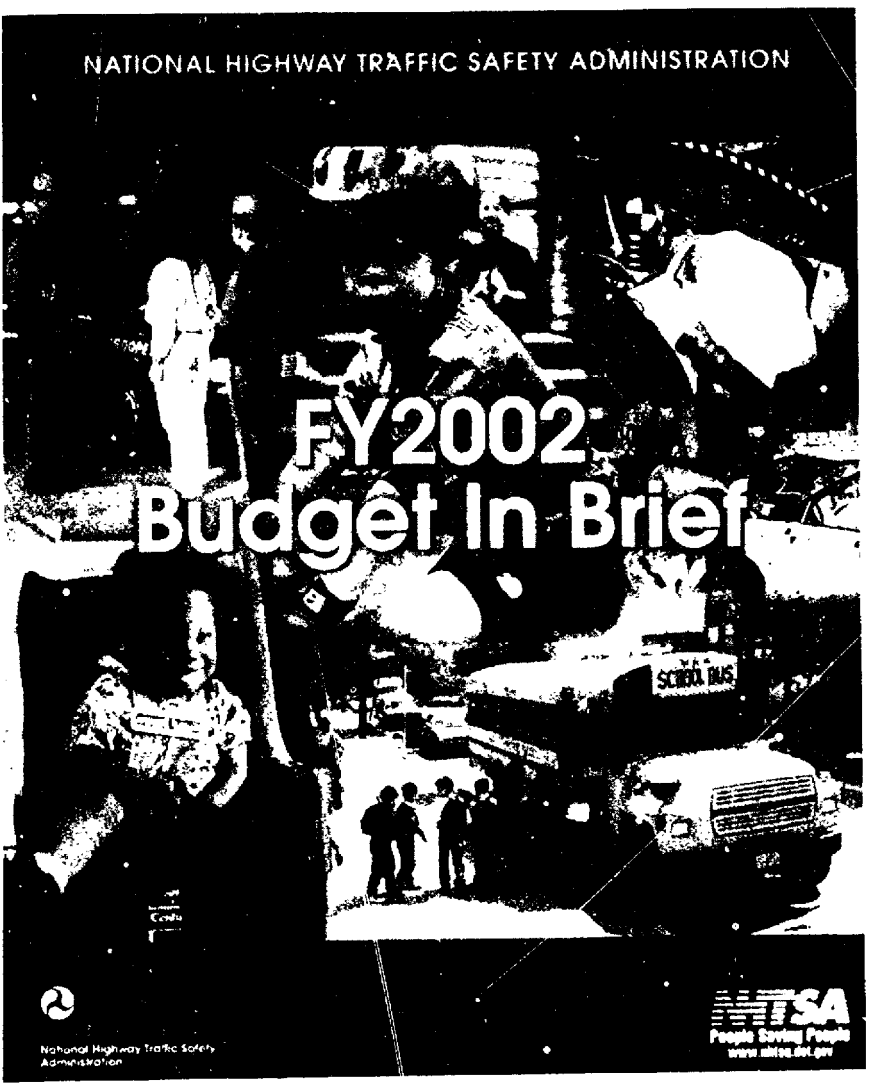
Table I-A. Large Truck-related Fatalities

Measure:	**Number and rate of fatalities involving large trucks.**
Scope:	The measure includes all fatalities (e.g., drivers and occupants of passenger cars, motorcycles, large trucks, or pedestrians) associated with crashes involving trucks with a gross vehicle weight rating of 10,000 pounds or more. The number of fatalities comes from NHTSA's Fatality Analysis Reporting System (FARS) data, a census of fatal traffic crashes within the 50 States, D.C. and Puerto Rico. Thee fatal crash rate is the number of fatalities per 100 million vehicle miles of large truck travel (VMT).
Source:	NHTSA's Fatality Analysis Reporting System (FARS) provides fatality data. The VMT data are derived from the Federal Highway Administration's (FHWA) Highway Performance Monitoring System (HPMS).
Limitations:	FARS data elements are modified from year to year to respond to emphasis areas, vehicle fleet changes, and other needs for improvement. Large truck VMT reported to FHWA by each State is based on a sample of road segments and is not a census. In addition, the methods used to calculate total VMT may vary from State to State. The methods used by the States to estimate the VMT contribution from rural and urban minor collectors are unknown.
Statistical Issues:	The fatality counts in FARS are generally quite accurate. The major sources of error are underreporting by some precincts and inconsistent use of the definition of a truck. Based on 1993-1999 data, the chance variation in a given year has a regression standard error of approximately 126 fatalities. Because the VMT data provided to FHWA from each State are estimates based on a sample of road segments, the numbers have associated sampling errors. The methodology used by each of the States to estimate VMT is not known and may introduce additional non-sampling error. Although States provide VMT estimates on an annual basis, they are only required to update their traffic counts at all sampling sites once every three years. Thus an annual VMT estimate from a particular State may be based, in part, on data collected during a previous year. Based on 1993-1999 data, the chance variation in a given year in the number of fatalities per 100 million vehicle miles of large truck travel has a regression standard error of 0.05.
Verification/ Validation:	Fatality data are reviewed and analyzed by NHTSA's National Center for Statistics and Analysis. Quality control procedures are built into data collection and data processing. A study using samples of 1989-1990 FARS cases was completed in 1993 to assess the accuracy of data being reported. FHWA routinely works with State data providers to modify reported VMT values that do not appear reasonable before incorporating them into its final master file.
Comment:	The FARS data have been around for many years and are generally accepted as a good source for describing fatal crashes on the Nation's highways. The large truck VMT data used to calculate fatal crash rates have both sampling and non-sampling (i.e., bias) error associated with it. The impact of these errors on FMCSA's estimates of large truck crash rates is considered to be minimal.

APPENDIX I. DESCRIPTION OF PERFORMANCE MEASURES

Table I-B. Large Truck-related Injured Persons

Measure:	Number and rate of injured persons involving large trucks.
Scope:	The measure includes all injured persons (e.g., drivers and occupants of passenger cars, motorcycles, large trucks, or pedestrians) associated with crashes involving trucks with a gross vehicle weight rating of 10,000 pounds or more. The number of injured persons is derived from NHTSA's General Estimates System (GES). The injury rate is the number of injured persons per 100 million vehicle miles of large truck travel (VMT).
Source:	NHTSA's General Estimates System (GES) provides injury data. VMT data are derived from the Federal Highway Administration's (FHWA) Highway Performance Monitoring System (HPMS).
Limitations:	GES data are obtained from a nationally representative sample of 60 sites. The results provide only national data, not State-by-State data. Large truck VMT reported to FHWA by each State is based on a sample of road segments and is not a census. In addition, the methods used to calculate total VMT may vary from State to State. The methods used by the States to estimate the VMT contribution from rural and urban minor collectors are unknown.
Statistical Issues:	The GES data have a standard error of 7.9% for injuries from truck and automobile crashes (cf. Appendix C of *Traffic Accident Reports*). They are less accurate than the corresponding fatality counts. Based on 1993-1999 data, the variation due to random chance in the number of injuries which includes sampling variability, has a regression standard error of approximately 7,890. Bec the VMT data provided to FHWA from each State are estimates based on a sample of road segme the numbers have associated sampling errors. The methodology used by each of the States to estimate VMT is not known and may introduce additional non-sampling error into the estimates. Although States provide VMT estimates on an annual basis, they are only required to update their traffic counts at all sampling sites once every three years. Thus an annual VMT estimate from a particular State may be based, in part, on data collected during a previous year. Based on 1993-1999 data, the chance variation in a given year in the number of injured persons per 100 million vehicle miles of large truck travel has a regression standard error of 5.29.
Verification/ Validation:	Injury data are reviewed and analyzed by NHTSA's National Center for Statistics and Analysis. Quality control procedures are built into data collection and data processing. FHWA routinely works with State data providers to modify reported VMT values that do not appear reasonable before incorporating them into its final master file.


NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
FY2002
Budget In Brief
SCHOOL BUS
National Highway Traffic Safety Administration
NHTSA
People Saving People

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

BUDGET IN BRIEF

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For a detailed presentation and explanation of NHTSA's FY 2002 Budget Request, refer to Budget Estimates Fiscal Year 2002, NHTSA: Submission to the Committees on Appropriations.

The information presented was compiled by the Office of Plans and Policy, Office of Fiscal Services. For additional copies call Katherine Montgomery at (202) 366-1570 or Arlene Whittington at (202) 366-2578.

A Statement from the Executive Director

The ultimate mission of the U.S. Department of Transportation is to improve overall safety in the various modes that contribute to the nation's private and commercial transportation capability. The FY 2002 budget request of $419 million for the National Highway Traffic Safety Administration (NHTSA) will permit the agency to continue mounting a balanced program of human and vehicular safety initiatives to reduce the major public health problem of death and injury from highway crashes. Over 41,000 people are killed on our roads each year, and over 3 million are injured. The economic loss to the country exceeds $150 billion a year.

We have witnessed substantial progress in reducing this tragic toll, and the program supported by the FY 2002 budget request is designed to continue these improvements. The number of highway fatalities in recent years has been held relatively flat, despite a significantly rising number of vehicles being driven more miles on our roads. However, in 2000 we saw a slight reversal of that trend, where the preliminary number of fatalities increased while the preliminary number of vehicle miles traveled remained essentially flat.

In FY 2002, implementation of the recently enacted Transportation Recall Enhancement, Accountability and Documentation (TREAD) Act will be high on NHTSA's agenda. Enacted by Congress in the wake of the Firestone tire investigation, this new law requires issuance of several rulemaking actions to update the tire safety standard; develop dynamic rollover tests; and improve the safety of child restraints. It provides stronger penalties, longer safety recall periods, enhanced enforcement and increased funds to support these actions. TREAD also provides authority to learn more about safety problems in foreign countries, before they occur in the U.S.

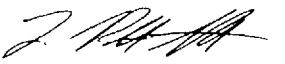
NHTSA will continue to work with industry and safety organizations to improve both the crashworthiness of passenger and commercial vehicles, and their crash avoidance capability. FY 2002 initiatives will include improved roof crush, vehicle crash compatibility, advanced braking, child restraints and head protection. Our program also supports international harmonization encompassing coordinated research and safety regulatory initiatives. Work of special interest includes vehicle rollover propensity and information on vehicles adapted for the disabled population. We will expand the New Car Assessment Program to provide the public with frontal and side impact test results, and to implement a rating program designed to give consumers information on vehicle resistance to rolling over in a single vehicle crash.

A major area of NHTSA's FY 2002 program will incorporate successful strategies to address the human factors dimension of traffic safety. Key among our concerns will be impaired driver deterrence and greater use of seat belts and correct placement of children and infants in appropriate safety restraints. In cooperation with our partners in the states and local communities, we will develop and test countermeasures for traffic enforcement, deterrence of aggressive driving and excessive speeding, and other unsafe driving behaviors. Effective methods of public information and education will be critical to successful work with our safety partners and stakeholders. Important initiatives will also be undertaken in the areas of emergency medical system education, safe operation around school buses, national occupant protection usage surveys, and distracted and inattentive driving.

The budget request will fund research and development actions to enhance the effectiveness of both behavioral and vehicular safety measures. Research will be undertaken to improve both crashworthiness and crash avoidance, and to gain a better understanding of how crash injury occurs and actions we can undertake to ameliorate their effects. Funding for the National Center for Statistics and Analysis will allow us to continue to manage world-class crash and injury information systems that support both public and private sector safety work.

The FY 2002 program includes performance-based highway safety grants that we provide to every state, territory and the Indian Nations. These grants are designed to help states improve their work on the leading national problems. Included are basic highway safety grants under Section 402, as well as incentive programs to encourage occupant protection, child passenger safety, impaired driver programs and improvements in safety data systems.

We are encouraged by the improvements we see in traffic safety, and the program to be supported by the FY 2002 request is designed to keep this trend moving forward in order to reduce the national tragedy of traffic crashes.



L. Robert Shelton

Overview

SUMMARY OF AUTHORIZING LEGISLATION

The National Highway Traffic Safety Administration (NHTSA) was established as a separate organization within the Department of Transportation (DOT) in March 1970 to administer the Department's motor vehicle and highway safety programs. NHTSA succeeded the Department's Federal Highway Administration's National Highway Safety Bureau, which originally was charged with administering these programs.

On June 9, 1998, the Transportation Equity Act for the 21st Century (TEA-21) (Pub. L. 105-178) reauthorized all of NHTSA's motor vehicle and highway safety programs and created several new highway safety incentive grant programs that NHTSA administers.

On November 1, 2000, the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act (Pub. L. 106-414), was enacted. The TREAD Act requires NHTSA to undertake more than a dozen rulemaking actions within the next two years in the areas of tire safety standards, rollover propensity, and improving child safety.

As amended, the NHTSA statutes are as follows:

Motor Vehicle Safety (chapter 301 of title 49, U.S. Code), provides for the establishment and enforcement of safety standards and regulations for the manufacture of new motor vehicles and motor vehicle equipment, together with supporting research.

Motor Vehicle Information and Cost Savings (part C of subtitle VI of title 49, U.S. Code), provides for the establishment of low-speed bumper protection standards, consumer information activities, odometer regulations, fuel economy standards, and motor vehicle theft prevention standards.

Highway Safety (chapter 4 of title 23, U.S. Code), provides for coordinated national highway safety grant programs carried out by the states and local communities (Section 402), supported by research and development programs (Section 403). Highway safety incentive grant programs are provided to encourage the states to enhance the effectiveness of: (1) occupant protection programs and laws (Section 405); (2) alcohol-impaired driving countermeasures and laws (Section 410); and (3) highway safety data improvement programs (Section 411).

National Driver Register (chapter 303 of title 49 U.S. Code), provides for the operation of the National Driver Register (NDR), which facilitates the interstate transfer of driver licensing information concerning problem drivers whose licenses to drive have been suspended or revoked for cause.

Overview

NHTSA STRATEGIC PLAN
Promoting Safe Passage into the 21st Century

Over the past 30 years, NHTSA developed and implemented strategies that proved successful in reducing traffic fatalities and injuries. Recently, changing environmental conditions have resulted in flattened traffic death and injury trends. Nonetheless, NHTSA is committed to a goal of reducing fatalities and injuries 20 percent by the year 2008 (1996 baseline). To achieve this aggressive goal, the agency faces the challenge of identifying new approaches for reducing fatalities and injuries.

NHTSA HAS TWO STRATEGIES FOR ACHIEVING THE YEAR 2008 GOAL:

- Identify new approaches in the behavioral, vehicular, and program delivery areas.
- Identify and correct operational impediments preventing NHTSA from implementing the new approaches.

The NHTSA strategic plan describes activities for implementing these strategies in the following areas:

- **Safety**: Vehicular and behavioral safety problems are defined, and NHTSA's strategies for solving them are identified. For NHTSA to achieve the year 2008 goals, these strategies must be successful. The problems and strategies are organized according to the Haddon Matrix, which is composed of three phases (in time) of the crash (pre-crash, crash, and post-crash), organized by the three areas of activity (human, vehicle, and environment) that can influence the outcome in each of the phases.
- **Mobility, Economic Growth and Trade, Human and Natural Environment**: Problems and strategies related to these DOT non-safety goals are discussed in NHTSA's plan as well. Although NHTSA's primary focus is safety, solutions to the safety problems will produce secondary outcomes that directly contribute to DOT's non-safety goals.
- **Program Delivery**: NHTSA's strategies for delivering its products and services are discussed in this area. Cost-effective program delivery strategies are increasingly important as NHTSA seeks to meet expanding and challenging safety responsibility.
- **Corporate Management Strategies**: This section identifies key operational areas that will enable NHTSA management to continue the agency's orderly transition to a modern, more effective organization.

Overview

The FY 2002 Budget Request reflects the priority placed on highway safety programs by the Secretary and the Administration. Motor vehicle crashes account for 94 percent of the deaths and 99 percent of the injuries in U.S. transportation. The funding levels below include staffing, administrative, and program costs.

NHTSA HISTORICAL FUNDING
(Dollars in Thousands)

PROGRAMS	FY 2000 Enacted	FY2001 Enacted	FY2002 Request	+/– 01/02
Safety Performance Standards	$13,908	$17,949	$18,941	+$992
Safety Assurance	$20,509	$30,440	$30,917	+$477
Highway Safety	$47,613	$54,982	$56,483	+$1,501
Research and Analysis	$63,628	$71,926	$73,284	+$1,358
General Administration	$10,128	$10,475	$11,257	+$782
Office of the Administrator	$4,286	$4,684	$5,118	+$434
Subtotal, Operations and Research	**$160,072**	**$190,456**	**$196,000**	**+$5,544**
Section 402 State and Community Grants	$152,800	$154,659	$160,000	+$5,341
Section 410 Alcohol Driving Countermeasures Grants	$36,000	$35,921	$38,000	+$2,079
Section 405 Occupant Protection Incentive Grants	$10,000	$12,971	$15,000	+$2,029
Section 2003(b) Child Passenger Protection Education Grants*	[$7,500]	[$7,500]	$0	$0
Section 411 Safety Data	$8,000	$8,980	$10,000	+$1,020
National Driver Register**	[$2,000]	[$2,000]	[$2,000]	$0
Subtotal, Highway Safety Grants	**$206,800**	**$212,531**	**$223,000**	**+$10,469**
Total	**$366,872**	**$402,987**	**$419,000**	**+$16,013**

* Transferred from FHWA

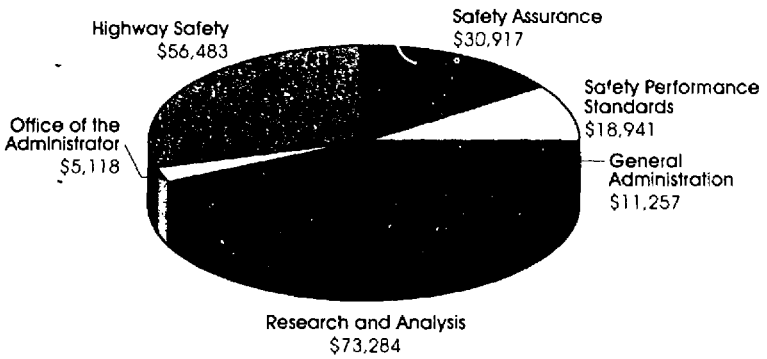
** NDR funding is included in the Highway Safety program

Overview

TOTAL FY 2002 NHTSA REQUEST: $419,000

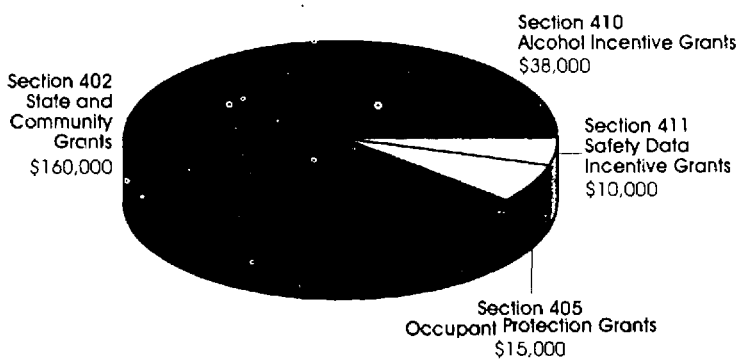
Dollars in Thousands

Operations and Research



FY 2002 TOTAL REQUEST: $196,000

Highway Traffic Safety Grants



FY 2002 TOTAL REQUEST: $223,000

Program

SAFETY PERFORMANCE STANDARDS

There are four programs in Safety Performance Standards. The ***Safety Standards Support Program*** conducts tests, gathers data, and conducts analyses in support of regulatory and non-regulatory alternatives to increase motor vehicle safety. The ***New Car Assessment Program*** (NCAP) conducts tests to evaluate the comparative crashworthiness and crash avoidance characteristics of passenger vehicles and to motivate vehicle manufacturers to provide higher levels of occupant protection by using market forces. The ***Fuel Economy Program*** monitors manufacturer progress in achieving established passenger automobile and light truck fuel economy standards and sets annual standards for light trucks as prescribed by law. The ***Theft Prevention Program*** establishes standards to reduce the number of motor vehicle thefts and provides information to the public on theft and recovery of passenger cars and light trucks.

SAFETY PERFORMANCE STANDARDS PROGRAM
CONTRACT PROGRAM SUMMARY
(Dollars in Thousands)

PROGRAMS	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request	+/- 01/02
Safety Standards Support	$708	$1,700	$2,000	+$300
New Car Assessment Program	$2,691	$5,531	$5,231	-$300
Fuel Economy Program	$0	$60	$60	$0
Theft and Other Programs	$30	$50	$50	$0
Total	**$3,429**	**$7,341**	**$7,341**	**$0**

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Program

FY 2002 HIGHLIGHTS

SAFETY STANDARDS SUPPORT

- Provide testing and analytical support for meeting the requirements of the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act, including the light vehicle tire standard upgrade and costs of the upgrade, and enhanced crash protection for children in child restraint systems.
- Perform tests to upgrade light vehicle and heavy truck braking standards, to accomodate new technologies and for harmonization with global standards.
- Collect non-crash data for such problems as trunk entrapment solutions and power windows, and adapted vehicle data for problem size and safety solutions.
- Conduct performance demonstration tests for the development of headlighting performance information for consumers.
- Assess upgrading crashworthiness standards for advanced frontal crash protection systems, head restraints, offset frontal crash protection and crash test dummies, and a strengthened seat back standard.
- Continue to assess the safety performance of newly developed school bus restraint systems and perform cost analysis on these systems.

NEW CAR ASSESSMENT PROGRAM

- Provide frontal and side impact test ratings covering 75 percent of new vehicles, based on approximately 100 passenger vehicle tests.
- Measure the static stability factor (rollover resistance) for approximately 100 vehicles.
- Support the TREAD requirement for a child restraint rating system by conducting five frontal and five side NCAP tests with 3-year-old dummies in child seats and perform feasibility work on the 3-year-old Hybrid III dummy specially designed for the lateral direction.
- Respond to the 1996 National Academy of Sciences report to expand the amount of vehicle safety information to the public, by performing developmental work on braking and headlighting performance tests.
- Conduct consumer information activities including research on the type of information most helpful to consumers and the best ways to present it; develop information for new campaigns and materials on high interest issues, such as rollover, tire safety, child safety and other emerging issues; expand the methods for disseminating the information to reach more people; and develop diversity initiatives and materials to better reach underserved populations.

FUEL ECONOMY

- Integrate the "plants and lines" database with information in other existing in-house databases to create a comprehensive CAFE data system; update and maintain the comprehensive database for use in future analyses. Participate in DOT Climate Change Center actitivities to assess transportation and environmental concerns.

THEFT PREVENTION PROGRAM

- Conduct data analysis activities to compile and publish insurer reports on theft and recovery of motor vehicles, comprehensive insurance coverage, and actions taken by insurers to reduce motor vehicle thefts.

Program

SAFETY ASSURANCE

There are currently three programs in Safety Assurance. The ***Vehicle Safety Compliance Program*** ensures that motor vehicles and motor vehicle equipment sold in the U.S. provide the safety benefits intended by federal safety standards. The ***Defects Investigation Program*** identifies and removes motor vehicles found to contain safety-related defects from the nation's highways. The ***Odometer Fraud Program*** enforces federal odometer fraud laws and regulations and encourages states to enforce their odometer laws aggressively.

SAFETY ASSURANCE PROGRAM
CONTRACT PROGRAM SUMMARY
(Dollars in Thousands)

PROGRAMS	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request	+/- 01/02
Vehicle Safety Compliance	$5,000	$6,974	$6,974	$0
Defects Investigation	$2,663	$7,579	$7,940	+$361
Auto Safety Hotline[1]	$1,232	$1,232	$0	-$1,232
Odometer Fraud	$150	$150	$150	$0
Total	**$9,045**	**$15,935**	**$15,064**	**-$871**

[1] In FY 2002, the Auto Safety Hotline's operating costs are shown under Operating Expenses, while the outreach portion ($361 thousand) is included in the Defects Investigation Program

Program

FY 2002 HIGHLIGHTS

VEHICLE SAFETY COMPLIANCE

- Conduct full-scale crash testing of new motor vehicles, including: 20 tests for verification of compliance with the requirements of frontal occupant crash protection standards; 20 tests for verification of compliance with dynamic side impact standards; 10 tests for verification of compliance with the requirements of upper interior head protection standards using a head form; 20 tests for verification of compliance with fuel system integrity requirements; and 5 dynamic, side impact pole tests to assess the performance of new technology for head protection.
- Continue to test motor vehicle equipment, with emphasis on child restraint systems, to assure compliance with safety standard requirements.
- Continue efforts to purchase, assemble, and calibrate a new family of adult and child crash test dummies for measuring the enhanced dynamic performance requirements for advanced air bags.

DEFECTS INVESTIGATION

- Implement new initiatives required by the TREAD Act, which include implementation of a data warehouse that will include technological capabilities to satisfy the early warning requirements of the TREAD Act. The new data warehouse will allow for the forecasting of potential safety problems for decision-making by data and text mining to discover emerging safety trends, arming statisticians and analysts with automated tools to proactively identify potential safety issues and concerns that can be analyzed by automotive engineers/investigators.
- Strengthen the Defects Investigation Program, as a result of the TREAD Act, to include the following: additional screenings; petition analysis; investigations to include examination of complaint vehicles and equipment; site inspections of vehicle crashes; testing of vehicles and equipment; surveys of vehicle owners; and intensified recall management to ensure that the scope of each recall is appropriate and the remedy and completion rate are adequate.
- Reorganize functions to enhance the quality of the Office of Defects Investigation's processes and incorporate the additional staff to be added as a result of the TREAD Act.

ODOMETER FRAUD

- Initiate new cooperative agreements with two states to supplement NHTSA's Odometer Fraud Program with state law enforcement agents and award funding to two additional states to initiate or enhance their odometer fraud programs.

Program

HIGHWAY SAFETY

There are three program offices in Traffic Safety Programs (TSP). The ***Office of Traffic Injury Control Programs*** **(OTICP)** provides national leadership in planning and developing programs directed at preventing and reducing highway crashes and resulting deaths, injuries, and economic costs. OTICP develops, coordinates, and facilitates the execution of demonstration programs, program development, technology development, technical assistance and information transfer activities aimed at improving traffic injury programs throughout the country. The ***Office of Communications and Outreach*** **(OCO)** is responsible for the development, marketing, and promotion of public information campaigns and materials in support of TSP programs. OCO develops programs implemented with public and private sector organizations, other federal agencies, and elected officials in support of TSP's goals and objectives. This office also supports coalition-building activities at the national, state, and local levels. The ***Office of Research and Traffic Records (ORTR)*** conducts research, demonstration, and evaluation programs supporting traffic safety programs related to driver, passenger, pedestrian, and cyclist behavior. ORTR also develops, tests, and evaluates countermeasures aimed at reducing or eliminating unsafe actions and crash generating situations. The office also develops and coordinates a program of research and demonstration, and also technology and information transfer related to traffic records, driver licensing and driver education.

HIGHWAY SAFETY PROGRAM
CONTRACT PROGRAM SUMMARY
(Dollars in Thousands)

PROGRAMS	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request	+/– 01/02
Impaired Driving	$9,292	$9,817	$9,817	$ 0
Ped/Bicycle/Pupil Transportation	$1,058	$1,295	$1,295	$ 0
Motorcycle	$414	$661	$661	$ 0
Drugs, Driving and Youth	$1,138	$1,196	$1,196	$ 0
National Occupant Protection	$9,742	$10,953	$10,953	$ 0
Traffic Law Enforcement	$2,036	$2,192	$2,192	$ 0
Emergency Medical Services	$1,425	$2,245	$2,245	$ 0
Records and Licensing	$2,296	$2,591	$2,591	$ 0
Highway Safety Research	$7,152	$7,277	$7,277	$ 0
New/Emerging/TEA-21 Issues	$1,000	$1,196	$1,196	$ 0
Share the Road	$0	$500	$500	$ 0
NOPUS	$850	$600	$600	$ 0
National Driver Register	$1,110	$1,110	$1,110	$ 0
Total	**$37,513**	**$41,633**	**$41,633**	**$ 0**

Program

FY 2002 HIGHLIGHTS

IMPAIRED DRIVING PREVENTION

Alcohol-impaired driving prevention activities are driven by the goal to reduce alcohol-related fatalities to no more than 11,000 by 2005.

- Continue development and delivery of the five-year comprehensive public relations and enforcement campaign entitled *You Drink & Drive. You Lose.*
- Develop strong support for enforcement of impaired driving laws and for swift and severe sanctions for offenders.
- Support state legislative initiatives to reduce impaired driving such as 0.08 BAC, graduated licensing, and drivers' license and registration validation.
- Implement drug-impaired driving prevention recommendations from the *National Law Enforcement Summit on Drugs, Driving, and Youth* and the *MADD National Youth Summit.*

OCCUPANT PROTECTION

Occupant protection activities are guided by the goals of increasing national seat belt use to 90% by 2005 and reducing child-related fatalities by 25% by 2005.

- Implement incentive and innovative grant programs and promote "best practices" programs to states.
- Continue cooperative agreements with national organizations critical to the *Buckle Up America* campaign including special outreach efforts to high-risk populations.
- Conduct semiannual Operation ABC mobilizations; design and promote intensive enforcement programs to states through partnerships with enforcement organizations.
- Conduct research and collect nationally representative data on the use of occupant protection devices to guide development of occupant protection countermeasures.
- Forge relationships with industry and the private sector to promote the use of child passenger safety seats and to promote effective school bus occupant protection.

PEDESTRIAN, MOTORCYCLE, AND BICYCLE SAFETY

- Collaborate with the *Partnership for a Walkable America* and implement recommendations from the *National Action Plan for Child Pedestrian Safety.*
- Implement recommendations from the *National Agenda for Motorcycle Safety* and the *National Plan for Bicycle Safety* via collaboration with diverse organizations.

TRAFFIC LAW ENFORCEMENT

- Implement recommendations from *Traffic Safety in the Next Millenium. Law Enforcement Strategies* and build support for traffic safety in diverse communities.

EMERGENCY MEDICAL SERVICES

- Promote the *EMS Agenda for the Future* to care for motor vehicle crash victims.

HIGHWAY SAFETY RESEARCH

- Provide the scientific basis for NHTSA's national leadership in highway safety through studies of driver, passenger, and pedestrian and cyclist attitudes and behaviors, the circumstances and situations of crashes, and the most effective ways they can be reduced.
- Determine the causes of crashes, identify target populations, acquire the research for developing countermeasures, and evaluate the effectiveness of programs that will reduce traffic deaths, injuries, and associated costs.

EMERGING ISSUES

- Address emerging traffic safety issues such as older drivers, fatigue, distracted drivers and inattention, via public education initiatives.

TRAFFIC RECORDS, DRIVER LICENSING & DRIVER EDUCATION

- Improve the timeliness, accuracy, completeness, and accessibility of state traffic safety data.

NATIONAL DRIVER REGISTER

- Maintain an index of individuals whose licenses to operate motor vehicles have been suspended or who have been convicted of certain serious traffic offenses. State licensing officials and authorized users query the NDR to determine license eligibility.

Program

RESEARCH AND ANALYSIS

There are four major programs in Research and Analysis. The ***Crashworthiness Research Program*** promotes transportation safety through continuing research on vehicle safety, vehicle aggressivity and compatibility, and by improving occupant safety in crashes involving passenger cars, light trucks, and vans through developing advanced air bags and other crash countermeasures, human injury criteria, and using a family of dummies for safety performance evaluation. The ***Crash Avoidance Research Program*** focuses on passenger and commercial vehicle research including visibility, directional control and braking, and rollover stability. The program also includes use of advanced technologies under the Intelligent Vehicle Initiative (IVI) of the Department's Intelligent Transportation Systems (ITS) program. The agency also undertakes driver-vehicle safety research including human factors research to evaluate the safety potential and effectiveness of various collision avoidance countermeasures. The ***National Center for Statistics and Analysis*** operates high quality, large-scale vehicle crash databases that are used by both public and private sectors to support critical highway traffic safety, vehicle regulatory, and safety recall programs. The ***Vehicle Research and Test Center*** serves as NHTSA's in-house R&D test laboratory.

RESEARCH AND ANALYSIS PROGRAM
CONTRACT PROGRAM SUMMARY
(Dollars in Thousands)

PROGRAMS	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request	+/- 01/02
Crashworthiness	$22,090	$23,453	$23,038	-$415
Crash Avoidance	$4,840	$11,214	$10,990	-$224
National Center for Statistics and Analysis	$21,021	$21,721	$22,320	+$599
Vehicle Research and Test Center	$950	$950	$990	+$40
Total	**$48,901**	**$57,338**	**$57,338**	**$0**

Program

FY 2002 HIGHLIGHTS

CRASHWORTHINESS RESEARCH

- Conduct research in support of upgrading safety standards for frontal crash protection, side impact protection, roof crush protection, ejection prevention, fuel system integrity, and child safety.
- Develop test devices and test procedures suitable for compliance testing of the standards above.
- Conduct research to address the issue of vehicle compatibility by analyzing the crash data and the fleet characteristics to define the safety problem, by developing suitable countermeasures to address the problems and by testing and evaluating the effectiveness of countermeasures developed.

NATIONAL TRANSPORTATION BIOMECHANICS RESEARCH CENTER

- Conduct research to develop suitable injury criteria for upgrades of existing safety standards or any future standards in frontal crash protection, side crash protection, rollover protection, and improved child safety.
- Collect and analyze human injury data by conducting in-depth investigations of vehicle crashes and develop injury measures and correlate them to the risk of injury in crashes
- Develop, test and evaluate a family of dummies for safety evaluations of vehicles and federalize them for incorporation into safety regulations.

CRASH AVOIDANCE RESEARCH

- Conduct analyses of crash data with the objective of identifying causal factors and for the development of suitable countermeasures for crash prevention
- Conduct research in support of upgrading standards to improve vehicle braking, directional and rollover stability, tires, and vehicle lighting and signaling.
- Conduct driver-vehicle safety research related to driving performance, driver work load demands, driver distraction issues, the safety impact of in-vehicle devices on safe driving, and driver behavioral research including driver alertness, driver distraction, and driver work load management.
- Conduct research into the measurement of driver cognitive distraction while using a variety of in-vehicle technologies and determine the consequences for driver behavior and performance.
- Conduct research using intelligent technologies (such as pre-crash sensors, and sensors for proximity and relative speed for crash prevention) to develop countermeasures for enhancing crash avoidance capabilities of light and heavy vehicles.

NATIONAL CENTER FOR STATISTICS AND ANALYSIS

- Collect data related to fatalities and injuries in vehicle crashes and analyze vital information related to automobile crashes, occupant injuries and injury mechanism, especially as they relate to newly introduced technologies, such as advanced occupant restraint systems to minimize risks to out-of-position and small statured occupants, and identify crash causal factors.
- Collect data used extensively by other parts of NHTSA to develop overall policies and priorities, target risk reduction programs, shape and support regulations, and investigate defects.
- Use Crash Outcome Data Evaluation Systems (CODES) grants to link crash and health care data to study crash outcomes.
- Use the latest technologies to improve the efficiency in data collection and to improve the quality and quantity of data collected.
- Maintain a national network of analysts and crash investigators, which allows NHTSA to mount special studies quickly and cost-effectively.
- Collect, analyze, and report on all of the metrics used to track NHTSA's performance under GPRA.

Program

GENERAL ADMINISTRATION

There are three programs in General Administration. The ***Program Evaluation Program*** determines the effectiveness of vehicle regulations and highway safety programs. The ***Strategic Planning Program*** develops, updates, and publishes the agency's Strategic Plan and studies of emerging problems as a basis for setting agency policy, in addition to providing a wide range of planning support to agency programs. The ***Economic Analysis Program*** develops methods to quantify the economic consequences of motor vehicle injuries in forms suitable for agency use in problem identification and evaluation, regulatory analysis, priority setting, and policy analysis.

GENERAL ADMINISTRATION PROGRAM
CONTRACT PROGRAM SUMMARY
(Dollars in Thousands)

PROGRAMS	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request	+/- 01/02
Program Evaluation	$468	$468	$468	$0
Strategic Planning	$90	$89	$89	$0
Economic Analysis	$87	$86	$86	$0
Total	**$645**	**$643**	**$643**	**$0**

Program

FY 2002 HIGHLIGHTS

PROGRAM EVALUATION

Evaluations provide objective quantitative information to aid in making decisions on present and future rulemakings and programs. This information helps to determine if the objectives of regulations and programs are being achieved, and if not, the information can help identify changes in the rule or program that may result in the achievement of the intended goals and objectives. To determine the cost effectiveness of regulations, as called for in Executive Order 12866, cost studies of motor vehicle equipment are performed. The following activities in FY 2002 contribute to the evaluation of regulations and programs:

- Continue to measure the effects of changes to improve air bag technology and reduce their risks to children and other occupants.
- Continue to analyze the effectiveness of the antilock brake systems in reducing crashes of heavy trucks, and survey truck fleets to learn about the maintenance costs and durability of these systems.
- Evaluate the effectiveness of rear-impact guards for truck trailers in reducing harm to passenger vehicles that collide with the trailers.
- Evaluate the head injury protection upgrade (FMVSS 201), including performance testing of baseline, pre-standard vehicles and cost analyses of upper-interior air bags.
- Continue the evaluation of side impact protection upgrade (FMVSS 214), including a cost analysis of side air bags.

STRATEGIC PLANNING

The role of Strategic Planning within NHTSA is to help set organizational direction, provide agency leadership in cross cutting program planning, and lead the agency in organizational improvement initiatives. For FY 2002, Strategic Planning objectives are:

- Quantify the effects of external factors on NHTSA's programs and the ability of agency programs to meet safety goals.
- Serve as the agency lead for coordinating and developing plans to support agency initiatives requiring total agency participation.
- Study, recommend, and implement organizational improvement activities to improve agency efficiency.

ECONOMIC ANALYSIS

- Research and develop methods for quantifying economic and societal injury outcomes.
- Update and publish a report on the overall societal burden resulting from motor vehicle crash injuries.
- Complete the development of a version of the Functional Capacity Index that focuses on the injuries to older persons.

Program

HIGHWAY TRAFFIC SAFETY GRANTS

The Transportation Equity Act for the 21st Century (TEA-21) authorized funding for numerous highway safety grant programs for the states in FY 2002, including the following programs under the National Highway Traffic Safety Administration: the ***Section 402 State and Community Grant Program*** provides for a coordinated national highway safety program. All states, the District of Columbia, the Commonwealth of Puerto Rico, the Trust Territories, and Indian Nations are provided with formula grants to encourage and facilitate implementation of effective programs to improve highway safety. The ***Section 405 Occupant Protection Incentive Grant Program*** awards grants to states that adopt or demonstrate specific laws and programs, such as primary safety belt use laws and special traffic enforcement programs, to increase seat belt and child safety seat use. The ***Section 410 Alcohol-Impaired Driving Incentive Grant Program*** encourages states to enact stiffer laws and implement stronger programs to detect and remove impaired drivers from the roads. The ***Section 411 State Highway Safety Data Improvements Incentive Grant Program*** encourages states to take effective actions to improve the timeliness, accuracy, completeness, uniformity, and accessibility of their highway safety data.

HIGHWAY TRAFFIC SAFETY GRANTS
PROGRAM SUMMARY
(Dollars in Thousands)

PROGRAMS	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request	+/- 01/02
Section 402 State and Community Formula Grant Program	$152,800	$154,659	$160,000	+$5,341
Section 405 Occupant Protection Incentive Grant Program	$10,000	$12,971	$15,000	+$2,029
Section 410 Alcohol-Impaired Driving Incentive Grant Program	$36,000	$35,921	$38,000	+$2,079
Section 411 State Highway Safety Data Improvements	$8,000	$8,980	$10,000	+$1,020
Total	**$206,800**	**$212,531**	**$223,000**	**+$10,469**

Program

FY 2002 HIGHLIGHTS

SECTION 402
STATE AND COMMUNITY GRANTS

- Provide formula grants to support performance-based highway safety programs in every state, territory, and the Indian Nations for the purpose of reducing highway crashes, deaths, and injuries.
- Support programs, developed and managed by the states, to address their highway safety goals, performance measures, and strategic plans.
- Support national priority programs, such as encouraging proper use of occupant protection devices; reducing alcohol and drug-impaired driving; reducing motorcycle crashes; improving police traffic services; improving emergency medical services and trauma care systems; increasing pedestrian and bicyclist safety; improving traffic record systems; and improving roadway safety.

SECTION 405
OCCUPANT PROTECTION INCENTIVE GRANTS

- Provide grants that will encourage states to pass stronger laws and implement effective measures to increase safety belt and child safety seat use, such as passing primary enforcement laws; minimum fines or penalty points for seat belt and child protection law violations; and stepped-up police enforcement of occupant protection laws.

SECTION 410
ALCOHOL-IMPAIRED DRIVING INCENTIVE GRANTS

- Provide grants that will encourage states to pass stronger laws and implement effective measures to reduce safety problems stemming from driving while impaired by alcohol, such as administrative driver license actions within stated time frames; graduated licensing systems; and young adult drinking and driving prevention programs. Supplemental grants are given for meeting additional criteria.

SECTION 411
STATE HIGHWAY SAFETY DATA IMPROVEMENTS INCENTIVE GRANTS

- Provide grants that will encourage states to implement effective programs to improve state data that is needed to identify priorities for national, state, and local highway safety programs, including a traffic records coordinating committee and a strategic plan.

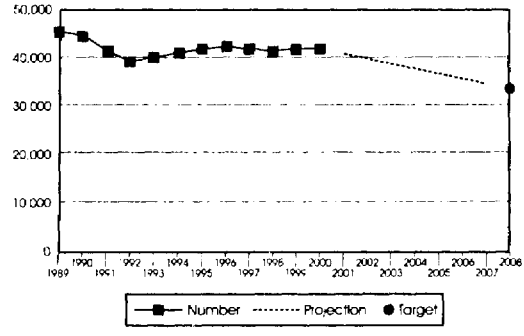
OUTCOME MEASURES

From 1994 to 1996, the National Highway Traffic Safety Administration served as a pilot agency under the Government Performance and Results Act of 1993 (GPRA). The agency's FY 2002 Budget Request to Congress includes NHTSA's annual Performance Plan highlighting the outcome measures and their linkage to agency activities and programs. The plan ties directly to the goals and strategies outlined in both NHTSA's and the Department's Strategic Plans. Although a number of factors outside of NHTSA's control influence the severity of highway crashes and the resulting fatalities and injuries, there is documented evidence that federal vehicle and highway safety programs (in conjunction with the state, local, and private programs engendered in part by the federal initiatives) have been highly effective in reducing highway deaths and injuries.

Strategic Outcome Goal:
Reduce the number of highway-related fatalities and injuries by 20 percent by 2008.

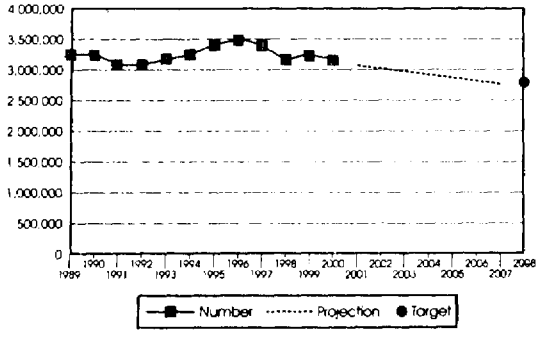
The Number of Highway-Related Fatalities.
1999: 41,611
2000 Estimate: 41,800
2001 Target: Less than CY 2000
2002 Target: Less than CY 2001
2008 Target: 33,500

TREND: The total number of fatalities declined by 18 percent from the 51,093 peak in 1979. Vehicle miles traveled (VMT) increased by 75 percent in the same time period, indicating that Americans are driving more, but the fatality risk is lower.



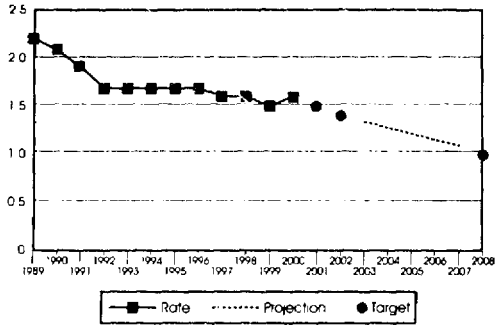
The Number of Highway-Related Injuries.
1999: 3,236,000
2000 Estimate: 3,200,000
2001 Target: Less than CY 2000
2002 Target: Less than CY 2001
2008 Target: 2,809,000

TREND: The rate of injuries has decreased 8 percent from a 1996 high of 3,511,000.



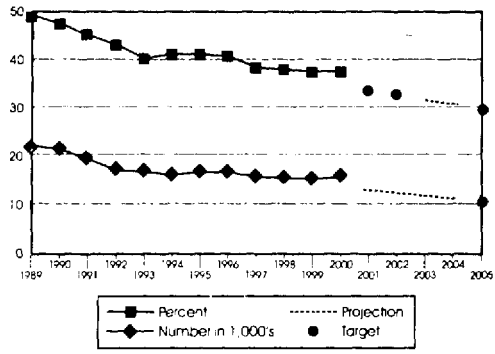
The Rate of Highway-Related Fatalities per 100 Million Vehicle Miles Traveled (VMT).
1999: 1.5
2000 Estimate: 1.6
2001 Target: 1.5
2002 Target: 1.4
2008 Target: 1.0

TREND: Since the inception of the federal program in 1966, there has been an overall decline in the fatality rate per 100 VMT, from 5.5 in 1966 to a record low of 1.5 in 1999. Preliminary data for 2000 show an increase in the rate to 1.6.



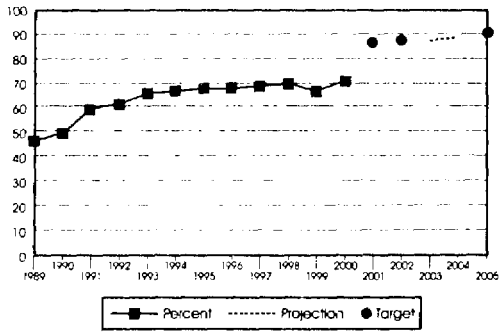
Number and Percent of Alcohol-Related Highway Fatalities.
1999: 15,786 (38%)
2000 Estimate: 16,068 (38%)
2001 Target: Less than CY 2000 (34%)
2002 Target: Less than CY 2001 (33%)
2005 Target: 11,000 (30%)

TREND: Alcohol involvement in fatal traffic crashes showed a steady decline since the early 1980's. Preliminary data for 2000 indicate that the alcohol-related fatalities remained at 38 percent.



The Percentage of Front Seat Occupants Using Seat Belts.
1999: 67 percent
2000: 71 percent
2001 Target: 86 percent
2002 Target: 87 percent
2005 Target: 90 percent

TREND: Seat belt use increased in the 1980's, but remained below 50 percent as recently as 1990. Although seat belt use decreased to 67 percent in 1999, a recent 2000 survey estimated national seat belt use at 71 percent, a total increase of 4 percentage points from 1999.

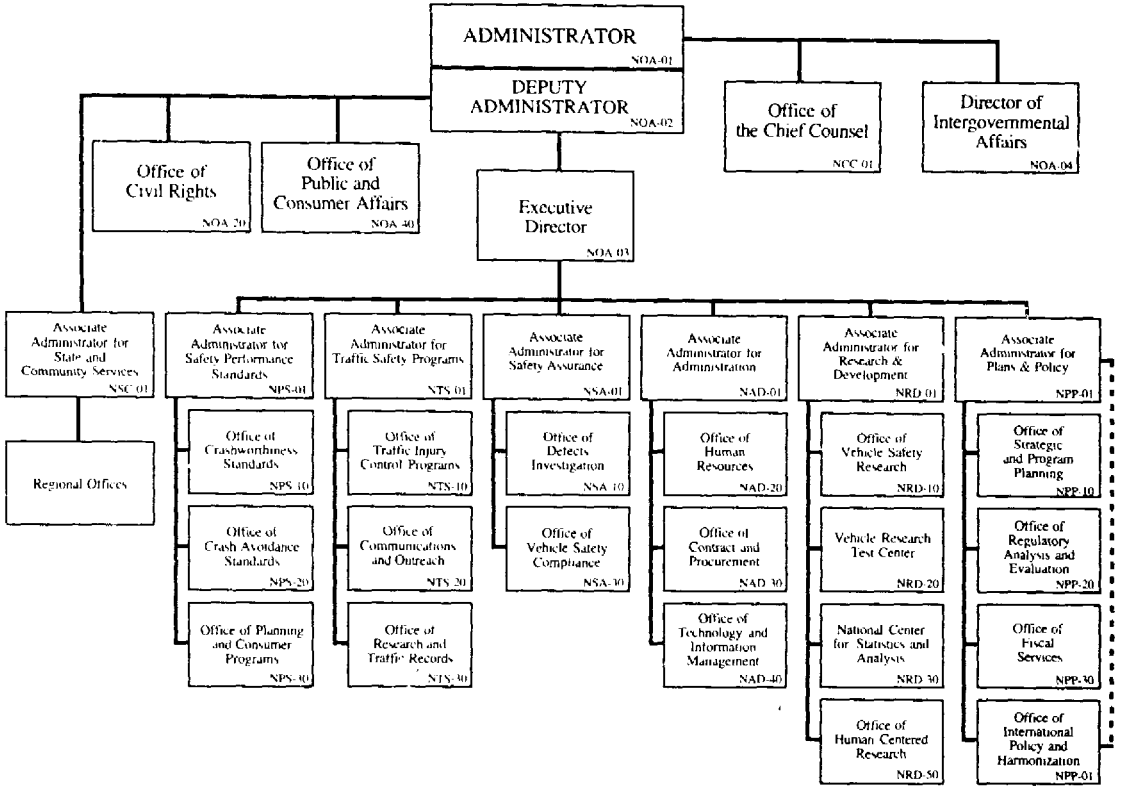


DISTRIBUTION OF NHTSA SECTION 402 HIGHWAY TRAFFIC SAFETY GRANT PROGRAMS

(Dollars in Thousands)

STATE/TERRITORY	Estimated Obligations FY 2002 NHTSA
ALABAMA	$2,640
ALASKA	760
AMERICAN SAMOA	380
ARIZONA	2,107
ARKANSAS	1,931
CALIFORNIA	14,556
COLORADO	2,229
CONNECTICUT	1,630
DELAWARE	760
DISTRICT OF COLUMBIA	760
FLORIDA	6,731
GEORGIA	3,888
GUAM	380
HAWAII	760
IDAHO	863
ILLINOIS	6,278
INDIANA	3,291
IOWA	2,259
KANSAS	2,323
KENTUCKY	2,298
LOUISIANA	2,409
MAINE	760
MARYLAND	2,372
MASSACHUSETTS	2,958
MICHIGAN	5,192
MINNESOTA	3,135
MISSISSIPPI	1,804
MISSOURI	3,374
MONTANA	994
NEBRASKA	$1,548
NEVADA	857
NEW HAMPSHIRE	760
NEW JERSEY	3,714
NEW MEXICO	1,216
NEW YORK	8,912
NORTH CAROLINA	3,818
NORTH DAKOTA	1,080
N. MARIANAS	380
OHIO	5,821
OKLAHOMA	2,417
OREGON	1,862
PENNSYLVANIA	6,301
PUERTO RICO	1,678
RHODE ISLAND	760
SEC. OF INTERIOR	1,140
SOUTH CAROLINA	2,125
SOUTH DAKOTA	1,076
TENNESSEE	2,941
TEXAS	10,211
UTAH	1,137
VERMONT	760
VIRGIN ISLANDS	380
VIRGINIA	3,357
WASHINGTON	2,872
WEST VIRGINIA	1,120
WISCONSIN	3,175
WYOMING	760
UNDISTRIB: ADMIN. COSTS	8,000
TOTAL	**$160,000**

National Highway Traffic Safety Administration



U.S. Department of Transportation

BUDGET ESTIMATES

FISCAL YEAR 2002

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

SUBMITTED FOR USE OF
THE COMMITTEES ON APPROPRIATIONS

(1263)

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

FY 2002 CONGRESSIONAL BUDGET JUSTIFICATION

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INTRODUCTORY STATEMENT

The ultimate mission of the U.S. Department of Transportation is to improve overall safety in the various modes that contribute to the nation's private and commercial transportation capability. The FY 2002 budget request of $419 million for the National Highway Traffic Safety Administration (NHTSA) will permit the agency to continue mounting a balanced program of human and vehicular safety initiatives to reduce the major public health problem of death and injury from highway crashes. Over 41,000 people are killed on our roads each year, and over 3 million are injured. The economic loss to the country exceeds $150 billion a year.

We have witnessed substantial progress in reducing this tragic toll, and the program supported by the FY 2002 budget request is designed to continue these improvements. The number of highway fatalities in recent years has been held relatively flat, despite a significantly rising number of vehicles being driven more miles on our roads. However, in 2000 we saw a slight reversal of that trend, where the preliminary number of fatalities increased while the preliminary number of vehicle miles traveled remained essentially flat.

In FY 2002, implementation of the recently enacted Transportation Recall Enhancement, Accountability and Documentation (TREAD) Act will be high on NHTSA's agenda. Enacted by Congress in the wake of the Firestone tire investigation, this new law requires issuance of several rulemaking actions to update the tire safety standard; develop dynamic rollover tests; and improve the safety of child restraints. It provides stronger penalties, longer safety recall periods, enhanced enforcement and increased funds to support these actions. TREAD also provides authority to learn more about safety problems in foreign countries, before they occur in the U.S.

NHTSA will continue to work to improve both the crashworthiness of passenger and commercial vehicles, and their crash avoidance capability. FY 2002 initiatives will include improved roof crush, vehicle crash compatibility, advanced braking, child restraints and head protection. Our program also supports international harmonization encompassing coordinated research and safety regulatory initiatives. Work of special interest includes vehicle rollover propensity and information on vehicles adapted for the disabled population. We will broaden the New Car Assessment Program to provide the public with frontal and side impact test results, and to implement a rating program designed to give consumers information on vehicle resistance to rolling over in a single vehicle crash.

A major area of NHTSA's FY 2002 program will incorporate successful strategies to address the human factors dimension of traffic safety. Key among our concerns will be impaired driver deterrence, greater use of seat belts, and correct placement of children and infants in appropriate safety restraints. In cooperation with our partners in the states and local communities, we will develop and test countermeasures for traffic enforcement, deterrence of aggressive driving and excessive speeding, and other unsafe driving behaviors. Effective methods of public information and education will be critical to successful work with our safety partners and stakeholders. Important initiatives will also be undertaken in the areas of emergency medical system education,

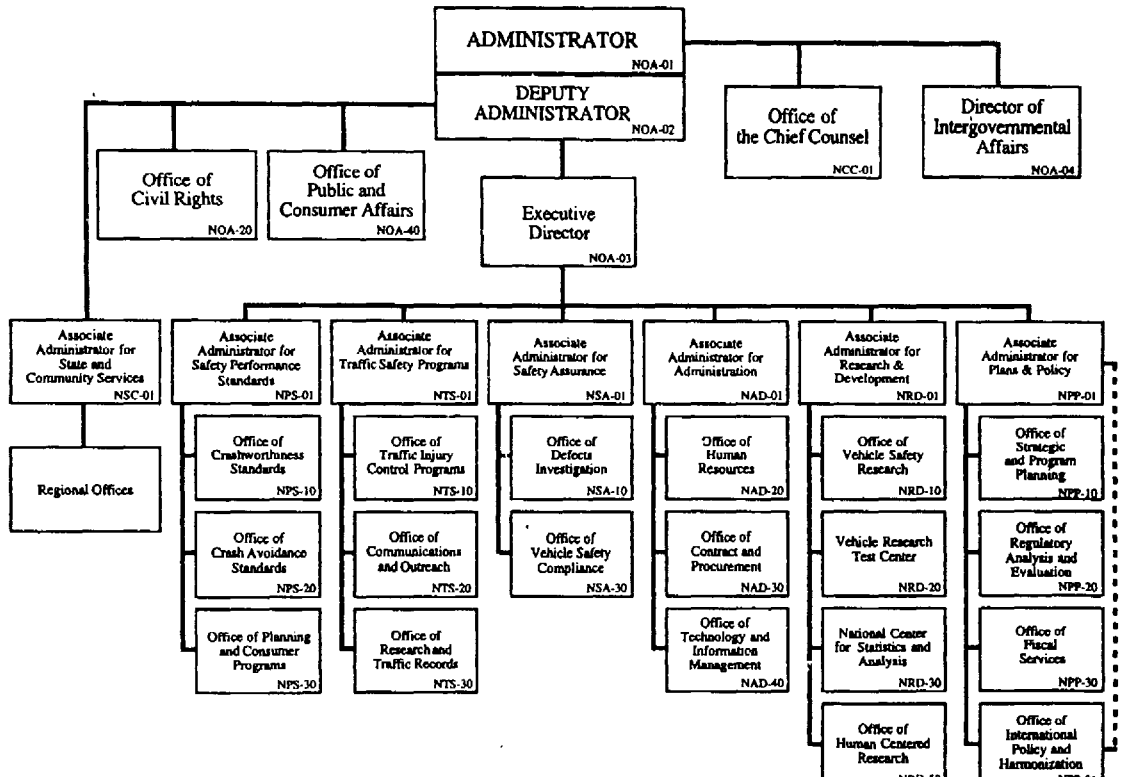
safe operation around school buses, national occupant protection usage surveys, and distracted and inattentive driving.

The budget request will fund research and development actions to enhance the effectiveness of both behavioral and vehicular safety measures. Research will be undertaken to improve both crashworthiness and crash avoidance, and to gain a better understanding of how crash injury occurs and actions we can undertake to ameliorate their effects. Funding for the National Center for Statistics and Analysis will allow us to continue to manage world-class crash and injury information systems that support both public and private sector safety work.

The FY 2002 program includes performance-based highway safety grants that we provide to every state, territory and the Indian Nations. These grants are designed to help improve work on the leading national problems. Included are basic highway safety grants under Section 402, as well as incentive programs to encourage occupant protection, child passenger safety, impaired driver programs and improvements in safety data systems.

We are encouraged by the improvements we see in traffic safety. The program to be supported by the FY 2002 request is designed to keep this trend moving forward in order to reduce the national tragedy of traffic crashes.

National Highway Traffic Safety Administration



People Saving People

http://www.nhtsa.dot.gov

National Highway Traffic Safety Administration

FY 2002 Performance Plan

Submission to Congress

March 2001

I. Introduction

The mission of the National Highway Traffic Safety Administration (NHTSA) is to save lives, prevent injuries, and reduce traffic-related health care and other economic costs. The agency develops, promotes, and implements effective educational, engineering, and enforcement programs toward ending preventable tragedies and reducing economic costs associated with vehicle use and highway travel.

As an integral part of the Department of Transportation (DOT), the agency improves public health and enhances the quality of transportation by helping to make highway travel safer. A multi-disciplinary approach is used that draws upon diverse fields such as epidemiology, engineering, biomechanics, the social sciences, human factors, economics, education, law enforcement, and public communication to address one of the most complex and challenging problems in society.

NHTSA is a national and international leader in collecting and analyzing crash data, and in developing countermeasures relevant to preventing and mitigating vehicle crashes and reducing and preventing resulting fatalities and traumatic injury. The agency regulates automobile manufacturers through its safety standards program, sponsors critical research, spurs progress in harmonizing international safety standards, and carries out innovative projects to improve traffic and vehicle safety. All aspects of engineering, education, enforcement, and evaluation are incorporated into programs to address the challenges of crash and injury prevention involving people, vehicles, and the roadway environment.

This performance plan describes what NHTSA will achieve in fiscal year 2002 with the resources that are proposed in the agency's budget. The trends of highway-related fatalities and injuries are illustrated, external factors that affect these trends are discussed, and strategies and activities are described that NHTSA will use to achieve the goals of the agency and the Department.

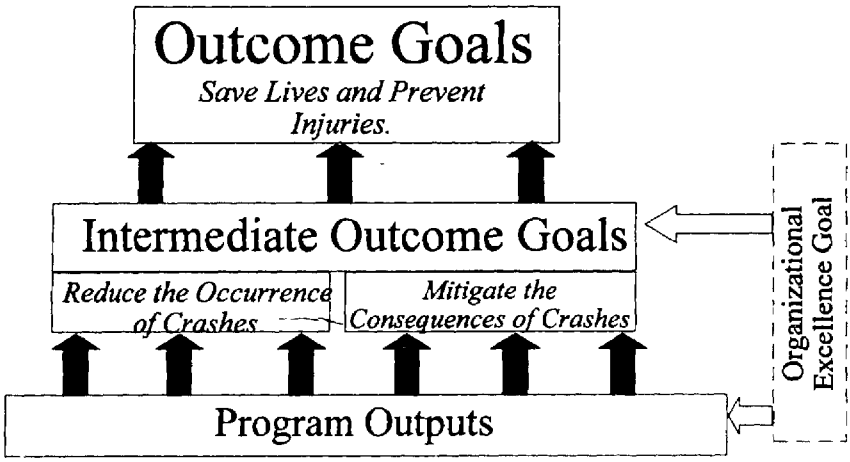
II. Program Need

In 2000, there were 41,800[1] people killed and 3,200,000[1] injured, according to preliminary estimates from the Fatality Analysis Reporting System (FARS). Highway fatalities account for 94 percent, and highway injuries make up 99 percent of all transportation-related injuries. A major public health problem, these deaths and injuries occur at all ages and are particularly significant for ages 6 through 33, where they are the leading cause of death. Motor vehicle deaths are nearly half the total of all traumatic injury deaths. The large number of motor vehicle injuries places a considerable burden on the nation's health care system. About 20 percent of all Emergency Medical Service (EMS) calls are motor vehicle related, and people treated in trauma centers are there largely as the result of a motor vehicle crash. This care results in a significant economic burden on society, estimated at more than $17 billion a year. Since motor vehicle injuries often have long term effects, they are a leading cause of long term disability. Motor vehicle crash injuries have been the neglected epidemic of our society, but they need not be so. We believe that the day will come in this nation when these levels of carnage will be a part of history.

[1] 2000 Early Assessment Estimate.

III. NHTSA's Hierarchy of Measures

NHTSA uses the following diagram to depict how performance measures are used and how different program outputs contribute to the outcome goals of the agency, which are to save lives and prevent injuries on our nation's highways. NHTSA programs seek to achieve progress in two intermediate outcome areas: (1) to reduce the occurrence of crashes; and (2) to mitigate the consequences of crashes. Some of the programs fall exclusively under one of these categories, while others contribute to both. NHTSA programs use performance indicators to help measure the goals. A recent addition to this diagram is the Departmental Organizational Excellence Goal that assists NHTSA in achieving its goals. Although Departmental Strategies are also included in this plan, NHTSA believes that safety is the primary focus of each of its programs. For this reason, NHTSA's contribution to each of the DOT strategies is described in terms of secondary impacts, with the programs' primary purpose and activities described fully under the **Intermediate Outcomes** areas, **Reduce the Occurrence of Crashes** and **Mitigate the Consequences of Crashes.**

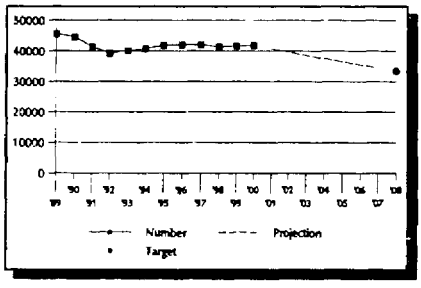


IV. Goals and Indicators

Outcome Goal: Reduce the number of highway-related fatalities and injuries to 33,500 and 2,809,000, respectively, by 2008.

Performance Indicator[2]:

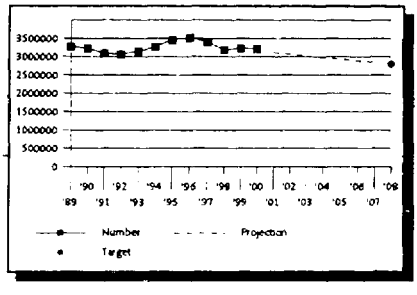
Reduce the number of highway-related fatalities by 20 percent by 2008. (NHTSA 1998 Strategic Plan)
1996 Baseline: 42,065
1997: 42,013
1998: 41,501
1999: 41,611
2000 Estimate: 41,800
2001 Target: Less than CY 2000
2002 Target: Less than CY 2001
2008 Target: 33,500



Performance Indicator[2]:

Reduce the number of highway-related injuries by 20 percent by 2008. (NHTSA 1998 Strategic Plan)

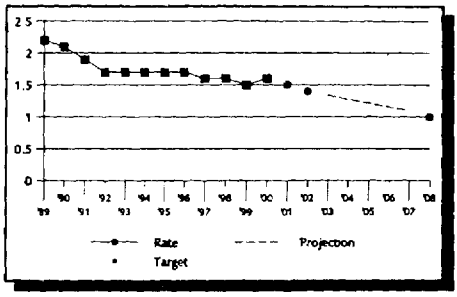
1996 Baseline: 3,511,000
1997: 3,399,000
1998: 3,192,000
1999: 3,236,000
2000 Estimate: 3,200,000
2001 Target: Less than CY 2000
2002 Target: Less than CY 2001
2008 Target: 2,809,000



[2]Data source, scope, and measurement methodology is in DOT Performance Plan, Appendix I

Performance Indicator[2]:

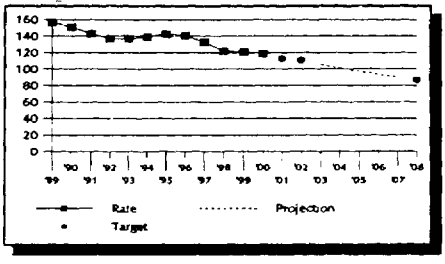
Reduce the rate of highway-related fatalities per 100 million vehicle miles traveled (VMT) by 2008. (NHTSA 1998 Strategic Plan)
1996 Baseline: 1.7
1997: 1.6
1998: 1.6
1999: 1.5
2000 Estimate: 1.6
2001 Target: 1.5
2002 Target: 1.4
2008 Target: 1.0



Performance Indicator[2]:

Reduce the rate of highway-related injuries per 100 million vehicle miles traveled (VMT)by 20 percent by 2008. (NHTSA 1998 Strategic Plan)

1996 Baseline: 141
1997: 133
1998: 122
1999: 120
2000 Estimate: 119
2001 Target: 113
2002 Target: 111
2008 Target: 87



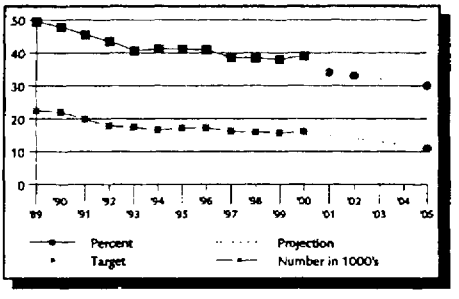
Intermediate Outcomes

Reduce the Occurrence of Crashes

Performance Indicator[2]:

Reduce the number and percent of alcohol-related highway fatalities to no more than 11,000 by 2005. (DOT 2000-2005 Strategic Plan)

1996 Baseline:17,218 (40.9%)
1997: 16,189 (38.6%)
1998: 15,935 (38.4%)
1999: 15,786 (38%)
2000 Estimate: 16,068 (38%)
2001 Target: Less than CY 2000 (34%)
2002 Target: Less than CY 2001 (33%)
2005 Target: 11,000 (30%)



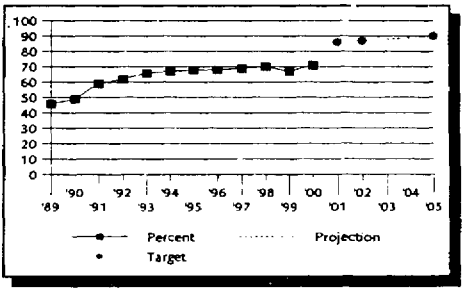
Mitigate the Consequences of Crashes

Performance Indicator[2]:

Increase seat belt use to 90 percent by 2005. (DOT 2000-2005 Strategic Plan)

(The percentage of front seat occupants using seat belts.)

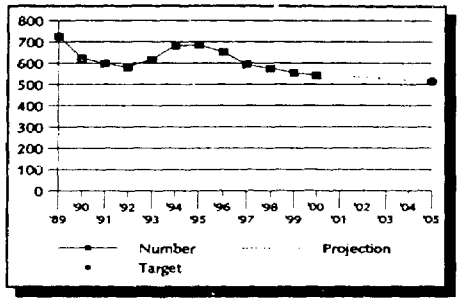
1997 Baseline: 69 percent
1998: 70 percent
1999: 67 percent
2000: 71 percent
2001 Target: 86 percent
2002 Target: 87 percent
2005 Target: 90 percent



Performance Indicator[2]:

Reduce the number of child occupant fatalities (0-4 years) by 25 percent by 2005. (DOT 2000-2005 Strategic Plan)

1995 Baseline: 685
1996: 653
1997: 594
1998: 575
1999: 555
2000 Estimate: 542
2001 Target: Less than CY 2000
2002 Target: Less than CY 2001
2005 Target: 515



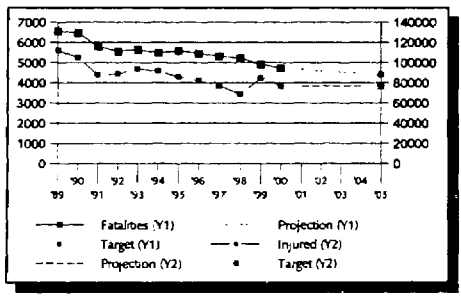
Performance Indicator[2]:

Reduce the number of pedestrian fatalities and injuries by 10 percent by 2005. (DOT 2000-2005 Strategic Plan)

1999 Baseline: 4,906 fatalities, 85,000 injured

2000 Estimate: 4,727 fatalities, 77,000 injured

2001 Target: Less than CY 2000
2002 Target: Less than CY 2001
2005 Target: 4,415 fatalities, 77,000 injured



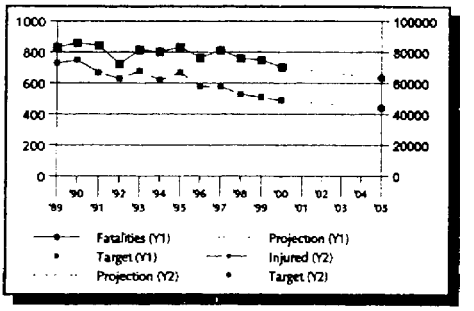
Performance Indicator[2]:

Reduce the number of pedalcyclist* fatalities and injuries by 10 percent by 2005. (DOT 2000-2005 Strategic Plan)

1999 Baseline: 750 fatalities, 51,000 injured

2000 Estimate: 738 fatalities, 49,000 injured

2001 Target: Less than CY 2000
2002 Target: Less than CY 2001
2005 Target: 675 fatalities 46,000 injured

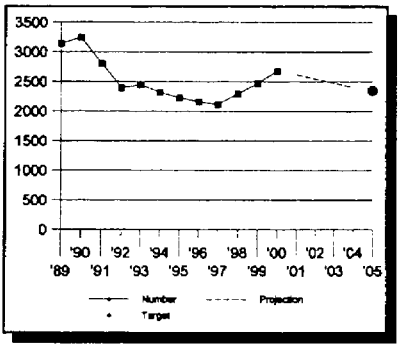


*Pedalcyclist is a person on a vehicle that is powered solely by pedals, e.g., bicycles and tricycles.

Performance Indicator[2]:

Reduce the number of motorcyclist fatalities by 5 percent by 2005. (DOT 2000-2005 Strategic Plan)

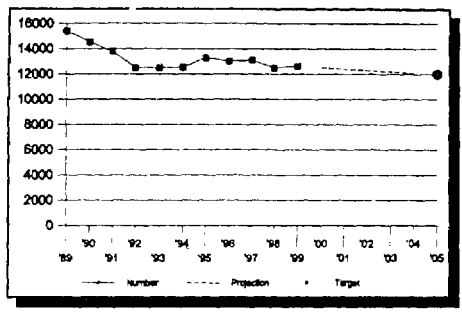
1999 Baseline: 2,472
2000 Estimate: 2,680
2001 Target: Less than CY 2000
2002 Target: Less than CY 2001
2005 Target: 2,348



Performance Indicator[2]:

Reduce the number of speeding-related fatalities by 5 percent by 2005. (DOT 2000-2005 Strategic Plan)

1999 Baseline: 12,628
2000 Target: Less than CY 1999
2001 Target: Less than CY 2000
2002 Target: Less than CY 2001
2005 Target: 11,997



V. Strategies, Activities, and Associated Resources

NHTSA sets motor vehicle safety standards, tests vehicles and equipment for compliance with safety standards, investigates alleged defects, conducts research in technology and human factors relating to safety, provides information to consumers on vehicle safety and safe driving behavior, and maintains data on traffic-related transportation incidents, injuries, and fatalities. NHTSA also partners with states and communities to promote education, legislation, and enforcement programs through grants and technical assistance. NHTSA enlists medical and health community support for federal and state focus on the public health implications of highway fatalities and injuries, as well as the resulting national economic impact.

All of NHTSA's activities and initiatives are aimed at reducing the number of highway-related fatalities and injuries. Each program focuses on a particular segment of the problem, e.g., occupant protection, alcohol-related crashes involving fatalities and injuries, in order to achieve the outcome goal. Some programs concentrate on reducing the occurrence of crashes or mitigating the consequences of crashes exclusively, but many concentrate on both aspects. This performance plan presents the program activities under: (1) intermediate outcomes (reduce the occurrence of crashes and mitigate the consequences of crashes); (2) Management Challenges; (3) other DOT goals; and (4) Organizational Excellence strategies.

Since preventing a crash has the potential for preventing or mitigating fatalities, programs described under **Reduce the Occurrence of Crashes** will often also affect those programs focused on mitigating crash injuries, described in the **Mitigate the Consequences of Crashes** subsection. Therefore, programs are not limited to contributing to only one intermediate outcome goal. Their placement in this performance plan merely indicates the program's primary focus.

A. Intermediate Outcomes

Reduce the Occurrence of Crashes

Crash Avoidance and Driver/Vehicle Performance Research - NHTSA will conduct research on: advanced crash avoidance systems related to a number of physical and driver characteristics; human factors and enhanced driving performance; and advanced technologies for improving vehicle safety. In FY 2002, the agency will also conduct research to determine the effects of age-related impairments on driver performance, risk-taking, and the use of new technologies using instrumented vehicles and the National Advanced Driving Simulator (NADS). ($10,990,000)

Intelligent Vehicle Initiative (IVI) - This program aims to facilitate research, development, testing, and deployment of integrated sensing, processing, communications, actuation, and control technologies in vehicles and on roadways. As part of its role in IVI, NHTSA is responsible for understanding the causes of highway collisions and resulting deaths and injuries and for seeking solutions. In FY 2002, NHTSA will: (1) complete research in support of the Rear-End Collision Warning Field Operational Test for light vehicles; (2) complete development of objective test procedures for a light vehicle road departure field test and begin preparations for a data collection phase of the field test; (3) complete the test vehicles for the roadway departure field test, and begin the data collection phase; (4) complete the test vehicles for the drowsy driver field test, and begin the data collection phase; and (5) complete the Light Vehicle Enabling Research Consortium preliminary driver workload tool which will undergo validation. (Funded in FHWA budget request.)

Heavy Vehicle Research - The program supports the agency's rulemaking and consumer information efforts by developing the scientific basis for improving the safety of heavy vehicles by making them less prone to crashes through improvements in their braking, handling, and visibility characteristics, and mitigating the consequences that do occur in such crashes. In 1999, DOT established a goal of reducing the number of large truck-related fatalities by 50 percent over the next 10 years. In support of that goal, NHTSA is proposing research initiatives to improve brake systems, investigate stability enhancement systems, investigate adaptive suspension systems, and identify collision avoidance countermeasures using on-board event data recorders. ($2,160,000)

Pneumatic Tire Research- The TREAD Act requires that the agency conduct rulemaking to revise and update existing tire standards, FMVSS Nos. 109 and 119. The Act also requires NHTSA to complete rulemaking to establish a regulation to require a warning system in new motor vehicles to indicate when a tire is significantly underinflated. Accordingly, NHTSA initiated a tire pressure survey; assessment of pressure warning systems in light vehicles; and research into rollover and unseating of tire beads that could occur due to inadequate tire pressure and the severity of maneuvers and the excessive lateral and twisting loads that may result in such maneuvers. In FY 2002, these activities will continue. The agency will develop test procedures for tire testing that are appropriate for determining their "peel strength" and

the effect of aging on such characteristics. Test procedures for accelerating aging of tires and testing under aged conditions will be developed. ($1,930,000)

Section 402 State and Community Formula Grant Program - This program provides for a coordinated national highway safety program in every state and territory. Under a formula established by the Highway Safety Act of 1966, all states, the District of Columbia, the Commonwealth of Puerto Rico, and the Trust Territories are provided with grants to encourage and facilitate implementation of more effective programs to improve highway safety. ($160,000,000)

Section 410 Alcohol-Impaired Driving Countermeasures Incentive Grant Program - TEA-21 amended the existing Section 410 program which provides grants to states to encourage them to adopt and implement effective programs to reduce traffic safety problems resulting from individuals driving while under the influence of alcohol. States will use their FY 2002 alcohol incentive grant funds to support a wide range of impaired driving countermeasures and programs. Significant FY 2002 programs include: sobriety checkpoint and/or safety checkpoint programs; alcohol awareness programs that target people under age 21; acquiring videotape equipment for police vehicles and training officers in its use; and assessment and screening programs for drunk driving offenders. ($38,000,000)

Impaired Driving Program - The major objective of this program is to continue progress toward the national goal to reduce alcohol-related fatalities to 11,000 in 2005. In FY 2002, in addition to the current impaired driving programs, NHTSA will expand state enforcement demonstrations to additional states with the most significant opportunity to reduce alcohol-related fatalities. The agency will develop and pilot test new comprehensive strategies, including speeding, zero tolerance, and seat belt violations, for reaching the increasing youth population. In addition, NHTSA will focus on DWI courts and developing resource trial manuals/bench books on prosecuting and adjudicating the high blood alcohol concentration (BAC) offender, including treatment and sanctioning alternatives. ($9,817,000)

Drugs, Driving, and Youth - Drug use among youth continues at unacceptable levels. NHTSA will collaborate with other federal agencies to deliver a systematic strategy to states and communities on the areas outlined in the *Presidential Initiative on Drugs, Driving, and Youth*. In FY 2002, it will continue to support collection of state drug-impaired driving data and complete a demonstration project using palm pilot technology for data collection. The agency will also continue encouraging the involvement of juvenile judges in prevention activities at the community level; the development of educational materials for diverse communities; and increase outreach efforts to include other parts of the criminal justice system, e.g., court administrators. ($1,196,000)

Traffic Law Enforcement - The FY 2002 Traffic Law Enforcement program will continue its efforts to reduce impaired driving, speeding, aggressive driving and other unsafe driving acts, and to increase seat belt and child safety seat use as primarily the responsibilities of our nation's law enforcement agencies. New initiatives include partnering with the National

Organization of Black Law Enforcement Executives to promote traffic safety in diverse communities; developing a law enforcement resource manual of innovative traffic enforcement technologies; assisting states to establish effective defensible law enforcement officer employment and training standards in emergency vehicle operations; and providing enforcement resources for a youthful high risk driver demonstration project. The agency will continue to implement recommendations identified by the *Traffic Safety in the Next Millennium: Law Enforcement Strategies Implementation Guide;* and develop a police pursuit training and resource program for law enforcement use nationwide. NHTSA will also collaborate with federal, state, and local partners to address the issue of racial profiling. ($2,192,000)

Motorcycle Safety - The program focuses on preventing motorcycle crashes; decreasing alcohol-related motorcycle crash injuries and fatalities; increasing the number of properly licensed motorcyclists; and mitigating crash injuries through encouraging use of helmets and other protective gear, promoting motorcycle safety education, and supporting helmet laws. In FY 2002, new initiatives will include identifying the implications of ITS technology for motorcycle safety and synthesizing information on state motorcycle training and licensing programs. The agency will also continue to collaborate with the Crash Outcome Data Evaluation Systems (CODES) to provide information on costs associated with motorcycle crashes; and maintain activities to determine rehabilitation costs associated with motorcycle accidents. ($661,000)

Pedestrian, Bicycle, and Pupil Transportation Safety - The pedestrian, bicycle, and pupil transportation safety programs focus on developing and implementing strategies to: (1) prevent pedestrian, bicycle, and school bus traffic-related fatalities and injuries from occurring; and (2) prevent and reduce injuries resulting from these incidents. New initiatives include: developing a training video on securing child safety seats in buses; demonstration grants for innovative law enforcement involvement in pedestrian safety; public information for drivers on sharing the road with pedestrians and bicyclists; and outreach and education strategies for care givers and professionals on safety procedures children are capable of following at different physical and psychological developmental stages. ($1,295,000)

National Driver Register (NDR) - The National Driver Register assists state motor vehicle administrators in communicating with other states to identify problem drivers. The total number of inquiries has increased 69.9 percent from 1993 to 2000. More importantly, during the same time period, the number of the more expensive interactive (real time) inquiries has increased 321% (8.5 million to 35.8 million). The FY 2002 program will continue its FY 2001 efforts. However, the Motor Carrier Safety Improvement Act of 1999 requires the NDR to continue to strive to meet its customer service goals of: (1) an average response time of four seconds, with all inquiries responded to within seven seconds; and (2) to be available for operation 99 percent of published operational hours. ($1,110,000)

Traffic Records, Driver Licensing and Education - Traffic Records seeks to improve the timeliness, accuracy, and completeness of state traffic records systems. Driver Licensing and Education focuses on implementation of Graduated Driver Licensing (GDL) systems. FY 2002

funding will support state and local acquisition and analysis of traffic safety data that is necessary to effectively manage traffic safety activities such as alcohol, safety belt, and GDL programs. Funding will provide for continued support of state GDL programs. GDL programs have been shown to be an effective means to reduce the fatality and injury crash involvement of young, novice drivers, with a 9 percent reduction in Florida, a 26 percent reduction in North Carolina, and a 27 percent reduction in Michigan. ($2,591,000)

New/Emerging/TEA-21 Issues - NHTSA investigates new traffic risks as they emerge, such as fatigue, drowsiness, and use of cellular phones while driving. These and other issues have been, and are being, researched by NHTSA, but there has not been funding authorized for educational programs to improve driver behaviors that could prevent many of these crashes. This funding will allow the agency to implement public education campaigns aimed at reducing incidents involving these behaviors. The FY 2002 new programs focus on drowsy driving, expanding the audience to include college students; pilot testing materials for an older driver social marketing campaign; and identifying new partners, such as health care providers and state licensing agencies to support the older driver campaign. Other activities include broad social marketing efforts to reduce the risks of driver distraction from electronic devices and telematics, using new research findings; and integrating aggressive driving programs into established, traditional, traffic safety programs, such as speed management and combined enforcement. ($1,196,000)

Highway Safety Research - This behavioral research program determines the causes of crashes, identifies target populations, measures perception and awareness levels, develops and tests countermeasures, and evaluates the effectiveness of in-place programs that will reduce traffic deaths, injuries, and associated costs. In FY 2002, the Highway Safety Research program will include research in the following areas: impaired driving; occupant protection; speed and aggressive driving; pedestrians, bicycles and motorcycles; emergency medical services; older drivers; evaluation of technology; and driver fatigue and inattention. ($7,277,000)

Safety Defects Investigation - The Defects Investigation Program identifies motor vehicles and items of motor vehicle equipment that contain safety-related defects and ensures that they are either repaired or removed from the nation's highways. The program has several components: screening; petition analysis; investigation; and recall management. The FY 2002 program places emphasis on implementing the recent Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act, including obtaining additional data to get an early warning of possible safety defects. NHTSA will conduct a requirements analysis for a data warehouse system and begin to enhance the existing Office of Defects Investigation database to incorporate analytical intelligence, integrate optical image retrievals, and obtain new hardware. ($7,940,000)

Share the Road Safely with Commercial Motor Vehicles (CMV) - In FY 2002, this program will continue to focus on the development and implementation of strategies to prevent CMV/passenger crashes from occurring and to prevent and reduce fatalities, injuries, and property damage resulting from these incidents. ($500,000)

Mitigate the Consequences of Crashes

Safety Systems Research (Crashworthiness) - The research program investigates potential improvements in vehicle structure and occupant compartment design, in combination with improvements in restraint systems that will lead to increased occupant protection. In FY 2002, the program will continue research in advanced frontal crashworthiness, rollover, air bags, pedestrian injury reduction, side impact protection, and Event Data Recording. The program will be expanded to include research on advanced restraint systems such as adaptive air bags and inflatable belt systems; pre-crash radar and other sensing technologies; and advanced technologies for automatic placement of foot pedal controls. ($9,084,000)

National Transportation Biomechanics Research Center (NTBRC) - Biomechanics research is the cornerstone upon which many of the agency's performance-based occupant safety initiatives are and will be based. NHTSA will fund seven Crash Injury Research and Engineering Network (CIREN) centers, impact injury research, human simulation and analysis, crash test dummy component development, and biomechanics of air bag injuries research. The agency is continuing its research program to address crash protection for the elderly. ($13,954,000)

Occupant Protection - The FY 2002 program focuses on three major areas: seat belts, child passenger safety (including booster seats), and air bags, while continuing efforts to reach the national goals of 90 percent seat belt use and reducing child passenger fatalities (0-4 years) by 25 percent by 2005. Strategies to reach the goals include expanded partnerships; public education; highly visible enforcement; passage of effective laws; and implementing new technologies. These include conducting semi-annual Operation America Buckles Up Children mobilizations; implementing TEA-21 Sections 157 and 405 incentive and innovative grants programs to the states; documenting "best practices" learned from Section 403 demonstration programs and Sections 157 and 405 grant programs; expanding partnerships, promotions, and educational materials with diverse organizations and other high risk and hard to reach populations. This includes targeting minority audiences with national media campaigns through the Advertising Council, NHTSA's minority media contractors, and utilizing credible spokespersons. The agency will also develop and pilot test a comprehensive youth enforcement and education strategy encompassing detection of speeding offenses, zero tolerance of alcohol and seat belt violations, and law enforcement officer training. In addition NHTSA will complete implementation of 20 community high visibility Seat Belt Innovative Demonstration programs supporting the Buckle Up America initiative and state seat belt programs. The agency will expand and improve the automobile/child safety seat Ease of Use database for consumers; conduct a Child Passenger Safety Week; initiate a national 5-year care provider education program and increase booster seat use for children between 40-80 pounds; and expand the network of public and private sector child safety seat fitting stations across the country. In addition, among air bag safety activities planned for FY 2002, the agency will educate used car buyers on air bag safety issues; expand public information and education to promote awareness of existing air bag issues and emerging air bag technologies; re-educate the public on dangers associated with the interaction between air bags and front seat occupants, including individuals of short stature, pregnant women, infants, and small children. ($10,953,00)

Section 405 Occupant Protection Incentive Grant Program -This initiative, established under the Transportation Equity Act for the 21st Century (TEA-21), provides grants to states to implement and enforce occupant protection programs. States must demonstrate that they are implementing specific occupant protection laws and programs, such as: a law requiring safety belt use by all front seat passengers; a safety belt law providing for primary enforcement; and a child passenger protection law that requires minors to be properly secured in a child safety seat or other appropriate restraint system. ($15,000,000)

Emergency Medical Services (EMS) - The main goal of the EMS is to enhance comprehensive emergency medical service systems to care for victims of motor vehicle crashes. In addition to ongoing activities, in FY 2002, NHTSA will: complete a statewide demonstration project to model strategies for implementing wireless E9-1-1; implement a revised injury prevention curriculum for EMS providers; create a national bystander care training network; and develop a training program to prepare emergency dispatchers to adopt wireless E9-1-1. ($2,245,000)

New Car Assessment Program (NCAP) - In FY 2002, funding will be used to conduct frontal and side impact testing on approximately 100 passenger vehicles, covering about 75 percent of new vehicles for these most common crash modes; to measure the static stability factor (rollover resistence) for approximately 100 vehicles; and to explore the development of further information of NCAP crash avoidance performance. In support of TREAD, NCAP will conduct five frontal and five side NCAP tests with child seats and the three-year-old dummy in the rear seat. Consumer Information Program activities supported under the NCAP program include research on the content and presentation of new or changing vehicle safety information required by rulemakings and/or TREAD; new campaigns and materials on high-interest issues, such as rollover, tire safety, child safety and other emerging issues; and diversity initiatives and materials to better reach under served populations. Outreach efforts to new partners and constituents will be expanded to leverage public resources and increase the marketing and dissemination of consumer information materials. ($5,231,000)

Safety Standards Support - In FY 2002, funding will support testing and analytical work for the head restraint standard, including assessment of a new rear impact dummy; development of a supplemental frontal offset crash test requirement; fuel system integrity in crashes; and occupant protection in school buses. Support for TREAD requirements includes testing to develop changes to the test seat assembly for the child restraint standard to make it more representative of seats in current vehicle models and evaluation of the side impact protection of child restraints. Cost weight and lead time studies for the tire standard upgrade (TREAD) and child protection in school bus crashes will be conducted. Safety Standards Support also provides funds for crash avoidance work to reduce the occurrence of crashes. TREAD support under crash avoidance includes testing for the upgrade of the tire standards; investigation of the effect of tire aging on safety problems; and promotion of information on the importance of maintaining proper tire pressure. Other crash avoidance projects include improvements and global harmonization in light vehicle, heavy truck, and motorcycle braking standards; support for development of headlighting performance data for consumer information; collection of non-crash data; and support for an adapted vehicle data collection effort to

support the rule for trunk entrapment solutions, investigate the deaths and injuries associated with issues such as power windows, carbon monoxide, and vehicle rollaways, and assess the size and safety of the modified vehicle fleet to enhance safety for the disabled population. ($2,000,000)

Vehicle Safety Compliance - The objective of the Vehicle Safety Compliance Program is to ensure that all motor vehicles and motor vehicle equipment sold in the United States provide the safety benefits intended by federal safety regulations. In FY 2002, the agency will conduct full-scale crash testing of new motor vehicles for verifying compliance with, among other things, frontal occupant crash protection standards; compliance with dynamic side impact standards; new upper interior head protection standards; dynamic rear and side fuel system integrity requirements; and side impact pole tests to assess performance of new technology for head protection introduced in new vehicles. NHTSA will also calibrate, prepare for use, and distribute to testing contractors the new crash test dummies purchased in FY 2001 for measuring the new injury criteria for occupant protection. It will continue its equipment testing program, with emphasis on child restraint systems. ($6,974,000)

Auto Safety Hotline - NHTSA's Auto Safety Hotline will continue to educate the public about vital transportation safety issues and provide a mechanism by which consumers can report potential safety defects in motor vehicles and motor vehicle equipment. In addition to the current program, in FY 2002, the Hotline will maximize efficient use of Hotline representatives and use up-to-date features that customers have come to expect from a Hotline service. ($1,479,000)

Vehicle Research and Test Center (VRTC) - The FY 2002 budget requests administrative funds for the operation of VRTC. The facility is the agency's in-house research, development, test and evaluation facility located near East Liberty, Ohio. ($990,000)

Fatality Analysis Reporting System (FARS) - FARS is a data collection system that provides a census of all fatal highway crashes in the U.S. It is an essential data source for its customers (internal agency and DOT offices, other federal agencies, states, research organizations, and interest groups). The FY 2002 budget request seeks continued funding of all current activities and includes an increase to develop, evaluate, and implement a marketing strategy for FARS data directed toward local police jurisdictions, medical examiners, and EMS personnel. New initiatives include increasing the quality of drug and alcohol information obtained by establishing direct electronic links between the FARS analysts and their sources (medical examiners, coroners, hospitals, and police jurisdictions) and linking the FARS data base with other national data bases to expand the agency's ability to address highway safety issues. ($5,700,000)

National Automotive Sampling System (NASS) - Nationally representative data on crashes occurring in the United States is vitally important to the agency and other users. NASS General Estimates System (GES) data are used to assess the trend and magnitude of crashes in this country, and the NASS Crashworthiness Data System (CDS) provides more in-depth and descriptive data of occupants and vehicles in real world crashes. New initiatives for FY 2002

include conducting investigations for advanced safety devices, child safety seats, new technologies for field data collection, and improving current NASS data variables, and collecting data to determine real world effectiveness of child safety seats in reducing injuries to children in motor vehicle crashes in support of the TREAD Act. ($10,570,000)

Data Analysis Program - This program provides critical analytical support to the various agency program offices to accomplish their missions, such as the development of crashworthiness and crash avoidance rulemaking, identification of target populations, and monitoring and reporting of traffic safety trends. New initiatives for FY 2002 include: a review of new technology to upgrade, as appropriate, the current customer service response and tracking systems; and to improve timeliness of responding to customers' requests for the latest traffic safety crash data and information through technological and process improvement activities. ($1,950,000)

State Data Program - State crash data provide information for many of the analyses and data collection programs which support NHTSA's mission. Program activities assist analysts and states in their efforts to understand how to improve the quality and utility of their crash data files. NHTSA's program to promote the use of linked crash and medical outcome files in states with these files will be continued through technical assistance, sponsoring research and meetings, demonstrating linked data usefulness, and by awarding grants to additional states qualifying by having necessary crash and medical outcome data files. ($2,450,000)

Special Crash Investigations (SCI) - SCI identifies and documents the effects of new technologies in a timely way so that the impact on motor vehicle crashes can be assessed quickly. SCI case investigation is the only method to document the crash circumstances, identify the injury mechanisms, evaluate safety countermeasure effectiveness, and provide an early detection mechanism for alleged or potential vehicle defects. In FY 2002, the agency will conduct in-depth investigations in the areas of: advanced occupant protection systems in fatal crashes, including late model vehicles with side and frontal advanced air bags, advanced sensing systems and controls, automatic air bag shut off systems, and advanced automatic crash data collection systems. It will continue collaborative efforts with the automobile manufacturers for the collection of Event Data Recorder data and perform in-depth crash investigations on children properly installed in child safety seats, where the vehicles were equipped with Lower Anchors and Tethers for Children (LATCH), to research new technology, child protection system performance in real world crashes. ($1,650,000)

National Occupant Protection Use Survey (NOPUS) - This program, conducted by the National Center for Statistics and Analysis (NCSA), provides accurate national information on use, trends in use, and characteristics of users for different types of occupant protection devices. It develops and maintains a national probability sample of locations where restraint use is observed; develops data collection and training materials; trains data collectors; collects, processes and tabulates data; and publishes survey results. The agency conducts a full-scale NOPUS every two years. The last full-scale survey was in 2000. NHTSA also conducts a mini-NOPUS every other year, between full-scale survey years. In these surveys, safety belt use data, needed to measure the impact of twice-annual national enforcement mobilizations, are collected. In FY 2002, a complete analysis and report on the CY 2001 mini-NOPUS is

scheduled. The agency will review and update the sample design for the CY 2002 full-NOPUS; and initiate the 2002 full-NOPUS, which will likely require FY 2003 funds to complete. ($600,000)

Section 411 State Highway Safety Data Improvements Incentive Grant Program - The State Highway Safety Data Improvements incentive program is key to encouraging and supporting states in their efforts to improve highway safety data. Good highway safety data is critical to identify performance goals for state and local highway and traffic safety programs under the new performance-based Section 402 process, to develop programs and projects to meet those goals, and to evaluate the effectiveness of such efforts. Furthermore, to provide the best information for decision making, various types of data must be linked, for example, linking traffic records together and with other data systems within the state, such as medical and economic data, to determine the short and long-term costs of highway crashes. ($10,000,000)

Strategic Planning - Strategic Planning is a management tool for setting organizational direction and action programs so that mission and objectives can be achieved. The strategic planning model involves a comprehensive analysis of customers, environment, and organizational (agency) factors. In FY 2002, the agency will continue its strategic planning efforts to study aspects of its ability to meet its mission as effectively as possible. These areas include: improving internal communication and outreach to agency partners; integrating continuous improvement activities as a means for improving agency efficiency; examining priorities and strategies to support decisions on resource allocation; and a strategic assessment of the changing environment and identifying new traffic safety challenges. ($89,000)

Economic Analysis - Establishing program priorities and determining the potential effectiveness of proposed regulatory actions require scientifically sound methods for quantifying the economic and social consequences of injury and fatality resulting from motor vehicle crashes. This program develops such methods where needed and modifies existing methods to meet the agency's particular needs. In FY 2002, new initiatives include efforts to develop answers to questions raised in the FY 2000 international conference on measuring the burden of injury. The agency will also provide support for the FY 2002 international conference . The purpose of the conference will be to build consensus on certain unresolved methodological issues in measuring the outcomes of motor vehicle injuries. An updated overall societal burden resulting from motor vehicle injuries will be published, incorporating the economic cost estimates developed as part of the FY 2001 program and estimates of the functional burden imposed on society, resulting from motor vehicle crash injuries. ($86,000)

Program Evaluation - In FY 2002, crash data collection will continue for the evaluation of antilock brake systems and rear-impact guards for heavy trucks. The evaluation of side impact protection (FMVSS No. 214) will continue with statistical analyses of crash data and a cost analysis of side air bags. The evaluation of head injury protection (FMVSS No. 201) will include testing the performance of baseline vehicles. The statistical evaluation of depowered air bags and safety belt pretensioners will continue. ($468,000)

Fuel Economy - The objective of the Fuel Economy Program is to monitor manufacturer progress in achieving established passenger automobile and light truck fuel economy standards, to set annual standards for light trucks, and to amend standards to ensure that maximum, feasible fuel economy is attained. In FY 2002, the agency will continue work to integrate the "plants and lines" database with existing in-house data bases used to report Corporate Average Fuel Economy program results. Contractor support will be used for updating and maintaining the "plants and lines" database that provides pertinent details of automobile manufacturing plants, such as products, capacities, employment levels, financial data, and product planning information. This information is useful in analyzing industry capabilities to improve fuel economy performance. Issues include industry capabilities to improve fuel economy performance and the impacts of alternative policy proposals on manufacturers and manufacturing facilities. This program will also provide support to the DOT Climate Change Center, which focuses on the relationship of transportation and environmental issues. ($60,000)

Odometer Fraud - Odometer tampering continues to be a serious crime and a consumer fraud issue. In addition to conducting investigations of large-scale interstate odometer fraud cases for criminal prosecution by the U.S. Department of Justice, the Odometer Fraud Staff works very closely with state enforcement agencies, supporting their enforcement programs. In FY 2002, two additional states will receive new cooperative grants to train law enforcement officers in odometer fraud investigations, and two more states will be awarded grants to enhance their existing odometer fraud programs. ($150,000)

Theft Program - The objective of the theft program is to carry out activities mandated by 49 CFR Chapter 331, including issuing parts-marking requirements for high-theft vehicle lines. As required by law, the Theft Prevention Program must establish standards aimed at reducing the number of motor vehicle thefts (including passenger cars, light trucks, and multi-purpose vehicles) and provide consumers with comprehensive insurance information. Funding is needed for contract support to carry out the analysis of insurer reports required by law. The law requires that the insurance information obtained by the Secretary (agency) from insurance and rental/leasing companies shall be periodically compiled and published in a form that will be helpful to the public, including federal, state, and local police and the Congress. ($50,000)

B. Management Challenges (Including TREAD issues)

The Office of the Inspector General (OIG), in its *Report Number: PT-2001-017, Top Ten Management Issues*, dated January 18, 2001, in Item 2.Surface Transportation Safety, MOTOR VEHICLE SAFETY, made three findings related to motor vehicle safety: (1) despite the combined efforts of federal, state, and local governments, seat belt use rates have remained relatively constant, ranging from 66 to 70 percent since 1993. Preliminary 2000 seat belt use rates are at 71 percent nationwide, below the national goals of 85 percent for 2000 and 90 percent for 2005; (2) early identification of defects by NHTSA's Office of Defects Investigation can be improved; and (3) the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act requires NHTSA to conduct 10 rulemakings in the areas of defects, tires, and rollover tests. Six of the 10 rulemakings must be completed by 2001 or 2002. Since the OIG found that it takes DOT, on the average, 3.8 years to complete a rule,

significant management effort will be required to issue these rules in a timely manner, as required by the Act.

NHTSA ACTIONS

Seat Belt Use

In response to the OIG finding (1), in FY 2002, NHTSA is increasing its seat belt use strategies. Despite not reaching the 85 percent adult seat belt use nationwide goal in 2000, the agency did reach a 71 percent use rate - the highest in our nation's history. NHTSA remains committed to reaching the 90 percent goal by 2005. The agency plans to continue its two-pronged effort to reach the 2005 goal by expanding the scope of the *Buckle Up America (BUA)* Campaign in all 50 states, and focusing on several specific opportunities for increasing seat belt use, e.g., states likely to pass primary enforcement of seat belt use laws. A key component of increasing seat belt use rate is strong enforcement of seat belt use laws. NHTSA will continue its strong partnership with the law enforcement community and the biannual *Operation ABC (America Buckles Up Children) Mobilizations*. In addition, NHTSA will continue to work with industry to introduce new technologies that will encourage more people to buckle up. The success of these initiatives will be evaluated in September to determine if further adjustments need to be made in FY 2002. In addition, the LATCH program (*Lower Anchors and Tethers for Children)* will require lower anchorages in the base of rear vehicle seats to be installed in all cars, minivans, and light trucks by September 1, 2002. Child safety seats can then be attached or snapped into vehicles instead of being held secure by the vehicle's belt system. NHTSA also plans to widen its outreach to diverse groups, e.g., African Americans, Hispanics, rural populations, and teens; provide grants to states to increase seat belt use rates, including incentive grants to develop innovative projects, and grant programs for increasing child safety seat use. In FY 2002, $112 million is available for incentive and innovative grants to increase seat belt use, and an additional $15 million is available to states that implement stringent occupant protection laws and programs. Further information is located in this plan in section **A. Intermediate Outcomes**, under the subsection **Mitigate the Consequences of Crashes,** in the *Occupant Protection* program summary.

TREAD-Related Issues

In response to OIG findings (2) and (3), NHTSA issued an Advanced Notice of Proposed Rulemaking (ANPRM), covering early warning data provisions, on January 22, 2001(66 FR 6532). In FY 2002, the agency will issue the final rule by June 30, 2002. Final rules for requiring tire pressure warning systems in new vehicles and for upgrading light vehicle tire standards are required by November 2001 and June 2002, respectively. NHTSA also published an ANPRM to improve tire labeling on December 1, 2000. The final rule is required by June 2002. The agency fully intends to meet these final rule target dates. The agency is also undertaking a number of actions in the area of child restraint safety, such as requiring clearer warning labels on child restraints, studying booster seat effectiveness, creating a child restraint safety ratings program, and collecting data to determine real world effectiveness of child safety seats in reducing injuries to children in motor vehicle crashes. These and additional program activities related to TREAD are described in this FY 2002 performance plan in section **A. Intermediate Outcomes**, under the **Reduce the Occurrence of Crashes** subsection, in the *Safety Defects Investigation* program description and in the *Pneumatic Tire Research* program explanation; and under the **Mitigate the Consequences of**

Crashes subsection, in the *Safety Standards Support* program summary and in the *National Automotive Sampling System* program narrative.

C. Other DOT Goals

The Department of Transportation has established five strategic goals. While NHTSA's primary focus is on the first goal, safety, the agency programs have a secondary impact on the DOT goals of mobility, economic growth and trade, and human and natural environment. Consequently, NHTSA's programs related to these goals are thoroughly discussed under section **A. Intermediate Outcomes**, in the subsection **Mitigate the Consequences of Crashes**.

Mobility
NHTSA's goal is to promote mobility and safety for people with disabilities by addressing vehicle safety and by providing safety information to manufacturers and the public. People who are physically challenged may require special equipment and safety modifications for using a vehicle.

In FY 2002, the agency will continue to conduct research to insure that specialized subsystems are safe and are capable of meeting the special transportation needs of persons with disabilities. Currently, very little is known in the automotive industry about the adaptive equipment and modifications to vehicles that are necessary to meet special demands by consumers. A lack of a census of adaptive vehicle modifications and equipment installations hampers NHTSA's efforts to determine the size and safety of the modified vehicle fleet. Data from state rehabilitation offices on adaptive modifications and controls, and data from hospital emergency rooms (via the Consumer Product Safety Commission) on injuries, including wheelchair securement and platform lifts, are being sought. (Funding is included in section **A. Intermediate Outcomes** in subsection **Mitigate the Consequences of Crashes**, under the *Safety Standards Support* program.)

Economic Growth and Trade
This goal is designed to advance the country's economic growth and competitiveness, both domestically and internationally, through an efficient, flexible transportation system. Traffic safety problems associated with unsafe passenger and commercial vehicles, human behavioral issues, and roadway environment undercut all elements central to successful economic growth and trade. Failure to address and solve these safety issues has a direct negative effect on many of the key elements of our economic life. The resulting loss in human resources is enormous and enduring, as is the direct societal cost for our country (now exceeding $150 billion annually) that would otherwise be available for transportation investment. (See *the Odometer Fraud* program and the *Theft* program under section **A. Intermediate Outcomes,** in the subsection **Mitigate the Consequences of Crashes.**

Human and Natural Environment
NHTSA is working toward the achievement of this goal through its Fuel Economy program. Because NHTSA programs have their primary impacts in safety, with only secondary impacts on this category, the *Fuel Economy* program activities are discussed in section **A. Intermediate Outcomes**, subsection **Mitigate the Consequences of Crashes.**

D. Organizational Excellence Goal

The Department of Transportation's strategic plan includes an Organizational Excellence goal designed to build an environment in DOT conducive to accomplishing its strategic agenda. The six management strategies in that goal deal with fundamental requirements that must cut across all organizational boundaries. NHTSA believes that all its goals and strategies have their primary impacts in safety. Therefore, with the exception of some initiatives in human resources strategies for improving employee satisfaction and performance and improving organizational performance and productivity, all NHTSA activities initiated under these DOT Organizational Excellence strategies have secondary impacts. Accordingly, they are discussed from the secondary impact perspective in this section, and an in-depth discussion of their primary impact is under section **A. Intermediate Outcomes,** in the **Mitigate the Consequences of Crashes** subsection.

Human Resources
The agency seeks to develop a diverse and highly skilled workforce that is knowledgeable, flexible, efficient, and resilient. New policies and practices that foster learning and development, such as participation in cross-functional teams and competency-based approaches to leadership development, will be encouraged.

Employee Satisfaction and Performance and Organizational Performance and Productivity- The agency will continue to promote diversity and ensure that the workforce reflects the national workforce. It will improve career opportunities for women and minorities by ensuring that there are no artificial barriers to advancement and full contribution of all employees. Alternate approaches to a performance management system will be evaluated, and steps will be taken to link performance to the Department's strategic goals. The use of awards and recognition for innovation, cost-cutting, and customer service will be encouraged. Motor vehicle safety mandates have increased during the past fiscal year. The human capital component associated with these mandates require implementing new options and acquiring new talent. At the same time, the agency has experienced critical changes in its work force, resulting in a loss of institutional knowledge, and faces a strong possibility of additional critical losses over the next five years. In FY 2002, the agency will continue its university intern program, as well as provide the necessary training and retraining to employees to allow dealing with new challenges and changing emphasis in highway safety. It will identify workforce needs, establish specific performance measures and goals for all interns and employees, and conduct assessments every six months to determine program effectiveness. ($300,000)

VII. Program Evaluations
The objective of the program evaluation activity is to gather information about NHTSA vehicle regulatory and highway safety programs and measure their effectiveness in achieving their objectives. Evaluation of existing regulations is a requirement for federal agencies pursuant to Executive Order 12866. After determining if and how a standard or program can be evaluated, a series of studies is conducted to collect and analyze crash or other data to determine if programs have reduced fatalities, injuries, or other indicators, to estimate changes in consumer costs for vehicle safety equipment, and to use these effectiveness and cost studies to estimate overall standard effectiveness in terms of benefits and costs to the public. NHTSA's

evaluation activities are discussed in section **A. Intermediate Outcomes,** in the subsection **Mitigating the Consequences of Crashes**, under the *Program Evaluation* program.

VIII. External Factors

There are a variety of external factors that affect the number of crashes, fatalities, and injuries on the road each year. The most significant external factors are: the economy; the population; exposure factors such as miles driven; and lifestyle factors such as levels of alcohol consumption.

The economy: Historically, there has been some correspondence between economic expansions and short-term increases in fatalities. Exposure factors that increase in an expanding economy include driving for entertainment purposes, economic activity, and greater disposable income.

During economic expansion, the trend has been for highway fatalities and vehicle miles of travel (VMT) to increase. During the 1983-1988 economic expansion, there was a 2.1 percent average annual percentage increase in the number of fatalities. However, the increase in fatalities during some years of that expansion was even greater: 3.9 percent in 1984 and 5.2 percent in 1986. During the 1992-1998 economic expansion period, the average annual increase in fatalities was 0.9 percent and VMT per 100 million increased from 22,470 to 26,250.

In 1999, the number of highway fatalities held relatively flat, despite a significantly rising VMT on the roads and an expanding economy. In 2000, there was a slight reversal of that trend, where the preliminary number of fatalities increased while the preliminary number of VMT remained essentially flat, and the economy continued to expand. More analysis of this recent data is required before any definitive trend can be determined.

Economic expansion will likely decline into 2001, with an expected increase of 2.1 percent compared to a 5.0 increase in 2000 in Gross Domestic Product. Personal income increased by 6.3 percent in 2000 and will likely increase by 4.7 percent, respectively, in both 2001 and 2002. Real disposable income is expected to increase by 2.9 percent in 2001and by 4.4 percent in 2002.

Population: It is projected that the resident population of the U.S. will grow to over 280, 306,000 in 2002, from 275,306,000 in 2000 (based on U.S. Census projections). The two highest risk highway safety population age groups are those in the 15- to 24-year-old group and those who are over 70-years-old. The 15-to-24-year-old age group is estimated to grow by 1.6 percent in 2002. In 2000, this group accounted for a preliminarily estimated 25% of traffic fatalities. The number of people age 70 and older is expected to increase by 1 percent from 2000 to 2002, making up 10 percent of the total resident population. From 1988 to 2000, the older segment of the population grew twice as fast as the total population. In 2000, older individuals made up a preliminarily estimated 12 percent of all traffic fatalities.

Exposure Factors: In1999, there were 212,685,000 vehicles registered, and in 2000 the number increased by 2.2 percent to 217,293,000 (based on the NHTSA 2000 Early

Assessment Estimates projections). In 2000, VMT totaled 2,688,312 billion. During the same period, the population increased by 0.9 percent.

State and Local Government Finances: Competition has increased for resources at the state and local levels to support traffic law enforcement and local injury prevention initiatives. Major sources of competition for funds have been crime enforcement and education. At the same time, federal support has not increased to respond to both the effects of the growing economy and the competition for funds.

Alcohol and Drug Use: In 2000, there were 16,068 fatalities in alcohol-related crashes, 38 percent of the total fatalities for the year, according to the NHTSA 2000 Early Assessment Estimate. This represents a 32 percent reduction from the 23,626 alcohol-related fatalities in 1988 (50 percent of the fatalities that year). In addition, there is growing evidence that the use of drugs by young people is on the rise after several years of decline. The NHTSA 2000 Early Assessment Estimates indicate that 24 percent of drivers in the 16 to 20-year-old age group who were involved in a fatal crash had positive blood alcohol concentration. This is an increase of 3 percent over the 21 percent involvement in 1999. While the message to not drink and drive has made significant inroads, ameliorating some of the effects of better economic times, current and future progress will be an uphill battle against these external social trends.

IX. Cross-cutting Programs

NHTSA works closely with the other modes in the Department to help accomplish the goals set forth by the President and the Secretary.

The Buckle Up America (BUA) initiative is being implemented across DOT. Each DOT mode has a wide network of partners. These partners directly touch the lives of millions of Americans, including employees, families, customers, suppliers, and in many cases, the public at large.

The Intelligent Vehicle Initiative (IVI) is an intermodal effort within the Department. DOT is embarking on a new partnership with the motor vehicle industry, state and local DOTs, and others to accelerate the development and introduction of driver assistance products to reduce crashes and the resulting injuries and fatalities. NHTSA analyzes the potential benefits and assesses the safety impacts of these products.

NHTSA works closely with the Federal Highway Administration (FHWA) on road safety and human factors issues. The two agencies are currently working togther on pedestrian and bicycle safety issues and on rural speeding issues. NHTSA and the Federal Railroad Administration (FRA), along with FHWA, coordinate the Highway/Rail Grade Crossing program. The Federal Aviation Administration (FAA) consults with NHTSA on child restraint systems issues. NHTSA and the Research and Special Programs Administration (RSPA) confer on issues regarding hazardous materials safety and overall DOT Research and Development.

X. Conclusion

NHTSA's FY 2002 budget request promotes the Department's highest priority - safe transportation - and reflects NHTSA's continuing role as the national and world leader in highway safety. Currently, NHTSA programs are making significant headway in reducing highway fatalities, injuries, and their health and related economic impact. This performance plan includes only brief synopses of the many activities the agency pursues to achieve its goals. The full program request included in the FY 2002 budget submission provides greater detail.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
(Dollars in Thousands)

	FY 1991 Enacted	FY 1992 Enacted	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Enacted	FY 1996 Enacted	FY 1997 Enacted	FY 1998 Enacted	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Cong.
OPERATIONS & RESEARCH												
Salaries and Benefits	42,207	43,883	48,859	46,035	48,200	47,442	47,932	48,404	49,118	52,643	57,130	60,829
Travel	865	999	944	976	1,018	972	1,082	1,082	1,128	1,186	1,276	1,297
Operating Expenses	7,626	8,636	10,181	9,863	10,360	10,329	9,202	13,747	15,882	17,081	19,610	23,005
Contract Program												
Safety Performance	1,999	2,780	3,015	2,630	2,705	3,462	3,825	3,825	3,566	3,429	7,341	7,341
Safety Assurance	6,470	6,497	7,115	8,538	8,269	7,911	9,858	9,547	10,241	9,045	15,035	15,064
Highway Safety Programs	27,291	28,703	23,968	22,162	21,449	26,162	26,755	30,651	38,826	37,813	41,633	41,633
Research and Analysis	36,826	39,036	42,804	38,260	38,707	31,422	39,062	48,062	51,200	48,901	57,338	57,338
P&P	617	312	410	725	973	956	624	624	709	643	643	643
Subtotal, Contract Program	72,803	74,336	77,309	73,318	72,198	69,913	80,124	89,709	104,244	99,833	122,990	122,019
Section 2003 (b) Child Passenger Protection Education Grants	0	0	0	0	0	0	0	0	0	[7,500]	[7,500]	0
Operations and Research (gross)	123,791	127,853	134,293	130,188	131,723	128,250	138,340	152,942	170,369	170,412	201,106	207,150
Less Grant Admin Reimbursements	(5,078)	(5,153)	(6,043)	(6,043)	(5,043)	(6,101)	(6,338)	(6,188)	(9,943)	(10,340)	(10,650)	(11,150)
Operations and Research (net)	118,713	122,700	128,250	124,145	125,680	122,156	131,982	146,784	160,426	160,072	190,456	196,000
HIGHWAY TRAFFIC SAFETY GRANTS	129,991	136,004	141,650	174,000	151,400	155,100	167,524	184,200	200,000	206,600	212,531	223,000
Total, NHTSA PROGRAM	248,704	260,704	269,900	298,145	277,080	277,255	299,506	330,984	360,426	363,672	402,987	419,000

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
Operations and Research
(FY 93-FY 99)

	ESTIMATES		APPROPRIATIONS
1993	[1] $133,233,000	1993	[2] $128,250,000
1994	[3] $130,024,000	1994	[4] $124,145,000
1995	[5] $125,835,000	1995	[6,7] $125,346,500
1996	[8] $144,342,000	1996	[9,10] $122,155,000
1997	[11] $158,513,000	1997	[12,13] $131,982,188
1998	[14] $147,500,000	1998	[15,16] $146,784,000
1999	[14] $172,902,000	1999	[17,18,19,20] $160,961,000

1/ $45,806,000 derived from the Highway Trust Fund.
2/ $46,170,000 derived from the Highway Trust Fund under a separate head.
3/ $50,331,000 derived from the Highway Trust Fund under a separate head.
4/ $48,236,000 derived from the Highway Trust Fund under a separate head.
5/ $48,092,000 derived from the Highway Trust Fund under a separate head.
6/ $46,997,000 derived from the Highway Trust Fund under a separate head.
7/ Reflects a reduction for procurement savings ($350,000), reduction for Working Capital Fund ($335,000), reduction for bonuses and awards ($107,000), reduction of ($333,000) as part of a Department-wide rescission (P.L. 104-19), and a transfer of $81,500 for consolidated civil rights office (P.L. 103-331).
8/ $59,744,000 derived from the Highway Trust Fund under a separate head.
9/ Reflects a reduction of Administrative Expenses ($2,445,000), reduction of the Working Capital Fund ($394,897), reduction of bonuses and awards ($103), and a reduction of ($140,000) in accordance with Omnibus Consolidated Rescissions and Appropriation Act of 1996.
10/ $50,654,030 derived from the Highway Trust Fund under a separate head.
11/ $59,537,000 derived from the Highway Trust Fund under a separate head.
12/ $51,712,000 derived from the Highway Trust Fund under a separate head.
13/ Reflects a reduction of $629,812 pursuant to General Provision 321 in the DOT FY 1997 Appropriation Act.
14/ Derived from the Highway Trust Fund.
15/ Reflects a reduction of $178,000 pursuant to General Provision 320 in the DOT FY 1998 Appropriation Act.
16/ $71,964,000 derived from the Highway Trust Fund.
17/ $72,000,000 in contract authority for Section 403 derived from the Highway Trust Fund under a separate head
18/ $89,400 in discretionary budget authority (which includes $2,000,000 for NDR) derived from the Highway Trust Fund under a separate head.
19/ $804,000 transferred from OMB for Y2K derived from the General Fund.
20/ Reflects a reduction of $1,243,000 (of which $960,000 is unobligated contract authority carryover) pursuant to General Provision 320 in the DOT FY 1999 Appropriation Act.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
Operations and Research
(FY00-FY02)

	ESTIMATES		APPROPRIATIONS	
2000	21 $197,450,000	2000	22,23,24 $160,072,000
2001	25 $286,475,000	2001	26,27,28 $190,456,000
2002	29,30 $196,000,000	2002	N/A

21/ $125,450 in revenue aligned budget authority (which includes $7,500,000 for Section 2003(b) and $2,000,000 for NDR); $72,000,000 in contract authority for Section 403 all derived from the Highway Trust Fund.
22/ $72,000,000 in contract authority for Section 403 derived from the Highway Trust Fund under a separate head.
23/ $2,000,000 in discretionary budget authority for NDR derived from the Highway Trust Fund under a separate head.
24/ Reflects a reduction of $1,328,000 (of which $398,000 is unobligated contract authority carryover) pursuant to General Provision 319 in the DOT FY 2000 Appropriation Act.
25/ $142,274,000 in contract authority, which includes $70,000,000 in revenue aligned budget authority; $144,475,000 in discretionary budget authority (which includes $2,000,000 for NDR) all derived from the Highway Trust Fund.; $274,000 of contract authority was rescinded in accordance with P.L. 106-113.
26/ Reflects a reduction of $158,400 in obligations for Section 403 derived from the Highway Trust Fund under a separate head pursuant to Section 1403 of P.L. 106-554.
27/ Reflects a reduction of $4,400 in discretionary budget authority for NDR derived from the Highway Trust Fund under a separate head pursuant to Section 1403 of P.L. 106-554.
28/ Reflects a $257,127 reduction in discretionary budget authority derived from the General Fund pursuant to Section 1403 of P.L. 106-554.
29/ $72,000,000 in contract authority for Section 403 derived from the Highway Trust Fund under a separate head.
30/ $2,000,000 in discretionary budget authority for NDR derived from the Highway Trust Fund under a separate head.

Highway Traffic Safety Grants (Liquidation of Contract Authority)
(Highway Trust Fund)

	ESTIMATES		APPROPRIATIONS
1993	$162,000,000	1993	$150,000,000
1994	$137,000,000	1994	[1] $138,550,000
1995	$151,000,000	1995	$151,000,000
1996	$180,000,000	1996	[2] $155,100,000
1997	$191,000,000	1997	[3,4] $168,100,000
1998	$185,000,000	1998	$186,000,000
1999	$197,000,000	1999	$200,000,000
2000	$206,800,000	2000	$206,800,000
2001	[4]$213,000,000	2001	[5,6]$212,531,000
2002	$223,000,000	2002	N/A

1/ $219,750,000 in unobligated contract authority balances was rescinded pursuant to ISTEA Section 1003(c).

2/ $56,000,000 in unobligated contract authority balances was rescinded pursuant to ISTEA Section 1003(c).

3/ $11,800,000 in unobligated contract authority balances was rescinded pursuant to ISTEA Section 1003(c).

4/ $13,000,000 in unobligated contract authority balances were rescinded pursuant to ISTEA Section 1003(c).

5/ $787,000 of contract authority was rescinded in accordance with P.L. 106-113

6/ Reflects a reduction of $468,600 pursuant to Section 1403 of P.L. 106-554.

State and Community Highway Safety Grants
(Limitation on Obligations)

ESTIMATES		APPROPRIATIONS	
1993	$118,000,000	1993	$115,000,000
1994	$118,676,000	1994	$123,000,000
1995	$123,000,000	1995	$123,000,000
1996	$168,600,000	1996	$127,700,000
1997	$151,200,000	1997	$128,700,000
1998	$140,200,000	1998	$149,700,000
1999	$166,700,000	1999	$150,000,000
2000	$152,800,000	2000	$152,800,000
2001	$155,000,000	2001	[1] $154,659,000
2002	$160,000,000	2002	N/A

1/ Reflects a reduction of $341,000 pursuant to Section 1403 of P.L. 106-554.

Highway Safety Grants (FHWA transfer)
(Limitation on Obligations)

ESTIMATES		APPROPRIATIONS	
1997	$15,000,000	1997	[1] **$11,364,217**

1/ Reflects a reduction of $135,783 in unobligated contract authority balances pursuant to ISTEA Section 1003(c).

Occupant Protection Incentive Grants
(Limitation on Obligations)

ESTIMATES		APPROPRIATIONS	
1998	$9,000,000	1998	$0
1999	$20,000,000	1999	$10,000,000
2000	$10,000,000	2000	$10,000,000
2001	$13,000,000	2001	[1]$12,971,400
2002	$15,000,000	2002	N/A

1/ Reflects a reduction of $28,600 pursuant to Section 1403 of P.L. 106-554.

Alcohol-Impaired Driving Countermeasures Incentive Grants
(Limitation on Obligations)

ESTIMATES		APPROPRIATIONS	
1993	$15,000,000	1993	[1] $0
1994	$25,000,000	1994	$25,000,000
1995	$25,000,000	1995	$25,000,000
1996	$25,000,000	1996	$25,000,000
1997	$25,000,000	1997	$25,500,000
1998	$34,000,000	1998	$34,500,000
1999	$39,000,000	1999	$35,000,000
2000	$36,000,000	2000	$36,000,000
2001	$36,000,000	2001	[2] $35,920,800
2002	$38,000,000	2002	N/A

1/ Unobligated balances were carried forward to fund the Section 410 program at $22,400,000.
2/ Reflects a reduction of $79,200 pursuant to Section 1403 of P.L. 106-554.

State Highway Safety Data Grants
(Limitation on Obligations)

ESTIMATES		APPROPRIATIONS	
1999	$0	1999	$5,000,000
2000	$8,000,000	2000	$8,000,000
2001	$9,000,000	2001	[1] $8,980,200
2002	$10,000,000	2002	N/A

1/ Reflects a reduction of $19,800 pursuant to Section 1403 of P.L. 106-554.

National Driver Register
(Limitation on Obligations)

ESTIMATES		APPROPRIATIONS	
1993	$3,500,000	1993	$3,650,000
1994	$3,500,000	1994	$3,500,000
1995	$3,400,000	1995	$3,400,000
1996	$2,400,000	1996	$2,400,000
1997	$2,400,000	1997	$2,400,000
1998	$2,300,000	1998	$2,300,000
1999	$2,300,000	1999	1 $0

1/Beginning in 1999 NDR was transferred from the HTSG account to the Operations and Research account.

Safety Belt and Motorcycle Helmet Use Grants
(Limitation on Obligations)

ESTIMATES		APPROPRIATIONS	
1993	$20,000,000	1993	$12,000,000
1994	$12,324,000	1994	$12,000,000

Alcohol Safety Incentive Grants
(Limitation on Obligations)

ESTIMATES		APPROPRIATIONS	
1993	$16,500,000	1993	$11,000,000
1994	$10,500,000	1994	$10,500,000

Drugged Driving Incentive Grants
(Limitation on Obligations)

ESTIMATES		APPROPRIATIONS	
1999	$5,000,000	1999	$0

OPERATIONS AND RESEARCH
(Dollars in Thousands)

SAFETY PERFORMANCE	FY 2001 ENACTED				FY 2002 CONG. REQUEST				FY 2002 OVER FY 2001			
	O&R Federal	O & R Trust	Grant Admin.	Total	O&R Federal	O & R Trust	Grant Admin.	Total	O&R Federal	O & R Trust	Grant Admin.	Total
Permanent Positions												
Headquarters	62	0	0	62	62	0	0	62	0	0	0	0
Mission Support	25	0	0	25	25	0	0	25	0	0	0	0
Total FTPs	87	0	0	87	87	0	0	87	0	0	0	0
Dollars												
Salaries & Benefits	7,612	0	0	7,612	8,095	0	0	8,095	483	0	0	483
Travel	61	0	0	61	62	0	0	62	1	0	0	1
Operating Expenses	2,935	0	0	2,935	3,443	0	0	3,443	508	0	0	508
Contract Program												
Safety Standards Support	1700	0	0	1,700	2,000	0	0	2,000	300	0	0	300
Consumer Information	0	0	0	0	0	0	0	0	0	0	0	0
New Car Assessment Program	5,531	0	0	5,531	5,231	0	0	5,231	-300	0	0	-300
Fuel Economy	60	0	0	60	60	0	0	60	0	0	0	0
Theft and Other	50	0	0	50	50	0	0	50	0	0	0	0
Subtotal, Contract Program	7,341	0	0	7,341	7,341	0	0	7,341	0	0	0	0
Total Dollars	17,949	0	0	17,949	18,941	0	0	18,941	992	0	0	992

OPERATIONS AND RESEARCH
(Dollars in Thousands)

	FY 2001 ENACTED				FY 2002 CONG. REQUEST				FY 2002 OVER FY 2001			
	O&R Federal	O & R Trust	Grant Admin.	Total	O&R Federal	O & R Trust	Grant Admin.	Total	O&R Federal	O & R Trust	Grant Admin.	Total
SAFETY ASSURANCE												
Permanent Positions												
Headquarters	103	0	0	103	103	0	0	103	0	0	0	0
Field, San Angelo	2	0	0	2	2	0	0	2	0	0	0	0
Field, Odometer	7	0	0	7	7	0	0	7	0	0	0	0
Mission Support	6	0	0	6	6	0	0	6	0	0	0	0
Total FTPs	118	0	0	118	118	0	0	118	0	0	0	0
Dollars												
Salaries & Benefits	10,323	0	0	10,323	10,979	0	0	10,979	656	0	0	656
Travel	200	0	0	200	203	0	0	203	3	0	0	3
Operating Expenses	3,982	0	0	3,982	4,671	0	0	4,671	689	0	0	689
Contract Program												
Vehicle Safety Compliance	6,974	0	0	6,974	6,974	0	0	6,974	0	0	0	0
Defects Investigation	7,579	0	0	7,579	7,940	0	0	7,940	361	0	0	361
Auto Safety Hotline	1,232	0	0	1,232	0	0	0	0	-1,232	0	0	-1,232
Odometer	150	0	0	150	150	0	0	150	0	0	0	0
Subtotal, Contract Program	15,935	0	0	15,935	15,064	0	0	15,064	-871	0	0	-871
Total Dollars	30,440	0	0	30,440	30,917	0	0	30,917	477	0	0	477

OPERATIONS AND RESEARCH
(Dollars in Thousands)

	FY 2001 ENACTED				FY 2002 CONG. REQUEST				FY 2002 OVER FY 2001			
	O&R Federal	O & R Trust	Grant Admin.	Total	O&R Federal	O & R Trust	Grant Admin.	Total	O&R Federal	O & R Trust	Grant Admin.	Total
HIGHWAY SAFETY												
Permanent Positions												
Highway Safety Programs HQ	*0*	*112*	*10*	*122*	*0*	*112*	*10*	*122*	*0*	*0*	*0*	*0*
Field, Regions	*0*	*0*	*86*	*86*	*0*	*0*	*86*	*86*	*0*	*0*	*0*	*0*
Mission Support	*0*	*9*	*5*	*14*	*0*	*10*	*5*	*15*	*0*	*1*	*0*	*1*
Total FTPs	*0*	*121*	*101*	*222*	*0*	*122*	*101*	*223*	*0*	*1*	*0*	*1*
Dollars												
Salaries & Benefits	0	10,253	8,207	18,460	0	10,939	8,750	19,689	0	686	543	1,229
Travel	0	301	341	642	0	306	347	653	0	5	6	11
Operating Expenses	0	4,082	815	4,897	0	4,829	829	5,658	0	747	14	761
Contract Program												
Impaired Driving	0	9,817	0	9,817	0	9,817	0	9,817	0	0	0	0
Pedestrians and Bicycle	0	1,295	0	1,295	0	1,295	0	1,295	0	0	0	0
Motorcycle	0	661	0	661	0	661	0	661	0	0	0	0
Occupant Protection Program	0	10,953	0	10,953	0	9,729	1,224	10,953	0	-1,224	1,224	0
Traffic Law Enforcement	0	1,770	422	2,192	0	2,192	0	2,192	0	422	-422	0
Emergency Medical Services	0	1,980	265	2,245	0	2,245	0	2,245	0	265	-265	0
Highway Safety Research	0	7,277	0	7,277	0	7,277	0	7,277	0	0	0	0
Records and Licensing	0	2,591	0	2,591	0	2,591	0	2,591	0	0	0	0
Emerging Traffic Issues	0	1,196	0	1,196	0	1,196	0	1,196	0	0	0	0
Youth, Drugs & Driving Initiative	0	1,196	0	1,196	0	1,196	0	1,196	0	0	0	0
Share the Road	0	500	0	500	0	500	0	500	0	0	0	0
NOPUS	0	0	600	600	0	600	0	600	0	600	-600	0
NDR	0	1,110	0	1,110	0	1,110	0	1,110	0	0	0	0
Subtotal, Contract Program	0	40,346	1,287	41,633	0	40,409	1,224	41,633	0	63	-63	0
Total Dollars	0	54,982	10,650	65,632	0	56,483	11,150	67,633	0	1,501	500	2,001

OPERATIONS AND RESEARCH
(Dollars in Thousands)

	FY 2001 ENACTED				FY 2002 CONG. REQUEST				FY 2002 OVER FY 2001			
	O&R Federal	O & R Trust	Grant Admin.	Total	O&R Federal	O & R Trust	Grant Admin.	Total	O&R Federal	O & R Trust	Grant Admin.	Total
RESEARCH, DEVELOPMENT & ANALYSIS												
Permanent Positions												
Headquarters	*75*	*0*	*0*	*75*	*75*	*0*	*0*	*75*	*0*	*0*	*0*	*0*
NCSA	*18*	*18*	*0*	*36*	*23*	*13*	*0*	*36*	*5*	*-5*	*0*	*0*
Mission Support	*7*	*1*	*0*	*8*	*7*	*1*	*0*	*8*	*0*	*0*	*0*	*0*
Total FTPs	*100*	*19*	*0*	*119*	*105*	*14*	*0*	*119*	*5*	*-5*	*0*	*0*
Dollars:												
Salaries & Benefits	8,749	1,662	0	10,411	9,769	1,302	0	11,071	1,020	-360	0	660
Travel	136	26	0	162	146	19	0	165	10	-7	0	3
Operating Expenses	3,374	641	0	4,015	4,156	554	0	4,710	782	-87	0	695
Contract Program:												
Motor Vehicle Research	34,667	0	0	34,667	34,028	0	0	34,028	-639	0	0	-639
NCSA	11,746	9,975	0	21,721	13,947	8,373	0	22,320	2,201	-1,602	0	599
VRTC	950	0	0	950	990	0	0	990	40	0	0	40
Subtotal, Contract Program	47,363	9,975	0	57,338	48,965	8,373	0	57,338	1,602	-1,602	0	0
Total Dollars	59,622	12,304	0	71,926	63,036	10,248	0	73,284	3,413	-2,056	0	1,358

OPERATIONS AND RESEARCH
(Dollars in Thousands)

	FY 2001 ENACTED				FY 2002 CONG. REQUEST				FY 2002 OVER FY 2001			
	O&R Federal	O & R Trust	Grant Admin.	Total	O&R Federal	O & R Trust	Grant Admin.	Total	O&R Federal	O & R Trust	Grant Admin.	Total
OFFICE OF THE ADMINISTRATOR AND STAFF OFFICES												
Permanent Positions												
Headquarters	*47*	*15*	*2*	*64*	*44*	*18*	*2*	*64*	*-3*	*3*	*0*	*0*
Mission Support	*-23*	*-1*	*-2*	*-26*	*-23*	*-1*	*-2*	*-26*	*0*	*0*	*0*	*0*
Net FTPs	*24*	*14*	*0*	*38*	*21*	*17*	*0*	*38*	*-3*	*3*	*0*	*0*
Dollars												
Salaries & Benefits	2,100	1,225	0	3,325	1,955	1,581	0	3,536	-145	356	0	211
Travel	49	28	0	77	43	35	0	78	-6	7	0	1
Operating Expenses	810	472	0	1,282	831	673	0	1,504	21	201	0	222
Total Dollars	2,959	1,725	0	4,684	2,829	2,289	0	5,118	-130	564	0	434

OPERATIONS AND RESEARCH
(Dollars in Thousands)

	FY 2001 ENACTED				FY 2002 CONG. REQUEST				FY 2002 OVER FY 2001			
	O&R Federal	O & R Trust	Grant Admin.	Total	O&R Federal	O & R Trust	Grant Admin.	Total	O&R Federal	O & R Trust	Grant Admin.	Total
GENERAL ADMINISTRATION												
Permanent Positions												
Headquarters	*58*	*46*	*3*	*107*	*59*	*45*	*3*	*107*	*1*	*-1*	*0*	*0*
Mission Support	*-15*	*-9*	*-3*	*-27*	*-15*	*-10*	*-3*	*-28*	*0*	*-1*	*0*	*-1*
Net FTPs	*43*	*37*	*0*	*80*	*44*	*35*	*0*	*79*	*1*	*-2*	*0*	*-1*
Dollars												
Salaries & Benefits	3,762	3,237	0	6,999	4,094	3,257	0	7,351	332	20	0	352
Travel	72	62	0	134	76	60	0	136	4	-2	0	2
Operating Expenses	1,451	1,248	0	2,699	1,742	1,385	0	3,127	291	137	0	428
Contract Program												
Program Evaluation	233	234	0	467	234	234	0	468	1	0	0	1
Strategic Planning	44	45	0	89	45	44	0	89	1	-1	0	0
Economic Analysis	88	0	0	86	86	0	0	86	0	0	0	0
Subtotal, Contract Program	364	279	0	643	365	278	0	643	1	-1	0	0
Total Dollars	5,649	4,826	0	10,475	6,277	4,980	0	11,257	628	154	0	782

OPERATIONS AND RESEARCH
(Dollars in Thousands)

	FY 2001 ENACTED				FY 2002 CONG. REQUEST				FY 2002 OVER FY 2001			
	O&R Federal	O & R Trust	Grant Admin.	Total	O&R Federal	O & R Trust	Grant Admin.	Total	O&R Federal	O & R Trust	Grant Admin.	Total
NHTSA SUMMARY												
Permanent Positions												
Headquarters	345	173	15	533	343	175	15	533	-2	2	0	0
Field	27	18	86	131	32	13	86	131	5	-5	0	0
Total FTP	372	191	101	664	375	188	101	664	3	-3	0	0
Dollars												
Salaries & Benefits	32,546	16,377	8,207	57,130	34,892	17,079	8,750	60,721	2,346	702	543	3,591
Travel	518	417	341	1,276	529	420	347	1,297	11	3	6	21
Operating Expenses	12,552	6,443	815	19,810	14,843	7,441	829	23,113	2,291	998	14	3,303
Contract Program	71,003	50,600	1,287	122,890	71,735	49,060	1,224	122,019	732	-1,540	-63	-871
Total, NHTSA	116,619	73,837	10,650	201,106	121,999	74,000	11,150	207,150	5,380	163	500	6,044

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OPERATIONS AND RESEARCH

LEGISLATIVE AUTHORIZATION
FY 2002 CONGRESSIONAL SUBMISSION

(Dollars in Thousands)

SAFETY PERFORMANCE	National Traffic and Motor Vehicle Safety Act	Motor Vehicle Information and Cost Savings Act	Section 403 of Highway Safety Act	Nat'l Driver Register	State Formula Grant Admin. (Highway Safety Act)	Total
Permanent Positions:						
Vehicle Safety & Consumer Stds.	*49*	*0*	*0*	*0*	*0*	*49*
Automotive Consumer Programs	*0*	*13*	*0*	*0*	*0*	*13*
Plus: Mission Support	*17*	*8*	*0*	*0*	*0*	*25*
Total FTPs	*66*	*21*	*0*	*0*	*0*	*87*
Dollars:						
Salaries & Benefits	5,960	2,135	0	0	0	8,095
Travel	47	15	0	0	0	62
Operating Expenses	2,482	981	0	0	0	3,444
Contract Program:						
Vehicle Safety & Consumer Stds.	2,000	0	0	0	0	2,000
NCAP	0	5,231	0	0	0	5,231
Fuel Economy	0	60	0	0	0	60
Theft	0	50	0	0	0	50
Contract Subtotal	2,000	5,341	0	0	0	7,341
Total Dollars	10,489	8,472	0	0	0	18,941

OPERATIONS AND RESEARCH

LEGISLATIVE AUTHORIZATION
FY 2002 CONGRESSIONAL SUBMISSION

(Dollars in Thousands)

SAFETY ASSURANCE	National Traffic and Motor Vehicle Safety Act	Motor Vehicle Information and Cost Savings Act	Section 403 of Highway Safety Act	Nat'l Driver Register	State Formula Grant Admin. (Highway Safety Act)	Total
Permanent Positions:						
Defects Investigation	*69*	*0*	*0*	*0*	*0*	*69*
Vehicle Safety Compliance	*36*	*0*	*0*	*0*	*0*	*36*
Odometer Fraud	*0*	*7*	*0*	*0*	*0*	*7*
Plus: Mission Support	*6*	*0*	*0*	*0*	*0*	*6*
Total FTPs	*111*	*7*	*0*	*0*	*0*	*118*
Dollars:						
Salaries & Benefits	10,328	651	0	0	0	10,979
Travel	191	12	0	0	0	203
Operating Expenses	4,393	277	0	0	0	4,671
Contract Program:						
Vehicle Safety Compliance	8,974	0	0	0	0	8,974
Defects Investigation 1/	7,940	0	0	0	0	7,940
Odometer	0	150	0	0	0	150
Contract Subtotal	14,914	150	0	0	0	15,064
Total Dollars	29,826	1,090	0	0	0	30,917

1/ In FY 2002, the outreach costs of the Hotline ($381,000) are included in Defects Investigation, while the operating costs are included in the operating expenses.

OPERATIONS AND RESEARCH

LEGISLATIVE AUTHORIZATION
FY 2002 CONGRESSIONAL SUBMISSION

(Dollars in Thousands)

HIGHWAY SAFETY	National Traffic and Motor Vehicle Safety Act	Motor Vehicle Information and Cost Savings Act	Section 403 of Highway Safety Act	Nat'l Driver Register	State Formula Grant Admin. (Highway Safety Act)	Total
Permanent Positions:						
Traffic Safety Programs (HQ)	*0*	*0*	*99*	*13*	*10*	*122*
Regions	*0*	*0*	*0*	*0*	*86*	*86*
Plus: Mission Support	*0*	*0*	*9*	*1*	*5*	*15*
Total FTPs	*0*	*0*	*108*	*14*	*101*	*223*
Dollars:						
Salaries & Benefits	0	0	10,049	890	8,750	19,689
Travel	0	0	306	0	347	653
Operating Expenses	0	0	4,829	0	829	5,658
Contract Program:						
Impaired Driving	0	0	9,817	0	0	9,817
Pedestrians and Bicycle	0	0	1,295	0	0	1,295
Motorcycle	0	0	661	0	0	661
Occupant Protection Program	0	0	9,729	0	1,224	10,953
Traffic Law Enforcement	0	0	2,192	0	0	2,192
Emergency Medical Services	0	0	2,245	0	0	2,245
Records and Licensing	0	0	2,591	0	0	2,591
Highway Safety Research	0	0	7,277	0	0	7,277
Drugs, Driving and Youth	0	0	1,198	0	0	1,198
Emerging Traffic Issues	0	0	1,198	0	0	1,198
NOPUS	0	0	600	0	0	600
Share the Road	0	0	500	0	0	500
NDR	0	0	0	1,110	0	1,110
Contract Subtotal	0	0	39,299	1,110	1,224	41,633
Total Dollars	0	0	54,483	2,000	11,150	67,633

OPERATIONS AND RESEARCH

LEGISLATIVE AUTHORIZATION
FY 2002 CONGRESSIONAL SUBMISSION

(Dollars in Thousands)

RESEARCH, DEVELOPMENT & ANALYSIS	National Traffic and Motor Vehicle Safety Act	Motor Vehicle Information and Cost Savings Act	Section 403 of Highway Safety Act	Nat'l Driver Register	State Formula Grant Admin. (Highway Safety Act)	Total
Permanent Positions:						
Motor Vehicle Research	*75*	*0*	*0*	*0*	*0*	*75*
NCSA	*23*	*0*	*13*	*0*	*0*	*36*
Plus: Mission Support	*7*	*0*	*1*	*0*	*0*	*8*
Total FTPs	*105*	*0*	*14*	*0*	*0*	*119*
Dollars:						
Salaries & Benefits	9,769	0	1,302	0	0	11,071
Travel	146	0	19	0	0	165
Operating Expenses	4,156	0	554	0	0	4,710
Contract Program:						
Motor Vehicle Research	34,028	0	0	0	0	34,028
NCSA	13,947	0	8,373	0	0	22,320
VRTC	990	0	0	0	0	990
Contract Subtotal	48,965	0	8,373	0	0	57,338
Total Dollars	63,035	0	10,249	0	0	73,284

OPERATIONS AND RESEARCH

LEGISLATIVE AUTHORIZATION
FY 2002 CONGRESSIONAL SUBMISSION

(Dollars in Thousands)

OFFICE OF THE ADMINISTRATOR AND STAFF OFFICES	National Traffic and Motor Vehicle Safety Act	Motor Vehicle Information and Cost Savings Act	Section 403 of Highway Safety Act	Nat'l Driver Register	State Formula Grant Admin. (Highway Safety Act)	Total
Permanent Positions:						
Office of the Administrator and Staff Offices	*42*	*2*	*18*	*0*	*2*	*64*
Less: Mission Support	*(21)*	*(2)*	*(1)*	*0*	*(2)*	*(26)*
Net FTPs	*21*	*0*	*17*	*0*	*0*	*38*
Dollars:						
Salaries & Benefits	1,955	0	1,581	0	0	3,536
Travel	43	0	35	0	0	78
Operating Expenses	831	0	673	0	0	1,504
Total Dollars	2,829	0	2,289	0	0	5,118

OPERATIONS AND RESEARCH

LEGISLATIVE AUTHORIZATION
FY 2002 CONGRESSIONAL SUBMISSION

(Dollars in Thousands)

GENERAL ADMINISTRATION	National Traffic and Motor Vehicle Safety Act	Motor Vehicle Information and Cost Savings Act	Section 403 of Highway Safety Act	Nat'l Driver Register	State Formula Grant Admin. (Highway Safety Act)	Total
Permanent Positions:						
Administration (including Plans & Policy)	*53*	*6*	*44*	*1*	*3*	*107*
Less: Mission Support	*(9)*	*(6)*	*(9)*	*(1)*	*(3)*	*(28)*
Net FTPs	*44*	*0*	*35*	*0*	*0*	*79*
Dollars:						
Salaries & Benefits	4,095	0	3,257	0	0	7,351
Travel	76	0	60	0	0	136
Operating Expenses	1,742	0	1,385	0	0	3,127
Contract Program:						
Program Evaluation	234	0	234	0	0	468
Strategic Planning	45	0	44	0	0	89
Economic Analysis	86	0	0	0	0	86
Contract Subtotal	365	0	278	0	0	643
Total Dollars	6,277	0	4,980	0	0	11,257

OPERATIONS AND RESEARCH

LEGISLATIVE AUTHORIZATION
FY 2002 CONGRESSIONAL SUBMISSION

(Dollars in Thousands)

NHTSA TOTAL	National Traffic and Motor Vehicle Safety Act	Motor Vehicle Information and Cost Savings Act	Section 403 of Highway Safety Act	Nat'l Driver Register	State Formula Grant Admin. (Highway Safety Act)	Total
Permanent Positions	*347*	*28*	*174*	*14*	*101*	*664*
Dollars:						
Salaries & Benefits	32,108	2,788	16,188	890	8,750	60,721
Travel	502	27	421	0	347	1,297
Operating Expenses	13,585	1,258	7,441	0	829	23,113
Contract Program	66,244	5,491	47,950	1,110	1,224	122,019
Total, NHTSA	112,437	9,562	72,000	2,000	11,150	207,150
TEA-21 Authorized Levels	98,314	9,562	72,000	2,000		
TREAD Authorized Level	9,100	0	0	0		
Total Authorization	107,414	9,562	72,000	2,000		
Variance	(5,023)	0	(0)	0		

EXHIBIT IA

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
RESOURCE SUMMARY - FINANCING
($000)

	BUDGET AUTHORITY		
APPROPRIATION TITLE	FY 2000 ENACTED	FY 2001 ENACTED	FY 2002 REQUEST
Operations and Research:			
General Funds			
Other	86,470	116,619	122,000
Highway Trust Fund			
Discretionary Budget Authority	2,000	1,996	2,000
Mandatory Contract Authority	71,602	71,841	72,000
Total, Operations and Research (net)	160,072	190,456	196,000
Highway Traffic Safety Grants (Highway Trust Fund-Mandatory C.A.)	206,800	212,531	223,000
Miscellaneous Safety Programs	0	0	0
TOTAL BUDGET AUTHORITY	366,872	402,987	419,000
LIQUIDATING CASH APPROPRIATIONS:			
Highway Traffic Safety Grants	206,800	213,000	223,000
Operations and Research: Highway Trust Fund	72,000	72,000	72,000

EXHIBIT IB

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
RESOURCE SUMMARY - FINANCING
($000)

APPROPRIATION TITLE	PROGRAM LEVEL (OBLIGATIONS) FY 2000 ENACTED	FY 2001 ENACTED	FY 2002 REQUEST
Operations and Research:			
General Funds			
Other	70,408	130,412	122,000
Highway Trust Fund			
Discretionary Budget Authority	17,824	1,996	2,000
Mandatory Contract Authority	71,602	73,292	72,000
Total, Operations and Research (net)	159,834	205,700	196,000
Highway Traffic Safety Grants			
State and Community			
Safety Formula Grants (Section 402)	152,800	154,659	160,000
Alcohol Incentive Grants			
(formerly Section 410)	36,000	35,921	38,000
Occ. Protection Incentive Grants (Sec. 405)	10,000	12,971	15,000
State Data (Section 411)	8,000	8,980	10,000
Total, Grants	206,800	212,531	223,000
Miscellaneous Safety Programs	0	0	0
TOTAL PROGRAM LEVEL/OB. LIMITATION	388,634	418,231	419,000

EXHIBIT IC

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
RESOURCE SUMMARY - FINANCING
($000)

	OUTLAYS		
APPROPRIATION TITLE	FY 2000 ENACTED	FY 2001 ENACTED	FY 2002 REQUEST
Operations and Research:			
General Funds	64,161	116,762	121,503
Highway Trust Fund			
Discretionary Budget Authority	25,725	11,146	6,174
Mandatory Contract Authority	47,019	85,683	80,053
Total, Operations and Research (net)	136,905	213,591	207,730
Highway Traffic Safety Grants (Highway Trust Fund)	191,369	221,002	228,063
Miscellaneous Safety Programs	0	0	0
TOTAL OUTLAYS	328,274	434,593	435,793

EXHIBIT II

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
RESOURCE SUMMARY - STAFFING
POSITIONS (FULL-TIME PERMANENT)

	FY 2000 ENACTED	FY 2001 ENACTED	FY 2002 REQUEST
FULL-TIME PERMANENT (FTP) POSITIONS:			
Operations and Research (General Funds)	225	372	375
Operations and Research (Trust Fund)	335	191	188
Highway Traffic Safety Grants	104	101	101
TOTAL AUTHORIZED FTPS	664	664	664
FULL-TIME EQUIVALENT (FTE) STAFF-YEARS	612	636	651
TOTAL FTP END-OF-YEAR EMPLOYEMENT	606	630	645

NOTE:

All FTE's and FTP's are civilian personnel funded directly by appropriations.

EXHIBIT IV

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OPERATIONS AND RESEARCH - SUMMARY
OBJECT CLASSIFICATION
($000)

		FY 2000 ACTUAL	FY 2001 ENACTED	FY 2002 REQUEST
11.1	FULL-TIME PERMANENT	42,280	45,000	47,550
11.3	OTHER THAN FULL TIME PERMANENT	1,433	1,844	1,900
11.5	OTHER PERSONNEL COMPENSATION	734	795	875
11.9	TOTAL PERSONNEL COMPENSATION	44,447	47,639	50,325
12.1	BENEFITS	8,966	10,246	10,396
21.0	TRAVEL	1,241	1,276	1,297
23.1	RENTAL PAYMENTS TO GSA	3,945	5,168	6,370
23.0	COMMUNICATIONS AND UTILITIES	4,506	4,594	4,672
24.0	PRINTING	5,753	5,910	6,011
25.2	OTHER SERVICES	40,563	62,846	48,787
25.5	RESEARCH & DEVELOPMENT CONTRACTS	43,146	64,236	64,615
26.0	SUPPLIES AND MATERIALS	10,091	10,291	10,463
31.0	EQUIPMENT	4,064	4,145	4,215
99.0	SUBTOTAL, DIRECT OBLIGATIONS	166,722	216,351	207,151
99.0	REIMBURSABLE OBLIGATIONS	24,935	26,000	26,000
99.9	TOTAL OBLIGATIONS	191,657	242,351	233,151

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OPERATIONS AND RESEARCH

Program and Financing (in thousands of dollars)

Identification Code 69-0650-0-7-401		FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Obligations by program activity:				
	Direct Program:			
0.01	Safety Performance Standards	12,032	18,438	18,852
0.02	Safety Assurance	21,538	30,499	30,796
0.03	Research and Analysis	31,289	72,634	63,314
0.04	Office of the Administrator	3,942	2,962	2,807
0.05	General Administration	8,415	5,879	6,231
	Reimbursable Program	24,393	25,000	25,000
10.00	Total Obligations	101,609	155,412	147,000
Budgetary resources available for obligation:				
21.40	Unobligated balance carried forward, start of year	1,944	13,793	0
22.00	New budget authority, (gross)	110,863	141,619	147,000
22.10	Resources available from recoveries of prior year obligations	2,822	0	0
23.90	Total budgetary resources available for obligation	115,629	155,412	147,000
23.95	Total new obligations	-101,609	-155,412	-147,000
23.98	Unobligated balance expiring or withdrawn	-227	0	0
24.40	Unobligated balance, carried forward, end of year	13,793	0	0
New budget authority (gross), detail				
	Discretionary			
40.00	Appropriation	87,400	116,876	122,000
40.75	Reduction Pursuant to P.L. 106-554	0	-257	0
40.79	Reduction Pursuant to P.L. 106-69	-930	0	0
43.00	Appropriation (total)	86,470	116,619	122,000
	Discretionary			
68.00	Spending authority from offsetting collections	24,393	25,000	25,000
70.00	Total new budget authority (gross)	110,863	141,619	147,000

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OPERATIONS AND RESEARCH

Program and Financing (in thousands of dollars)

Identification Code 69-0650-0-7-401		FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Change in unpaid obligations				
	Unpaid obligations start of year:			
72.40	Unpaid obligations, start of year	61,611	64,590	78,240
72.99	Obligated balance, start of year	61,611	64,590	78,240
73.10	Total new obligations	101,609	155,412	147,000
73.20	Total outlays (gross)	-88,554	-141,762	-146,503
73.40	Adjustments in expired accounts (net)	-7,254	0	0
	Unpaid obligations , end of year:			
73.45	Recoveries of prior year obligations	-2,822	0	0
74.40	Unpaid obligations, end of year	64,590	78,240	78,737
74.99	Obligated balance, end of year	64,590	78,240	78,737
Outlays (gross), detail				
86.90	Outlays from new discretionary authority	74,546	92,639	95,760
86.93	Outlays from discretionary balances	14,008	49,123	50,743
87.00	Total outlays (gross)	88,554	141,762	146,503
Offsets against gross budget authority and outlays:				
88.00	Offsetting collections (cash) from:			
	Federal sources	23,897	24,504	24,504
88.40	Non-Federal sources	496	496	496
88.90	Total, offsetting collections	24,393	25,000	25,000
Net budget authority and outlays				
89.00	Budget authority	86,470	116,619	122,000
90.00	Outlays	64,161	116,762	121,503

FEDERAL FUNDS

OPERATION AND RESEARCH

For expenses necessary to discharge the functions of the Secretary, with respect to traffic and highway safety under chapter 301 of title 49, United States Code, and part C of subtitle VI of title 49, United States Code, [$116,876,000] *$122,000,000* of which [$85,321,000] *$90,430,000* shall remain available until [September 30, 2003] *September 30, 2004*: *Provided*, That none of the funds appropriated by this Act may be obligated or expended to plan, finalize, or implement any rulemaking to add to section 575.104 of title 49 of the Code of Federal Regulations any requirement pertaining to a grading standard that is different from the three grading standards (treadwear, traction, and temperature resistance) already in effect. *(Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101(a) of P.L. 106-346.)*

TRUST FUNDS

OPERATIONS AND RESEARCH

(LIQUIDATION OF CONTRACT AUTHORIZATION)

(LIMITATION OF OBLIGATIONS)

(HIGHWAY TRUST FUND)

For payment of obligations incurred in carrying out the provisions of 23 U.S.C. 403, to remain available until expended, $72,000,000, to be derived from the Highway Trust Fund: *Provided,* That none of the funds in this Act shall be available for planning or execution of programs the total obligations for which, in fiscal year [2001] *2002,* are in excess of $72,000,000 for programs authorized under 23 U.S.C. 403. *(Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101(a) of P.L. 106-346.)*

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OPERATIONS AND RESEARCH
(LIQUIDATION OF CONTRACT AUTHORITY)
(HIGHWAY TRUST FUND)

Program and Financing (in thousands of dollars)

Identification Code 69-8016-0-7-401		FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Obligations by program activity:				
Direct Program:				
0.01	Safety Performance Standards	228	0	0
0.02	Safety Assurance	339	0	0
0.02	Highway Safety Programs	51,877	66,151	68,084
0.03	Research and Analysis	29,424	13,208	9,850
0.04	Office of the Administrator	2,294	1,725	2,272
0.05	General Administration	5,251	4,855	4,944
	Reimbursable Program	635	1,000	1,000
10.00	Total Obligations	90,048	86,939	86,150
Budgetary resources available for obligation:				
21.40	Unobligated balance carried forward, start of year	6,943	1,451	0
21.49	Unobligated balance carried forward, start of year: Contract authority	960	1,358	1,516
21.99	Total, unobligated balance carried forward, start of year	7,903	2,809	1,516
22.00	New budget authority, (gross)	84,975	85,646	86,150
22.10	Resources available from recoveries of prior year obligations	44	0	0
23.90	Total budgetary resources available for obligation	92,922	88,455	87,666
23.95	Total new obligations	-90,048	-86,939	-86,150
23.98	Unobligated balance, expiring	-65	0	0
24.40	Unobligated balance, carried forward, end of year	1,451	0	0
24.49	Unobligated balance, carried forward, end of year: Contract authority	1,358	1,516	1,516
24.99	Total unobligated balance carried forward, end of year	2,809	1,516	1,516

NATIONAL DRIVER REGISTER

(HIGHWAY TRUST FUND)

For expenses necessary to discharge the functions of the Secretary with respect to the National Driver Register under chapter 303 of title 49, United States Code, $2,000,000 to be derived from the Highway Trust Fund, and to remain available until expended. *(Department of Transportation and Related Agencies, Appropriations Act, 2001, as enacted by section 101(a) of P.L. 106-346.)*

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OPERATIONS AND RESEARCH
(LIQUIDATION OF CONTRACT AUTHORITY)
(HIGHWAY TRUST FUND)

Program and Financing (in thousands of dollars)

Identification Code 69-8016-0-7-401		FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
New budget authority (gross), detail				
	Discretionary			
40.26	Appropriation (trust fund, definite)	74,000	74,000	74,000
40.49	Portion applied to liquidate contract authority	-72,000	-72,000	-72,000
40.75	Reduction Pursuant to P.L. 106-554	0	-4	0
43.00	Appropriation (total)	2,000	1,996	2,000
	Mandatory			
66.10	Contract Authority	72,000	72,000	72,000
	Discretionary			
68.00	Spending authority from offsetting collection	10,975	11,650	12,150
70.00	Total new budget authority (gross)	84,975	85,646	86,150
Change in unpaid obligations				
	Unpaid obligations start of year:			
72.40	Unpaid obligations, start of year	77,826	84,087	62,547
72.99	Obligated balance, start of year	77,826	84,087	62,547
73.10	Total new obligations	90,048	86,939	86,150
73.20	Total outlays (gross)	-83,719	-108,479	-98,377
73.40	Adjustments in expired accounts (net)	-49	0	0
	Unpaid obligations , end of year:			
74.40	Unpaid obligations, end of year	84,087	62,547	50,320
74.99	Obligated balance, end of year	84,087	62,547	50,320
Outlays (gross), detail				
86.90	Outlays from new discretionary authority	53,895	54,476	55,070
86.93	Outlays from discretionary balances	29,824	54,003	43,307
87.00	Total outlays (gross)	83,719	108,479	98,377
Offsets against gross budget authority and outlays:				
88.00	Offsetting collections (cash) from:			
	Federal sources	10,975	11,650	12,150

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OPERATIONS AND RESEARCH
(LIQUIDATION OF CONTRACT AUTHORITY)
(HIGHWAY TRUST FUND)

Program and Financing (in thousands of dollars)

Identification Code 69-8016-0-7-401		FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Net budget authority and outlays				
89.00	Budget authority	73,602	73,838	74,000
90.00	Outlays	72,744	96,829	86,227
Status of Contract Authority				
1.00	Balance, start of year	1,358	1,516	1,516
	Contract Authority			
2.00	Contract Authority	72,000	72,000	72,000
4.00	Appropriation to liquidate contract authority	-72,000	-72,000	-72,000
7.00	Balance, end of year	1,358	1,516	1,516

OPERATIONS AND RESEARCH

Program and Performance

Programs funded under the Operations and Research appropriation are described below.

Safety Performance Standards (Rulemaking) Programs. Supports the promulgation of Federal Motor Vehicle safety standards for motor vehicles and safety-related equipment; automotive fuel economy standards required by the Energy Policy and Conservation Act; international harmonization of vehicle standards; and consumer information on motor vehicle safety, including the New Car Assessment Program.

Safety Assurance (Enforcement) Programs. Provides support to ensure compliance with motor vehicle safety and automotive fuel economy standards, investigate safety-related motor vehicle defects, enforce federal odometer law and encourage enforcement of state odometer law and conduct safety recalls when warranted.

Research and Analysis. Provides motor vehicle safety research and development in support of all NHTSA programs, including the collection and analysis of crash data to identify safety problems, develop alternative solutions, and assess costs, benefits, and effectiveness. Research will continue to concentrate on improving vehicle crashworthiness and crash avoidance, with emphasis on smart air bag technology and on the National Transportation Biomechanics Research Center, which includes the Crash Injury Research and Engineering Network (CIREN)

Highway Safety Programs. Provides for research, demonstrations, technical assistance, and national leadership for highway safety programs conducted by state and local governments, the private sector, universities and research units, and various safety associations and organizations This program emphasizes alcohol and drug countermeasures, vehicle occupant protection, traffic law enforcement, emergency medical and trauma care systems, traffic records and licensing, state and community evaluation, motorcycle riders, pedestrian and bicycle safety, pupil transportation young and older driver safety programs, and development of improved accident investigation procedures.

General Administration. Provides program evaluation, strategic planning, and economic analysis for agency programs. Objective quantitative information about NHTSA's regulatory and highway safety programs is gathered to measure their effectiveness in achieving objectives. This activity also funds development, of methods to estimate economic consequences of motor vehicle injuries in forms suitable for agency use in problem identification, regulatory analysis, priority setting, and policy analysis.

National Driver Register. Provides funding to implement and operate the Problem Driver Pointer System (PDPS) and improve traffic safety by assisting state motor vehicle administrators in communicating effectively and efficiently with other states to identify drivers whose licenses have been suspended or revoked for serious traffic offenses, such as driving under the influence of alcohol or other drugs.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Salaries and Benefits

Amount Requested for FY 2002: $60,721,000

FY 2001 Enacted: $57,130,000

Increase over FY 2001: $3,591,000

Justification

The FY 2002 request includes the following mandatory increases:

FY 2001 pay raise for one quarter of FY 2002	$ 528,000
FY 2002 pay raise for three quarters of FY 2002	1,585,000
Annualization of 30 positions authorized by the Transportation Recall Enhancement, Accountability, and Documentation Act (TREAD)	1,250,000
Extra work day in FY 2002	228,000
Total, FY 2002 Salaries and Benefits	$60,721,000

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Travel

Amount Requested for FY 2002: $1,297,000

FY 2001 Enacted: $1,276,000

Increase over FY 2001: $21,000

Justification

NHTSA is requesting an increase to travel costs ($21,000). This increase is allocated proportionately to all travel line items in the FY 2002 budget request.

OPERATING EXPENSES

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NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
(dollars in thousands)

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Cong. Request	FY 2002 Over FY 2001
Operating Expenses				
GSA Rent	4,657	5,168	6,370	1,202
Security/OPM investigations	35	35	36	1
Grievance Administration	5	5	5	0
Permanent Change of Station	87	87	88	1
Training	216	219	223	4
Administrative Services	2,925	2,925	3,078	153
TASC	5,786	7,601	8,000	399
Computer Support	2,555	2,555	2,598	43
Hotline 1/	0	0	1,479	1,479
Workforce Planning and Development	0	400	407	7
Total, HQ Operating Expenses	16,266	18,995	22,284	3,289
Regional Operating Expenses	815	815	829	14
Total, NHTSA Operating Expenses	17,081	19,810	23,113	3,303

1/ FY 2000 and FY 2001 Hotline funds are reflected under the Safety Assurance Program

FY 2001 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Operating Expenses

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
GSA RENT	$4,657,000	$5,168,000	$6,370,000

Problem Statement

Funding is required to cover the cost of GSA rental payments for headquarters and field offices. The Departmental Program mandates an alignment within the field offices via co-location The required logistics in some areas causes rental payments to double in cost.

Current Program: (FY 2001: $5,168,000)

- The FY 2001 budget will support rent charges and service fees imposed by GSA. In addition, several of the agency's field office leases are up for renewal and will fall under the new pricing and service fees, resulting in increases to new or renewed leases

- The agency plans for three new moves and/or lease renewals commencing this fiscal year. The field offices identified for co-location are: Region 8 (Lakewood, Colorado), Region 3 (Baltimore, Maryland), and Region 9 (San Francisco, California). There is the possibility of a fourth relocation, Region 10 (Seattle, Washington)

FY 2002 Budget Request ($6,370,000)

- The FY 2002 rent estimates were derived by using the GSA actuals for FY 2000 and adjusting these amounts with projected rate increases and projected changes to the space requirements This amount is consistent with the estimates provided in OMB Exhibit 54

- The agency's FY 2002 budget request will support all mandatory rent charges and the co-locations scheduled for various field offices. Language in Executive Order #12072, dated August 16, 1978, states that first consideration should be given to the central business district when co-locating the field offices Frequently, office space in the central business district results in higher rental costs to the field offices which are co-located As an example, the Colorado and California moves effected in FY 2001 will result in a significant increase in rental payments starting in FY 2002

- The Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act authorized 30 FTEs in support of the Defects Investigation program. but no additional funding for space to accommodate the new hires was provided Furthermore, the headquarters building was unable to accommodate the new positions and the agency has had

to secure office space in a neighboring building. As these costs were not part of the FY 2001 base, NHTSA will require funds in FY 2002 to house 30 additional FTEs.

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
SECURITY INVESTIGATIONS	$35,000	$35,000	$36,000

Problem Statement

Certifications of new hires and re-certification of current staff employees are processed by the Office of Personnel Management (OPM) and the Federal Bureau of Investigations (FBI). Security background checks are required of every new hire and reviews on existing staff are required every 3-5 years.

Current Program (FY 2001: $35,000)

- Re-certify current senior and subordinate staff employees, and
- Certify all new hires.

FY 2002 Budget Request ($36,000)

- Funding requested will cover the costs of mandatory Departmental certification and OPM security background checks of new hires and re-certification of current senior and subordinate staff employees
- The costs associated with processing these investigations and certifications are increasing (senior staff certifications have increased from $2,500 to $2,900 per person), along with increasing demands for investigations.
- Due to the escalating problems with computer viruses and hackers, new and extensive security investigations will be required of all Information Technology personnel.

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
GRIEVANCES	$5,000	$5,000	$5,000

Problem Statement

Funding is required for administrative costs related to EEO cases

Current Program (FY 2001: $5,000)

- The FY 2001 budget provides resources for administrative costs related to EEO cases, including court room fees, court reporters, special handicap assistance and arbitrators.

FY 2002 Budget Request ($5,000)

Funding requested will provide the same level of support as in FY 2001.

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
PERMANENT CHANGE OF STATION (PCS)	$87,000	$87,000	$88,000

Problem Statement

Funding is required to allow management to offer government employees Permanent Change of Station benefits as an incentive for hard-to-fill positions

Current Program (FY 2001: $87,000)

The average cost of a move from headquarters to the field offices and vice-versa is $43,500 per move. When senior staff positions become vacant in the field, NHTSA often promotes headquarters employees to these positions. This system ensures that the field offices' vacancies attract qualified, competent and experienced candidates to support the agency's missions and goals. Permanent Change of Station pays for the costs of moving, temporary quarters, storage of household goods, and other relocation expenses necessary to attract a highly competent staff.

FY 2002 Budget Request ($88,000)

The agency anticipates two moves in FY 2002. A small increase has been requested for PCS to reflect increased costs of relocation expenses.

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
TRAINING	$216,000	$219,00	$223,000

Problem Statement

Adequate training for all NHTSA staff is necessary to build and maintain a professional, productive, innovative, and diverse work force.

Current Program (FY 2001: $219,000)

NHTSA provides a variety of training, developmental opportunities, and continuous improvement activities for employees. These activities are conducted through internal, external, electronic and other distance learning training courses, seminars, workshops, and conferences. Training is conducted by internal agency staff, government agencies, academia, and private contractor trainers. Funding will be used to expand the career resource center by providing additional training videotapes, audio cassette tapes, CD-ROMs, and printed reference materials. Funding will also be used for education as well as enhanced management development activities.

FY 2002 Budget Request ($223,000)

NHTSA's FY 2002 budget request seeks continued funding of all current learning and developmental activities. These activities are designed to enhance the skills of NHTSA staff and develop a workforce capable of handling the challenges of the new millennium. The budget increase will cover inflationary increases for management training and workforce acquisition training requirements now expanded to include contracting officer's technical representatives (COTRs) as well as certification requirements for contract specialists.

The agency will continue to provide and enhance a variety of training, developmental opportunities, and continuous improvement activities for employees through in-house and outside training courses, seminars, workshops, and conferences. Funding for education, as well as enhanced management development activities, will be continued All career resource center activities conducted in FY 2001 will be continued.

A summary of planned activities includes

- **Executive, Managerial, Supervisory and Special Emphasis** training will continue to expand acquisition workforce training standard requirements to include COTRs. Resources will provide for customer service, diversity, acquisition workforce education, sexual harassment and other retraining curriculum. Funding will be used to fulfill any additional COTR training requirements. Funding will continue to enable contract specialists to meet established government and DOT certification requirements. NHTSA plans to continue with the Funding for Education Initiative, which will provide tuition assistance to employees at all levels of the organization. The agency's training efforts are linked to NHTSA's Strategic Plan, Human Resources Management Strategy. This training effort also enhances employee skills in specialized "technical training' and retraining efforts needed to further position the agency to deliver quality programs to NHTSA customers **($160,300)**

- **In-House** learning and development activities will address technical and computer-related training as well as a wide variety of courses in communications which include assessments,

team building, oral and written communication skills, listening, conflict resolution, pre-retirement, proofreading, stress management and other Wellness Programs, and mentoring skills. **($32,350)**

- **Individual Training** activities will cover many of the seminars and workshops listed above for regional and field office staff as well as the more complex engineering, technical and speciality courses for headquarters staff. A wide variety of computer training courses, such as ACCESS, Excel, Word, Oracle, PowerPoint, the Internet, and Windows, will be provided to headquarters and field staff. A number of college and university, OPM, and other government interagency learning and development activities will also be funded. **($30,350)**

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
ADMINISTRATIVE SERVICES	$2,925,000	$2,925,000	$3,078,000

Problem Statement

Program offices require administrative support to accomplish the agency's mission and goals.

Current Program (FY 2001: $2,925,000)

- Funding is included for the rental of non-government space for agency industry meetings and public hearings to gather comments from automobile manufacturers and the public on new agency regulations and rulemakings. Funding for rental of telecommuting sites (thru GSA) is also included. Funding is provided for equipment rental used to monitor postal costs and for increased costs of mailing NHTSA correspondence and literature Funding is also provided for telecommunications costs for long distance and local services billed by GSA for all regional locations.

- Funding is included for the Government Printing Office (GPO) for printing, reproducing, and distributing materials related to agency rulemakings and regulations. Materials also include notifications to the public when changes are made in procedures, rules, and regulations as outlined in the Code of Federal Regulations. Funding also provides for information published in the Federal Register which affects the automobile manufacturing, safety of child seats, defect investigation notifications and recalls. Funding is provided to electronically image technical information contained in the Technical Information Library and Docket for online retrieval

- Funding is provided for reimbursable and interagency agreements between several DOT modes (FAA–accounting services and USCG–health unit) and other government agencies outside of DOT (Federal Occupational Health–employee counseling services) and online legal

update services for NHTSA's attorneys. Funding also provides for in-house contractor support for the Technical Information Library which provides imaging and data entry services. Funding is included for repair and maintenance services for all NHTSA office furniture and equipment.

- Funding provides for payment of commercial services for mail, messenger, and express services for agency mail and freight for sensitive materials. Funding provides for purchase of office supplies and furniture from GSA. Funding for the purchase of gasoline for GSA leased vehicles and agency test vehicles throughout NHTSA's ten regions is also included.

FY 2002 Budget Request ($3,078,000)

The FY 2002 budget request seeks continued funding, with a slight increase, for all ongoing areas outlined in the FY 2001 request. In addition, funding will cover increases in utilities and telecommunications, as well as increases to the Transit Benefit Program and Workers Compensation.

	FY 2000 Enacted	FY 2001 Enacted	FY2002 Request
TRANSPORTATION ADMINISTRATIVE SERVICE CENTER (TASC)	$5,786,000	$7,601,000	$8,000,000

Problem Statement.

Funding is necessary to cover mandatory costs imposed by TASC for shared use of common space, utilities, and maintenance of headquarters facilities.

Current Program (FY 2001: $7,601,000)

- NHTSA's estimates provided in the TASC Operating Plan for FY 2001 reflect changes in the billing methodology. TASC estimates are now based on several different types of billing methodologies, i e fixed fees, flat monthly rates, usage, and building population

- TASC covers a multitude of activities such as printing, distribution, postage and docket operations. These are all areas essential to meeting consumer and auto industry demands for mission and safety-related literature pertaining to safety belt usage, air bag safety issues, safety helmets, and defect investigations. In addition, TASC also covers telecommunications and office automation services including e-mail, voice mail and Intermodal Data Network (IDN). These are all mandatory services which are required to enable NHTSA to fulfill its mission.

FY 2002 Budget Request ($8,000,000)

- The FY 2002 budget request (estimates provided by TASC) seeks continued funding for all current services outlined in the FY 2001 program.

- Increases will provide for additional costs of printing, distribution, postage and docket operations. These are all areas essential to meeting consumer and auto industry demands for mission and safety-related literature pertaining to safety belt usage, air bag safety issues, safety helmets, and defect investigations. The increase also reflects increased telecommunications and office automation services costs, including e-mail, voice mail and Intermodal Data Network (IDN), resulting from the FY 2001 FTE increase. No funding was provided in the FY 2001 budget to cover the additional costs resulting from a staffing increase of 30 FTE.

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
COMPUTER SUPPORT	$2,555,000	$2,555,000	$2,598,000

Problem Statement

In order to satisfy the public's increasing demand for safety information as it relates to motor vehicles, child safety seats and air bags, funding is required to maintain a computer and telecommunications infrastructure including application systems which is responsive and supportive of these needs.

Current Program (FY 2001: $2,555,000)

During the past three years, NHTSA's computer support budget has remained level-funded while the responsibilities to support the agency have steadily increased, particularly mandated programs in the information technology (IT) area.

In FY 2001, funding will provide for the following:

- **Operations** – These funds are critical to maintain a major focal point for the public to retrieve and access valuable traffic safety-related information and support the operational requirements of the agency's IT resources. ($1,669,000)

  - **Desktop and Network Services and Support** -- Funding will be used to support the ongoing management and operations of the agency's information technology (IT) assets including. Web-site, e-mail, desktop and network equipment (e.g , routers, bridges, servers, PCs etc.) desktop and network operating software and other IT resources ($984,000)

- **Internet/Intranet Services and Support** -- Funds are used to support the Internet services provided to the public and provide valuable information to the agency with the Intranet. The NHTSA web-site continues to be one of the major catalysts to delivery safety-related material to the public. Web hits have increased to 15-16 million each month during FY 2001, with monthly projections of 20-21 million in FY 2002. ($185,000)

- **State and Community Services Support** -- Funds will be used to provide on-site contractor services for local and wide area network (LAN/WAN) management, help desk, IT training, and technical support for NHTSA's headquarters and 10 regional field offices. In addition, these funds are required for equipment and software purchases to ensure operational functionality of NHTSA's infrastructure. ($200,000)

- **Applications Support** -- Funds are also required to support the design, development, and implementation of general data systems (AIMS, DAFIS, CCMIS, Legislative Tracking System) and execution of NHTSA-wide IT programs including computer security, IT architecture and mandated IRM programs (e.g., security training and e-commerce). ($300,000)

- **Electronic Information Access/Imaging** – These funds are required to provide imaging resources (e.g., equipment and software) and scanning services in support of critical agency projects including Highway Safety Literature (HSL) for electronic access and dissemination. Since December 1998, approximately 2,023 microfiche have been scanned which translates into 54,985 pages of HSL. This volume is typical of annual scanning support services requirements. ($125,000)

- **Maintenance** – Funds are required for the ongoing maintenance of NHTSA's computing and telecommunications infrastructure including desktop software upgrades. These funds support ongoing contracts for equipment maintenance (e.g., PCs, network & Internet servers, routers, bridges, imaging equip., etc.) and software upgrades (e.g., office automation software, network management software, etc.) for NHTSA to maintain functional equipment and updated software. ($421,000)

- **E-government** -- Mandated by the Office of Management and Budget, the Government Paperwork Elimination Act requires federal agencies to implement a paperless environment by October 21, 2003. The funds support the preliminary cost benefit analyses to target processes within the agency, and hardware, software and web environment technologies that will benefit this paperless office environment. ($160,000)

- **Information Technology Architecture** -- The Clinger-Cohen Act of 1996 requires federal agencies to implement an information technology architecture. Funds are required for integrating a framework for evolving or maintaining existing information technology and acquiring new information technology to achieve the agency's strategic goals and information resource management goals. The funds support preliminary development of the information

technology configuration management database, NHTSA business processes, data, and application technology architecture. ($180,000)

FY 2002 Budget Request ($2,598,000)

The FY 2002 budget requests a small increase ($43,000) to maintain the level of support provided in FY 2001.

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
Auto Safety Hotline*	[$1,232,000]	[$1,232,000]	$1,479,000

*In FY 2000 and FY 2001, funding in the amount of $1,232,000 was provided under the Safety Assurance program.

Problem Statement

The public is eager for information about vital transportation safety issues and needs a mechanism to alert NHTSA about safety-related problems in their motor vehicles and items of motor vehicle equipment.

FY 2002 Budget Request ($1,409,000)

Funding at the requested level is crucial to increasing the Auto Safety Hotline's public visibility. The Hotline promptly provides information and literature requested by the public, thereby meeting the agency's goal of serving its customers. The Auto Safety Hotline also supports the Departmental initiative of Organizational Excellence and serves as a single point of contact for consumers to obtain safety-related information and to report safety-related defects.

In FY 2002, the agency plans to heighten customer satisfaction by training the Hotline staff to become more technically knowledgeable about NHTSA's behavioral and vehicle safety issues. Training will entail a variety of customer service techniques including how to deal with irate callers. Staff will also receive certified training on correct placement of child safety seats in order to more effectively communicate this information to callers. This training will ensure that all customers receive accurate and efficient access to NHTSA's vehicle and behavioral highway safety information.

The increased funding is required to support the upgrade of new technology so that consumers will be able to contact the Hotline using e-mail and web chat. The effort to increase public awareness of the Hotline will entail new equipment purchases to provide for switch upgrades, server upgrades

to replace obsolete equipment, interactive voice response systems to provide Hotline self-service during non-business hours, and computer upgrades to provide customer service representatives with more efficient computer systems.

	FY 2000	FY 2001	FY 2002
WORKFORCE PLANNING AND DEVELOPMENT	Enacted	Enacted	Request
	$0	$400,000	$407,000

Problem Statement

NHTSA has experienced critical changes in its workforce since the early 1990s due to various factors such as downsizing and attrition. These factors have resulted in a loss of institutional knowledge which has directly impacted the overall strategic goals of the agency. To strengthen the execution of the agency's mission, a new Workforce Planning and Development initiative, under the Organizational Excellence goal, was initiated in FY 2001 to obtain and develop the type of talent necessary to carry out the agency's mission over the next five years.

Current Program (FY 2001: $400,000)

The agency is engaged in a variety of Human Capital Management efforts. One such effort is an agency-wide cooperative agreement implemented in FY 2001. To date, seven universities have signed agreements to provide the agency with interns to work in the fields of engineering; research, science and technology; vehicle safety; and injury. An additional three universities are developing their internal procedures so that they will be able to begin their participation during the summer of 2001. The program is permitting the agency to build a base of employees for future employment, thereby addressing a critical succession need. In addition, this funding has allowed for the training and/or retraining of the agency's current staff in technical areas of traffic safety and technology in order to maintain a technically capable work force. Assessments will be made every six months to determine the effectiveness of the program.

FY 2002 Budget Request ($407,000)

The FY 2002 budget request a small increase ($7,000) to maintain the program begun in FY 2001.

REGIONAL OFFICES	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
	$815,000	$815,000	$829,000

Problem Statement:

Adequate operating expenses are necessary for regional office staff to perform their duties.

Current Program (FY 2001: $815,000)

Funding will support operating expenses for the regional offices including printing and reproduction services, supplies, materials, equipment and utilities. Funding will provide for computer maintenance costs for the NSC headquarters office and ten regional field offices.

FY 2002 Budget Request ($829,000)

A small increase will provide the same level of support to the Regional Offices as in FY 2001.

SAFETY PERFORMANCE STANDARDS

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NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
SAFETY PERFORMANCE CONTRACT PROGRAM
(dollars in thousands)

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Cong. Request	FY 2002 Over FY 2001
Safety Performance				
Safety Standards Support	708	1,700	2,000	300
New Car Assessment Program	2,691	5,531	5,231	(300)
Fuel Economy Program	0	60	60	0
Theft and Other Programs	30	50	50	0
Total, Safety Performance	**3,429**	**7,341**	**7,341**	**0**

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Safety Performance Standards

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
SAFETY STANDARDS SUPPORT	$708,000	$1,700,000	$2,000,000

Problem Statement

While significant improvements have been made in vehicle safety, problems still exist. Actions are needed on several key Federal Motor Vehicle Safety Standards (FMVSS) to ensure their intended benefits, to improve their injury saving potential, and to deal with problems in a number of key areas.

Current Program (FY 2001: $1,700,000)

Rulemaking actions make significant contributions to the achievement of the DOT and NHTSA *Safety* goals to reduce by 20 percent the number of deaths and injuries on the nation's roads by the year 2008 to a level of 33,500 deaths and 2,809,000 injuries. Critical issues in crash avoidance and crashworthiness are being addressed, including upgrades of tire safety and child restraint systems resulting from provisions of the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act. In addition, rulemaking actions to harmonize automotive safety standards in the U.S. with those in other countries contribute to achieving the DOT and NHTSA strategic goals of *Economic Growth and Trade*. NHTSA is committed to carrying out the New Transatlantic Agenda, including global regulatory uniformity and a collaborative approach to testing and certification procedures. NHTSA undertakes standards harmonization to preserve or enhance the safety benefits of the FMVSS to the public. Safety Standards Support also is critical to enhancing safe *Mobility* for people with disabilities by ensuring that adapted vehicles maintain an adequate level of safety.

Funding in the Safety Standards Support program is used to conduct tests to determine feasible solutions to safety problems, to develop test procedures for new and amended FMVSS, to evaluate consumer costs and manufacturer lead time requirements for prospective changes in FMVSS, and to support vehicle safety consumer information.

Program Highlights

FY 2001 initiatives includes cost and lead-time work in support of notices of proposed rulemaking (NPRM) and final rules in the areas of rear crash protection (seating systems and head restraints), door locks and retention components, tire pressure monitoring systems, tire upgrades, child safety seats, and school bus occupant protection. Tire testing for the upgrade to FMVSS 109 for light vehicle tires and test procedure development for upgrades in FMVSS No.

213, child restraint systems, support objectives in TREAD. Developmental work for improved seat and head restraint standards, offset frontal protection, and school bus occupant protection is aimed at significant improvements in child and adult occupant crash protection. The program is making a vital contribution to the rollover testing program, as well as improvements for braking standards. A pilot study is being conducted to get more information on the number of vehicles adapted for people with disabilities.

FY 2002 Budget Request ($2,000,000)

As stated in the objectives of the current program, critical issues in crash avoidance and crashworthiness will continue to be addressed, which includes responding to the TREAD Act, occupant protection, and harmonization of automotive safety standards.

Funding for FY 2002 will be used to continue work which began in FY 2001 in the following areas:

- Fast Reaction Testing for Tire Standard Upgrade: Updating and improving tire safety standards, supporting a new standard for tire pressure monitoring, and promoting information on the importance of maintaining proper tire pressures are important efforts necessary for safety in response to TREAD.

- Non-crash Data Collection: This information collection allows the agency to quantify the safety problem associated with the rule for trunk entrapment solutions, and other non-crash deaths and injuries which may occur from power windows, carbon monoxide, and vehicle rollaways, for example.

- Headlighting Performance Demonstration: This effort is intended to determine whether providing consumers with headlighting performance information would help consumers purchase safer vehicles.

- Adapted Vehicle Data Collection: A lack of a census of adaptive vehicle modifications and equipment installations hampers NHTSA's efforts to determine the size and safety of the modified vehicle fleet. Data from state rehabilitation offices on adaptive modifications and controls, and data from hospital emergency rooms (via the Consumer Product Safety Commission) on injuries including wheelchair securements and platform lifts are being sought.

- Electronic Braking Systems, Technology Upgrade for Heavy Trucks and Buses: Upgrading truck braking standard, FMVSS No. 121, to accommodate new technologies being implemented by brake and truck manufacturers is necessary to ensure continued safe and improved braking systems for heavy duty vehicles.

- Passenger Car and Light Truck Vehicles Braking/ABS Performance/Harmonization: Light duty vehicle brake systems are constantly being upgraded and improved throughout the world; this effort supports the modernization and harmonization of FMVSS No. 135, for the United States.

- Head Restraints: Testing will continue to be conducted on head restraints to refine the test procedure for the dynamic compliance option of FMVSS No. 202 to provide better protection in rear-end crashes.

- Frontal Offset Crash Test: By request of Congress, the agency is proposing rulemaking to support a supplemental crash test known as the frontal offset test. This regulation would harmonize with existing international standards. Funding is required to conduct tests to refine the additional tests procedures and to answer public comments.

- Test Dummies: The agency plans to assess the effects of a new dummy manufacturing process to determine its ability to reduce variability in dummy response. If successful, this new process will be incorporated into crash test dummy specifications to improve repeatability.

- Child Restraints (Test Seat Assembly): The current seat assembly for testing child seats was based on characteristics of 1970s model vehicles. In response to TREAD, funding for this effort will be used to upgrade the test seat assembly to be more representative of seats in current vehicle models.

- Child Restraints for Side Impact Protection. Funding will be used to evaluate side impact protection for child seats. Specifically, the agency will conduct testing, develop countermeasures, and assess the test procedure that is being developed by the International Standards Organization with the goal of developing a FMVSS No. 213 for testing child seats in side impact crashes.

- Fuel System Integrity: Funding will be used to perform two crash rear impact tests on vehicles using lower speeds than the proposed 50 mph (45 to 48 mph), to determine the effects of the speed change on fuel leakage/spillage.

Funding for FY 2002 will be used to begin work in the following areas:

- Accelerated Tire Aging: An important aspect of upgraded tire safety mandated by TREAD is the consequence on performance of tire environmental and use aging. The standards' accounting for these deterioration effects will better duplicate rear-world tire performance.

- Upgraded and Harmonized Motorcycle Brake Standard, FMVSS No. 122: Motorcycle braking systems have undergone a revolution in performance and technology that has outpaced the current United States standard. This development will be useful for the United States as well as potentially serving as a Global Technical Regulation.

- Rear Impact Dummy Testing: Testing using a new rear impact dummy equipped with a fully segmented spine will be assessed for future incorporation into an upgrade of the head restraint standard. Use of this dummy will provide more human like injury measurements.

- Occupant Protection in School Buses: Funding will be used to assess protection of children riding in school buses using a new generation of restraint systems. Funds will be used specifically for the development, validation and verification of a reproducible procedure for testing school bus seating systems that are equipped with a lap and shoulder belt system.

- Cost and Lead Time: To meet the requirements of Executive Order 12866 and the Department of Transportation's regulatory policies and procedures, cost and lead time work will be conducted to determine the cost effectiveness of proposed changes in the following areas: tire standard upgrade and school bus occupant protection.

Consumer Information Program :

- In response to the provisions of TREAD, develop and deliver vehicle safety information and materials on tire safety, as well as information on towing and trailering, antilock brakes, and other vehicle safety issues. The agency will also develop new materials and revise and upgrade existing publications as necessary.

- The agency will continue to develop and implement marketing and outreach strategies for the dissemination of vehicle safety materials and information.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Safety Performance Standards

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
NEW CAR ASSESSMENT PROGRAM (NCAP)	$2,691,000	$5,531,000	$5,231,000

Problem Statement

The public needs information on how well the new vehicle they are considering for purchase or lease will protect them in a crash. Testing is needed to cover an adequate percentage of the vehicle fleet to give consumers the information they need for their vehicle buying decisions.

Current Program (FY 2001: $5,531,000)

By strengthening market incentives for safer cars, the agency supports achievement of the DOT and NHTSA *Safety* goals of a 20 percent reduction in traffic fatalities and injuries, to 33,500 deaths and 2,809,000 injuries, by the year 2008. The NCAP program provides market incentives to the automotive industry to improve the safety of vehicles. Under the DOT Strategic Plan *Customer Service Management Strategy*, NHTSA is committed to using customer information and performance results information to drive service and program improvements, and design programs and systems that focus on the users. A recent survey found that 75 percent of the respondents believe safety is an important consideration in buying a new vehicle. NCAP tests provide the information needed for consumer information activities. Congress has recently called for NHTSA to broaden the scope of the information it provides to consumers.

Consumer vehicle safety information activities are conducted with funding from the NCAP and Safety Standards Support programs. Funds are used to develop and disseminate two of the agency's most popular brochures, *Buying A Safer Car* and *Buying A Safer Car for Child Passengers*. Funds are also used to develop more effective warning and other labels. The work in these areas is aimed at increasing and improving NHTSA's efforts to develop and deliver relevant motor vehicle safety information to consumers.

In January 2001, the Department announced the first rollover resistance ratings for passenger vehicles. This announcement completed a rating program that gives consumers a measure of a vehicle's resistance to rolling over in a single vehicle crash. Additional funding in FY 2001 allowed the agency to increase fleet coverage in frontal and side NCAP crash tests. The increase in the frontal coverage reversed three consecutive years in which the frontal coverage was in the low 70 percent range.

Program Highlights

In model year 2001, more manufacturers were doing Optional NCAP Tests. In the last few years, manufacturers increasingly have advertised a high safety rating in a government crash test. During fiscal year 1999 and 2000, five manufacturers requested that the agency crash their vehicle under Optional New Car Assessment Program (NCAP) testing. For 2001, the manufacturers have requested permission to crash fifteen vehicles under Optional NCAP which are conducted at their expense. NHTSA makes the data of the New Car Assessment Program (NCAP) available through regular press releases and press advisories, as the tests are completed. Also, NHTSA published safety information in the Buying a Safer Car brochure and on the World Wide Web.

Consumer information for FY 2001 activities are as follows: increasing the quantities of the annual Buying A Safer Car and Buying A Safer Car for Child Passengers brochures to meet public demand, developing and upgrading other consumer materials, conducting consumer research to support the issuance of rollover ratings, improving tire labeling requirements, and revising child safety seat labels. Work was also conducted on developing diversity initiatives and materials to better reach underserved populations, and leveraging the effect of Federal spending to increase the marketing and dissemination of consumer information materials by expanding existing partnerships and outreach efforts to new partners and constituents

FY 2002 Budget Request ($5,231,000)

Testing Program (NCAP)

Frontal and side impact testing of about 99 passenger vehicles will cover about 75 percent of new vehicles for these most common crash modes. The vehicles will be split almost evenly between the front and the side. In FY 2002, the static stability factor will be measured for roughly 100 vehicles.

The agency will conduct five frontal NCAP tests with child seats and the 3-year-old dummy in the rear seat. Five NCAP side tests will be conducted with child seats in the rear seat. For the side NCAP tests, the agency will use a 3-year-old Hybrid III dummy specially designed for the lateral direction. During FY 2002, the final methodology will go through extensive checking for feasibility. The agency will publish the final methodology for giving a Child Restraint Safety Rating in November 2002.

The 1996 National Academy of Sciences report on consumer information on auto safety concluded that consumers want information on the crash avoidance and crashworthiness aspects of vehicles. Braking is one aspect of crash avoidance performance that we know hold the public's interest. About half the complaints to NHTSA's Auto Safety Hotline are related to braking performance. Responding to the same kind of public interest, Japan has established a consumer program on braking performance.

The program will run an array of NCAP vehicles through stopping distance tests to assess the feasibility of a consumer information rating system for braking performance, which has been under development in FY 1999 and FY 2000.

Consumer Information Program (NCAP)

FY 2002 NCAP funds will be used to continue current programs and activities, while expanding the scope, reach and effectiveness of materials dissemination, marketing and outreach to consumers and potential partners. These activities include:

- Conducting research to determine how to best develop and present new or changing vehicle safety information required by rulemakings and/or TREAD, and how to most effectively disseminate this information. This includes warning labels and owner's manual information.

- Developing research-based information for new campaigns and materials on high interest issues, such as rollover, tire safety, child safety and other emerging issues The research results will be used to upgrade and improve existing publications, the web-site, and marketing strategies.

- Developing and delivering NCAP and other vehicle safety information more effectively through new and enhanced materials such as brochures and pamphlets, mass media campaigns, and electronic media materials.

- Printing the necessary quantities of the annual *Buying A Safer Car* and *Buying A Safer Car for Child Passengers* and other brochures to meet public demand.

- Developing diversity initiatives and materials to better reach underserved populations.

- Increasing the leveraging effect of federal spending to meet the requirements of participation in existing partnerships and expanding outreach efforts to new partners and constituents in order to increase the marketing and dissemination of consumer information materials.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Safety Performance Standards

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
FUEL ECONOMY PROGRAM	$0	$60,000	$60,000

Problem Statement

The Energy Policy and Conservation Act of 1975 requires NHTSA to establish and revise, as appropriate, fleet average fuel economy standards for passenger car and light truck manufacturers based on criteria of economic practicability, technological feasibility, the effect of other motor vehicle standards of the government, and the need of the United States to conserve energy.

Current Program (FY 2001: $60,000)

The objective of the Fuel Economy Program is to monitor manufacturer progress in achieving established passenger automobile and light truck fuel economy standards, to set annual standards for light trucks, and to amend standards to ensure that maximum, feasible fuel economy is attained. Accurate, up-to-date information is vital to assist the National Academy of Sciences in their Congressionally mandated study of CAFE, for analyzing industry capabilities to improve fuel economy performance, assessing the impacts of other policy proposals on manufacturing facilities, or for any future CAFE analyses or rulemakings.

Program Highlights

The "plants and lines" database is being integrated with existing in-house databases that are used to report CAFE program results. Concurrently, this database is being updated to provide current details of automobile manufacturing plants, such as products, capacities, employment levels, financial data, and product planning information.

FY 2002 Budget Request ($60,000)

FY 2002 funding would be used to continue work which began in FY 2001 to integrate the "plants and lines" database with existing in-house databases used to report CAFE program results. Funding is also needed to provide contractual support for updating and maintaining the integrated database. The database will provide pertinent details of automobile manufacturing plants, such as products, capacities, employment levels, financial data, product planning information and other data and information pertinent to providing the most accurate, up-to-date fuel economy information. Accurate, up-to-date information is vital to advise the Administration, to respond to Congressional inquiries that are likely to arise in policy deliberations, and for any future CAFE analyses or rulemakings. Issues include industry capabilities to improve fuel economy

performance and the impacts of alternative policy proposals on manufacturers and manufacturing facilities. Support also will be provided to the Department of Transportation Climate Change Center which focuses on the relationship of transportation and environmental issues.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Safety Performance Standards

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
THEFT PROGRAM	$30,000	$50,000	$50,000

Problem Statement

Motor vehicle theft remains a persistent problem in American society. More than 1 million motor vehicle thefts occur annually in the United States.

Current Program (FY 2001: $50,000)

The objective of the Theft Prevention Program is to carry out activities mandated by 49 CFR Chapter 331, including issuing parts-marking requirements for high-theft vehicle lines. As required by law, the Theft Prevention Program must establish standards aimed at reducing the number of motor vehicle thefts (including passenger cars, light trucks, and multi-purpose vehicles) and provide consumers with comprehensive insurance information. The Theft Prevention Program contributes to the achievement of DOT Strategic Plan Goal 3, *Economic Growth and Trade*, by lowering the cost of vehicle ownership and use through improvements in motor vehicle theft protection and providing useful consumer information.

To support these activities, data collected by the Department of Justice, insurance companies, and rental and leasing fleets are analyzed by NHTSA in order to determine the risk of theft. The funds appropriated for this program are used for data analysis. This permits NHTSA to issue rules requiring the designation of likely high-theft vehicles, to calculate annual theft rates of various motor vehicles, and to issue consolidated information received from certain insurance companies and rental and leasing companies regarding theft activities, comprehensive insurance rates, and payments for stolen motor vehicles during each calendar year.

Program Highlights

In FY 2001, the agency continued to promulgate actions required by the theft prevention statute to reduce and deter motor vehicle theft. The agency exempted three vehicle lines, equipped with standard anti-theft devices from the parts-marking requirements. The agency published and announced availability of the annual insurer report on motor vehicle theft (64 FR 50550). The agency also published a final rule listing insurers required to file reports with the agency on their motor vehicle theft experience, the MY 1998 final theft data, and a final notice listing the high-theft lines for MY 2001. The agency designated eight new lines as likely high-theft vehicles for MY 2001.

FY 2002 Budget Request ($50,000)

Funding is needed to support data analysis activities. In particular, extensive contract support is required to carry out the analysis of insurer reports required by law. 49 U.S.C. 33112(h) requires that the insurance information obtained by the Secretary of Transportation from insurance and rental/leasing companies shall be periodically compiled and published in a form that will be helpful to the public, including federal, state, and local police and Congress. The report focuses on an assessment of information on theft and recovery of motor vehicles (including passenger cars, light trucks, and multi-purpose vehicles), comprehensive insurance coverage, and actions taken by insurers to reduce motor vehicle thefts.

SAFETY ASSURANCE PROGRAM

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NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
SAFETY ASSURANCE CONTRACT PROGRAM
(dollars in thousands)

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Cong. Request	FY 2002 Over FY 2001
Safety Assurance				
Vehicle Safety Compliance	5,000	6,974	6,974	0
Safety Defects Investigation	2,663	7,579	7,940	361
Hotline 1/	1,232	1,232	0	(1,232)
Odometer Fraud	150	150	150	0
Total, Safety Assurance	**9,045**	**15,935**	**15,064**	**(871)**

1/In FY 2002, the Hotline operating costs are shown under Operating Expenses, while the outreach portion ($361K) is included in the Safety Defects Investigation budget.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Safety Assurance

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
VEHICLE SAFETY COMPLIANCE	$5,000,000	$6,974,000	$6,974,000

Problem Statement

Failure of motor vehicles and items of motor vehicle equipment to comply with Federal safety standards can lead to traffic-related fatalities, injuries, and property damage.

Current Program (FY 2001: $6,974,000)

The objective of the Vehicle Safety Compliance Program is to ensure that all motor vehicles and motor vehicle equipment sold in the United States provide the safety benefits intended by Federal safety regulations. This program supports the Department's strategic goal of reducing transportation-related deaths, injuries, and property damage, as well as NHTSA's Strategic Plan mission of saving lives, preventing injuries, and reducing health care costs by removing unsafe vehicles from the road. The compliance program incorporates the testing, inspection, and investigation necessary to ensure compliance with the performance requirements of Federal motor vehicle safety standards. Compliance is determined by testing a representative sample of motor vehicles and equipment against the requirements of the safety standards. If, after conducting a detailed investigation, a noncompliance is found to exist, the compliance program seeks a recall under which the manufacturer of the subject vehicles or equipment must provide a free remedy. Further, the program supports activities associated with safety recalls and the assessment of civil penalties. Other activities in the program are directed at enforcing regulations governing the importation of motor vehicles and motor vehicle equipment to ensure compliance with Federal standards; evaluation of compliance with corporate average fuel economy standards; and operation of the tire test facility at San Angelo, Texas, under the Uniform Tire Quality Grading (UTQG) program.

In FY 2001, the agency will continue to conduct its compliance test programs, inspections, and investigations. The FY 2001 budget includes $5,974,000 to conduct the agency's compliance test program and to assure that imported vehicles comply with all applicable safety standards. It also includes approximately $1.0 million to purchase new crash test dummies needed to prepare for and conduct advanced air bag compliance testing and side impact pole tests. The full-scale crash testing of new motor vehicles in FY 2001 will include 20 tests for verification of compliance with the requirements of several frontal occupant protection standards, 20 tests for verification of compliance with the requirements of the dynamic side impact protection standard, 10 tests for verification of compliance with the requirements of the dynamic rear fuel system integrity standard, and 15 tests for verification of compliance with the requirements of the new dynamic upper interior head protection standard. These tests will assess the impact performance and

occupant crash protection performance of a wide spectrum of vehicles, including all sizes of passenger cars, vans, pickup trucks, and sport utility vehicles. The agency also will continue to test new child restraint systems and motorcycle helmets to the requirements of the safety standards. Compliance testing for new or relatively new standards will continue to be an agency priority. The FY 2001 funding for tire testing activities under the Uniform Tire Quality Grading program will provide for the execution of maintenance and interagency agreements to operate and staff the facility, and traction testing of tires used on vehicles equipped with conventional and ABS brake systems.

Program Highlights

Since the inception of the National Traffic and Motor Vehicle Safety Act in September 1966 through December 2000, 3,538 investigations for possible noncompliance were initiated, of which 3,501 were completed and closed. During the same period, September 1966 through December 2000, 1,799 safety standard noncompliance recall campaigns were initiated, involving 24 million vehicles and 24.5 million equipment items. Of these, NHTSA influenced 650 recall campaigns involving 8.7 million vehicles and 20 million equipment items. Civil penalties collected for manufacture and sale of noncompliant vehicles and equipment totaled $5.5 million. During the period December 1985 through December 2000, NHTSA collected $508 million in corporate average fuel economy (CAFE) fines for vehicles failing to meet CAFE standards established for model years 1983 through 1999 which are deposited in the Treasury.

FY 2002 Budget Request ($6,974,000)

The FY 2002 Vehicle Safety Compliance Program will continue to assess the compliance of motor vehicles and equipment with the requirements of Federal motor vehicle safety standards. Compliance testing for new or relatively new standards will continue to be an agency priority. Ongoing activities in FY 2002 will include the following:

- The FY 2002 request includes $6,100,000 to conduct the agency's compliance test program, $724,000 to prepare and conduct demonstration testing of test procedures for the new advanced air bag rule, and $150,000 to calibrate, prepare for use, and distribute to testing contractors the new crash test dummies purchased in FY 2001

- Conduct the compliance testing, inspection, and investigation necessary to ascertain whether new motor vehicles and motor vehicle equipment comply with the performance requirements of Federal motor vehicle safety standards.

- The compliance test program plan includes full-scale crash testing of new motor vehicles: 20 tests for verification of compliance with the requirements of frontal occupant crash protection standards; 20 tests for verification of compliance with dynamic side impact standards; 10 tests for verification of compliance with the requirements of new upper interior head protection standards; 20 tests for verification of compliance with dynamic rear and side

fuel system integrity requirements; and 5 dynamic, side impact pole tests to assess the performance of new technology for head protection being introduced into new vehicles. These tests will assess impact performance and occupant crash protection performance across a wide spectrum of vehicles, including all sizes of passenger cars, vans, pickup trucks, and sport utility vehicles.

- New test procedures are needed for the new advanced air bag rule. These include assessment of vehicle occupant protection systems for out-of-position occupants by suppression (not firing the air bag) and by low risk deployment, and crash testing using the new 5th percentile female dummy. Other procedures will be prepared concurrently defining how testing contractors will be required to document the calibration of the new dummies (5th percentile female, 6-year-old, 3-year-old, and 12-month-old) used in these tests. Demonstration tests of these test procedures for each dummy type as used in tests of passenger cars, light trucks, and sport utility vehicles are also planned.

- Continue to test motor vehicle equipment, with particular emphasis on child restraint systems and motorcycle helmets, to assure compliance with safety standard requirements.

- Continue to implement the "gray market" program to assure that all vehicles imported into the United States comply with all applicable safety standards.

- Continue efforts to purchase, assemble, and calibrate a new family of adult and child crash test dummies for measuring the enhanced dynamic performance requirements for advanced air bags.

- Continue the operation of the tire test facility at San Angelo, Texas, under the UTQG program, including the execution of maintenance and interagency agreements to operate and staff the facility, and traction testing of tires used on vehicles equipped with conventional and ABS brake systems.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Safety Assurance

SAFETY DEFECTS INVESTIGATION	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
	$2,663,000	$7,579,000	$7,940,000

Problem Statement

Motor vehicles and motor vehicle equipment that contain safety-related defe .ts can lead to traffic-related fatalities, injuries, and property damage.

Current Program (FY 2001: $7,579,000)

The Defects Investigation Program identifies motor vehicles and items of motor vehicle equipment that contain safety-related defects and ensures that they are either repaired or removed from the nation's highways.

The program has several components: (1) Screening – a preliminary review of consumer complaints and other information related to alleged defects to decide whether to open an investigation; (2) Petition Analysis – the processing of petitions for defect investigations; (3) Investigation – the actual investigation of alleged defects including, but not limited to, examination of complaint vehicles and equipment, site inspection of vehicle crashes, testing of vehicles and equipment, and surveys of vehicle owners; and (4) Recall Management – the monitoring of safety defect and noncompliance recalls to ensure that the scope of each recall is appropriate and that the remedy and the completion rate are adequate, and the review of manufacturer service bulletins to ensure that owners are appropriately notified when their vehicles may experience a safety-related problem.

In calendar year 2000, there were 452 safety defect recall campaigns involving 18.9 million vehicles and more than 19 million items of motor vehicle equipment and tires. Approximately, 15 percent of the recalls for safety-related defects, representing 53 percent of the vehicles, were influenced by NHTSA defects investigations.

Program Highlights

A striking example of the Office of Defects Investigation (ODI) effectiveness in 2000 is the recall of approximately 4 million infant carrier seats manufactured by Century Products from January 1991 through July 1997 to replace the handle which can inadvertently unlatch allowing the seat to rotate forward and the infant to fall to the ground. Other examples include the recall of 14.4 million Firestone tires for tread separation and 1.1 million DaimlerChrysler 1996 to 2000 model year minivans for degradation of the fuel rail sealing o-rings, resulting in fuel leak and potential fires. ODI investigations have influenced numerous other recalls in 1999. These include

960,000 model year 1994 through 2000 cars sold by Mitsubishi and DaimlerChrysler in which the lower control arm ball joint can fail resulting in a loss of control; 810,000 model year 1995 through 1997 Ford Explorer and Mountaineer sport utility vehicles for failure of the front stabilizer bar links which can result in vehicle control problems.

FY 2002 Budget Request ($7,940,000)

The FY 2002 budget request seeks continued funding of all current defects investigation activities identified above for FY 2002.

Ongoing activities will include:

- The screening of over 60,000 consumer reports of safety-related problems with motor vehicles or motor vehicle equipment, including child safety seats.
- Continued outreach including the promotion of the Auto Safety Hotline to consumers, organizations, businesses and federal, state and local government agencies to encourage the reporting of safety-related problems in motor vehicles and motor vehicle equipment.
- The resolution of petitions requesting that the Office of Defects Investigation open investigations into alleged safety problems.
- Conducting approximately 100 investigations of allegations of safety-related problems. Additionally, conducting another 25 to 30 investigations into recalls where the remedy or the scope of the vehicles included was allegedly inadequate.
- Review of all manufacturer service bulletins to ensure that consumers receive appropriate notification of safety-related problems. Approximately 25 to 30 of the service issues are upgraded to safety recalls as a result of Office of Defect Investigation activity.
- Conducting a requirements analysis and beginning to enhance the existing ODI database to incorporate analytical intelligence, integrate optical image retrievals, and hardware. Included in the requirements phase of this task will be proposed options to incorporate the new data early warning requirements of the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act.
- Expansion of Internet access to ODI files. Task includes purchase of CD-ROM multi-disk player, web server, optical server, database software licenses, internet router, and services of a database manager and web site designer to make this data available to the public.
- Analysis of the feasibility of integrating NHTSA's various databases, in order to maximize the amount of information available to agency personnel to allow them to identify defect trends.

In FY 2002, we will also conduct the following new activities:

- Implementation of a data warehouse which will include technological capabilities to satisfy the early warning requirements of the TREAD Act. This builds upon, but goes far beyond, the original task (in FY 2001) to simply enhance the pre-existing ODI database. The new data warehouse will allow for the forecasting of potential safety problems for decision-making by data and text mining to discover emerging safety trends, arming statisticians and analysts with automated tools to proactively identify potential safety issues and concerns which can, in turn, be analyzed by automotive engineers/investigators. This will require one-time implementation costs of $3 to 5 million (this amount will be spread over a three year period; $.5 million of the FY 2001 funds will be applied to this amount), plus a yearly increase in data management and PC support costs ($700,000/year) due to the increased input, maintenance, and analysis of external data resulting from the early warning data requirements of the TREAD Act and the increased activities to be performed by ODI.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Safety Assurance

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
AUTO SAFETY HOTLINE*	$1,232,000	$1,232,000	$0

*In FY 2002, outreach funding related to recalls is included in the Defects Investigation budget. All other costs for the Auto Safety Hotline have been budgeted under Operating Expenses

Problem Statement

The public is eager for information about vital transportation safety issues and needs a mechanism to alert NHTSA about safety-related problems in their motor vehicles and items of motor vehicle equipment.

Current Program (FY 2001: $1,232,000)

The Auto Safety Hotline is a critical component of the Department of Transportation's commitment to the safety of the nation's transportation system. The objectives of the Auto Safety Hotline are to be the agency's primary contact for the public to receive important information concerning highway safety and motor vehicle safety/motor vehicle equipment safety, as well as avenue for consumers to report problems with motor vehicles or motor vehicle equipment that may warrant a safety defect investigation which may lead to a recall

The Hotline's primary focus is to help reduce deaths on our nation's highway through the dissemination of important information regarding motor vehicle safety. The Auto Safety Hotline provides a toll-free, automated telephone service for consumers to request motor vehicle and highway safety-related information. NHTSA has maintained several partnerships with entities who benefit from the Hotline, such as consumer advocate groups, insurance companies, attorneys, state/local governments, motor vehicle and motor vehicle equipment manufacturers, and others who depend on the information provided by the Hotline to promote and ensure product safety and reduce the risk of motor vehicle injuries and deaths. This service also provides a means for the general public to report safety-related problems with motor vehicles and items of motor vehicle equipment. This function provides important data used by the agency in its Defects Investigation Program.

For each of the last four years, the Hotline has received over 700,000 calls related to motor vehicle safety, including defect and noncompliance investigations, safety recalls, testing, child seats, air bags, etc. Of these, an average of approximately 23,000 are from individuals who are experiencing problems with their vehicles, who are concerned about failures similar to their own, or who are requesting that the agency determine whether a safety recall should be initiated These calls form the basis for over 70 percent of the agency's defect investigations.

NHTSA will conduct new outreach efforts to promote the Hotline as its single point of contact in an attempt to increase the public's awareness of its various safety-related programs (i.e. crash tests, safety standards, etc.). By ensuring that all consumers have ready access to important highway safety information, the agency is fulfilling it's goal of providing outstanding, efficient customer service. In addition, the public will have more ways by which to contact the Hotline. It will be able to reach the Hotline through e-mail as well as web chat.

The Hotline will continue its function to receive reports of potential defects in order to ensure that motor vehicles and motor vehicle equipment with safety-related defects are promptly remedied. The Hotline outreach program will include efforts to educate the public about the benefits of reporting potential defects to the Hotline, thus enhancing the Defects Investigation Program.

FY 2002 Budget Request ($0)

In FY 2002, outreach funding related to recalls is included in the Defects Investigation budget ($361,000). All other costs for the Auto Safety Hotline have been budgeted under Operating Expenses

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Safety Assurance

	FY 2000	FY 2001	FY 2002
ODOMETER FRAUD	Enacted	Enacted	Request
	$150,000	$150,000	$150,000

Problem Statement

Odometer tampering continues to be a serious crime and consumer fraud issue. In 1987, NHTSA determined that this crime bilks American car buyers out of $3.3 to $4.1 billion each year. During the past three years, we have seen a definite escalation of odometer fraud. New car prices coupled with the increased demand for late model, low mileage used cars, has made odometer fraud more profitable than ever. Factoring in this increased demand along with inflation, the annual damage to consumers could now exceed $10 billion. Strong enforcement of the federal and state odometer laws, i.e., prosecutions with stiff sentences, appears to be the most effective deterrent.

Current Program (FY 2001: $150,000)

In addition to conducting investigations of large-scale interstate odometer fraud cases for criminal prosecution by the U.S. Department of Justice, the Odometer Fraud staff works very closely with state enforcement agencies, supporting their programs. To support the state programs, the Odometer Fraud staff uses two types of cooperative agreements:

- The first is the training of law enforcement officers which not only provides the states with highly qualified odometer fraud investigators, but also supplements NHTSA's criminal enforcement staff. Under agreement, two states will each receive $45,000 to provide an investigator to the agency's odometer enforcement program. This allows the state investigators to receive the training necessary to enhance the state's enforcement program. In addition, supplementing NHTSA's investigative staff with state investigators increases the number of investigations the agency can conduct. This effort allows NHTSA to devote additional resources to investigating large-scale, interstate odometer fraud cases that will be prosecuted by the Department of Justice.

- The second type provides states with funds to enhance existing programs. Providing two state programs with $30,000 each enables them to investigate and prosecute smaller, localized odometer fraud cases, which the Department of Justice does not normally prosecute. In addition, the federal odometer law permits the chief law enforcement officers of the states to file civil actions on behalf of defrauded consumers to assist them in recovering damages. There is no provision in the law for the federal government to assist consumers in recovering their losses. The states under cooperative agreements provide this assistance to victims.

Program Highlights

From 1989 through 2000, the agency has awarded $800,000 to the states to investigate odometer fraud and assist consumers in recovering damages incurred by odometer fraud. These states completed 718 investigations and recovered more than $1,925,000 in restitution for consumers.

FY 2002 Budget Request ($150,000)

In FY 2002, the agency again plans to award:

- New cooperative agreements to two states to train law enforcement officers in odometer fraud investigations. ($90,000)
- New cooperative agreements to two states to enhance their existing odometer fraud programs. ($60,000)

HIGHWAY SAFETY PROGRAM

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NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
HIGHWAY SAFETY CONTRACT PROGRAM
(dollars in thousands)

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Cong. Request	FY 2002 Over FY 2001
Highway Safety Programs				
Impaired Driving	9,292	9,817	9,817	0
Peds/Bicycle	1,058	1,295	1,295	0
Motorcycle	414	661	661	0
Drugs Driving and Youth	1,138	1,196	1,196	0
National Occupant Protection	9,742	10,953	10,953	0
Traffic Law Enforcement	2,036	2,192	2,192	0
Emergency Medical Services	1,425	2,245	2,245	0
Records and Licensing	2,296	2,591	2,591	0
Highway Safety Research	7,152	7,277	7,277	0
Emerging Traffic Safety Issues	1,000	1,196	1,196	0
Share the Road	0	500	500	0
NOPUS	850	600	600	0
National Driver Register	1,110	1,110	1,110	0
Total, Highway Safety Programs	**37,513**	**41,633**	**41,633**	**0**

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Highway Safety Programs

IMPAIRED DRIVING	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
	$9,292,000	$9,817,000	$9,817,000

Problem Statement

Alcohol-related motor vehicle fatalities continue to remain at high levels--15,786 alcohol-related fatalities in 1999, or 38 percent of all motor vehicle related fatalities. For youth, 35 percent of motor vehicle fatalities were alcohol-related in 1999.

Current Program (FY 2001: $9,817,000)

The major objective of the impaired driving program is to continue progress toward the national goal to reduce alcohol-related fatalities to 11,000 by the year 2005. Reaching the goal will require a reduction of almost 5,000 deaths annually. This ambitious, but immensely critical, goal cannot be reached through a "business as usual" approach, but rather through innovative new approaches and technologies and through aggressive outreach with a diverse set of partners. Strategies identified in the *Partners in Progress: An Impaired Driving Guide for Action* and the *Presidential Initiative for Making .08 BAC the National Legal Limit* will be used as frameworks for program implementation. A major focus will continue on high-risk drinking drivers through work at the national, state, and local levels. The five-state alcohol demonstration program, begun in FY 1999 and enhanced in FY 2001, will be expanded to additional states with high alcohol-related fatalities, focusing high level attention to best practices and new strategies for reaching the national goal, as identified in the first five demonstration states. These state demonstrations combine enhanced enforcement activities with high levels of publicity, using the successful model developed in *Checkpoint Tennessee*. The national public education campaign will be on-going, with two highly publicized enforcement periods (July and December), and general education to the public through the Ad Council public service announcements.

Current impaired driving program activities include:

Public Information and Education

- Continued development and delivery of the new five-year comprehensive campaign *You Drink & Drive. You Lose.* to meet the needs of the states and to re-energize and refocus America on deterring impaired driving. Support includes such efforts as: two highly visible enforcement periods (July and December); media campaigns with the Ad Council; just-in-time and long range program planners (including sobriety checkpoint/saturation patrol enforcement planners); technical program support; new research, community-based *How To* publications based on best practices; and access to up-to-date information on the Internet.

Outreach

- Development of new prevention programs using public information, education, and training on alcohol and drug issues in partnership with national organizations, employers, diverse groups, and youth. This initiative establishes cooperative agreements with national organizations critical to achieving the impaired driving goal; provides competitive innovative action grant programs to partners to implement impaired driving outreach projects; and exhibits at over 60 conferences.
- To compliment the state alcohol demonstration projects, mini-grants are being offered to state affiliates of national organizations to support state-wide enforcement efforts targeting impaired drivers. The program's design energizes state efforts to keep the impaired driving issue in the forefront of the public.
- Continuation of the "Courage to Live" judicial outreach program targeting middle school youth.
- Continuation of the National Organizations for Youth Safety (NOYS) youth alcohol program.

Legislation

- Support is being provided to state legislative initiatives identified in the *Partners in Progress: Guide for Action*, including: Administrative License Revocation; 0.08 BAC; immobilization and impoundment; graduated licensing; enhanced penalties for higher BACs; valid drivers license required for vehicle registration; dram shop laws; sales to minors; and immunity for hospital BAC reporting, along with the tracking of state legislative activities.

Enforcement and Adjudication

- Development of strong support for the enforcement of impaired driving laws and swift and severe sanctions for offenders.
- Updating and enhancing training programs for law enforcement, prosecutors, and judges to transfer new information and technologies.
- Conducting demonstrations of innovative sanctions and supporting peer-to-peer promotion of checkpoints.
- Continuation of support for the Drug Evaluation and Classification (DEC) program through expansion to other states and communities and enhance the number of law enforcement officers trained in Standardized Field Sobriety Testing.
- Involvement of prosecutors in community alcohol and drug prevention programs.
- Provide information and training to judges.
- Encouraging the referral of offenders to assessment and treatment.
- Supporting improved data collection and analysis by the criminal justice community.

Program Highlights

An example of the effectiveness of impaired driving programs is evidenced through a grant to the Georgia Governor's Office of Highway Safety as part of the 5-state alcohol demonstration program. Georgia has almost 600 local law enforcement agencies conducting regular sobriety checkpoints, which represent over 95 percent of their law enforcement agencies committed to the project. Georgia has surpassed its intended goal of 540 checkpoints for the entire campaign by conducting over 1,600 checkpoints as of December 2000. They have distributed approximately 145,000 pieces of literature, made over 2,000 arrests, and given over 15,000 traffic-related citations. Of the arrests made, approximately 1,700 were alcohol or drug-related. Yvonne McBride, Director of the Governor's Office of Highway Safety, has stated that "this NHTSA grant has enabled us to coordinate most of the state's enforcement agencies in a collaborative effort to get the drunk drivers off the road and reach more than 7 million citizens of the state about the dangers of drunk driving. We expect to see dramatic declines in our year 2000 fatality numbers thanks to this program."

FY 2002 Budget Request ($9,817,000)

The FY 2002 budget request seeks continued funding of many current impaired driving programs and several new initiatives. Priority activities are as follows:

- Initiate analysis of targeted state enforcement efforts to include an evaluation of projects completed in five states, preliminary results from the second round of five states, and initiation of public opinion surveys to gauge changes in the perception of arrest risk in the second round states.

- Initiate action grant programs with national organizations, advocacy groups, and law enforcement to engage partners in activities to support highly visible enforcement and prevention activities. Continue outreach grants with national organizations and employers on impaired driving issues. Establish partnerships with non-traditional organizations, especially those representing the faith community, diverse populations and elected officials, to gain further support for impaired driving goals.

- Develop and pilot test a new, comprehensive youth enforcement strategy that will encompass detection of speeding offenses, zero tolerance violations, and seat belt violations. Officers will be trained to look for a combination of these offenses, which occur so frequently in the young driving population, to increase deterrence of each offense.

- Develop resource trial manuals/bench books focusing on prosecuting and adjudicating the high BAC offender, including treatment and innovative sanctioning alternatives. Explore the implementation of special "DWI" courts.

- Initiate demonstration programs which address criminal justice processing issues such as police paperwork, diversion programs, and imposition of sanctioning using impoundment and new technology.

- Continue the national campaign *You Drink & Drive. You Lose.* to keep the impaired driving issue in the forefront of public attention.

- Conduct a demonstration program with university police departments to address zero tolerance enforcement among college age offenders, a major high risk group.

- Implement impaired driving recommendations from the July 2001 National Youth Diversity Summit.

Programs in each of these areas will include: problem identification; strategic planning; implementation of strategies and interventions, media messages; outreach to national organizations; and evaluation of programs.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Highway Safety Programs

	FY 2000	FY 2001	FY 2002
PEDESTRIAN, BICYCLE AND PUPIL TRANSPORTATION	Enacted	Enacted	Request
	$ 1,058,000	$1,295,000	$1,295,000

Problem Statement

Pedestrian and bicycle fatalities constitute about 14 percent of annual traffic fatalities. In 1999, 5,656 pedestrians and bicyclists died, and an additional 136,000 were injured in traffic-related crashes. Alcohol impairment is a factor among victims in these crashes: almost one-third of the pedestrians killed and more than one-fifth of the bicyclists killed were intoxicated. Although the number of deaths associated with school bus transportation is small, safe travel for children on school buses is a priority for the agency.

Current Program (FY 2001: $1,295,000)

The objective of the pedestrian and bicycle safety program is to reduce the number of traffic-related pedestrian and bicyclist fatalities and injuries by 10 percent by the year 2000. Using 1994 as a baseline, this will result in fatalities reduced from 6,274 to 5,647, and injuries from 150,000 to 135,000.

A combination of public information, legislation, enforcement, engineering and outreach strategies is used to prevent injuries and fatalities associated with pedestrian, bicycle, and school bus crashes and meet the goals of NHTSA's strategic plan. The agency works closely with other federal agencies (Federal Highway Administration, Centers for Disease Control and Prevention (CDC), Maternal and Child Health Bureau, Consumer Product Safety Commission, Department of Education) and national organizations to ensure that these strategies are included in program development and are broadly disseminated.

Current pedestrian, bicycle, and pupil transportation program activities include:

Public Information and Education

- Development of culturally-sensitive and appropriately-targeted public information and education materials for bicycle and pedestrian safety designed to reach diverse audiences.
- Dissemination of these materials through state and local safety organizations, health and medical groups, law enforcement groups, traffic engineering and city planning groups, schools, and employers.
- Continuation of the Hispanic pedestrian program development to prevent impaired pedestrian injuries and development of bicycle safety materials for use by children.

- Continuation of the partnership with the League of American Bicyclists to refine effective bicycle safety training.
- Distribution of new materials, such as a Spanish-language public service announcements, *Getting to School Safely* community action kit, and *Proper Use of Child Safety Restraint Systems in School Buses* brochure.
- Education of children, parents, school administrators and teachers, school bus operators, and the general driving public about correct pedestrian, bicycle, and school bus safety behaviors
- Continuation of support for materials development, printing, and distribution.

Partnerships and Outreach

- Continued collaboration with the *Partnership for a Walkable America* and the *National Bicycle Safety Network*, public-private partnerships committed to pedestrian and bicycle safety, respectively.
- Engagement of broad-based partnerships to promote Getting to School Safely, Bicycle Safety Month, National Walk Our Children to School Day, and Safe Routes to School.
- In partnership with the National Center for Injury Prevention and Control, development of implementation strategies for the Child Pedestrian Injury Prevention Action Plan and the National Bicycle Safety Action Plan, developed as a result of multi-disciplinary meetings.
- Continuation of outreach activities with the National Organization for Youth Safety, National Science Teachers Association, U.S. Conference of Mayors, judges, prosecutors, health and medical groups, and diverse audiences.

Technical Assistance, Training, and Infrastructure Support

- Development of technical assistance to engage law enforcement in pedestrian safety, community guidance on Safe Routes to School initiatives, a pedestrian safety "best practices" guide, and a CD-Rom on pedestrian safety resources.
- Development of bicycle safety training for law enforcement
- Development of a bikeability checklist (modeled after the very successful walkability checklist), a best practices manual for reducing illegal passing of school buses, and a child safety seats on school buses curriculum module for child passenger safety technicians.
- Development of a pedestrian-bicycle-school bus module with information for fire and rescue personnel to provide in the course of safety presentations they deliver to the general public.
- Based on the follow-up of pedestrian road show sites, provide technical assistance to meet identified needs.
- Creation of pedestrian, bicycle, and school bus safety guidelines to provide care givers guidance on what safety behaviors a child is capable of at different stages of physical and mental development.

Program Highlights

The pedestrian, bicycle and school bus program materials continue to be some of the most frequently requested materials by consumers. Within two months, requests for the recently issued brochure "Proper Use of Child Safety Restraints in School Buses" reached almost

50,000. "Walk Our Children to School Day," which began with two sites in 1997, grew to over 170 communities by 1999 and became an international event in 2000.

FY 2002 Budget Request ($1,295,000)

The FY 2002 budget request seeks continued funding of current pedestrian, bicycle, and pupil transportation programs. New initiatives include implementing recommendations from the Child Pedestrian Injury Prevention Action Plan and the National Plan for Bicycle Safety; developing a training video on securing child safety seats in school buses to show the various ways one can put a child restraint in a school bus as well as the various child restraint systems available; demonstration grants for innovative strategies to involve law enforcement in pedestrian safety; public information for drivers on sharing the road with pedestrians and bicyclists; conducting a follow up to the National Youth Diversity Summit; and developing educational materials and outreach strategies to reach care givers and professionals regarding what safety behaviors a child is capable of at different stages of physical and mental development. The budget seeks continuing support for materials development, printing, and distribution, as well as outreach to new and existing partners.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Highway Safety Programs

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
MOTORCYCLE SAFETY	$414,00	$661,000	$661,000

Problem Statement

In 1999, motorcycle fatalities (2,472) constituted about 5.9 percent of annual traffic fatalities, an 8 percent increase over 1998 (2,294) motorcyclist fatalities. New unit sales of on-highway motorcycles have increased about 33 percent since 1992, and state motorcycle rider training programs are unable to keep pace with this growth. Per vehicle mile traveled, motorcyclists are about sixteen times as likely as passenger car occupants to die in a motor vehicle traffic crash and about three times as likely to be injured. Approximately 40 percent of fatally injured motorcycle operators are impaired by alcohol, and the number of fatally injured operators who are improperly licensed remains high.

Current Program (FY 2001: $661,000)

The agency's motorcycle safety program initiatives focus on preventing motorcycle crashes by decreasing the proportion of alcohol-related motorcyclist injuries and fatalities, increasing the number of properly licensed motorcyclists, supporting rider education training, mitigating injuries during a crash by promoting the use of motorcycle helmets and other protective gear, and supporting motorcycle helmet laws covering all riders.

Current motorcycle safety program activities include:

Information and Education

- Support for redesign and updating motorcycle rider education curriculum materials with organizations such as the Motorcycle Safety Foundation.
- Developing and testing a motorist awareness program to emphasize sharing the road with motorcycles.
- Conducting focus groups with riders and other stakeholders to identify strategies for reducing impaired riding among motorcyclists.
- Updating public information materials and disseminating these materials through national motorcycle safety and motorcycle rider organizations.
- Including impaired motorcycling in Drunk and Drugged Driving Prevention Month Activities.
- Promoting Motorcycle Safety Month activities by partnering with national motorcycle safety organizations.
- Supporting materials development, printing, and distribution.

Partnerships and Outreach

- Development of implementation strategies for the *National Agenda for Motorcycle Safety*, a strategic vision developed in partnership with representatives from motorcycling, traffic safety, and health perspectives.
- Expansion of outreach activities and initiation of partnerships with health and medical professionals, employers, insurance providers, judges and prosecutors, and developing targeted materials for their use.

Technical Assistance, Training and Infrastructure Support

- Supporting: (a) professional development workshops for state motorcycle safety administrators; and (b) demonstration grants to identify innovative approaches for reducing alcohol-impaired riding to enable states to implement more comprehensive programs.
- Collaborating with the Crash Outcome Data Evaluation System (CODES) to provide information on costs associated with motorcycle crashes
- Initiating a study to determine the rehabilitation costs associated with motorcycle crashes.
- Developing training for law enforcement officers on the importance of proper licensing of motorcyclists to reduce the number of unlicensed or improperly licensed motorcycle operators.

Program Highlights

The National Agenda for Motorcycle Safety is a strategic planning document reflecting a shared vision for the future of motorcycle safety. The Motorcycle Safety Foundation stated that it was proud to partner with NHTSA on this important motorcycle safety initiative and pleased to see the agency reaffirm its commitment to motorcycle safety. (December 8, 2000 press release) Other traffic safety partners have remarked that NHTSA should be commended for bringing together such a diverse group to work for a common goal of improved motorcycle safety. The American Motorcyclist Association stated that the National Agenda for Motorcycle safety is ". . . one of the most important motorcyclist safety initiatives launched in decades." (February 2001, American Motorcyclist Association's Government Relations Department)

FY 2002 Budget Request ($661,000)

The FY 2002 budget request seeks continued funding of current initiatives in the motorcycle safety program. New initiatives will include implementation of selected recommendations in the *National Agenda for Motorcycle Safety*, identification of the implications of ITS technology for motorcycle safety and initiation of an effort to synthesize information on state motorcycle training and licensing programs. Based on feedback from listening sessions, the agency will also begin implementation of relevant recommendations from the *National Agenda for Motorcycle Safety*, and support an implementation group consisting of a wide array of partners (including motorcycling organizations, manufacturers, health and medical professionals, employers, engineers) to monitor and track progress. The budget request continues support for materials

development, printing, and distribution, and development of new partnerships. Work with national organizations, especially public health groups, to educate their members about motorcycle safety issues and provide workshops and exhibits at national meetings.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Highway Safety Programs

DRUGS, DRIVING and YOUTH	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
	$1,138,000	$1,196,000	$1,196,000

Problem Statement

Drug use among youth continues at unacceptable levels. From the *2000 Monitoring the Future Survey* (National Institute on Drug Abuse), the proportion of 8th and 10th graders using illicit drugs in the past month doubled since 1991, and 12th graders use increased by over 70 percent since 1992. Over 50 percent of high school seniors admitted to using an illicit drug in their lifetime and 6 percent admitted to daily marijuana use. In addition, self-reported monthly use of alcohol increased for high school seniors from 48.6 percent in 1993 to 50.0 percent in 2000. During that same period, binge drinking increased from 27.5 percent to 30 percent. The Bureau of Census estimates that the youth population will increase every year for the next ten years, with an increase of almost 5 percent by the year 2005 over year 2000 levels. In 1999, there were 12.7 million licensed drivers under age 21.

Current Program (FY 2001: $1,196,000)

The major objective of the *Presidential Initiative on Drugs, Driving and Youth* is to reduce drug-impaired driving and drug use among youth. The recommendations from this initiative suggest improvements be made to the Driving Under the Influence of Drugs (DUID) system--stronger laws, greater consistency in enforcement, prosecution, adjudication, prevention, education, publicity, drug testing, and treatment for drug use.

Current drugs, driving, and youth program activities include:

Outreach
- NHTSA is collaborating with other federal agencies to deliver a systematic strategy to states and communities on the areas outlined in the *Presidential Initiative*.
- NHTSA continues to support training programs for judges, prosecutors, and law enforcement officials related to drug-impaired driving.
- Technical assistance is being provided to states by a team of trained drug recognition experts

Public Information and Education
- NHTSA is developing and delivering public education materials on the consequences of drug-impaired driving that will resonate with young people, and is developing a communications strategy to target these materials and messages to high risk groups.

- Partnerships are being developed with national organizations representing diverse communities to identify high risk groups within their communities and identify strategies for prevention.
- New outreach activities are being initiated with employers of young people (e.g. fast food restaurants) as a strategy for communicating messages about impaired driving.

Data Collection

- NHTSA had undertaken a new initiative to improve state data collection on the incidences of drug-impaired driving through the development and distribution of software, technical assistance, and a "how to" for states related to data collection.

Program Highlights

The International Association of Chiefs of Police (IACP), through a NHTSA grant, developed training intended to provide school administrators and nurses with a systematic approach to recognizing and evaluating individuals in the academic environment who are abusing and impaired by drugs, both legal and illegal, in order to provide early recognition and intervention. This training, is derived from the national Drug Evaluation and Classification (DEC) Program, a successful law enforcement procedure used to detect drug and alcohol impaired drivers. By providing training to school officials and health care professionals, it is anticipated that drug usage in schools employing an aggressive evaluation and detection program will drop significantly. Hundreds of school personnel, mainly nurses, have received this training in numerous states, with many more expected in the upcoming years. Ms. Nancy Brother, a school nurse from Valley Central School District, NY has stated: "Why hasn't there been training like this sooner? For years I saw things and didn't realize what they meant. This course has allowed me to provide timely intervention and rapid medical response when needed. There needs to be advanced training in this area. This program has allowed me to meet the needs of the students more completely."

FY 2002 Budget Request ($1,196,000)

The FY 2002 budget request seeks continued funding of all current youth, drugs, and driving programs. This funding will enable NHTSA to maintain technology support for the trained drug recognition experts and continued training for judges, prosecutors, and law enforcement. A program will also be maintained involving juvenile court judges in prevention activities at the community level, as well as the development of educational materials for diverse communities. NHTSA will continue to support the collection of state drug-impaired driving data and will complete a demonstration project using palm pilot technology to collect data. NHTSA will increase outreach efforts to other parts of the criminal justice system, e.g., court administrators.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Highway Safety Programs

OCCUPANT PROTECTION	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
	$9,742,000	$10,953,000	$10,953,000

Problem Statement

Although the current, national estimated seat belt use rate has risen from 61 percent (1996) to 71 percent (February 2001), 57 percent of passenger car and light truck occupants killed in crashes in 1999 were not wearing seat belts. Seventeen states, Puerto Rico, and the District of Columbia have primary seat belt laws; they averaged 77 percent seat belt use, while states without primary laws averaged only 63 percent. This substantial difference shows dramatically the benefits of primary belt use laws. Non-use and incorrect use of occupant protection devices such as seat belts, child safety seats, and air bags continue to cause unnecessary death, injury, and cost from highway crashes.

Current Program (FY 2001: $10,953,000)

The major objective of the occupant protection program is to continue progress towards the goals of the *Presidential Initiative to Increase Seat Belt Use Nationwide* and its national awareness campaign, *Buckle Up America*, (BUA). These goals – 90 percent seat belt use by 2005 and a 25 percent decrease in child fatalities by 2005 from the 1996 base of 653 – cannot be achieved through a "business as usual" approach. It will require innovative new approaches, implementation of new technologies, and an aggressive outreach effort with new partners. BUA, through law enforcement mobilizations (May and November) and the TEA-21 Occupant Protection Incentive and Innovative Grant Programs (Sections 157 and 405), provide the framework for national and state initiatives to achieve these goals.

Current occupant protection program activities include:

Public Information and Education

- Evaluating, updating and redesigning the *Buckle Up America* national campaign to meet current needs, target more specific low/non-use market segments, and re-energize and refocus the many partners who assist in raising seat belt and child seat use rates in America. Special emphasis periods include National Child Passenger Safety Week in February and two national Operation ABC law enforcement mobilizations, conducted in conjunction with the Air Bag & Seat Belt Safety Campaign and over 10,000 state and local law enforcement agencies nationwide, in May (during Buckle Up America! Week) and November (during Thanksgiving week).

- Continuation of social marketing research designed to reach the general public and high risk populations, such as African Americans, Hispanics, first time owners of air bags equipped vehicles and part-time seat belt users.
- Developing and testing messages and public information products which are then produced, marketed and disseminated through various delivery channels, including The Advertising Council, and earned media efforts with the Air Bag & Seat Belt Safety Campaign, states, and other partners.

Outreach to Partners and Target Populations

- Continuation of cooperative agreements with key national organizations critical to BUA outreach organizations which can reach the high risk populations we can not reach through a national strategy.
- Provide competitive innovative action grant programs to states and national organizations to implement BUA outreach efforts.
- Exhibition at more than 60 national conferences
- Convening meetings and conferences to energize and recognize organizations conducting BUA activities.
- Placing an emphasis on outreach to national organizations representing target audiences
- Providing general information and technical assistance to states, the Air Bag and Seat Belt Safety Campaign, and other interested groups regarding increasing occupant protection use and upgrading occupant protection laws (particularly, the enactment of standard or primary enforcement and eliminating gaps in child passenger safety laws).

Program Development, Training, and Evaluation

- Designing and supporting intensive, enforcement-related, and partner-involved programs, and promotion of these to states through enforcement organizations, the law enforcement liaison officer program, national organization forums, and regional meetings.
- Provide technical support to the states on occupant protection incentive grant programs, seat belt use surveys, and child passenger safety training.
- Providing communities with a "best practices" guide on establishing child safety seat fitting stations through fire stations, hospitals, car dealerships, and other permanent locations
- Completion of community-based booster seat demonstrations in a variety of socioeconomic and culturally diverse communities and identification of strategies that encourage care-givers to properly transition children from child safety seats to booster seats.
- Provide resources to child passenger safety technicians and the general public to insure that care-givers have the most accurate information for child passenger protection, including compatibility of equipment and placement in the vehicle.
- Managing media and promotional activities and events, expanding the production of child passenger safety materials, conducting workshops, and providing technical assistance to states on educating opinion leaders, effective communication, and coalition building
- Coordinating the delivery of training workshops to state and local affiliates including instructor staff development.

Technology Sharing

- Facilitation of technology sharing by producing, marketing, and distributing seasonal planners and other BUA, child passenger safety, and air bag safety materials to the NHTSA regional offices, State Highway Safety Offices, NHTSA partners, national organizations, and the general public. All materials are available on, and may be ordered through, the NHTSA website.

FY 2002 Budget Request ($10,953,000)

The FY 2002 budget request focuses on the occupant protection program's three major emphasis areas of seat belts, child passenger safety including booster seats, and air bags, while continuing to strive for the national goals of 90 percent seat belt use and reducing child passenger fatalities (0-4 years) by 25 percent by 2005. Strategies to reach the goals include expanded partnerships, public education, highly visible enforcement, the passage of effective laws and the implementation of new technologies.

Seat Belts

- Continue conducting semi-annual Operation ABC mobilizations.
- Implement TEA-21 Section 157 and Section 405 Incentive and Innovative Grants programs to the states.
- Document and promote "Best Practices" learned from Section 403 Demonstration Programs and Section 157 and 405 Grant Programs.
- Expand partnerships, promotions, and educational materials with diverse organizations and other high risk and hard to reach populations. Increase the accessibility of safety education, training and expertise about traffic safety to African Americans and other ethnic minority populations.
- Target minority audiences, especially African Americans and Hispanics, with national media campaigns through The Advertising Council, NHTSA's minority media contractors, and utilization of credible spokespersons.
- Implement a 5-year communications strategy to make new gains in hard-to-reach segments of non- and part-time users.
- Implement recommendations of the Blue Ribbon Panel to Increase Seat Belt Use Among African Americans and monitor the progress made. Identify African American experts on traffic safety.
- Develop and pilot test a comprehensive youth enforcement and education strategy that will encompass detection of speeding offenses, zero tolerance of alcohol and seat belt violations. Officers will be trained to look for a combination of these offenses, which occur so frequently in the young driving population, to increase deterrence of each offense.
- Complete implementation of 20 local community, high visibility Seat Belt Innovative Demonstration Programs that will support the national Buckle Up America initiative and state seat belt programs.
- Pilot test messaging that informs rural and pick up truck drivers of the life-saving benefits of seat belt use. Market and distribute Rural Community Occupant Safety Kit.

- Provide technical assistance and materials support to all DOT Modal Administrations through the Buckle Up America (BUA) Flagship task force.
- Expand efforts to engage employers in programs designed to increase seat belt use. Develop partnerships and support materials targeting employers and intermediaries.
- Implement recommendations from July 2001 National Youth Diversity Summit.
- Increase efforts among college-age youth to deter drinking and driving and increase belt use, using social norm ratings as a measure of impact.

Child Passenger Safety

- Continue conducting semi-annual Operation ABC mobilizations.
- Conduct a special education campaign for Child Passenger Safety Week and initiate a national 5-year program to educate care providers and increase booster seat use in America for children between 40-80 pounds who are too big for child safety seats and too small to safely use seat belts alone.
- Implement the Blue Ribbon Panel II - Protecting our Older Child Passengers recommendations.
- Develop culturally appropriate educational material on the proper use of child safety seats.
- Expand and improve the automobile/child safety seat ease of use database for consumers.
- Expand the child passenger safety program to include teens and young adults (ages 15 - 24).
- Expand the *Corazón de mi vida* Hispanic child passenger safety program to include teens.
- Implement a full education and awareness program to educate the public on the new Lower Anchors and Tethers for Children (LATCH) system.
- Expand the network of public and private sector child safety seat fitting stations across the United States.
- Expand the number of bi-lingual (Spanish) and bi-cultural certified Child Passenger Safety Technicians.
- Document and promote "best practices" learned from Section 403 Demonstration and Sections 405 and 2003(b) Grant Programs.
- Continue to engage hospitals and healthcare professionals in a variety of Child Passenger Safety activities, using local hospitals as the focus for these activities.

Air Bags

- Expand public information and education efforts to promote awareness of existing air bag issues and emerging air bag technologies.
- Re-educate the public on dangers associated with the interaction between air bags and front seat occupants including, short stature individuals, pregnant women, infants, and small children.
- Educate used car buyers on air bag safety issues.
- Educate the public on second generation or "smart" air bag technology.
- Explore and develop countermeasures for issues related to side and rear seat air bags.
- Undertake a national initiative to expand the inventory of culturally competent messages and materials for diverse audiences through diverse media outlets and national organizations

- Continue research initiatives focused at high risk audiences (e.g. young adults and part time users) and legislative evaluations (primary belt laws and child passenger safety laws).

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TRAFFIC LAW ENFORCEMENT	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
	$ 2,036,000	$2,192,000	$2,192,000

Problem Statement

In 1999, an estimated 6,279,000 crashes were reported to law enforcement agencies, with 41,611 people killed, and 3,236,000 people injured. Failure to use seat belts and child passenger safety devices, aggressive driving, speeding, impaired driving, and other unsafe driving acts contributed to these crashes, deaths, and injuries.

Current Program (FY 2001: $2,192,000)

Efforts to reduce impaired driving, speeding, aggressive driving and other unsafe driving acts and to increase seat belt and child safety seat use are primarily the responsibility of law enforcement agencies. However, increased demands on law enforcement for non-traffic activities have caused a decreased emphasis on traffic enforcement activities. The objective of the Traffic Law Enforcement (TLE) program is to continue working with state, local, and federal agencies, emphasizing the importance of integrating traffic enforcement into overall enforcement programs The framework for this program is contained in the *Traffic Safety in the New Millennium: Law Enforcement Strategies* report, a plan developed in partnership with law enforcement leaders nationwide.

Another objective of the TLE program is to progress toward the national goal of reducing speed-related fatalities (by the year 2000) to 12,368, a 5 percent reduction from the base year 1996 speed-related fatalities of 13,036. If the trend continues, this goal will be met, since speed-related fatalities for 1999 were at 12,384.

The problem of racial profiling in traffic stops is a challenge to traditional traffic law enforcement. Differential enforcement of traffic laws, based on race, is unacceptable and must be eliminated. The TLE program engages its state and local law enforcement partners through their leadership organizations to ensure that these strategies are promoted. The three point strategy of this initiative is:

- To law enforcement - an understanding that traffic law enforcement is critical to saving lives and reducing injuries on the nation's roadways, but that racial profiling must never be a basis for making a traffic stop.

- To communities of color - an understanding of the need for effective traffic law enforcement and of the risks faced in everyone's daily lives from traffic crashes.

- To both law enforcement and the communities they serve - establishment of a level of trust and understanding of mutual concerns.

Current traffic law enforcement program activities include.

Enforcement Demonstrations

- Demonstrate and evaluate a long-term speed management program, based on guidelines developed by the Transportation Research Board report, *Managing Speed: Review of Current Practice for Setting and Enforcing Speed Limits,* jointly with FHWA and the National Center for Injury Prevention and Control (NCIPC). Three communities are targeted for speed demonstration projects in FY 2001, with additional ones scheduled for FY 2002

Training and Technical Assistance

- Develop, review, and update traffic law enforcement training, e.g. speed measurement devices, occupant protection strategies, and impaired driving enforcement
- Implement additional training courses in speed and aggressive driving enforcement.
- Train officers in emergency pursuits and the provision of policy and guidance in managing pursuits, as instructed in TEA-21.

Technology Transfer

- Maintenance of program support for the speed measuring device testing program
- Develop performance standards for photo speed measuring devices.
- Produce a consumer product list for speed measuring devices, and upgrade laboratories to test equipment.
- Develop a resource guide for law enforcement managers, explaining use and availability of new technologies for traffic enforcement.
- Continuation of collaborative efforts with the Department of Justice (DOJ) and other federal agencies in developing training, policy, and procedures addressing racial profiling.

National Organizations

- Continuation of collaborative efforts with major, national law enforcement organizations including the International Association of Chiefs of Police (IACP), the National Sheriffs' Association (NSA), National Organization of Black Law Enforcement Executives (NOBLE), Operation C.A.R.E., Association of Professional Law Enforcement Emergency Vehicle Response Trainers (ALERT), and the International Association of State Directors of Law Enforcement Standards and Training (IADLEST).
- New partnerships include the Hispanic American Police Command Officers Association (HAPCOA), the Indian Law Enforcement Section of the IACP, and the Native American Committee of the NSA.

Public Information and Education (PI&E)

- Continue producing law enforcement training program materials, effective PI&E programs, and materials for law enforcement, the public, and diverse groups.
- Develop appropriate PI&E materials for aggressive driving, speeding, and impaired driving.

Program Highlights

Earl M. Sweeney, Director, NH Police Standards and Training Council and Chair of the IACP Highway Safety Committee - "We live in uncertain times. While we may expect technology to help solve enforcement problems, throughout out it all--the business of traffic safety is first and foremost, a "people business."

FY 2002 Budget Request ($2,192,000)

The FY 2002 budget request seeks continued funding of current traffic law enforcement projects

- Implement recommendations identified by the *Traffic Safety in the Next Millennium: Law Enforcement Strategies Implementation Guide*, including continuation of the workshops.
- Continue two-year speed-setting and management demonstration projects with FHWA.
- Expand regional seminars with ALERT in pursuit instructor training to six new locations.
- Increase partnerships to national enforcement organizations, particularly with diverse memberships.
- Develop a police pursuit training and resource program for law enforcement use nationwide.
- Convene a traffic law enforcement technology seminar and a resource guide to promote new technologies.
- Collaborate with federal, state and local partners to address the issue of racial profiling
- Continue efforts to expand involvement by law enforcement agencies in safety belt and impaired driving enforcement mobilizations.
- Expand training, from FY 2001, to assist law enforcement administrators, prosecutors and judges in developing a broader, general emphasis program on traffic enforcement.
- Increase development of resources used by state level Law Enforcement Liaisons to advance traffic safety programs within local law enforcement agencies.

New initiatives include:

- Partner with NOBLE to promote traffic safety within diverse communities. Demonstration projects are proposed to include enforcement training, community policing and diversity forums, and community outreach, plus measures to prevent racial profiling at traffic stops.
- Develop a law enforcement resource manual of innovative traffic enforcement technologies.
- Provide enforcement resources for a youthful high risk driver demonstration project.
- Partner with ALERT to assist states' establishment of effective and defensible standards for employment and training of law enforcement officers in emergency vehicle operations.
- Partner with the Community Policing Consortium to implement Community Oriented Policing (COPS) training that includes traffic safety initiatives.

- Respond to racial profiling concerns by continuing work with DOJ and other law enforcement organizations (IACP, NSA, NOBLE, HAPCOA, Police Executive Research Forum (PERF) and the Police Foundation), to systemically raise the issue within the profession - institute policies eliminating racial profiling, explain supervisor responsibilities, examine disciplinary practices, identify and expand opportunities for proactive and fair, even-handed traffic safety outreach to an ethnically and culturally diverse community.
- Partner with HAPCOA to expand demonstration sites that showcase cooperation between the Hispanic community and traffic safety and criminal justice agencies and to act as spokespersons/leaders for Hispanic American police command officers.
- Engage judges, prosecutors, court administrators, etc., in continuing efforts to: 1) train criminal justice colleagues on strategies and techniques to improve the general deterrence effort; and 2) educate the public about traffic safety.
- Implement recommendations from IACP Summit *Improving Safety in Indian Country* held in February 2001.

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EMERGENCY MEDICAL SERVICES	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
	$1,425,000	$2,245,000	$2,245,000

Problem Statement

A comprehensive approach to motor vehicle injury control includes attention to pre-crash, crash, and post-crash factors. The key to post-crash injury control is ensuring rapid response by qualified emergency medical personnel. Emergency medical services (EMS) are provided by a diverse range of professionals. There is no single group or organization which has the potential to bring the range of EMS providers together to plan or implement consolidated and coordinated system upgrades. NHTSA's challenge is to provide leadership to the EMS professional community, uniting provider groups, creating consensus commitment to system upgrades, and supporting these change efforts through the development of practice guidelines and technical resources.

Current Program (FY 2001: $2,245,000)

The mission of the NHTSA EMS program is to save lives, prevent injuries, and reduce traffic-related health care costs. The approach of the EMS program is to promote the development of comprehensive, local, emergency medical service systems to care for the motor vehicle crash victims. Since EMS systems provide comprehensive care, improving the capability of EMS systems to respond to motor vehicle crashes also enhances care for victims of illness and other types of injuries. The EMS program focuses on the needs expressed by EMS professionals in the *EMS Agenda for the Future Implementation Guide*. Recommendations from the Implementation Guide and related consensus documents, such as the *EMS Education Agenda for the Future*, are used as a framework for program plans.

Current emergency medical services program activities include:

EMS Leadership
- A consensus vision for the future of trauma systems is being completed and a National EMS Research Agenda will be finalized.

Injury Prevention and Control
- The national training program for bystander care, *First There-First Care*, is being supplemented by materials specifically targeted at motorcyclists and addressing issues unique to motorcycle crashes such as the care needed by emergency responders personnel when involved with crash victim helmet removal.

- A series of national EMS and public health roundtables are being completed, resulting in guidance for involving EMS personnel in public health initiatives including injury prevention and surveillance.
- A group of national injury prevention experts is being convened to identify approaches to strengthen the role of EMS in community injury prevention efforts.
- Outreach to national EMS groups continues to secure additional EMS participation in priority traffic safety initiatives, such as Buckle Up America, Partners in Progress, and CIREN (Crash Injury Research and Engineering Network).

National Standard Curricula

- The first steps are being taken to implement the new consensus vision for EMS education, *The EMS Education Agenda for the Future*.
- An interdisciplinary group is being convened to develop a national EMS Core Content, the foundation of the new education system.
- Consensus guidelines are being completed for accreditation of national EMS education programs.
- Refresher and transition curricula are being finalized for the EMT-Paramedic and Intermediate programs.
- Guidelines are being disseminated for management of patients with severe head injuries.

EMS System Component Support

- Technical support is being provided to the National Association of State EMS Directors to assist in improving state and local EMS communications capabilities.

EMS Information, Technologies and Dissemination

- A research program concerning EMS Outcomes is being completed
- A national meeting is being convened to align EMS performance measurement efforts and to identify remaining gaps in understanding of EMS performance.
- A state demonstration program is continuing to develop strategies for implementing wireless E9-1-1.
- Work continues with the DOT Joint Program Office on the development of a targeted public safety component with the Intelligent Transportation System program.

Program Highlights

The effectiveness of the NHTSA EMS program was confirmed by the award presented to the NHTSA EMS Division Chief during the 2000 National EMS Week by the American College of Emergency Physicians (ACEP). The award, presented at NHTSA's EMS Leadership Conference was directed to the National Highway Traffic Safety Administration EMS Division for Significant Contributions to Helping EMS Providers Save Lives.

FY 2002 Budget Request ($2,245,000)

The 2002 EMS program budget request seeks continued funding of all current EMS programs. In addition to our ongoing activities, NHTSA will:

- Conduct a national EMS diversity conference to highlight successful strategies for increasing the diversity of the national EMS workforce and improving community relations.
- Complete a statewide demonstration project to model strategies for implementing wireless E9-1-1.
- Implement a revised injury prevention curriculum for EMS providers and initiate a national roundtable series on the integration of EMS and public health
- Create a national bystander care training network.
- Expand outreach and develop and disseminate new materials to increase the involvement of EMS groups in delivering community traffic safety messages through the Safe Communities networks.
- Develop a consensus National Core Content as the basis of future EMS education standards.
- Revise the EMS Blueprint to provide state-to-state consistency in EMS job descriptions.
- Create a consensus vision for the future of EMS continuing education.
- Develop a training program to prepare emergency dispatchers to adopt wireless E9-1-1.
- Will continue outreach efforts for the CIREN program with trauma surgeons, emergency physicians and nurses, firefighters and police for the purpose of improving the quality of data collection and increasing the use of CIREN data and information.

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	FY 2000	FY 2001	FY 2002
TRAFFIC RECORDS, DRIVER LICENSING & DRIVER EDUCATION	Enacted $2,296,000	Enacted $2,591,000	Request $2,591,000

Problem Statement

State traffic records data systems capture information that is vital in identifying traffic safety problems and in monitoring the effectiveness of implemented traffic safety countermeasures Data from state safety records systems benefit traffic safety activities at the local, state and national levels of government and are essential for conducting research in traffic safety. Data from these systems is essential for the continued operation of the national data systems including the Fatality Analysis Reporting System (FARS), the General Estimates System (GES), and the Crashworthiness Data System (CDS) Over the last decade, data from state traffic record systems have frequently not been timely, accurate, complete, or accessible Requests from states for federal assistance to address these problems continue to increase. A combined state and federal effort is necessary to address and correct state traffic record system deficiencies.

As for driver education and licensing programs for young novice drivers, teenagers are clearly over-involved in fatal traffic crashes. They represent 7 percent of the driving population, but in 1999 accounted for 14 percent of total crashes and 20 percent of total fatal crashes More than 58,000 teenage drivers and passengers have died in car crashes over the past ten years. In 1999, almost 5,000 teen drivers and passengers were killed, and more than 600,000 were injured in car crashes. Inexperienced drivers are particularly at risk as 16-year-old drivers are twice as likely to be involved in a crash than a 17-year-old, three times as likely as an 18-year-old, and five times as likely as a 20-year-old. Teenagers are also among the least likely to buckle up, a measure that could significantly reduce death and injury in this age group.

Current Program (FY 2001: $2,591,000)

The Traffic Records program, through leadership, guidance, and technical assistance seeks to improve the timeliness and quality of state traffic safety data. The Traffic Records program manages the following activities:

- **Assessments.** Conduct, in cooperation with the Federal Motor Carrier Safety Administration (FMCSA) and the Federal Highway Administration (FHWA), state traffic records assessments. Assessments provide critical information to states on the strengths and weaknesses of their safety data systems and how they can improve their systems. Only when a state understands their traffic safety data system strengths and weaknesses can the state implement measures to improve the timeliness, accuracy, completeness and accessibility of their data Thirty-eight

assessments have been completed. Funding in FY 2002 will allow for the completion of three more traffic records assessments.

- **Information.** Provide a catalog of state crash report forms that is available in hard copy, on CD or via the Internet. Complete development of a protocol for accessing Internet information on population parameters, such as by state, the number of licensed drivers, the number of registered vehicles, the number of vehicle miles traveled, etc. Such data are referred to as normalizing data. Population-based or normalizing data are needed to determine whether a given population's crash involvement is greater or less than expected compared with other populations (e.g., young driver crash involvement compared with older driver, male crash involvement versus females, etc.). Knowing this information makes it possible to formulate and direct traffic safety countermeasures to where they will most likely have the greatest impact, e.g., Graduated Drivers Licensing (GDL) programs.

- **Conferences.** Cosponsor and coordinate the International Traffic Records Forum with FMCSA, FHWA and the National Safety Council. Cosponsor and coordinate with NHTSA Regional Offices regional traffic safety data conferences. The Forum and the conferences hold workshop and training sessions that provide a variety of educational and learning opportunities for participants. The Forum and conferences also stimulate and encourage the exchange of information that is critical to building efficient and effective state traffic safety data systems Without the opportunity to exchange information and experiences, it is difficult for the states to benefit and learn from the successes and failures of other states that have moved to improve their own traffic safety data systems. Forum and conference participants include representatives from all levels of government, law enforcement, EMS, traffic engineering, the courts and prosecutors, driver licensing, vehicle registration and traffic safety researchers.

- **Training.** Develop and conduct safety data analysis courses for traffic safety managers and data analysts. Develop and conduct traffic safety data marketing courses. For state traffic records systems to improve data timeliness and quality, it is necessary that traffic safety data managers and analysts learn and understand how to effectively use traffic safety data. The problem identification and program evaluation processes frequently intimidate program managers. Data analysts often fail to use the most powerful and efficient methods in analyzing traffic safety problems. The training courses will address these needs. The traffic safety data systems marketing course will be designed to convince executive level managers of the critical value of traffic safety data. It is believed that the marketing course will persuade them to commit to a level of resources that insures a viable, functioning system that can provide timely, accurate and complete data.

- **Standards.** Implement the electronic collection of crash data using the Model Minimum Uniform Crash Criteria (MMUCC). Successful implementation and testing of the electronic collection of MMUCC crash data will be major steps toward getting states who are considering using electronic data collection methods to adopt the MMUCC standard data elements. Successful completion of the test phase of the electronic data collection of MMUCC offers two

major advantages to the states. First, the data collection software is in the public domain. Consequently, any state can adopt and use the software without charge. If the test phase is successful, the requirement for a state to engage in further expense for software testing will be minimal. Second, the MMUCC variable coding instructions and variable value assignments will be tested during the implementation of electronic data collection. A state is obviously free to modify and change any instructions or variable values it chooses. However, most will likely take advantage of the coding instructions and variables values that have already been tested.

- **Technology.** In conjunction with FMCSA, increase the number of technology grants to states to develop electronic systems for online exchange of traffic citation/driver history information between law enforcement, the courts, and driver licensing records systems. Support the expanded use of innovative technologies used to collect, manage, exchange and analyze traffic safety data.

Research shows that a GDL system in States can be effective in reducing youth crash involvement. Driver Licensing and Education efforts fall into two categories:

- **Information.** Continue the expansion of efforts to provide materials and research and evaluation data to states and safety organizations to assist in the enactment, implementation and enhancement of GDL programs.

- **Technical Assistance.** Expand efforts to assist states in assessing the administrative and crash reduction impact of their GDL programs. As each state operates somewhat differently, continuing assessment of various recommended components of a model GDL system is important. In addition, efforts will continue to assist those states that are improving their overall driver licensing systems. For driver education, research efforts will attempt to better understand factors involved in young novice driver risk-taking behavior, and to assist in the development of appropriate training materials and procedures to reduce risk-taking and improve safety decision making for these drivers. Efforts also will continue to assist those states that are improving their state driver education curricula.

Program Highlights

The increased number of requests by states for assistance in implementing improvements to State Traffic Safety Data Systems, and the increased number of local, state, media and private organization requests for information about graduated driver licensing (GDL) systems, are indications of the importance of the Traffic Records and Driver Education program. At the request of states, at least three traffic records assessments will be completed in calendar year 2001. We expect to respond to more than 150 requests for GDL information by local and state governments, media, and private organizations in calendar year 2001.

FY 2002 Budget Request ($2,591,000)

The FY 2002 budget request seeks continued funding for ongoing assessments, information sharing, conferences, training, MMUCC standards implementation, technology reviews, and technical assistance. Funding will provide for the support of state and local activities for the acquisition and analysis of traffic safety data that is necessary to effectively manage traffic safety activities such as alcohol, safety belt, and GDL programs. Funding will also provide for continued support of state GDL programs. These programs have been an extremely effective means to reduce the fatal and injury crash involvement of young novice drivers. For example, recent GDL evaluations have shown the following crash reductions for young novice drivers: a 9 percent reduction in Florida, a 26 percent reduction in North Carolina, and a 27 percent reduction in Michigan.

FY2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Highway Safety Programs

HIGHWAY SAFETY RESEARCH	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
	$7,152,000	$7,277,000	$7,277,000

Problem Statement

Alcohol and drugged driving, lack of use of occupant restraints, speeding, aggressive and other unsafe driving behaviors, fatigue and inattention, older drivers, pedestrians, bicyclists and motorcyclists all contribute significantly to the death, injury, and property damage costs resulting from crashes on our highways Conversely, improvements in emergency medical services could substantially reduce the deaths and disabling injuries resulting from these crashes.

Current Program (FY2001: $7,277,000)

NHTSA's highway safety behavioral research program determines the causes of crashes, identifies target populations, measures perceptions and awareness levels, develops and tests countermeasures, and evaluates the effectiveness of in-place programs that will reduce traffic deaths, injuries, and associated monetary costs. This research program provides the scientific basis for NHTSA's national leadership in highway safety.

Special emphasis is placed on supporting programs to achieve the Department's goal of reducing alcohol-related traffic fatalities to no more than 11,000 by the year 2005 and increasing safety belt usage to 90 percent or more by 2005, as well as special initiatives in child passenger safety, pedestrian and bicyclist safety, and elderly driver safety and mobility.

FY 2001 research and evaluation will accomplish the following:

- **Impaired Driving Research.** Develop methods to better identify impaired drivers; keep repeat offenders from drinking and driving; improve the enforcement process; monitor public attitudes and perceptions; and evaluate key legislation and sanctions.

- **Occupant Protection.** Test and evaluate promising technologies to increase seat belt usage (sensors, warnings, data recorders); continue to evaluate the *Buckle-Up America* program; record patterns of belt use in a sample of drivers over a one year period; determine child safety seat mis-use; and test strategies to increase correct child restraint use.

- **Older Driver.** Develop and implement a national agenda designed to address the safe mobility needs of our aging population; continue evaluation of a number of assessment tools; examine

potential intervention points (licensing, self regulation, family and friends, medical community, social services); and better determine the problems faced by older drivers.

- **Speed and Aggressive Driving.** Determine the effectiveness of enforcement programs to reduce aggressive driving, initiate an evaluation of anger management courses; complete an observational study of aggressive driving under various conditions; and complete installation of speed recorders in a study of speeding behavior and its relation to crash involvement.

- **Pedestrian, Bicycles, and Motorcycle Research.** Develop and test programs to reduce speed-related pedestrian crashes; initiate research on new technology to automatically detect and record drivers who illegally pass stopped school buses; develop a methodology for conducting research on motorcycle operator impairment and determining crash risk; and complete an evaluation of the impact of motorcycle helmet repeal laws.

- **Emergency Medical Services.** Complete a study to determine accuracy, reliability, and completeness of pre-hospital data elements for crash victims (outcomes) and assess the needs for Emergency Medical Technician continuing education to improve patient care.

- **Fatigue and Drowsy Driving.** Develop and evaluate new programs for specific target populations (e.g., military and college students).

Program Highlights

Several studies released this past year provided persuasive evidence of the merits of reducing the legal BAC limit to .08. These studies included an evaluation of the Illinois .08 law (showing 13.7 percent fewer fatal crashes with positive BACs), an updated determination of the relative risk of crash involvement at various BACs (the risk of crash involvement at BACs between .08 and .10 is between 11 and 52 times greater than at zero BAC), a literature review on the effects of alcohol at BACs of .08 and lower (showing significant impairment on all driving-related skills at BACs below .08), and a laboratory study of the impairment due to alcohol at low BACs (showing significant impairment on all measures for virtually everyone).

Highway safety behavioral research has demonstrated that an intense selective traffic enforcement program (sTEP) can significantly increase seat belt use to high levels. The Elmira, NY program involved a period of publicity about seat belt use, followed by a brief wave of hard publicity about an upcoming intensified enforcement effort, followed by intensive enforcement and continued publicity. As a result of this program, seat belt use increased from 63 percent to 90 percent. This program model is now being used to encourage other jurisdictions to adopt this approach.

One study provided detailed information on the reasons why parents transfer their children from child restraints to seat belts before the belts properly fit the child, which can lead to significant

injury. The study found that factors beyond a lack of knowledge by the public needed to be addressed, and offered potential approaches for addressing the problem.

In states that have adopted universal motorcycle helmet laws that cover all riders, helmet usage is in the high 90s. In 1997, Texas and Arkansas repealed their universal motorcycle helmet laws and helmet use quickly decreased from 97 percent in both states to 66 percent in Texas and 52 percent in Arkansas. Fatalities did not change immediately, but by the end of the next full year, operator fatalities had increased by 21 % in Arkansas and by 31% in Texas. Helmet use among injured motorcyclists in both states dropped by about 25 percentage points in the first 4 or 5 months and then declined more in the next year. Helmet use among young injured riders (still required to wear helmets in Texas) dropped by about 10 percentage points.

FY 2002 Budget Request ($7,277,000)

The FY 2002 budget request seeks continued funding of all current research and evaluation programs and once again requests funds for research in fatigue and inattention. FY 2002 research and evaluation will accomplish the following:

- **Impaired Driving.** Determine the percentage of repeat DWI offenders in fatal crashes, continue to streamline the DWI arrest process; evaluate key legislation and anti-DWI programs for the college population; and evaluate the effects of various drugs on driving tasks using the National Advanced Driving Simulator (NADS)

- **Occupant Protection.** Identify the highway safety needs of black communities and develop strategies to increase belt use; continue to monitor public attitudes and evaluate public awareness and perceptions of *Buckle Up America;* continue analyses of belt use patterns from direct recording data.

- **Older Driver.** Examine medical conditions in relationship to crashes; develop and evaluate rehabilitation options; develop strategies to improve safe mobility for older women, promote evaluation of promising strategies to increase safe mobility identified in the national agenda.

- **Speed and Aggressive Driving.** Continue with on-board recorder measurement of speed and other unsafe driving actions; conduct an observational study of aggressive driving; examine the effects of congestion and other factors on aggressive driving.

- **Pedestrians, Bicycles, Motorcycles.** Complete the large city pedestrian demonstration study develop and field test countermeasures (e.g., complete study of new school bus technology) continue the motorcycle crash risk study; evaluate methods to reduce speeding in neighborhoods; and continue an evaluation of the repeal of the universal motorcycle helmet laws in Kentucky and Louisiana

- **Emergency Medical Services.** Continue an evaluation of EMT education to ensure the quality and efficiency of patient care; determine the effectiveness of various types of EMS systems, using outcome measures developed in an earlier EMS project; continue studies of rural vehicular trauma and of video based teleconferencing for EMT support by trauma surgeons.

- **Driver Fatigue and Inattention.** Develop and test short-term countermeasures for drowsy driving (to keep drivers alert until they can safely stop). Determine how distracting it is conversing with passenger versus non-passengers by cell phone.

- **Evaluation and Technology.** Determine changes in differential enforcement practices; evaluate the effectiveness of paid media and new point sanctions for traffic violators; complete assessments of technology applications for traffic safety; continue evaluation of TEA-21 programs; evaluation of states that have received 157 grant funds, and continued evaluation of states efforts that upgrade to standard seat belt enforcement laws.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Highway Safety Programs

NEW/EMERGING/TEA-21 ISSUES	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
	$1,000,000	$1,196,000	$1,196,000

Problem Statement

Fatigue, aggression and driver distraction are adverse driving behaviors that have been identified in recently completed research as significant causative factors in traffic crashes that result in death and injury. There is particular concern that distraction risks are increasing as new electronic devices are brought into vehicles. In addition, older drivers are currently the fastest growing group of drivers, and demographic projections indicate this trend will continue in the coming decades. The age 65 plus population is expected to increase by over 50 percent by 2020. It is known that there will be more older drivers, they will be driving longer distances each year than did their predecessors, and they will drive into older ages than ever before. This increasingly large driver group needs information about how their driving skills change with age and potential alternatives to driving.

The new research findings have documented a clear need for targeted educational programs for each driving problem.

Current Program (FY2001: $1,196,000)

This program is a public education initiative to address emerging traffic safety issues, including older drivers, aggressive driving, fatigue and driver distraction. This initiative provides resources to apply findings from NHTSA's recently completed research on emerging risks to create information programs for the public.

In the current year, this program will: publish informational materials to support workplace based education programs that combat drowsy driving among shift workers, produce a Spanish/English language driver education kit designed for use by partner organizations (e.g. public safety groups, law enforcement, local and state governments) to combat aggressive driving; conduct additional research and focus testing to develop a distracted driver campaign, and , develop a social marketing plan for the issues affecting older drivers that will 1) prioritize target audiences (older drivers, families, health care professionals) 2) survey educational programs and strategies already in place and 3) develop and test messages targeted to the selected audiences.

Partnerships with national organizations such as professional associations whose members serve older persons and state driver licensing agencies will also be developed and maintained, in order to engage others in the public education effort. Public information and education (PI&E) efforts to

reduce distracted driving include partnering with media organizations, manufacturers and others to mount education campaigns on reducing electronic distractions while driving.

Program Highlights

Public education to combat drowsy driving has moved ahead this year with the publication and distribution of employer informational materials. Research on drowsy driving has pinpointed three main groups who are most subject to driver fatigue: shift workers, college students on spring break, and military recruits on leave. The first public education phase is targeting major employers who have large numbers of shift workers. Materials were tested at 16 workplace sites, and are now in wide distribution. Materials for college students are now being pilot tested for assessment, will be redesigned if necessary, and ready for distribution in 2002.

FY 2002 Budget Request ($1,196,000)

In addition to our ongoing activities, NHTSA will:

- Continue drowsy driving PI&E by expanding the educational components of the target audience, especially college students, as identified by research.
- Pilot test, in selected locations, communication strategies, messages and materials for an older driver social marketing campaign .
- Identify new partners, such as health care providers, the American Association of Retired Persons and state driver licensing agencies, to support the older driver campaign.
- Continue emerging issues activities with national organizations, including workshops and exhibits at national meetings in order to educate members of the need to effectively deliver safe driving information to their clients.
- Continue current projects involving health care professionals in counseling and screening older drivers.
- Conduct broad social marketing efforts to reduce the risks of driver distraction from electronic devices and telematics, utilizing new research findings.
- Integrate aggressive driving programs into established, traditional traffic safety programs such as speed management, combined enforcement, etc.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Highway Safety Programs

	FY 2000	FY 2001	FY 2002
SHARE THE ROAD SAFELY WITH COMMERCIAL VEHICLES	Enacted -0-	Enacted $500,000	Request $500,000

TEA-21 requires that NHTSA fund this activity at the $500,000 level; funding will be derived from the Highway Safety base program and transferred to the Federal Motor Carrier Safety Administration, for execution.

Problem Statement

Commercial and passenger vehicles are involved in approximately 300,000 police-reported crashes a year. Crashes involving large trucks and buses result in more than 5,000 deaths, or 12 percent of the 40,000+ annual U.S. traffic fatalities. In addition, approximately 130,000 people are injured, and millions of dollars in property damage result from these crashes.

Current Program **(FY 2001: $500,000)**

The objective of the Share the Road with Commercial Motor Vehicles (CMV) program is to educate the motoring public on how to share the road safely with large trucks and buses, thereby helping to achieve the Secretary's goal to reduce car-truck related fatal crashes by 50 percent within a ten-year period (by 2010). The Share the Road safety outreach program (the No-Zone Campaign) focuses on developing and implementing strategies to (1) prevent CMV/passenger crashes from occurring and (2) prevent and reduce fatalities, injuries, and property damage resulting from these incidents. Program initiatives fall into three broad categories:

- **Information and Education.** Efforts will continue to develop and disseminate appropriately-targeted share the road public information and driver education materials relating to motor carrier safety -- working closely with state and local governments, DOT, law enforcement agencies, professional associations, highway safety professionals, schools, employers, and the private sector. Research will be conducted with specific groups to identify needs, message content, dissemination channels, and to evaluate program awareness/effectiveness. In addition, information on sharing the road with other transportation means will be included in this program. In order to implement effective sharing-the-road outreach programs, more must be learned about driving behavior, the causes of car-truck related crashes, and what educational methods will be most effective. This includes continuing FMCSA research to:

    - Determine what motivates drivers to ignore commercial vehicle operating limitations or to practice other unsafe driving behaviors, and what should be done to educate the public that such behaviors can be fatal.

- Determine when and under what conditions specific driving behaviors (both CMV and passenger drivers) should be considered dangerous.
- Identify and collect critical data about crashes to clearly identify the No-Zone problem.
- Identify, develop, and disseminate educational information about bicycles, pedestrians and motorcycles into program materials.
- Identify and direct educational activities toward high-risk driver groups.
- Identify, target, and establish new partnerships with organizations that have demonstrated interest and credibility in promoting highway safety.

- **Partnerships and Outreach.** Leadership will be exercised to provide program guidance in the development and maintenance of STR/No-Zone campaign materials, facilitate public and private sector partnerships, facilitate state and local program efforts, and provide support as needed. Work will also be continued with the *Truck and Bus Safety Issue Leaders* and the members of the *Share the Road with Commercial Vehicles Coalition*, a public-private partnership committed to motor carrier safety. New outreach/partnership building activities will include the creation of state and local coalitions or organizations dedicated to educating the public about these important highway safety issues/messages. Plans include, but are not limited to, expanding the popular No-Zone Truck & Bus Decal Program; developing, creating, and implementing a customized tractor-trailer to carry highway safety themes and messages to the public; and expanding the use and dynamics of the No-Zone web site.

- **Technical Assistance and Training.** The program will continue development and enhancement of driver education safety training materials (pilot program including leaders guide, video, and written material) for use by state and local governments, schools, motor carriers, law enforcement, and highway safety professionals. Marketing strategies will be developed to increase the use of these materials and to evaluate their effectiveness. Success stories and technical assistance needs will be identified. Targeted community assistance will be developed based on the evaluation information

FY 2002 Budget Request ($500,000)

The FY 2002 budget request seeks continued funding of current Share the Road/No-Zone programs. New initiatives, special events, creative materials, new public service announcements to replace completed ones, and continued coalition building activities will be targeted.

FY 2001 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Highway Safety Programs

	FY 2000*	FY 2001*	FY 2002*
NATIONAL OCCUPANT PROTECTION USE SURVEY (NOPUS)	Enacted $850,000	Enacted $600,000	Request $600,000

*Funding is requested from the grant administration draw down.

Problem Statement

Accurate information on observed seat belt and child restraint use is essential to support NHTSA's programs to increase occupant restraint use and to analyze the effectiveness of these devices, as well as programs to promote their use. Such information is also required to report to the Congress on the effectiveness of FMVSS 208, to measure progress in reaching NHTSA's Strategic Goal #4 (to improve data collection and analyses), and to evaluate the impact of the *Initiative to Increase Seat Belt Use Nationwide.*

Program Description (FY 2001: $600,000)

The principal objective of the National Occupant Protection Use Survey program (NOPUS), conducted by the National Center for Statistics and Analysis (NCSA), is to provide accurate national information on use, trends in use, and characteristics of users for different types of occupant protection devices. The program involves developing and maintaining a national probability sample of locations where restraint use is observed; developing data collection and training materials; training data collectors; collecting, processing, and tabulating data; and publishing survey results.

NHTSA conducts a *full-scale* NOPUS every two years. Surveys were conducted during fall 1994, 1996, 1998, and 2000. In each case, the results were published the following year. In calendar years 1998, 1999, and 2000, NHTSA also conducted smaller-scale *mini*-NOPUS Surveys. In these surveys, safety belt use data needed to measure the impact of twice-annual national enforcement mobilizations were collected. In calendar year 2001, due to budget constraints, only a *mini*-NOPUS is scheduled to be completed.

The Occupant Protection Use program is supported by staff in the National Center for Statistics and Analysis, which provides direction and guidance. Funding is used to support contract survey development, data collection, and data processing.

Program Highlights

Results from the surveys conducted in 1998 revealed that, while overall safety belt use in May of 1998 (62.2 percent) was only slightly increased from the 61.3 percent reported in NOPUS 1996, usage increased to a level of 69.9 percent by December of 1998. The most recent survey conducted in 2000 reported overall usage to be 71 percent. The 1998 full-NOPUS showed that, in spite of significant increases in use by occupants of pickup trucks, their rate of usage (59.9 percent) still lagged significantly behind use in vans and sport utility vehicles (70.3 percent) and passenger cars (71.5 percent). The 1998 full-NOPUS, when compared to 1996 results, also showed that child restraint use had increased by about 11 percentage points for infants and by 30 percentage points for toddlers. Restraint use for African Americans increased by about 14 percentage points, while the use rate for whites and other race groups increased by about 7 percentage points.

FY 2002 Budget Request ($600,000)

The FY 2002 budget request seeks continued funding for the NOPUS program. FY 2001 funding will be used to plan for, and initiate, the calendar year 2001 *mini*-NOPUS.

FY 2002 funding will be used to:

- Complete analysis and report on the *mini*-NOPUS scheduled for calendar year 2001;
- Review and update the sample design for the calendar year 2002 *full*-NOPUS; and
- Initiate the 2002 *full*-NOPUS (which will likely require FY 2003 funds to complete).

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Highway Safety Programs

NATIONAL DRIVER REGISTER (NDR)	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
Salaries	$890,000	$890,000	$890,0000
Contract Program	$1,110,000	$1,110,000	$1,110,000
Total	$2,000,000	$2,000,000	$2,000,000

Problem Statement

State motor vehicle agencies need a means for identifying problem drivers in order to not issue licenses to them. The objective of the National Driver Register (NDR) is to improve traffic safety by assisting state motor vehicle administrators in their efforts to communicate with other states to identify problem drivers. This helps prevent problem drivers from obtaining multiple licenses and improves the quality of state driver record systems. As a result of increased access to the NDR in recent years, the number of inquiries has increased dramatically. In view of additional projected increases in access, such as the requirement in the Commercial Motor Vehicle Safety Act of 1999 that all original issuance and license renewals involve an NDR inquiry, it is likely that currently authorized funds will not be sufficient to cover projected increases in FY 2002.

Current Program (FY 2001: $2,000,000)

The NDR is an index of identification information on individuals whose licenses to operate a motor vehicle have been suspended, canceled, or denied by any state. The NDR also contains information on persons who have been convicted of serious traffic-related violations such as driving while impaired by alcohol or other drugs. State driver licensing officials query the NDR when an individual applies for a license to determine if driving privileges have been withdrawn.

The NDR has converted to an electronic processing system, the Problem Driver Pointer System (PDPS), to improve the timeliness and accuracy of information. All 50 states and the District of Columbia have converted to PDPS. A help desk, staffed with knowledgeable system professionals, provides problem solving advice by telephone. NDR operations consist of computer processing of a state's driver licensing inquiries and updates and related technical and administrative support. Regular operations also involve processing inquiries from federal agencies that employ individuals to operate motor vehicles as well as to certify individuals to operate transportation conveyances and individual requests.

Congress passed legislation (TEA-21) allowing for the privatization of two NDR functions, computer teleprocessing and the help desk, to an organization *representing the interests of the states.* If transferred, the legislation provides for a transition period to allow the states to make any necessary budgetary and legislative changes. If transferred, a savings of approximately $1

million in federal funding may be realized. The NDR staff would still test, monitor, and program the system as well as respond to Federal agency and individual requests. The American Association of Automobile Administrators (AAMVA) is the most appropriate existing organization which represents the interests of the states with regard to driver records. It is the association formed by state motor vehicle administrators. After repeated efforts from NHTSA about their interest in assuming these functions the AAMVA has indicated that its members would not be interested in assuming this function, at this time. They advised that NHTSA was operating the system in an effective and efficient manner and, as a result, there was no need for the transfer to occur.

In calendar year 2000, the NDR processed 42.9 million inquiries (35.8 million of these on-line), updated (added or deleted records) more than 10 million records; made 8.1 million "hits" or identifications; processed approximately 595,000 inquiries from federal agencies, including the Federal Aviation Administration and Federal Railroad Administration as part of pilot and locomotive engineer certification; and responded to approximately 9,600 individual inquiries.

FY 2002 Budget Request ($1,110,000)

The FY 2002 request seeks no funding increase from the FY 2000 level of $1.1 million This is despite the fact that the costs associated with the continued growth in the number of NDR inquiries continue to increase. The total number of inquiries has increased 69.6 percent from 1993 to 2000, during the same time period the number of the more expensive interactive (real time) inquiries has increased 321% (8.5 million to 35.8 million). The FY 2002 program will continue the efforts noted for the FY 2001 program. However, the Motor Carrier Safety Improvement Act of 1999 requires the states to make NDR inquiries on *all* license applications and renewals. Previously, NDR checks were required only for non-minimum age original applicants, although states were encouraged to check on renewals. NHTSA estimates that the total number of inquiries will increase 20 to 50 percent.

The NDR will continue to strive to meet its customer service goals of: (1) an average response time of four seconds, with all interactive inquiries responded to within seven seconds, and (2) to be available for operation 99 percent of published operational hours.

RESEARCH AND ANALYSIS PROGRAM

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NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
RESEARCH, DEVELOPMENT AND ANALYSIS CONTRACT PROGRAM
(dollars in thousands)

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Cong. Request	FY 2002 Over FY 2001
Research and Analysis				
Crashworthiness				
Safety Systems	8,858	9,268	9,084	(184)
Biomechanics	13,232	14,185	13,954	(231)
Subtotal, Crashworthiness	22,090	23,453	23,038	(415)
Crash Avoidance				
Heavy Vehicles	1,892	2,192	2,160	(32)
Driver/Vehicle Performance	2,948	7,030	3,450	(3,580)
Simulator 1/	[10,000]	0	3,450	3,450
ITS 2/	[22,908]	[26,000]	[30,945]	[4,945]
Pneumatic Tire Research	0	1,992	1,930	(62)
Subtotal, Crash Avoidance	4,840	11,214	10,990	(224)
Nat'l Center for Statistics & Analysis				
Fatality Analysis Reporting System	5,213	5,480	5,700	220
Nat'l Automotive Sampling System	9,987	10,163	10,570	407
Data Analysis Program	1,924	1,993	1,950	(43)
State Data Systems	2,344	2,491	2,450	(41)
Special Crash Investigations	1,553	1,594	1,650	56
Subtotal, NCSA	21,021	21,721	22,320	599
Vehicle Research & Test Center	950	950	990	40
Total, Research and Analysis	**48,901**	**57,338**	**57,338**	0

1/Included in FHWA budget in FY 2000.
2/ Included in FHWA budget.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Research and Analysis

	FY 2000	FY 2001	FY 2002
CRASHWORTHINESS	Enacted	Enacted	Request
	$8,858,000	$9,268,000	$9,084,000

Problem Statement

In the United States during 1999, 41,611 persons lost their lives and 3,236,000 were injured as a result of motor vehicle crashes. Frontal, side, and rollover crashes accounted for most of the deaths and serious injuries in passenger cars and light trucks and vans (LTVs). Occupant ejections, pedestrian impacts, and vehicle fires also resulted in crash deaths and serious injuries

Current Program (FY 2001: $9,268,000)

The research program will lead to enhanced occupant protection by providing improvements in vehicle structure and interior compartment design, in combination with improvements in occupant restraint systems. Achieving these improvements requires research in analysis of real world crash experience, development of test procedures that reproduce the crash environment, evaluation of injury likelihood from crash test measurements, development and evaluation of vehicle countermeasures, and estimates of safety benefits achieved. To the extent possible, the program also fosters international harmonization in the areas of pedestrian, frontal offset, side impact, and vehicle compatibility research.

The FY 2001 research program includes the following activities:

- **Advanced Frontal Crashworthiness.** Research continues to focus on vehicle-to-vehicle frontal offset crashes that result in death and life threatening injuries from degradation of occupant compartment integrity and high levels of vehicle deceleration. Work is continuing on the development of harmonized injury criteria and an associated crash test dummy, harmonized test procedures, including an approach to the offset crash test condition, and harmonized test performance requirements. Analyses of the National Automotive Sampling System (NASS) is being undertaken to provide more precise information regarding the principal direction of force. Research is being coordinated and leveraged through participation in the International Harmonization Research Activities (IHRA) working group for Advanced Frontal Offset Protection.

- **Rollover.** Research is continuing to explore enhanced occupant protection in rollover crashes of LTVs and passenger cars. Efforts are underway for reducing occupant ejection injuries through glazing, latches, and hinges. Research is continuing to improve roof crush performance during rollover crashes, develop and build prototype hardware, and develop test

and evaluation procedures. Inflatable devices that provide head protection will continue to be evaluated for their ability to contain vehicle occupants during rollover crashes.

- **Vehicle Crash Compatibility.** NHTSA is continuing research for identifying vehicle features that affect compatibility and for evaluating their effects in real world crash performance Sophisticated computer models are being used to assess the impact of changes to vehicle size on safety performance While the research has identified a number of vehicle improvements to LTVs that can be readily made to improve compatibility, the research program is focused on what changes can be made to the entire fleet (i e., both LTVs and cars). Preliminary efforts are underway for developing test procedures that can be used to evaluate a vehicle's compatibility. These include using the load cell data collected in the frontal crash tests of the agency's New Car Assessment program. Also, the use of a load cell moving deformable barrier is being investigated with the possible benefit of directly accounting for the effects of mass. Research is being coordinated and leveraged through participation in the IHRA working group on Vehicle Compatibility.

- **Side Impact Crashworthiness.** Research will continue for improving occupant protection in vehicle-to-vehicle side crashes with collision partners that are more representative of today's fleet, in particular the light trucks and vans, and in vehicle-to-narrow-object crashes, such as utility poles and trees. Side crash protection research has mainly focused on three areas–evaluation of the Eurosid II dummy as a potential test device for Federal Motor Vehicle Safety Standard (FMVSS) No. 214; the upgrade of FMVSS No.214 to reflect the change in the demographics of the U.S. fleet and resulting safety implications; and the continued development of a pole side impact test procedure to address single vehicle side crashes into narrow objects. Research is being coordinated and leveraged through participation in the IHRA working group on Side Impact

- **Advanced Restraint Systems.** Research continues for the development of advanced occupant protection systems beyond those used today in passenger cars. Promising new technologies and hardware developments are being pursued. These include upgraded air bag systems using advanced technologies, inflatable automatic belt systems, upgraded air bag deployment technologies, precrash sensing, upgraded belt restraints and pretensioners and adjustable anchorages, side inflatable cushions, improved energy absorbing vehicle interior surfaces, and improved seat designs.

- **Air Bags.** Research that is focused on the development, performance, and monitoring of advanced air bag systems that build upon the short-term technological solutions to air bag safety problems identified in the field, including those of injuries resulting from aggressive air bag deployments (especially to children), is continuing. Research is focused on the evaluation of newly designed systems for determining the protection provided in moderate and high severity crashes as well as including out-of-position occupant testing to evaluate associated aggressivity of air bags.

- **Pedestrians.** Research is continuing toward the development of harmonized test procedures, test requirements, and a harmonized dummy for pedestrian impact protection. Research is being coordinated and leveraged through participation in the IHRA working group on Pedestrian Safety.

Work in these areas ensures that NHTSA's efforts to improve motor vehicle safety through promulgation of safety standards is accomplished on sound technical and scientific bases.

Program Highlights

A striking example of the program effectiveness can be found in NHTSA's work on advanced air bag technology. The agency has published an Interim Final Rule to address fatalities to children and small stature adults resulting from aggressive air bag deployment. Research focused its activities to provide the technical basis for this rulemaking. Research conducted laboratory testing to evaluate the aggressiveness of production next-generation air bag systems in new vehicles. High speed crash tests and static out-of-position tests were conducted on a sample of production vehicles, and results were compared with the pre-1998 air bag designed systems. To experimentally assess the potential for advanced air bag technology, research conducted testing over a wide range of conditions. Initial hardware evaluations included advanced crash sensors, advanced air bag inflators, and occupant position sensors. Research included out-of-position tests with small female driver and child passenger test dummies, sled testing with small and large adult dummies representing moderate severity crashes of varying crash configuration and restraint application, and high-speed, full-vehicle crash tests to test complete system performance. Research also was conducted to evaluate advanced air bag system performance. To minimize air bag risks to occupants in close proximity to the air bag at the time of deployment, static driver and child out-of-position test procedures have been developed; and research was conducted to develop test procedures to evaluate air bag suppression systems.

FY 2002 Budget Request ($9,084,000)

The FY 2002 budget request seeks continued funding of all current crashworthiness (Safety Systems) programs discussed above. Efforts will continue in ongoing programs from prior years and those initiated in FY 2001. These are as follows.

- Side impact research will continue to include full vehicle and sled testing to support the short-term and long-term rulemaking activities, analysis of current and future U.S. crash environment, and testing of vehicles to assess potential for harmonization and for generating new consumer information. These efforts will continue to be coordinated through IHRA

- Pedestrian injury reduction research will continue to develop child head protection procedures, establish baseline performance of the vehicle fleet, and establish potential injury

reduction levels which might be attained through countermeasure development. These efforts will continue to be coordinated through IHRA.

- Research will continue in collecting and evaluating data from crash sensing and recording devices installed in vehicles, i.e., event data recorders (EDRs). These systems currently record air bag deployment, seat belt status, and the crash pulse in some vehicles. Additionally, collection of EDR data from crash testing will be used to validate EDR data against measured crash test responses.

The FY 2002 budget request also initiates efforts for improving occupant protection through advanced vehicle technology.

- Research will be conducted on advanced restraint systems, such as adaptive air bags and inflatable belt systems, that have the potential for reducing occupant deaths and injuries in crashes. The performance of these systems could be greatly improved if deployed according to occupant sizes, crash severities and directions, status of safety belt use, and seating positions. Research will also be conducted in the area of precrash radar and other sensing technologies that could be used to determine crash severities, directions, and other collision partner characteristics. This information could be used to tailor the inflation level required to fill the bag, as dictated at various periods during the crash, to more precisely meet the need to cushion the occupant. Advanced technologies also will be explored for automatic placement of foot pedal controls.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Research and Analysis

	FY 2000	FY 2001	FY 2002
NATIONAL TRANSPORTATION BIOMECHANICS RESEARCH CENTER	Enacted $13,232,000	Enacted $14,185,000	Request $13,954,000

Problem Statement

Biomechanics research provides the critical link between the mechanical conditions of an impact and the human injury consequences of the impact. It is the cornerstone upon which many of the agency's performance-based occupant safety initiatives are and will be based. Biomechanics uses principles and practices of engineering to study the human injury mechanisms in vehicle crashes, develops suitable mechanically-based injury criteria that predict injury risk in automobile crashes, and provides the test devices, such as dummies, that accurately mimic human impact response to allow a quantitative prediction of human injury risk for a particular impact situation. This technology supports development of intervention and prevention strategies by correctly modifying or limiting the appropriate mechanical components of the impact processes that cause injury.

Current Program (FY 2001: $14,185,000)

Current NTBRC efforts are active in the following five research and development areas.

- **Crash Injury Research and Engineering Network (CIREN).** This hospital-based, in-depth, crash injury study program has been expanded from the original four to the current nine centers (seven are government funded). It continues to utilize multi-disciplinary teams to identify and analyze critical safety issues and accelerate identification of emerging safety problems.

- **Impact Injury Research.** Experimental research activities continue at university-based impact trauma laboratories. Multi-disciplinary research teams of physicians, engineers, and anatomists investigate and develop more definitive injury criteria for major crash modes, such as frontal, side, and rollover in significant body regions such as the skull/brain, the neck, the torso, and the lower extremities.

- **Human Injury Simulation and Analysis.** Efforts are directed at advancing NHTSA's capabilities to analytically simulate, in detail, the human in the automotive crash environment. The goal is to mathematically predict the occupant's interaction with typical automotive restraints and structures, as well as the estimation of the extent and severity of expected injuries without physical testing.

- **Crash Test Dummy Component Development.** Innovative test device development activities continue. These will provide the agency with enhanced test devices, ranging from sub-component devices representing particular body segments, such as the head, neck, and lower leg, to complete dummies representing the total human, for evaluating and regulating crash safety. Efforts for determining and documenting the repeatability and reproducibility of proposed regulatory test dummies (federalization) will also continue.

- **Biomechanics of Air Bag Injuries**. These efforts specifically address near-term issues concerning the development of pediatric and small female injury criteria associated with the intense and complex out-of-position air bag deployment situation. The goals are to develop the essential tools for assessing the safety of current and emerging airbag deployment systems that will maximize crash protection and minimize unwanted risks.

Program Highlights

With the continuing, extremely rapid, implementation of new and diverse safety technologies, the demand for accurate biomechanical evaluation of their interaction with the diversity of human occupants, from infants through the elderly, has increased enormously. The proposed FY 2002 request represents a continuation of the enhanced FY 2001 level of effort provided last fiscal year for the four major efforts that the National Transportation Biomechanics Research Center is pursuing. This level of funding will continue to allow initiation of new and accelerate existing efforts designed to better understand the biomechanics of impact injuries and implement this knowledge to the benefit of the entire automotive population. Specifically, these funds will continue efforts to increase knowledge and understanding of the nature of real crashes by sustaining the efforts of the Crash Injury Research and Engineering Network, CIREN. They will also maintain the current depth and breadth of ongoing experimental efforts designed to understand the biomechanics of impact injuries to body areas most susceptible to injury. They will continue to advance analytical capabilities that will provide safety designers a greater ability to interpret current dummy test data, as well as the ability to analytically evaluate the performance of proposed safety systems before building them. Development and use of advanced test dummies and devices for evaluating and regulating the safety performance of entire vehicles will also be continued.

FY 2002 Budget Request ($13,954,000)

- **Crash Injury Research and Engineering Network (CIREN).** All nine CIREN centers (of which 7 are government funded) will continue their efforts providing detailed, hospital-based, in-depth, multi-disciplinary crash injury studies that identify and analyze critical safety issues and accelerate identification of emerging safety issues. In addition, enhancements to the CIREN data repository system will be implemented to allow both improved archiving of the rich CIREN data and increased data sharing capabilities among CIREN partners.

- **Impact Injury Research.** The agency will continue its extensive, university-based, impact trauma research efforts. These efforts involve the combined talents of physicians, engineers, and anatomists in developing more definitive injury criteria for the major body regions that are vulnerable in automotive crashes. NHTSA/NTBRC will maintain its active participation in the IHRA efforts to generalize the world's understanding of biomechanical knowledge and seek a convergence of technical opinion on the most appropriate technology for dummies and criteria to evaluate crash injury risk.

- **Human Simulation and Analysis.** NHTSA will accelerate efforts to advance its capabilities of analytically simulating, in detail, the human body in the automotive crash environment, with the goal of mathematically predicting the injury consequences of the occupant's interaction with typical automotive restraints and structures during a crash. Emphasis will continue to be directed toward accurately characterizing the geometric and material response and failure properties of the anatomical structures at greatest risk, i.e., the skull and brain, the neck, the thorax and its contents, and the lower extremities to create a capacity to evaluate proposed safety systems in a virtual environment.

- **Crash Test Dummy Component Development.** The proposed funding will continue to support NHTSA's innovative test device development programs, as well as efforts to "federalize" dummies needed for regulation purposes. The "federalization" efforts will continue to insure that current devices possess, in the context of the U.S. regulatory requirements, sufficient and demonstrated repeatability and reproducibility to make them suitable and objective test devices. The advanced development programs will continue to expand and extend the technology developed for the advanced frontal 50th percentile male dummy to sizes ranging from the 12-month-old child, through the 3- and 6- year-old child, to the 5th percentile female and 95th percentile male. Procurement of additional test dummies to support expanded restraint research activities is also anticipated.

- **Biomechanics of Air Bag Injuries.** Continued support in this critical research area will accelerate efforts to develop and enhance the understanding of complex injury mechanisms associated with the multi-directional air bag deployments now being envisioned and installed in vehicles, as well as developing the technologies to ameliorate any new risks. Emphasis will continue to be placed on injury mechanisms associated with pediatric and small statured and elderly female occupants who are currently at greatest risk from these safety devices.

In addition, NHTSA is continuing its research program addressing the issue of crash protection for the elderly. This research will develop proper injury threshold levels for various body regions and evaluate the feasibility of achieving those levels through appropriate crash protection countermeasures. This research will involve advanced anthropomorphic test devices with enhanced measurement capabilities, including sensors in the abdomen and multiple deflection sites in the chest. These devices will allow designers to evaluate the risks of injuries due to abdominal loading and to create restraint systems with more distributed loading. These may be particularly beneficial to the elderly. Setting injury thresholds at sufficient levels to protect the elderly and

developing countermeasures that provide such protection will be thoroughly investigated. Additionally, NHTSA will develop test devices to assess the injury potential for the elderly for determining the feasibility of countermeasures and their cost effectiveness. The need for this research has been demonstrated through NHTSA's CIREN program, which demonstrated that elderly occupants sustain more severe injuries and have longer hospital stays and higher mortality compared to younger occupants.

The proposed initiative will fill gaps in fundamental biomechanical knowledge for all occupant sizes, especially small females, pregnant females, infants, children, and the elderly, through a comprehensive impact research program. The knowledge gained will result in a decrease in motor vehicle deaths and injuries for a much broader segment of the population. The benefits obtained from the development of injury criteria and tolerance levels by this program extend beyond NHTSA to other agencies in DOT and the federal government. They will be evaluated by all users for their effectiveness and real world benefits through testing, simulations, and other methods.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Research and Analysis

HEAVY VEHICLES	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
	$1,892,000	$2,192,000	$2,160,000

Problem Statement

Approximately one out of eight people who die in traffic crashes every year is killed in a collision involving a large truck. Primarily as a result of the huge mass differential between heavy trucks and cars (which may be as much as 20 to one), about 80 percent of those fatalities are occupants of other vehicles that collide with trucks. Since there just isn't enough crush distance available in a heavy truck to dissipate the forces of a collision, the most effective way to attack this problem is to concentrate of countermeasures to avoid the collision in the first place

Current Program **(FY 2001: $2,192,000)**

This program supports the agency's rulemaking and consumer information efforts by developing the scientific basis for improving the safety of heavy vehicles by making them less prone to crashes through improvements in their braking, handling, and visibility characteristics, and by mitigating the consequences of collisions that do occur between heavy trucks and other vehicles. NHTSA's FY 2001 Heavy Vehicle research program is focused on the following most critical heavy vehicle safety needs:

- **Improved Stopping Capabilities.** The braking performance of heavy vehicles is critical in improving their safety. FY 2001 research will focus on quantifying the safety improvements that would accrue from the use of air disc brakes and more powerful front axle brakes, in conjunction with electronic control of braking for heavy vehicles. Recent demonstrations have shown that for some heavy vehicles, reductions in stopping distances from highway speeds of as much as 30 percent may be possible using existing technologies. This research supports the agency's rulemaking efforts which are aimed at updating the heavy vehicle braking performance requirements.

- **Reducing Lane Change Crashes Caused by Blind Spots.** Changing lanes can be particularly hazardous for heavy vehicles due to the inability of truck drivers to see other vehicles around them because of blind spots or areas where current mirror systems do not help. Each year, approximately 28,000 crashes involving combination unit trucks occur when they are making lane changes, merges, or right hand turns. Research that was initiated in FY 2000 continues to better understand the causes of unsafe truck lane changes and develop a

comprehensive set of countermeasures. These countermeasures may include development of improved side and rearward visibility systems and recommendations for upgrading the minimum visibility requirements for trucks in Federal Motor Vehicle Safety Standard No. 111.

- **Pre-Crash Data Recorder Needs.** On-board pre-crash data recorders can be used to provide a better understanding of the events leading up to a crash to allow development of future collision-avoidance countermeasures. The NHTSA has been working with the Maintenance Council of the American Trucking Associations to define what data elements are currently being sensed and/or recorded on heavy trucks, with the goal of developing a standardized format and protocol. In FY 2001, that program is being expanded to assess what additional data may be needed for crash reconstruction, and the feasibility of obtaining those additional data elements.

- **Truck Occupant Protection.** About 700 heavy truck occupants die in crashes each year. This new study will examine the circumstances surrounding these deaths, as well as injuries to truck occupants, to determine their causes and develop proposed solutions. Possible countermeasures are better side and roof padding, inflatable tubular structures, or improved windshield retention.

Program Highlights

Preliminary testing of electronically controlled braking systems and the use of disc brakes shows great promise for using these systems for improving vehicle stability and reducing vehicle stopping distances, while addressing the serious problem of brake adjustment in heavy duty truck operations. This year, NHTSA co-sponsored, with the Maintenance Council of the American Trucking Associations, a public demonstration of the comparative braking performance of trucks with current and new braking technologies to show the performance improvements that can be obtained.

FY 2002 Budget Request ($2,160,000)

In 1999, DOT announced a goal of reducing the number of large truck-related fatalities by 50 percent over the next 10 years. Meeting that goal will require an extremely aggressive multi-disciplinary effort by all portions of DOT having responsibility for heavy truck safety. This goal has also been incorporated into the Twenty-First Century Truck Initiative, a combined DOT/DOE/DOD/EPA program aimed at improving the safety and fuel efficiency of future trucks In support of these efforts, NHTSA will expand its current efforts to include research initiatives in several areas of advanced Heavy Truck Safety. This research will enable the development of advanced braking systems for trucks and will improve their safety performance and operational efficiency. Improved braking and rollover prevention capabilities of heavy trucks are expected to bring about safety improvement by reducing truck-related crashes and improving mobility of the traveling public. The proposed research will investigate the safety effectiveness and safety and economic benefits and costs of new countermeasures that may result through this research.

Specific projects for FY 2002 include:

- **Advanced Brake Systems.** Research on improved brake systems, such as using disc brakes on tractors and trailers, more aggressive steering axle brakes, and integrated engine compression braking will be expanded. The agency will also evaluate the feasibility of using aerodynamics to create a drag on heavy duty vehicles to slow these vehicles down, similar to devices used by NASCAR race cars. As speeds of heavy duty vehicles increase and rolling resistance is reduced, this research is viewed as an attempt to reduce the braking demand on a heavy duty vehicle's braking system.

- **Heavy Vehicle Stability.** Research will also investigate stability enhancement systems that can be made part of electronically controlled braking systems and, possibly, adaptive suspension systems which could be used to counteract incipient rollover.

- **Safety Problem Identification.** Program efforts will be directed at identifying collision avoidance countermeasures from on-road measurement of driver and vehicle performance during normal and critical incident driving situations. This research will be used to guide the agency's future research and rulemaking efforts regarding heavy vehicles.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Research and Analysis

	FY 2000	FY 2001	FY 2002
CRASH AVOIDANCE AND	Enacted	Enacted	Request
DRIVER/VEHICLE PERFORMANCE	$2,948,000	$3,515,000	$3,450,000

Problem Statement

It is estimated that nearly 90 percent of all motor vehicle crashes are the result of driver error. Loss of vehicle control, often resulting in rollover, has become a greater safety problem as the population of vehicles on the road has shifted more toward light trucks and sport utility vehicles. Many of these crashes could be prevented if the vehicles' collision avoidance capabilities were improved to be more compatible with the abilities and behaviors of the driving population, including older and younger drivers and those who are unfamiliar with new vehicle technologies

Current Program (FY 2001: $3,515,000)

This program supports the agency's rulemaking and consumer information efforts by developing the scientific basis for measuring and improving the collision avoidance capabilities of the driver/vehicle combination. Research areas include vehicle rollover, braking, handling, stability, direct and indirect visibility, vehicle lighting/signaling, controls and displays, as well as all human factors issues associated with the interaction between the driver and vehicle. NHTSA's FY 2001 Driver Vehicle Performance research program is focused on the following most critical safety needs:

- **Reducing Vehicle Rollover.** Rollover crashes are one of the most significant safety problems for all classes of light vehicles, especially light trucks and sport utility vehicles This is a continuation of a multi-year program to develop a meaningful procedure for a rollover test that could be used for either a new Federal Motor Vehicle Safety Standard (FMVSS) or a consumer information regulation. FY 2001 activities are focused on developing a dynamic test procedure to be used for consumer information regarding rollover propensity, in accordance with the Transportation Recall Enhancement, Accountability, and Documentation Act.

- **Reducing Driver Distraction from In-Vehicle Devices.** Prior research has shown that in-vehicle devices such as cellular telephones, route guidance navigation systems, and computers can distract the driver's attention from the driving task. One factor exacerbating this problem is that drivers unfamiliar with the operation of a new vehicle or in-vehicle device are more prone to distraction Drivers with less than 500 miles experience driving a particular vehicle account for 12-17 percent of all crash-involved drivers. Such drivers are 2-3 times more likely to be involved in a crash than a driver who is more familiar with the vehicle. For

FY 2001, research is being conducted to obtain data on the technology-related distraction problems of special groups such as unfamiliar, young, and older drivers, and to identify possible countermeasures, including guidelines for voluntary standards, FMVSS requirements, and public information campaigns. Research is also being conducted to develop a basis for predicting when driver workload or distraction are unsafe relative to the actual driving task demands.

- **Enhancing Rear Lighting and Signaling.** The rear-end crash is the most prevalent type, and it has been increasing to approximately 28 percent of police-reported crashes. Studies have shown that many rear-end crashes are caused by drivers not being fully aware that the vehicle ahead of them has stopped or is proceeding at a significantly slower speed. A multi-year research program, initiated in FY 1999, will identify and evaluate various possible improved rear lighting and signaling designs that could better alert drivers of stopped or slow moving vehicles.

- **Reducing Headlight Glare.** Headlight glare has been increasing in recent years due to various factors, such as higher mounting heights, use of brighter headlamps, increasing headlamp voltages, and misaim. NHTSA receives many complaints about this glare and the safety problems it causes. These concerns can be expected to increase as the number of older drivers increases. In FY 2001, multi-year research will be initiated to examine the relative impact of the many glare-causing factors on driver discomfort and visibility Future years' research will identify countermeasures for glare reduction.

- **Enhancing Light Vehicle ABS Effectiveness.** This is the continuation of a multi-year program to gain a better understanding of why antilock braking systems (ABS) on passenger cars have not produced the safety benefits expected. In FY 2001, the findings will be applied to the development of ABS Test Procedures and Performance Requirements for FMVSS No. 135, the internationally-harmonized regulation for light vehicle braking systems. This research in support of rulemaking will allow the agency to incorporate such requirements into FMVSS No. 135, which was published in 1995

Program Highlights

Crash avoidance and driver/vehicle performance research have resulted in a better understanding of the safety impact of in-vehicle systems. These systems include cellular telephones and route guidance/navigation systems, as well as new systems such as wireless Internet connections. NHTSA held a public meeting, Internet Forum, *and established working groups of experts to help identify future research directions. The agency has done basic work in developing procedures and protocols that can be used to obtain objective assessments of safety impact. There is growing interest by vehicle manufacturers, electronic suppliers, the cellular telephone industry, and other relevant organizations to be a part of the solution to potential problems. This united and cooperative approach will be continued and expanded in future work.*

FY 2002 Budget Request ($3,450,000)

The FY 2002 budget request seeks continued funding for all FY 2001 emphasis areas.

- **Human Factors and Enhanced Driving Performance**: Research will continue to focus on understanding how the benefits of advanced technologies can be achieved without compromising driver safety. A major focus of this research will be to understand the human factors issues associated with distraction from integrated in-vehicle technologies and their impact on driver performance. The knowledge gained from last year's research will be used to develop a test bed vehicle that integrates sensor information about the driving task demand with measurements of driver attention as a basis for providing the driver with the necessary assistance to prevent crashes. Such assistance could take the form of enhanced collision alerts, lockouts of distracting information displays, or task specific driving tips (such as the need to increase headways). The test bed vehicle will be used to assess the potential safety benefits of such information and sensor integration

- **Rear Signaling**: Improved rear signaling has the potential to reduce rear-end crashes by attracting drivers' attention and alerting them to the intent of the lead vehicle. Research that identifies a potential improvement in rear signaling will be completed. FY 2002 research will initiate a field test of the recommended rear signaling system to evaluate its actual potential to reduce rear end crashes.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Research and Analysis

	FY 2000	FY 2001	FY 2002
DRIVER BEHAVIOR /SIMULATION RESEARCH	Enacted $0	Enacted $3,515,000	Request $3,450,000

Problem Statement

With estimates that nearly 90 percent of all motor vehicle crashes are the result of driver error, it is vital that research focus on understanding the causes of these crashes and develop and test approaches for their mitigation. This need is heightened by the wide spread use of in-vehicle communication technologies, such as wireless phones which place great demands on driver attention. Research into the nature of driver distraction caused by these technologies has been greatly constrained by concerns for the safety of the human subjects involved in on-road research, and by the limitations of existing driving simulators. In addition, the role of alcohol-related impairment in crashes continues to be a major focus of the agency, particularly in light of recent actions to reduce the legal blood alcohol content (BAC) limit to .08. Research into the consequences of impairment at BAC levels up to .08 is needed to support the lower limit. The availability of the National Advanced Driving Simulator (NADS) opens up a new realm of research, allowing safe, highly realistic, controllable and repeatable experimental conditions, including the ability to impose a wide range of demands on the driver.

Current Program (FY 2001: $3,515,000)* (Half of Vehicle Performance funding)

The current program addresses important research needs, such as the development of design criteria for in-vehicle communication systems and information supporting state legislative initiatives and consumer information efforts on driver distraction. The primary tool for implementing this research will be the NADS, with supporting efforts from NHTSA's Vehicle Test and Research Center (VRTC), including use of the MicroDAS in-vehicle data acquisition system for carrying out on-road research. VRTC and headquarters researchers will collaborate in carrying out this major human factors research program. Other research priorities include, alcohol impaired drivers, vehicle rollover, driver response to emergency conditions (unexpected tire failure), and NADS scenario development as described below:

- **Driver Emergency Response to Sudden and Unexpected Tire Failure.** Vehicle rollover has been highlighted recently in regard to driver response to sudden and unexpected tire failure. This research program is designed to determine driver reactions in response to tire failure and the potential for these to induce vehicle rollover. This work will be conducted on NADS, using a vehicle dynamics model of a sport utility vehicle. Driver experience with tire failure and ability to maintain control of the vehicle at the time of the event will be

investigated. The results are expected to identify any loss of vehicle control characteristic of these crashes and provide supporting information for public outreach.

- **Driver behavior and performance in response to various levels of BAC under demanding driving conditions.** With increased national efforts to highlight the effects of alcohol on driving and the benefits of lowering the legal BAC limit to .08, it is important to determine the nature and magnitude of these effects under realistic driving conditions. The scenarios to be utilized in the research will reflect the context in which alcohol impaired drivers are involved in crashes. Using NADS, this program of research is designed to document changes in driver behavior and performance associated with various levels of BAC across age, gender, and drinking experience. The series of studies will focus on the ability of impaired drivers to safely operate a motor vehicle under conditions varying in task, situational and environmental demands, and fatigue. In FY 2001, initial efforts will concentrate on developing alcohol response baselines and testing scenarios. This will be followed by a study examining driver response to various in-vehicle task demands.

- **The relationship between wireless voice communication architectures and driver behavior and performance.** In evaluating the safety consequences of drivers using wireless communications devices from moving vehicles, one must understand the role that specific design features have on the degree to which drivers are distracted. For example, the distinctions between hand-held, hands-free, and enhanced hands-free (voice controlled) phones, since these architectures have been assumed to be respectively safer with no empirical basis for that claim. This program of research will supplement ongoing naturalistic, on-road data collection examining the behavioral and performance consequences of using each of the three phone architectures. The NADS research will focus on aspects of the issue that cannot be addressed safely with on-road experiments. Specific objectives include examining, in a controlled and repeatable setting, the behavior and performance of drivers using the three wireless phone architectures under varying levels of demand. In addition, the research will examine the extent to which the nature of conversation (e.g , complexity) influences driving for each of the three architectures.

- **Develop standardized driving scenarios for NADS to support driver distraction research.** This effort will establish a standardized set of driving scenarios for use in carrying out distraction-related research on NADS. The developed scenarios will be based on the experience gained in the wireless phone research and a detailed examination of crash data where distraction was a contributing factor. Establishing uniformity and validity in the driving scenarios used to support distraction research is important to ensure comparability between studies and lend credibility to the results.

FY 2002 Budget Request ($3,450,000)

The FY 2002 request seeks continued funding for the major NADS starts in FY2001, summarized below:

- The continued evaluation of driver behavior and performance in response to various levels of BAC under demanding driving conditions.
- The continuation of efforts to examine the relationship between wireless voice communication architectures, and driver behavior and performance.
- Continued efforts to develop and refine standardized driving scenarios for NADS to support driver distraction research.

New Research Initiatives include.

- **Driver behavior and performance while using a variety of in-vehicle telematic systems under various conditions of driver demand.** Increased availability and use of complex in-vehicle technologies, coupled with the potential safety consequences related to the distraction created by these devices, is generating a growing safety concern. This program of research is directed at studying a variety of issues associated with the use of these systems and the implications for safety-relevant driver behavior and performance. The results of these efforts will be used to support agency policy decisions, outreach, system design, and systems integration, including the use of various sensors and crash avoidance systems to warn inattentive drivers of imminent conflicts .
- **Use of haptic cues in heavy vehicles to reduce the potential for rollover crashes.** This effort will examine the potential for using haptic cues (e.g., motion/orientation feedback to driver) to reduce the potential for rollover crashes of heavy vehicles by influencing behaviors that precipitate these crashes.
- **Measurement of driver cognitive distraction while using a variety of in-vehicle technologies**. The causal factors associated with distraction/inattention related crashes can be classified as visual, biomechanical, auditory, or cognitive. While experimental determination of the visual, auditory, and biomechanical aspect of distraction can be readily determined, the cognitive aspects have been much more elusive, but may play an increasingly important role as in-vehicle technologies move towards voice activated/controlled systems. To effectively carry out research on these systems, it is imperative that appropriate experimental paradigms and techniques be developed to measure the nature of, and degree to which, cognitive distraction plays a role in adversely influencing driver behavior and performance This effort will develop appropriate techniques for measuring and evaluating the cognitive components of distraction and is expected to support a wide range of other research dealing with driver behavior and performance while using in-vehicle telematics.

- **Enhancing Driving Behavior and Performance for Special Populations.** Although an estimated 90 percent of all motor vehicle crashes result from driver error, the distribution of these crashes across the population is not uniform. Young drivers, older/elderly drivers, and aggressive drivers tend to be over represented in the crashes. This research program will focus on the development of innovative countermeasures aimed specifically at reducing crashes associated with these specific populations. Proposed research will investigate the safety and mobility of the older driver population, including the issues of reduced driver capability, greater longevity, an older commuting workforce, greater complexity of vehicles, and higher traffic densities. The proposed effort will focus on this issue by examining the tradeoffs between fitness to drive and mobility, with a particular emphasis on increasing mobility, while improving safety. Research on youthful drivers will focus on issues of aggressive driving, risk taking, and driver inexperience as causal factors in crashes, with the goal of developing innovative countermeasures.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Research and Analysis

	FY 2000	FY 2001	FY 2002
	Enacted	Enacted	Request
INTELLIGENT TRANSPORTATION SYSTEM (ITS) PROGRAM	$22,908,000	$26,000,000	$30,945,000
INTELLIGENT VEHICLE INITIATIVE (IVI)			

* The Intelligent Vehicle Initiative budget data are part of the FHWA budget submission.

Problem Statement

The Intelligent Vehicle Initiative (IVI) is focused on supporting the U.S DOT goals of improving safety by ensuring that safety is not compromised by the introduction of in-vehicle systems and by facilitating the development, deployment, and evaluation of driver-assistance safety products and systems. NHTSA is the lead agency involved in IVI research, developing crash avoidance countermeasures for light vehicles using intelligent technologies. These efforts will support the early incorporation of IVI technologies into the marketplace and will form the basis for the development of more advanced IVI technologies. Phase I of a first-generation, rear-end collision warning system field test will be completed. Research to develop performance specifications, test procedures, and evaluation methodologies for longer-term, more advanced rear-end, road departure, and intersection collision avoidance systems will continue. Field tests of road departure, vehicle stability, and drowsy driver detection systems will also continue. Significant human factors research will be conducted to develop effective methods of conveying hazard information to drivers, develop an understanding of driver workload, and assess the safety impacts of in-vehicle safety and information systems. These efforts will be coordinated with NHTSA's own research activities in driver distraction and its impact on safety.

FY 2001 Program

- Phase I of the Cooperative Agreement with General Motors for an operational test of a rear-end collision warning (RECW) will be partially complete. The lane sensing sub-system will be selected for the field test. This key sub-system will allow the RECW system to determine where the road goes and to determine if vehicles or obstacles ahead are potential collision targets. The prototype vehicle for field testing will be completed. Preliminary testing of this vehicle will be completed to prepare for the decision to enter into Phase II of this contract, the data gathering phase, which is expected to begin in FY 2002.

- A road departure collision avoidance field test will begin.

- The National Advanced Driving Simulator (NADS) and the System to Assess a Vehicle Motion Environment (SAVME) are expected to play crucial roles in the design and evaluation of collision countermeasures. NADS will allow the U.S. DOT and industry partners to evaluate the effectiveness of countermeasures in collision and near-collision situations, which are rare on a miles-traveled or field trial basis. SAVME will allow the U.S. DOT to understand the naturalistic driving environment better and gain insight to design needs and system effectiveness.

- On-road testing and data collection will be initiated for the four operational tests which were awarded during FY 1999.

FY 2002 Program

- Two field test pilot vehicles will be completed to test the integration of the subsystems with the vehicle and the driver-vehicle interface in support of the Rear-End Collision Warning Field Operational Test for light vehicles.

- Analysis of Roadway Departure concepts: A detailed analysis of alternative infrastructure-based and vehicle-highway cooperative systems to reduce the number of roadway departure crashes. Concepts include the provision of hazard information to systems that can recognize actual or imminent roadway departures so that evasive actions can be taken.

- The Light Vehicle Enabling Research Consortium will complete a preliminary driver Workload Tool which will undergo validation in FY 2002.

- Work on the initial 3-year research program with the Light Vehicle Enabling Research Consortium will continue. This research is in three areas: enhanced digital maps for safety, forward collision warning, and driver workload and distraction metrics.

- Objective test procedures will be completed for a light vehicle road departure field test, and preparations will begin for the data collection phase of the field test.

- The test vehicles for the roadway departure field test will be completed, and the data collection phase will begin.

- The test vehicles for the drowsy driver field test will be completed, and the data collection phase will begin.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Research and Analysis

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
PNEUMATIC TIRE RESEARCH	$0	$1,992,000	$1,930,000

Problem Statement

Tire failures and subsequent loss of control of vehicles, particularly of sport utility vehicles, during the last several years have brought attention to the fact that the existing tire standard has not had the agency's attention for several years. Tire failures occurring in certain Firestone tires have been responsible for a number of vehicle crashes and fatalities. This initiated NHTSA's investigation of Firestone tires, Congressional hearings, and the passage of the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act. The TREAD Act requires that the agency conduct rulemaking to revise and update the existing tire standards, Federal Motor Vehicle Safety Standards (FMVSS) Nos 109 and 119. Further, the Act also requires NHTSA to complete rulemaking to establish a regulation to require a warning system in new motor vehicles to indicate when a tire is significantly underinflated. Accordingly, in FY 2001, NHTSA initiated a research program to support the rulemaking initiatives for upgrading the standard.

Current Program (FY 2001: $1,992,000)

The research program initiated in FY 2001 included the following activities:

- Tire Pressure Survey. To gain a clear understanding of the distribution of tire pressure in vehicles as used, NHTSA initiated a program to collect pressure data from about 10,000 light vehicles in operation throughout the United States. The variations in tire pressure will be established under the current program.

- Several types of pressure warning systems are already commercially available in light vehicles; but these use different technologies, and their characteristics differ significantly. It is, therefore, important to assess, through research, the features of new technologies, their effects on pressure sensing and warning performance, the threshold levels at which warnings should be displayed, the safety impact of such warning systems, and the human factors issues associated with warning displays

- In NHTSA's rollover test procedure development research there was anecdotal evidence that some tires came off their rims. The problem of unseating of tire beads could occur due to inadequate pressure in the tire and the severity of the maneuvers and the excessive lateral and

twisting loads that may result in such maneuvers. NHTSA is conducting research with instrumented wheels to measure such loads and to develop test procedures which could be used to determine the potential for tires to debead. Additionally, NHTSA research will also include development of test procedures for road hazard tests.

FY 2002 Program ($1,930,000)

The activities which have been initiated in FY 2001 will continue into the next year.

- Tire failures observed in NHTSA's investigation suggest that there is a need for evaluating adhesion performance of tires and their effect on tire performance when new and when used. This would require elaborate test procedures development for tire testing that are appropriate for determining their "peel strength" and the effect of aging on such characteristics. Test procedures for accelerated aging of tires and testing under aged conditions will be developed

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Research and Analysis

	FY 2000	FY 2001	FY 2002
FATALITY ANALYSIS REPORTING SYSTEM (FARS)	Enacted $5,213,000	Enacted $5,480,000	Request $5,700,000

Problem Statement

Per year, about 41,500 people died from injuries received in traffic crashes. FARS is a data collection system that provides a census of all fatal highway crashes in all 50 states, the District of Columbia, and Puerto Rico.

Current Program (FY 2001: $5,480,000)

Information is collected through cooperative agreements between NHTSA and each of the 50 states, the District of Columbia, and Puerto Rico. The overall goal of the program is to provide data to evaluate the effectiveness of NHTSA's crashworthiness, crash avoidance, and traffic safety efforts, as well as relating human, vehicle, roadway, and environmental factors to the yearly toll in traffic-related fatalities. This includes the following major activities

- Collecting and coding FARS data in the 50 states, Washington, D.C., and Puerto Rico
- Creating the 2000 FARS electronic data file consisting of about 41,500 crash fatalities
- Creating and delivering FARS system-wide training to all analysts, including a remedial course for selected analysts.
- Creating geographic analytical reports for public access on the World Wide Web, based on current FARS location data
- Developing pilot applications for interfacing with new state data flow technologies
- Broaden the availability of the FARS information through electronic media (i e , WEB, CD-ROM) with query tools and visual components
- Link the FARS data base with other national data bases to expand the agency's ability to address highway safety issues

- Increase the quality of drug and alcohol information obtained by establishing direct electronic links between the FARS analysts and their sources (medical examiners, coroners, hospitals, and police jurisdictions).

- Link state data files to the FARS data environment.

Program Highlights

The FARS provides the data needed to measure the performance of the agency's programs in support of its mission to save lives. Programs that address issues such as: alcohol, restraint system use and effectiveness, safety designs of passenger cars and light trucks, safety of large trucks and buses on the highways, the effect of speed limit changes, etc. use the FARS data as a benchmark from which to measure the current status of highway safety.

In addition to program evaluation, FARS data are used extensively to assess the status of the highway safety environment and to identify specific highway safety problem areas. FARS users extend well beyond NHTSA and other DOT modes to include: the Congress, the states, universities and colleges, auto manufacturers, insurance companies, foreign governments, and other members of the highway safety community.

FY 2002 Budget Request ($5,700,000)

The FY 2002 request seeks continued funding of all on-going activities and includes the continued support of new initiatives identified in FY 2001, as well as allowing for an anticipated 4 percent increase in the salary infrastructure requested to maintain qualified FARS analysts at the state level.

Ongoing activities will include

- Collecting and coding FARS data in the 50 states, Washington, D.C , and Puerto Rico.

- Creating the 2001 FARS electronic data files consisting of about 41,500 crash fatalities .

- Creating and delivering the FARS system-wide training to all analysts, including a remedial course for selected analysts.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Research and Analysis

	FY 2000	FY 2001	FY 2002
NATIONAL AUTOMOTIVE SAMPLING SYSTEM (NASS)	Enacted $9,987,000	Enacted $10,163,000	Request $10,570,000

Problem Statement

About 6.8 million police-reported traffic crashes occur annually in the United States. It is critical to NHTSA's mission to have a nationwide database of nationally representative crashes that form the basis for initiating countermeasures for improving the crash situation in this country.

Current Program (FY 2001: $10,163,000)

Nationally representative data on crashes occurring in the United States is vitally important to the agency and other users. NASS General Estimates System (GES) data assists in assessing the trend and magnitude of the crash situation in this country, and the NASS Crashworthiness Data System (CDS) provides more in-depth and descriptive data which allows NHTSA to quantify the relationship between the occupants and vehicles in the real-world crash environment. Collection, storage, and quality control of these data must be maintained and improved to ensure that users continue to be provided with high quality data gathered in a timely fashion.

Major FY 2001 initiatives include:

- Conducted detailed crash investigations and encoded data at 24 NASS CDS sites, extracted crash data from police traffic crash reports gathered at 60 GES sites, and conducted quality control functions at two NASS Zone Centers.
- Made the CY 2000 NASS CDS databases with images available on the Internet through the NHTSA web site.
- Investigated approximately 4,500 crashes during CY 2000 at the 24 CDS sites, increasing the total of the detailed CDS files to over 64,000 cases.
- Entered information on approximately 54,000 police-reported traffic crashes for CY 2000 into GES data files. An annual combined data report has been published and distributed nationwide for GES and FARS, and an update of the multi-year CDS report is being prepared. Both reports are available through the NHTSA web site.
- Began collection of information from event data recorders which are devices onboard passenger vehicles that record pre-impact and at-impact crash details.

- Conducted training for state and local police traffic crash investigators, CIREN investigators, and other government-related personnel in field investigation procedures at the Transportation Safety Institute in Oklahoma City, Oklahoma.

- Conducted a tire pressure survey for the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act. Measured the tire pressure from over 11,500 vehicles in a two-week period.

Program Highlights

NASS is a key data source for measuring the traffic safety performance goals of NHTSA and all its major programs (Safety Performance Standards, Safety Assurance, Research and Development, and Traffic Safety Programs) These data are not available from any other data system. It is, also, an essential data source for its customers (internal and Departmental offices, other Federal agencies, research organizations, and interest groups). The maintenance of an infrastructure like this is important because it provides NHTSA and DOT with a quick and cost-effective means of conducting special studies. The vehicle-trauma details from 4,500 crash investigations and the national crash trend data from 54,000 police reported crashes form the foundation for a comprehensive understanding of both the relationship between vehicle crash severity and occupant injury, and the scope of the highway safety problem.

FY 2002 Budget Request ($10,570,000)

The FY 2002 request seeks continued funding of all on-going programs. These on-going programs include activities to:

- Collect CDS data at 24 sites in 17 states.

- Collect GES data at 60 sites (including the 24 CDS sites) in 26 states.

- Create annual NASS CDS databases, with approximately 4,500 detailed motor vehicle crash investigations for CDS and 54,000 traffic crash reports for GES.

- Continue NASS CDS quality control and efficiency of data completeness.

- Continue to minimize the time from case investigation to public availability.

- Continue replacement, update, and general training for NASS researchers.

- Continue training for state and local police traffic crash investigators, CIREN investigators, and other government-related personnel in field investigation procedures at the Transportation Safety Institute in Oklahoma City, Oklahoma.

- Provide in-depth injury information on air bag and automatic belt data from NASS CDS cases to support research and regulatory initiatives on occupant protection systems in passenger cars.

- Continue evaluation of current field data collection hardware and software to ensure quality and efficiency of data recording in field operations.

The new initiatives proposed are:

- **Advanced Safety Devices.** Conduct crash investigations within NASS CDS to provide detailed information about real world crashes involving vehicles with advanced safety devices for occupant protection systems. Review police reports and provide notification to the Special Crash Investigation program. Crashes will include side and frontal advanced air bags, advanced sensing systems and controls, automatic air bag shut off systems, and advanced automatic crash data collection systems. If available on these vehicles, data from event data recorders will be accessed.

- **Child Safety Seat Data Collection.** In support of the TREAD Act, improve current NASS data variables, and collect data to determine the real world effectiveness of child safety seats in reducing injuries to children involved in motor vehicle crashes.

- **New Technologies for Field Data Collection.** Continue developing and testing new technologies to enhance the collection of field data.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Research and Analysis

DATA ANALYSIS PROGRAM	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
	$1,924,000	$1,993,000	$1,950,000

Problem Statement

In recent years, about 41,500 people died from injuries received in motor vehicle traffic crashes and more than 3.2 million other people sustained non-fatal injuries. The success of NHTSA's vision to reduce fatalities and injuries depends on effective and reliable crash data analysis. Ensuring that sufficient analytical resources are available for timely and pertinent analyses is critical to effective utilization of NHTSA's data collection program.

Current Program (FY 2001: $1,993,000)

In FY 2001, the Data Analysis Program's major objectives are threefold: maintain analytic support provided to internal and external customers; analyze available data to identify injury mechanisms and associated outcomes in motor vehicle crashes; and continue to provide accurate and timely traffic safety and related information to the NHTSA's varied customers, including metrics used to track NHTSA's activities under the DOT Annual Performance Plan.

In meeting the first two of the Data Analysis Program objectives, staff and contractors will continue to analyze motor vehicle crash and related data to support NHTSA's research, safety performance, safety assurance, and traffic safety programs and injury control efforts. The results of these analyses are a critical piece of information used to form the basis for agency decision making affecting motor vehicle and traffic safety. These results also are used by the entire highway traffic safety community to quantify emerging traffic safety issues and problems, determine priorities, and target resources where they will be the most effective. Specific analytical projects underway this year include:

- Evaluating the effectiveness of occupant protection systems, daytime running lights lamps, and antilock braking systems and other motor vehicle safety improvements.
- Supporting the Office of Defects Investigation to quantify crash occurrence and crashworthiness related to alleged vehicle defects.
- Investigating the relationship between tire failure, vehicle rollover, and crash outcomes.
- Providing analytic support for issues relating to Child Safety and Tire Pressure resulting from the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act.

To meet the third Data Analysis Program objective, staff and contractors will continue to meet customer needs for the timely completion and dissemination of high quality statistical information on motor vehicle traffic crashes. The program responds both to internal requests and to requests from external customers, including hundreds of requests received via the agency Internet web site. Many of these requests require complex programming and/or data analysis. This portion of the program is also responsible for producing 15 annual publications on traffic safety, including the *Traffic Safety Facts* annual report and Traffic Safety Fact Sheets.

Program Highlights

Customers now can request statistical crash information by telephone and via the Internet through the NHTSA WWW Site. In FY 2000, more than 20,000 requests for data or analyses were received by the information services staff, either through agency requests, from the Integrated Voice Processing (IVP) computerized request system and via the Internet, or by mail. Additionally, the Data Analysis Program printed over 21 separate documents during the year and contributed to other studies throughout the agency.

FY 2002 Budget Request ($1,950,000)

The FY 2002 request seeks continued funding of all current activities, as described in the FY 2001 program. Statistical data are critically important for monitoring crash trends and evaluating the effectiveness of federal, state, and privately funded programs aimed at reducing fatalities and injuries on the nation's highways. Many customers request detailed statistical data from the crash files, often requiring complex programming procedures which can entail days or longer.

In FY 2002, the Data Analysis Program will continue to:

- Conduct major analytical projects aimed at studying motor vehicle crash and related data to support NHTSA's research, safety performance, safety assurance, and traffic safety programs and injury control efforts and provide the metrics by which NHTSA tracks its progress toward meeting the Departmental Performance Goals.

- Maintain and improve upon the high level of customer satisfaction with the Data Analysis Program's services and products. This will be accomplished by continuing staff training, through process improvement activities, and through investigation of new information processing technology to upgrade, as appropriate, the current customer service response and tracking systems. New technology may improve timeliness of responding to customers' requests for the latest traffic safety crash data and information.

- Produce annual reports and other topical publications which describe motor vehicle traffic crashes and their consequences in the United States.

- Report on the metrics used to track NHTSA's portion of the Department's Performance Plan.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Research and Analysis

	FY 2000	FY 2001	FY 2002
STATE DATA PROGRAM	Enacted	Enacted	Request
	$2,344,000	$2,491,000	$2,450,000

Problem Statement

NHTSA and the highway safety community need high quality data to perform problem identification, establish and monitor achievement of goals and performance measures, determine progress of specific programs, and support the development and evaluation of highway and vehicle safety countermeasures.

Current Program (FY 2001: $2,491,000)

NHTSA's mission to improve highway traffic safety requires a multifaceted data collection approach. To supplement the data NHTSA collects in-house, NHTSA also collects state crash data. The State Data Program provides NHTSA with state crash data which are used by agency analysts to support research aimed at reducing deaths, injuries, crashes, and associated health care costs. Beyond NHTSA's use of these data, NHTSA works with the states on a continuing basis to assist them in improving their data as well as decimating the data to state, local, academic, and private organizations. The State Data Program focuses on the following areas:

- **Providing State Crash Data Files to NHTSA Analysts**. The State Data Program obtains, documents, and makes available to NHTSA analysts state crash data files. These are the electronic data files produced by state governments based on motor vehicle crash reports collected from police departments across the state. In FY 2001, NHTSA is obtaining crash data files from 17 states, converting them into a format compatible with NHTSA analytical protocols, developing documentation for their use, and making them available within the agency.

- **Providing Technical Assistance in the Use of State Data for NHTSA Programs**. The State Data Program staff continue to assist the numerous users within NHTSA in accessing and using the state crash data files. State data files and technical assistance are also provided to users outside of the agency on a limited basis. Staff also continue to use these crash data files to produce internal analyses and to publish reports

- **Providing Technical Assistance to States to Improve their Highway Safety-related Databases.** In FY 2001, the State Data Program staff continue to promote the adoption of the Model Minimum Uniform Crash Criteria (MMUCC) by states as their basic police reported crash data set through staffing an informational workshop and providing technical assistance. They continue to support improvements in state traffic records systems through

participation in the evaluation and awarding of Highway Safety Information Systems Improvement Grants as provided in TEA-21 and through the support of national conferences such as the National Safety Council's International Forum on Traffic Records and Highway Safety Information Systems.

- **Promoting the Linking of Crash and Medical Outcome Databases**. Data linkage improves a state's analytical capability by providing crash outcome information in terms of injuries, severity of injuries, and costs of treatment. Currently (through FY 2000), 25 states have received grants to link their databases and begin institutionalization of the linkage process. NHTSA's FY 2001 program will focus on two areas: awarding 3-4 grants to new states to begin data linkage; and grants to states which have linked data to develop a data network that would provide access to these data for use by NHTSA. Technical assistance in data linkage is being provided to those states which are attempting linkage or to those states interested in the process.

Program Highlights

State crash data from the State Data Program are being used in numerous on-going analyses including: rollovers and tire problems (blowouts, worn tires) related to Ford Explorers and peer vehicles; side and rear impact vehicle collisions with large trucks and buses; child safety seats; and injury patterns for motorcycle riders by helmet use.

FY 2002 Request ($2,450,000)

The FY 2002 budget request seeks continued funding for the State Data Program. The program will continue to obtain, document, and make state crash data files available for the analyses that support the many different agency safety program areas. Analytical and technical support in the use of these files will be continued and will be provided to analysts inside and outside the agency. NHTSA will continue to work national and state organizations to encourage states to adopt standardized motor vehicle traffic crash data elements (MMUCC). NHTSA's program to promote the use of linked crash and medical outcome data files in states with these files will be continued through providing technical assistance, sponsoring research and meetings, demonstrating linked data usefulness, and by awarding grants to additional states which will qualify by having the necessary crash and medical outcome data files.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Research and Analysis

	FY 2000	FY 2001	FY 2002
SPECIAL CRASH INVESTIGATIONS (SCI)	Enacted	Enacted	Request
	$1,553,000	$1,594,000	$1,650,000

Problem Statement

It is critical to the safety of the motoring public to have a program that can rapidly document the effectiveness of occupant protection systems (advanced air bags) changes as automobile manufactures undergo the technology changes to meet the new government requirements (Federal Motor Vehicle Safety Standard No. 208). The in-depth real world crash data will be used for the evaluation of occupant protection effectiveness and to provide an early detection of alleged or potential vehicle defects.

Current Program (FY 2001: $1,594,000)

The SCI crash investigation is the primary source for providing detailed data for the analysis of air bag deployments. These in-depth investigations include the documentation of crash circumstances, the identification of injury mechanisms, the evaluation of safety countermeasure effectiveness, and the early detection of design and functional problems relative to air bags and vehicle occupants

This year, the agency has :

- Continued locating, investigating, confirming, and reporting air bag-related life threatening and fatal injury cases for the entire United States.

- Continued to be the first line of data collection, completing over 100 field crash investigations which provide accurate and detailed information on the real-world performance of new air bag systems, such as side air bags and advanced air bags equipped with sophisticated sensing systems and multi-stage inflators.

- Published quarterly counts worldwide on the Internet for the following:
  1) NHTSA air bag fatalities and serious injuries;
  2) NHTSA and Industry Partners redesigned air bag deployment investigations;
  3) NHTSA advanced air bag deployment investigations; and
  4) NHTSA side air bag deployment investigations.

- Enhanced access to completed SCI cases through the worldwide web

Program Highlights

The performance of air bags, as an occupant protection system, is of high interest to the National Highway Traffic Safety Administration (NHTSA). Automobile manufacturers have began introducing advanced occupant protection systems into their fleets. In an effort to determine how these advanced occupant protection systems affect occupants in real world crashes, the SCI is collecting data on crashes involving vehicles equipped with these systems. However, the only method to observe and/or measure the performance of these systems is through the EDR data. The SCI is currently providing case data to the industry on the performance of these new occupant protection devices. This collaborative effort combines the talents of NHTSA and automobile manufacturers, which enables a more detailed evaluation of the real world performance of these advanced technologies. Particularly noteworthy is the technical analysis of the event data recorder (EDR) output. The EDR data has provided invaluable information relating to occupant status, severity assessment, and deployment control in researching crashes with advanced occupant protection systems.

FY 2002 Budget Request ($1,650,000)

The FY 2002 request seeks continued funding of all on-going programs. These on-going programs include activities to:

- Investigate SCI cases nationwide through 3 field contractors.
- Investigate over 200 crashes, including over 100 advanced air bag systems.
- Add more than 200 crashes to the database of SCI cases available for public distribution. Improve the efficiency in completing the Special Crash Investigation case reports.
- Generally increase the quality and completeness of data provided in the motor vehicle crash investigations.
- Facilitate improved collection and utilization of crashworthiness data from on-board event data recorders.
- Continue planning and researching new technologies for field data collection.

The new initiatives proposed are:

- **Advanced Occupant Protection Systems in Fatal Crashes.** Conduct 100 crash investigations to provide detailed information about real-world crashes involving vehicles with advanced safety devices for occupant protection systems. Crashes would include late model year vehicles equipped with side and frontal advanced air bags, advanced sensing systems and controls, automatic air bag shut off systems, and advanced automatic crash data collection systems.

- **Continue the Collaborative Efforts Between NHTSA and Automobile Manufacturer for the Data Collection of Event Data Recorder (EDR) Data.** The EDR data has provided invaluable information relating to occupant status, severity assessment, and deployment control in researching crashes with advanced occupant protection systems.

- **Performance of Child Safety Seats In Vehicles Equipped With LATCH.** Perform five in-depth crash investigations on children properly installed in child safety seats with vehicles equipped with Lower Anchors and Tethers for Children (LATCH). The data will be used to research the performance of new technology for child occupant protection systems in real world crashes.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Research and Analysis

	FY 2000	FY 2001	FY 2002
VEHICLE RESEARCH AND TEST CENTER (VRTC)	Enacted $950,000	Enacted $950,000	Request $990,000

Problem Statement

Administrative funds are required for the operation of the Vehicle Research and Test Center (VRTC). VRTC is the agency's in-house research, development, test, and evaluation facility located in East Liberty, Ohio.

Current Program (FY 2001: $950,000)

VRTC supports all NHTSA program offices with the ability to use in-house researchers to address safety issues and support new or revised rulemaking initiatives. Approximately 40 R & D programs and 20 defect investigations are performed at VRTC each year, including several of the agency's priority programs. Administrative funds are used to lease space to house the facility and provide utilities and equipment at VRTC.

VRTC maintains three divisions:

- **Crashworthiness/Defects Investigation** - The Defects Analysis and Crashworthiness Division continues to provide in-house support for priority activities such as improvements to child restraint testing (required in Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act legislation), upgrade of tire road hazzard test requirements (also required in TREAD), frontal and side protection upgrades for school buses, side air bag evaluation, and advanced frontal air bag monitoring and evaluation.

  Engineering, analysis, and testing to identify possible vehicle defects continues. Quick reaction test and evaluation of possible motor vehicle defects result in earlier determinations of recall requirements. This results in reduction of accidents and injuries caused by defective components or vehicles.

- **Pedestrian and Applied Biomechanics** -The Pedestrian and Applied Biomechanics Division is supporting the child dummy and injury criteria necessary for child restraint test improvements (TREAD), including the development of an additional child size between the 6 year old and a small adult. Work will be initiated on evaluation of the 95th percentile adult dummy, and on the evaluation of side impact dummy designs which have potential for harmonization of side impact testing and development around the world. Test dummies are supplied for programs internationally, and maintained and refurbished for agency needs.

Programs to develop and refine injury tolerance values for children and adults will continue through accident reconstruction techniques and impact trauma programs.

- **Vehicle Stability and Control** - The Vehicle Stability and Control Division is anticipating a large workload in conjunction with TREAD, the 21st Century Truck, and other high priority agency initiatives. The dynamic rollover test development program of TREAD is underway, as well as major segments of the upgrade of tire requirements, including tire pressure monitoring technology. The de-beading test requirements of Federal Motor Vehicle Safety Standard No. 109 are also being studied. Other high priority studies include the effects of driver distraction caused by emerging in-vehicle technology, such as cell phones, route navigation, personal computers, etc. VRTC is also supporting the final development and transition to use of the National Advanced Driving Simulator.

FY 2002 Budget Request ($990,000)

The three VRTC divisions will continue to support agency priority programs identified during prior fiscal years.

GENERAL ADMINISTRATION

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NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
PLANS & POLICY CONTRACT PROGRAM
(dollars in thousands)

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Cong. Request	FY 2002 Over FY 2001
General Administration				
Program Evaluation	468	468	468	0
Strategic Planning	90	89	89	0
Economic Analysis	87	86	86	0
Total, General Administration	**645**	**643**	**643**	**0**

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
General Administration

PROGRAM EVALUATION	FY 2000 Enacted $468,000	FY 2001 Enacted $468,000	FY2002 Request $468,000

Problem Statement

Program Evaluation seeks to determine the most cost-effective regulations and programs to address motor vehicle and highway safety problems; the performance of safety programs; and further opportunities for improving safety.

Current Program (FY 2001: $468,000)

The objective of program evaluation is to gather information about NHTSA vehicle regulatory and highway safety programs and measure their effectiveness in achieving their objectives. Executive Order 12866 requires federal agencies to evaluate their existing regulations and programs.

After determining if and how a standard or program can be evaluated, NHTSA collects and analyzes crash or other data (1) to determine if programs have reduced fatalities, injuries, crashes or other indicators; (2) to estimate changes in consumer costs for vehicle safety equipment; (3) to use these effectiveness and cost studies to estimate a standard's overall benefits and costs to the public; and, where appropriate, (4) to identify opportunities for improving the effectiveness of programs.

Crash data will be collected to evaluate antilock brake systems for heavy trucks and rear-impact guards for truck trailers. The cost, maintenance requirements and durability of antilock brakes for heavy trucks will be studied by engineering analyses and a survey of truck fleets. The evaluation of improvements to occupant protection continues with statistical analyses of crash data for depowered air bags and safety belt pretensioners.

FY 2002 Budget Request ($468,000)

Crash data collection will continue for the evaluation of antilock brake systems and rear-impact guards for heavy trucks. The evaluation of side impact protection (FMVSS No. 214) will continue with statistical analyses of crash data and a cost analysis of side air bags. The evaluation of head injury protection (FMVSS No. 201) will include testing the performance of baseline vehicles. The statistical evaluation of depowered air bags and safety belt pretensioners will continue.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
General Administration

	FY 2000	FY 2001	FY 2002
STRATEGIC PLANNING	Enacted	Enacted	Request
	$90,000	$89,000	$89,000

Problem Statement

Strategic Planning is used as a management tool in NHTSA for setting organizational direction and developing action plans so that the agency's mission and critical objectives can be achieved.

Current Program (FY 2001: $89,000)

The strategic planning model involves a comprehensive analysis of customers, environment, and organizational (agency) factors. From this analysis, agency management are provided with a solid basis for assessing the implementation of current strategies and where necessary, modifying program strategies to reflect changes in customer, environment and/or organizational factors. Strategic planning enables senior management to keep the organization on target for meeting its mission and long term objectives.

In FY 2001, strategic planning will use the findings from a strategic assessment of NHTSA's Impaired Driving Program as the basis for recommendations for changes in program direction. Continuous improvement activities will be continued as a way to assess, and where necessary, improve internal operations.

FY 2002 Budget Request ($89,000)

The FY 2002 request will continue strategic planning efforts to study aspects of the agency's ability to meet its mission as effectively as possible. These areas include: improving internal communication and outreach to agency partners; integrating continuous improvement activities as a means for improving agency efficiency; examining priorities and strategies to support decisions on resource allocation; and a strategic assessment of the changing environment and identifying new traffic safety challenges.

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
General Administration

	FY 2000	FY 2001	FY 2002
ECONOMIC ANALYSIS	Enacted	Enacted	Request
	$87,000	$86,000	$86,000

Problem Statement

Establishing program priorities and determining the potential effectiveness of proposed regulatory actions require scientifically sound methods for quantifying the economic and social consequences of injury and fatality resulting from motor vehicle crashes The Economic Analysis program develops such methods where needed, and modifies existing methods to meet the agency's specific needs

Current Program (FY 2001: $86,000)

Clinical validation of the Functional Capacity Index (FCI) and development of a version of the FCI applicable to pediatric motor vehicle injuries will be completed. An ongoing effort to obtain additional empirical data on the outcomes people experience in motor vehicle crashes will continue. Estimates of the societal costs of motor vehicle injuries will be developed with an emphasis on changes in the health care related costs resulting from changes in the health care infrastructure.

FY 2002 Budget Request ($86,000)

Efforts will be undertaken to develop answers to questions raised in the international conference held in FY 2000. The agency will provide support for this fiscal year's international conference on measuring the burden of injury. The purpose of the conference will be to build consensus on certain unresolved methodological issues in measuring the outcomes of motor vehicle injuries. An update of the overall societal burden resulting from motor vehicle injuries will be published, incorporating the economic cost estimates developed as part of the FY 2001 program, as well as estimates of the functional burden imposed on society as a result of motor vehicle crash injuries

HIGHWAY TRAFFIC SAFETY GRANTS PROGRAMS

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HIGHWAY TRAFFIC SAFETY GRANTS

(LIQUIDATION OF CONTRACT AUTHORIZATION)

(LIMITATION ON OBLIGATIONS)

(HIGHWAY TRUST FUND)

Notwithstanding any other provision of law, for payment of obligations incurred in carrying out the provisions of 23 U S C 402, 405, 410, and 411 to remain available until expended, [$213,000,000] *$223,000,000*, to be derived from the Highway Trust Fund *Provided*, That none of the funds in this Act shall be available for the planning or execution of programs the total obligations for which, in fiscal year [2001] 2002, are in excess of [$213,000,000] *$223,000,000* for programs authorized under 23 U S C. 402, 405, 410, and 411, of which [$155,000,000] *$160,000,000* shall be for "Highway Safety Programs" under 23 U S C 402, [$13,000,000] *$15,000,000* shall be for "Occupant Protection Incentive Grants" under 23 U.S C 405, [$36,000,000] *$38,000,000* shall be for "Alcohol-Impaired Driving Countermeasures Grants" under 23 U S C 410, [$9,000,000] *$10,000,000* shall be for the "State Highway Safety Data Grants" under 23 U S C 411. *Provided further*, That none of these funds shall be used for construction, rehabilitation, or remodeling costs, or for office furnishings and fixtures for State, local, or private buildings or structures *Provided further*, That not to exceed [$7,750,000] *$8,000,000* of the funds made available for section 402, not to exceed [$650,000] *$750,000* of the funds made available for section 405, not to exceed [$1,800,000] *$1,900,000* of the funds made available for section 410, and not to exceed [$450,000] $500,000 of the funds made available for section 411 shall be available to NHTSA for administering highway safety grants under chapter 4 of title 23, United States Code *Provided further*, That not to exceed $500,000 of the funds made available for section 410 "Alcohol-Impaired Driving Countermeasures Grants" shall be available for technical assistance to the States *(Department of Transportation and Related Agencies Appropriations Act, 20001, as enacted by section 101(a) of P.L. 106-346)*

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
HIGHWAY TRAFFIC SAFETY GRANTS
(LIQUIDATION OF CONTRACT AUTHORITY)
(HIGHWAY TRUST FUND)

Program and Financing (in thousands of dollars)

Identification Code 69-8020-0-7-401		FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Obligations by program activity:				
Direct Program:				
00.01	Section 402 Formula Grants	152,800	154,659	160,000
00.02	Section 405 Occupant Protection Incentive Grants	10,000	12,971	15,000
00.03	Section 410 Alcohol Incentive Grants	36,000	35,921	38,000
00 04	Section 411 Safety Data Grants	8,000	8,980	10,000
10 00	Total Obligations	206,800	212,531	223,000
Budgetary resources available for obligation:				
21.49	Unobligated Balance Carried Forward, start of year. Contract Authority			469
22.00	New Budget Authority, (gross)	206,800	213,000	223,000
23 95	Total New Obligations	-206,800	-212,531	-223,000
24 49	Unobligated Balance Carried Forward, end of year. Contract Authority	0	469	469
New budget authority (gross), detail				
Discretionary				
40 26	Appropriation (trust fund, definite)	206,800	213,000	223,000
40 49	Portion applied to liquidate contract authority	-206,800	-213,000	-223,000
43 00	Appropriation (total discretionary)	0	0	0
Mandatory				
66 10	Contract Authoriy	206,800	213,000	223,000
70 00	Total new budget authority (gross)	206,800	213,000	223,000

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
HIGHWAY TRAFFIC SAFETY GRANTS
(LIQUIDATION OF CONTRACT AUTHORITY)
(HIGHWAY TRUST FUND)

Program and Financing (in thousands of dollars)

Identification Code		FY 2000	FY 2001	FY 2002
69-8020-0-7-401		Actual	Estimate	Estimate
Change in unpaid obligations				
Unpaid obligations, start of year				
72.40	Obligated balance, start of year	209,804	225,235	216,571
72 99	Obligated balance, start of year.			
	Contract Authority	206,800	225,235	216,571
73.10	Total new obligations	206,800	212,531	223,000
73 20	Total outlays (gross)			
	Unpaid obligations, end of year	-191,369	-221,002	-228,063
74 40	Unpaid obligations, end of year	225,235	216,765	211,508
74.99	Obligated balance, end of year	225,235	216,765	211,508
Outlays (gross), detail				
86.90	Outlays from new discretionary authority	84,788	87,138	91,430
86 93	Outlays from discretionary balances	106,581	133,864	136,633
87 00	Total outlays (gross)	191,369	221,002	228,063
Net budget authority and outlays				
89 00	Budget authority	206,800	212,531	223,000
90 00	Outlays	191,369	221,002	228,063

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
HIGHWAY TRAFFIC SAFETY GRANTS
(LIQUIDATION OF CONTRACT AUTHORITY)
(HIGHWAY TRUST FUND)

Program and Financing (in thousands of dollars)

Identification Code	FY 2000	FY 2001	FY 2002
69-8020-0-7-401	Actual	Estimate	Estimate
Status of Contract Authority			
02.00 Contract Authority	206,800	213,000	223,000
04.00. Appropriation to liquidate contract authorit	-206,800	-213,000	-223,000
07.00 Balance, end of year	0	0	0

HIGHWAY TRAFFIC SAFETY GRANTS

Program and Performance

Section 402. The Section 402 State and Community Grant Program is a performance-based program administered by NHTSA. Grant allocations are determined on the basis of a statutory formula States use this funding to reduce traffic crashes, fatalities, and injuries The grants are used to support State highway safety programs, within national priorities, implemented jointly with all members of the highway safety community States develop safety goals, performance measures, and strategic plans to manage use of grants for programs to reduce deaths and injuries on the Nation's highways, such as programs associated with excessive speeds, failure to use occupant restraints, alcohol/drug impaired driving, and roadway safety

Section 410 Alcohol-Impaired Driving Incentive Grants A two-tiered basic and supplemental grant program to reward states that pass new laws and start more effective programs to attack drunk driving States may qualify for basic grants by implementing criteria that include administrative license revocation, stepped-up police enforcement coupled with publicity, and graduated licensing laws with nighttime driving restrictions and Zero Tolerance States are also awarded basic grants for demonstrating consistently high performance in reducing alcohol-related fatalities There are six supplemental grant criteria, including self-sustaining drunk driving prevention programs, effective DWI tracking systems, and use of passive alcohol sensors by police

Section 405 Occupant Protection Incentive Grants Targets specific laws and programs to help states increase seat belt and child safety seat use States may qualify for grants by adopting or demonstrating specific laws and programs, such as primary safety belt use laws, minimum fines or penalty points, and special traffic enforcement programs Grant funds may be used only to implement and enforce occupant protection programs

Section 411 State Highway Safety Data Improvement Incentive Grants Encourages states to take effective actions to improve the timeliness, accuracy, completeness, uniformity, and accessibility of their highway safety data States may qualify for grants based on the status of development of a multi-year highway safety data and traffic records strategic plan and establishment of a multi-disciplinary data coordinating committee Grant funds may be used only to implement data improvement programs

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Highway Traffic Safety Grants

	FY 2000	FY 2001	FY 2002
SECTION 402 STATE & COMMUNITY FORMULA GRANTS PROGRAM	Enacted $152,800,000	Enacted $154,659,000	Request $160,000,000

Problem Statement

Highway safety is a major public health problem in the nation today, and the Section 402 program is a critical asset in the Administration's goal of reducing health care costs In 1999, traffic crashes claimed 41,611 lives and caused 3,236,000 injuries The medical costs associated with crash fatalities and injuries in 1994, alone, totaled over $17 billion The total cost of motor vehicle crashes in 1994 was $150 5 billion Public revenues paid 24 percent of medical costs and 9 percent of all costs resulting from motor vehicle crashes The programs funded from Section 402 result in direct savings to the public because they prevent accidents and reduce deaths and injuries

Current Program (FY 2001: $154,659,000)

The Section 402 State and Community Formula Grant Program provides for a coordinated national highway safety program in every state, territory, and the Indian Nations Under a formula established by the Highway Safety Act of 1966, all states, the District of Columbia, the Commonwealth of Puerto Rico, Indian Nations, and the Trust Territories are provided with grants to encourage and facilitate implementation of more effective programs to improve highway safety

These grants to all states and territories are used to support state highway safety programs, using a performance-based management process The states may choose to use the grants to implement programs to reduce deaths and injuries caused by exceeding posted speed limits, encourage proper use of occupant protection devices, reduce alcohol and drug-impaired driving, reduce crashes between motorcycles and other vehicles, reduce school bus crashes, improve police traffic services, improve emergency medical services and trauma care systems, increase pedestrian and bicyclist safety, improve traffic record systems, and improve roadway safety The grants also provide additional support for state data collection and reporting of traffic deaths and injuries

Key highway safety initiatives such as Safe Communities, aggressive driving, and speed management programs receive their federal financial support through the Section 402 formula grant program The number of Safe Communities continues to rise At the end of December 2000, NHTSA had surpassed its goal of increasing the number of Safe Communities to 1,000 by the end of 2000.

FY 2002 Budget Request ($160,000,000)

In FY 2002, the Section 402 program will continue the efforts noted above in FY 2001 Unlike the incentive grant programs which only assist a fraction of the country's population, the Section 402 formula program ensures that all states address key highway safety problems that occur, and that these problems are attacked with the most effective countermeasures available nationwide, as developed and tested in the Federal Section 403 Program

The Section 402 program is a major influence nationwide in meeting the Department's goals of 90 percent safety belt usage by 2005 and a reduction in alcohol-related fatalities to 11,000 by 2005, as well as the continuing reduction in the traffic fatality and injury rates In addition to national goals, as states implement the new Section 402 process, they are setting their own highway safety goals, based on their data and needs analysis

In the area of occupant protection, states are implementing increased activities to support the Buckle Up America Campaign Several states have demonstrated success in enhancing the visibility of their seat belt enforcement efforts and increasing seat belt use by promoting "Click It or Ticket" as their Buckle Up Campaign theme A majority of states have committed to or are seriously considering adopting "Click It or Ticket " Additional efforts are focused on improving state child occupant protection and seat belt use laws, particularly passage of primary enforcement laws, increased enforcement of current laws, expanding public education on the benefits of seat belt and child safety seat use, and strengthening partnerships to increase proper use of safety belts and child safety seats

In the effort to reduce alcohol-related fatalities, NHTSA is assisting interested states in planning statewide alcohol forums to be conducted in FY 2001 and 2002 These forums, designed to create action plans tailored to each states's unique impaired driving priorities, are being developed in collaboration with Mothers Against Drunk Driving and other state and national partners Each state has a critical role to play in the broad-based regional and national strategic plans developed to meet the national goals

Furthermore, in FY 2002, by continuing support for implementing Safe Communities, states are enabling communities to take action to change behaviors and reduce injuries prevalent in their locality, and thus reduce the costs associated with motor vehicle crashes NHTSA has made a major commitment to the philosophy that communities are in the best position to make improvements in the motor vehicle injury problem, knowing that when a community takes ownership of an issue, positive change will result With the strong state and local support evidenced for this program, NHTSA expects to see continued increases in the numbers of Safe Communities

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Highway Traffic Safety Grants

	FY 2000	FY 2001	FY 2002
SECTION 405 OCCUPANT PROTECTION INCENTIVE GRANTS PROGRAM	Enacted $10,000,000	Enacted $12,971,000	Request $15,000,000

Problem Statement

In 1999, 70 percent of passenger vehicle occupants used their safety belt (according to observational surveys conducted by the states) Lap and shoulder belts, when used properly, reduce the risk of fatal injury to front seat passenger car occupants by 45 percent and the risk of moderate-to-critical injury by 50 percent For light truck occupants, the effectiveness increases to 60 and 65 percent, respectively Seat belts are the most effective means of reducing fatalities and serious injuries when traffic crashes occur In 1999, among passenger vehicle occupants over 4 years old, seat belts saved an estimated 11,197 lives

Current Program (FY 2001: $12,971,000)

This initiative established under the Transportation Equity Act for the 21st Century (TEA-21) provides grants to states to implement and enforce occupant protection programs States must demonstrate that they are implementing specific occupant protection laws and programs, such as

- A law requiring safety belt use by individuals in all seating positions in the vehicle
- A safety belt law providing for primary enforcement
- Minimum fines or penalty points for seat belt and child seat use law violations
- A statewide special traffic enforcement program for occupant protection that emphasizes publicity
- A statewide child passenger protection education program that includes programs about proper seating positions for children in air bag equipped motor vehicles and instruction on how to reduce the improper use of child restraint systems
- A child passenger protection law that requires minors to be properly secured in a child safety seat or other appropriate restraint system

- In FY 1999, the first year of the Section 405 program, NHTSA made grant awards to 38 states, the District of Columbia, and 4 territories. In FY 2000, the second year of the Section 405 program, NHTSA made grant awards to 38 states, the District of Columbia, Puerto Rico and 2 territories FY 2001 grants will be awarded in September 2001.

FY 2002 Budget Request ($15,000,000)

Increasing safety belt and child safety seat usage is critical to reducing deaths and injuries on the nation's highways The Section 405 program is a key element of the Department's initiative to reach 90% belt use by 2005, and to reduce child occupant fatalities (0-4 years) by 25% in 2005

The agency is requesting $15 million, the full authorization level, to support the Section 405 program under TEA-21 In FY 2002, the Section 405 program will continue the efforts noted above in FY 2001 States will use their FY 2002 incentive grant awards to fund occupant protection countermeasures and programs, including

- Improved safety belt and child safety seat laws
- Increased enforcement of these laws
- Air bag education and correct child safety seat usage education programs

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Highway Traffic Safety Grants

	FY 2000	FY 2001	FY 2002
SECTION 410 ALCOHOL-IMPAIRED DRIVING COUNTERMEASURES INCENTIVE GRANTS PROGRAM	Enacted $36,000,000	Enacted $35,921,000	Request $38,000,000

Problem Statement

In 1999, 15,786 people were killed and 308,000 people were injured in alcohol-related crashes In 1999, 30 percent of all traffic fatalities occurred in crashes in which at least one driver or non-occupant had a BAC of .10 or greater.

Current Program (FY 2001: $35,921,000)

The Transportation Equity Act for the 21st Century amended the existing Section 410 program which provides grants to states to encourage states to adopt and implement effective programs to reduce traffic safety problems resulting from individuals driving while under the influence of alcohol. This program builds upon the successful Section 410 program, which expired at the end of FY 1997 and was extended through FY 1998. Beginning in FY 1999, to be eligible for incentive grant funding, a state had to meet the criteria for a *Programmatic Basic Grant*, *Performance Basic Grant*, or both

Under the *Programmatic Basic Grant*, states must demonstrate that they are implementing at least 5 of the following 7 specific impaired driving laws and programs

- An administrative license revocation law.
- A program to prevent drivers under age 21 from obtaining alcoholic beverages
- A program for intensive impaired driving law enforcement
- A graduated licensing law with nighttime driving restrictions and zero tolerance
- A program to target drivers with high BAC
- Young adult drinking programs to reduce impaired driving by individuals age 21 through 34
- A rate of testing for BAC of drivers in fatal crashes which is equal to or greater than the national average

Under the *Performance Basic Grant*, states must demonstrate: 1) a reduction in their percentage of fatally injured drivers with .10 BAC or greater, in each of the last 3 years and 2) their percentage of drivers with .10 BAC or greater is lower than the national average for each of the last 3 years.

A state which qualifies for either or both Basic Grants may qualify for a Supplemental Grant by demonstrating that it implements programs such as:

- Videotaping of drunk drivers by police.
- A self-sustaining impaired driving program.
- Laws to reduce driving with suspended license
- Use of passive alcohol sensors by police
- A system for tracking information on drunk drivers
- Other innovative programs

In FY 1999, the first year of the program under the new TEA-21 Section 410 criteria, NHTSA made grant awards to 31 states and the District of Columbia Three states – California, Florida, and Utah – qualified for both Programmatic and Performance Basic Grants In FY 2000, NHTSA made grant awards to 38 states Three states – Florida, Georgia, and Utah – qualified for both Programmatic and Performance Basic Grants FY 2001 grants will be awarded in September 2001

FY 2002 Budget Request ($38,000,000)

The Section 410 program supports the Department's *Partners in Progress* initiative with its goals to reduce alcohol-impaired driving fatalities to 11,000 by the year 2005 NHTSA is requesting $38 million, the full authorization level for Section 410 In FY 2002, the Section 410 program will continue the efforts noted above in FY 2001 States will use their FY 2002 Section 410 funds to support a wide range of impaired driving countermeasures and programs Significant program activities include

- Sobriety checkpoint and/or safety checkpoint programs
- Alcohol awareness programs that target persons under age 21
- Acquiring videotape equipment for police vehicles and training officers in its use
- Assessment and screening programs for drunk driving offenders

FY 2002 CONGRESSIONAL BUDGET
National Highway Traffic Safety Administration
Highway Traffic Safety Grants

	FY 2000	FY 2001	FY 2002
SECTION 411 STATE HIGHWAY SAFETY DATA IMPROVEMENTS INCENTIVE GRANTS PROGRAM	Enacted	Enacted	Request
	$8,000,000	$8,980,000	$10,000,000

Problem Statement

Reliable highway safety data is crucial to identify performance goals for state and local highway and traffic safety programs under the performance-based Section 402 process. Reliable safety data is also needed to develop programs and projects to meet those goals, and to evaluate the effectiveness of such efforts. Furthermore, to provide the best information for decision making, various types of data must be linked, for example, linking traffic records together with other data systems within the state, such as medical and economic data, to determine the short and long-term costs of highway crashes.

Current Program (FY 2001: $8,980,000)

TEA-21 established an incentive grant program (under Section 411 of chapter 4 of Title 23) to encourage states to adopt and implement effective programs:

- To improve the timeliness, accuracy, completeness, uniformity, and accessibility of state data that is needed to identify priorities for national, state, and local highway and traffic safety programs.

- To evaluate the effectiveness of efforts to make such improvements; to link these state data systems, including traffic records, with other data systems within the state.

- To improve the compatibility of the state data system with national data systems and data systems of other states to enhance the ability to observe and analyze national trends in crash occurrences, rates, outcomes, and circumstances.

States may qualify for funding in one of three ways:

Initiation Grant. To qualify, a state must:

- Establish a multi-disciplinary highway safety data and traffic records coordinating committee.

- Complete or update a highway safety data and traffic records assessment or audit within the last five years.

- Initiate development of a multi-year highway safety data and traffic records strategic plan (with performance-based measures) -- approved by the coordinating committee.

Implementation Grant.. To qualify, a state must:

- Certify that the state has met the first two criteria in the Initiation Grant above.
- Submit a data and traffic records multi-year plan, identify goals, performance-based measures, and priorities, and specify how incentive funds will be used.
- Certify that the coordinating committee continues to operate and support the plan.

Start-up Grant. The Secretary may award a grant for one year to any state that does not meet the criteria for the other grants, provided that the state certifies it will use the grant funds to meet the data grant requirements in the following year.

In FY 1999, the first year of the section 411 program, NHTSA made grant awards to 47 states, the District of Columbia, all territories, and the Bureau of Indian Affairs (BIA). Only three states did not apply. Implementation grants of $126,260 each went to 29 states and Puerto Rico; initiation grants of $63,100 each went to 11 states; and start-up grants of $25,000 each went to 7 states, DC, the territories, and BIA. In FY 2000, 37 states, Puerto Rico, and 3 territories received implementation grants of $173,600 each; and 5 states received initiation grants of $96,480 each.
In FY 2001, 41 states, Puerto Rico, and 2 territories were awarded implementation grants of $191,450 each; and the Virgin Islands was awarded an initiation grant of $106,200.

FY 2002 Budget Request ($10,000,000)

States that receive a Data Improvements Incentive Grant in FY 2001 may be eligible to receive a subsequent year grant in FY 2002. A state that initially received a one-time start-up grant may qualify for an initiation or implementation grant in a subsequent year. A state that received an initiation or implementation grant in any fiscal year may be eligible for an implementation grant in subsequent years. To qualify, a state must:

- Submit or update a data and traffic records multi-year plan, identify goals, performance-based measures and priorities, and specify how incentive funds will be used.
- Certify that the coordinating committee continues to support the multi-year plan.
- Report annually on the progress made to implement the plan.

NHTSA is requesting $10 million, the full authorization level, to implement this fourth year of the Data Incentive Improvements Program.

U.S. Department of Transportation

BUDGET ESTIMATES

FISCAL YEAR 2002

OFFICE OF INSPECTOR GENERAL

SUBMITTED FOR USE OF
THE COMMITTEES ON APPROPRIATIONS

(1469)

72-314 2001 - 47

DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL

FISCAL YEAR 2002 BUDGET ESTIMATES

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DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL
SUMMARY STATEMENT

The Inspector General Act of 1978, as amended, established the Office of Inspector General (OIG) as an independent and objective organization within the Department of Transportation (DOT). The Inspector General (IG) is committed to fulfilling its statutory mission and assisting Members of Congress, the Secretary and senior department officials in achieving a safe, efficient, and effective transportation system that meets vital national interests and enhances the quality of life of the American people today and into the future.

OIG is divided into two major functional units: the Office of Assistant Inspector General for Auditing and the Office of Assistant Inspector General for Investigations; and six support units: Office of Legal Counsel, Office of Legislative and External Affairs, Office of Quality Assurance Reviews/Internal Affairs, Office of Information Resource Management, Office of Human Resources, and Office of Financial and Administrative Services. Nationwide, the Assistant Inspectors General are supported by Headquarters and regional staff.

A more detailed description of OIG's mission, objectives, and organizational structure follows the budget exhibits.

ACCOMPLISHMENTS

During the past fiscal year, we issued 128 audit reports and presented testimony before Congress on 27 occasions. In addition to OIG's audit work, which identified $1.5 billion in questioned costs and funds to be put to better use, Departmental officials agreed to seek recoveries or to more effectively use resources amounting to just slightly over $2 billion as a direct result of OIG work completed in Fiscal Year (FY) 2000 and prior years.

Audits of the FY 1999 financial statements of the Federal Aviation Administration (FAA), the Highway Trust Fund (HTF) and DOT's consolidated financial statement resulted in $36 billion in adjusting entries being posted to DOT's financial accounts. The audits also resulted in improvements to DOT's system of internal controls. Through cooperative efforts by all the Operating Administrations (OA) and OIG, DOT achieved, for the first time, an unqualified opinion on DOT's consolidated financial statements for FY 1999.

In FY 2000, OIG's investigative staff conducted investigations that resulted in 235 convictions; 246 indictments; 163 administrative actions; and over $70 million in fines, court-ordered restitution/civil judgments, and Federal and state recoveries.

Listed below are brief descriptions of some of our completed work in FY 2000 as well as planned future work as it relates to the six goals in DOT's Strategic Plan.

➢ SAFETY

"Promote public health and safety by working toward the elimination of transportation-related deaths and injuries."

Improving the safety of the nation's transportation system is DOT's highest priority. All OAs are focused on reducing transportation accidents, fatalities, and the associated economic costs. Oversight of DOT's safety programs continues to be our highest priority.

In FY 2000, our audits:

- Recommended FAA thoroughly investigate the disparity in fastener test data and require manufacturers to establish effective quality assurance systems.
- Found FAA must quickly improve efforts to reduce air traffic operational errors.
- Concluded that the Federal Motor Carrier Safety Administration (FMCSA) needs to strengthen the Commercial Drivers License (CDL) program to ensure unsafe drivers are disqualified and sanctions are imposed.
- Recommended the Research and Special Programs Administration (RSPA) implement critical safety regulations for hazardous liquid and natural gas pipelines.
- Reviewed passenger ferry safety inspection and found high levels of compliance with the United States Coast Guard (USCG) standards.
- Recommended USCG develop a plan for monitoring state boating-safety programs, develop a proposal to distribute funds that considers states' effectiveness in reducing fatalities, and improve data accuracy.

In FY 2000, our investigations led to the convictions of:

- A trucking corporation for supplying a false identity CDL to a driver whose license had been revoked.
- A former truck driver for falsifying his medical history to obtain a CDL.
- Two brothers for falsifying test results of CDL applicants.
- An additional 19 employees of the Illinois Secretary of State's office for the illegal sale of CDLs to unqualified applicants.

- A trucking company for falsifying the log books of its drivers.
- The holding company of American Airlines for violations relating to its handling of hazardous materials (HAZMAT).
- A hauling company and its vice president for transporting HAZMAT in violation of DOT safety regulations.
- An air freight forwarder for shipping HAZMAT to an air carrier in violation of federal HAZMAT regulations.
- A restaurant for attempting to ship undeclared flammables via Federal Express.
- A man for shipping materials on commercial passenger aircraft without declaring the HAZMAT nature of the material.
- An aircraft part distributor for falsely claiming its transmission parts and fasteners for helicopters were up to quality standards, when they were not.
- An aviation parts manufacturer for falsely recording aircraft parts as heat-treated and tested.
- The owner/operator of an inspection service for fire-protection systems for fraudulently certifying that testing was completed on fire extinguishers.

Following are several descriptive examples of our work in some major areas of safety in FY 2000.

Surface Transportation Safety

Surface transportation – motor vehicle, large truck, railroad, and pipeline transportation – accidents in the United States continue to account for over 42,000 fatalities annually. In 1999, over 36,000 fatalities resulted from motor vehicle accidents not involving large trucks, over 5,000 resulted from crashes involving large trucks, and over 1,000 resulted from railroad, rail transit and pipeline accidents. While down from the over 46,000 fatalities a decade ago, the number of surface fatalities remains high, and OIG commits a high level of investigative and audit resources to this area. Examples of our work in this important safety area follow.

Disqualifying Commercial Drivers

In response to a House Committee on Transportation and Infrastructure request to review the effectiveness of the CDL program, our first, in a series of audits, was to determine the adequacy of FMCSA's oversight to ensure that states take action to appropriately disqualify commercial drivers. A CDL is required to operate a commercial motor vehicle. Disqualification means the suspension revocation, or cancellation of the individual's license to drive a commercial motor vehicle. OIG found, that although the primary objective of the Commercial Vehicle Safety Act of 1986, which limits commercial drivers to one CDL, has largely been achieved, states

are not disqualifying commercial drives as required by law, and indeed grant special licenses to commercial drivers who pose a safety risk and withhold convictions of disqualifying violations from drivers' records, which allow unsafe drivers to continue to drive. We concluded that FMSCA oversight of the states CDL programs was insufficient to reasonably ensure that unsafe drivers were disqualified.

To improve the oversight, OIG recommends that FMSCA: (1) obtain corrective action plans from the noncompliant states identified in this report and initiate sanctions as appropriate; (2) modify the program reviews to make them comprehensive and include operational testing to ensure state systems work as intended; (3) implement periodic training programs for personnel conducting the CDL program reviews; (4) develop and implement centralized monitoring capabilities through CDLIS for program oversight to include testing timeliness of reporting convictions, accuracy of recording convictions, and the appropriateness of disqualification actions; (5) prepare a management report that rates each state's implementation of the prohibitions on masking and special licensing programs; (6) impose available sanctions on noncompliant states; and (7) require states to report disqualifications with the associated convictions as required in the Motor Carrier Safety Improvement Act of 1999.

Our second audit in the series focuses on FMCSA's oversight of how states administer tests to commercial drivers and issue CDLs. The audit objectives include an examination of the CDL oversight reviews done by the Federal government in each state and an assessment of the annual certifications made by state officials that the state meets Federal CDL standards. To date, we have done work at 13 states and about 100 testing and licensing facilities. The report should be issued in spring 2001.

Motor Carrier Safety Investigative Work

Significant investigative work in FY 2000 led to 31 convictions of motor carrier companies, their officers, and their drivers. Motor carrier-related cases involve falsification of drivers' logs of hours on the road, HAZMAT violations, illegal sale of commercial driver's licenses, and falsifying test results and medical histories to obtain commercial drivers licenses.

We currently have 58 open investigations concerning motor carrier safety violations. In FY 2000, similar cases resulted in 29 indictments and 31 convictions. In one case, a truck driver pleaded guilty to falsifying his medical history to obtain a CDL. The driver tried to hide a pre-existing medical condition that involved seizures, convulsions, and fainting spells. In another case, in connection with a fatal accident, a truck driver pleaded guilty to manslaughter, reckless conduct with a dangerous weapon (a tractor-trailer), maintaining a false driver's log and failure to maintain records.

The investigation of the illegal sale of CLD's by employees of the Illinois Secretary of State's Office to unqualified individuals, "Operation Safe Road" continued in FY 2000. An additional 15 people were convicted during FY 2000 for a total of 29 individuals having been found guilty since the investigation began in October of 1998.

We continue our proactive measures in support of the goal to reduce motor carrier fatalities through our participation in training sessions across the nation to inform state and Federal motor carrier inspectors of OIG methods and initiatives underway.

Pipeline Safety

Pipelines transport over 20 trillion cubic feet of natural gas and 616.5 billion ton-miles of oil and oil products each year. Pipelines are made of steel, cast iron, or plastic and are located aboveground, underground, and underwater where they are subject to forces of both nature and human actions that can cause potentially catastrophic accidents. One example of our work in pipeline safety follows.

Because of a fatal pipeline accident in Bellingham, Washington, Senator Murray of Washington requested an OIG review of RSPA's Pipeline Safety Program. Our objectives were to determine what legislation may be needed to enhance Office of Pipeline Safety's (OPS) ability to improve pipeline safety, assess OPS efforts to address causes of pipeline accidents, their response to the National Transportation Safety Board's (NTSB) recommendations, and their efforts to develop pipeline inspection technologies.

In testimony before Congress, OIG recommended that RSPA: (1) finalize actions required by the outstanding 1992 and 1996 Congressional mandates; (2) expand the focus of RSPA's Research & Development programs to include smart pigs that can detect pipe material defects, and alternative pipeline inspection and monitoring technologies for pipelines that cannot accommodate smart pigs; (3) design and implement a program to train OPS safety inspectors on the use and capabilities of pipeline inspection technologies and the reading and interpreting of the results of internal inspections; (4) implement revisions in the collection and processing of pipeline accident data to expand accident causal categories for more detailed trend analysis, and to clarify accident form instructions so that operators will be more consistent and accurate in reporting accident causes; (5) revise OPS regulations to establish an enforcement mechanism to ensure operators submit revised accident reports when required; and (6) comply with the DOT order by establishing timetables to implement open NTSB pipeline safety recommendations with which they agree and transmitting the timetables to NTSB.

HAZMAT Safety

In the United States, there are about 300 million shipments a year of substances that could pose a threat to safety or public health if improperly handled. Toxic or potentially explosive or flammable substances are used for legitimate purposes every day, but must be moved in keeping with federal regulations regarding proper packaging, labeling, handling, and storage. Examples of our investigative work in this area follow.

Because of the significant danger posed to the traveling public from the illegal shipment of HAZMAT, we have made the investigation of illegal transportation of HAZMAT one of our highest priorities. In FY 2000, our investigations of HAZMAT violations resulted in over 30 indictments and 47 convictions and total fines, restitution and recoveries of nearly $35.5 million. We currently have 84 open investigations in the area of HAZMAT.

One investigation resulted in the largest dollar recovery related to HAZMAT in the history of U.S. aviation. Specifically, the AMR Corp, the parent company of American Airlines pleading guilty to storing HAZMAT illegally and agreed to pay a fine of $6 million and pay another $2 million as community service. AMR admitted its employees extinguished a fire caused by a chemical spill and then illegally stored the remaining chemical at Miami International Airport for more than 3 years. AMR further admitted the violation of the Resource Conservation and Recovery Act was part of a 5-year pattern of conduct. In addition to paying the fines and penalties, AMR must upgrade its security and procedures.

Aviation Safety

The aviation industry expects continued growth in air traffic as a result of increased demand and the emergence of new technologies that may result in closer spacing between aircraft due to more precise, satellite-based tracking and navigation capabilities. So, the safety of air transportation remains a priority issue to which we devote significant audit and investigative resources. Examples of our work in this area follow.

Air Traffic Operational Errors and Deviations

A recent audit report assessed FAA's efforts to reduce air traffic control operational errors and deviations. Operational errors occur when controllers do not ensure separation standards between aircraft in flight are maintained. Operational deviations occur when a controller allows an aircraft to enter another controllers airspace without prior coordination and approval. Operational deviations can easily lead to operational errors. Operational errors can pose a very serious safety risk and have increased by

51 percent from FY 1996 to FY 2000. We found that FAA has not been effective and needs to show a sense of urgency in reducing operational errors.

Our audit recommended FAA: (1) develop a method to determine the severity, or collision hazard, of operational errors that occur in the air so it can focus its resources and take action based on the severity of these incidents; (2) require regions to prepare and update operational error prevention plans based on facility assessments which identify specific actions needed to reduce operational errors and follow-up to ensure deficiencies identified during regional reviews are corrected; (3) require the Air Traffic Services Evaluations and Investigations Staff to review and approve regional operational error prevention plans, complete the national reviews of facilities with increasing trends in operational errors, and ensure that recommendations resulting from the national reviews are implemented and effective at reducing operational errors; and (4) implement NTSB's recommendation to extend the retention period for voice communication and radar tapes from 15 to 45 days.

Oversight of Quality Assurance for Threaded Fasteners

Another recent audit report analyzed FAA's Oversight of Manufacturers' Quality Assurance Systems for Threaded Fasteners. Our objective was to determine if FAA has implemented an effective manufacturing inspection system to ensure manufacturers of threaded fasteners produce parts in conformance with FAA-approved design data.

OIG had samples of critical fasteners tested independently at Hill Air Force Base by certified laboratory technicians. Hill Air Force Base test results disclosed 27 percent of fasteners were nonconforming for thread dimension. When FAA requested the manufacturers retest the same parts, the manufacturers found only 3 percent of the fasteners were nonconforming. We also found that manufacturers did not comply with established requirements for the use of statistical sampling plans and prescribed test equipment during their inspection processes.

OIG recommended FAA: (1) conduct a comprehensive investigation to reconcile the disparity in test results between Hill Air Force Base and the fastener manufacturers, including an evaluation of the effect that different test equipment has on the accuracy of the measurements; (2) require fastener production approval holders to establish regular inspection intervals to review the quality assurance systems of their subcontractors; (3) direct production approval holders to establish and follow effective quality assurance systems to ensure the production of conforming parts, adhere to FAA's policy on the proper use of statistical sampling inspection plans during final inspection testing and product acceptance, and use the prescribed equipment to test thread dimensional conformance of aviation nuts when this specification is cited in the design drawings; and (4) improve surveillance during

periodic and spot inspections at fastener production approval holder by placing emphasis on observing the procedures for inspection and disposition of nonconforming fasteners at production approval holders and their subcontractors, confirming production approval holders follow FAA's policy regarding the proper use of statistical sampling plans during final inspection, and confirming production approval holders use the prescribed equipment to test thread dimensional conformance of aviation nuts when this specification is cited in the design drawings.

Suspected Unapproved Parts

Because of the serious safety risks associated with Suspected Unapproved Parts (SUP), Congress made it a Federal crime to intentionally misrepresent the condition of an aircraft part. Section 506 in the Aviation Investment and Reform Act for the 21st Century (AIR-21), signed into law in April 2000, substantially increased the criminal penalties for those convicted of trafficking in substandard aircraft parts. SUPs include counterfeit parts, and parts not repaired or made according to FAA approved procedures. Investigations of SUPs will remain one of OIG's investigative priorities.

To combat crimes involving SUPs, we conduct undercover operations in addition to traditional reactive investigations. In FY 2000, SUPs related investigations resulted in 10 indictments and 17 convictions, and over $7 million in fines and restitutions.

One noteworthy SUP case concluded with the former owner of an aircraft parts company pleading guilty to making false statements and conspiracy to mislead FAA officials on the airworthiness of helicopter parts he sold. Another SUP case resulted in a manager of a metal products firm pleading guilty to charges of conspiracy to commit wire fraud for his role in a scheme to sell aviation parts falsely certified as having been heat-treated.

Future Safety Initiatives

We will continue to maintain oversight of FAA's safety inspection programs involving air carriers and equipment manufacturers. In surface transportation, we will review FMCSA, Federal Railroad Administration (FRA), and National Highway Traffic Safety Administration (NHTSA) programs that address surface transportation safety with specific emphasis on vehicle safety problems, seat belt use, commercial motor carriers, and railroad safety; and continue to focus on the cross-modal transport of HAZMAT as well as pipeline safety. We plan to review USCG progress on modernizing the National Distress and Response System to help improve the safety of boating activities and keep our waterways safe. Also, we will continue to conduct criminal investigations in the priority investigative areas of HAZMAT transportation, motor carrier safety, and SUPs.

➢ MOBILITY

"Shape an accessible, affordable, reliable transportation system for all people, goods, and regions."

OIG devotes resources to support the Departmental strategic goal of enhancing mobility in all areas of transportation. Enhancing mobility should improve the physical condition of the transportation system, increase access to transportation systems and reduce transportation times.

In FY 2000, our audits:

- Recommended strengthening and expanding the Airline Customer Service Commitments to improve customer service.
- Concluded FAA and DOT should implement a uniform system to track delays, cancellations and their causes.
- Recommended FAA revise its study of contract towers to provide Congress with a better perspective of costs and benefits of expanding the program.
- Recommended FAA reduce cost expenditures for Wide Area Augmentation System (WAAS) until technical problems are solved and review costs in current contracts.
- Concluded that FAA must set priorities and define funding needs for HOST and Oceanic computer-system replacements.
- Found FAA should definitize Standard Terminal Automation Replacement System (STARS) contract to ensure human factors concerns are completely addressed.
- Reported the cost of Pennsylvania Station redevelopment has increased and the completion date has slipped.
- Found that cost overruns continue to increase the cost of Central Artery/Ted Williams Tunnel (CA/TWT) project.
- Reported the Bay Area Rapid Transit finance plan is accurate and reasonable.
- Reported our annual "FY 2000 Assessment of Amtrak's Financial Performance and Requirements."
- Concluded the Maritime Administration (MARAD) must strengthen its control for administering ship-managers' and general-agency contracts.

In FY 2000, our investigations resulted in the convictions of:

- A former FHWA engineer and his wife for bribery, wire fraud, and kickback charges.
- A contractor for engaging in deceptive pricing and submitting false claims on a FAA contract for digital computers.

- A construction company owner for conspiracy to pad invoices on a FAA air-traffic control center renovation contract.
- An airport manager for theft of Airport Improvement Program (AIP) funds.
- A road construction manager for fraudulently inflating charges for photography and surveys.
- A MARAD employee for accepting gratuities from a MARAD contractor.

Following are several descriptive examples of our recent work in the area of mobility.

Aviation Mobility

Meeting the anticipated demand for air travel is an urgent issue since the National Airspace System is operating at the fringes of capacity, and delays and customer dissatisfaction are at an all time high. With FAA's potential investment of $40 billion for modernization and stability of our nations' aviation systems, oversight is critical to protect DOT's investments. Some examples of our recent work in this area follow.

Flight Delays, Cancellations and Customer Service

Responding to increasing customer dissatisfaction with the airline delays, cancellations, and customer service, Congress requested that OIG look into the causes of these delays and cancellations and the efforts being undertaken by the Airlines to improve customer service through their implementation of Airline Customer Service Commitments agreed to by 14 major carriers in 1999.

OIG testified twice this past year before Congress on flight delays and cancellations We found that the absence of a system for collecting causal data and reporting a reasonably complete picture of the causes of delays and cancellations hinders the examination of the causes of delays and cancellations and makes the identification of long term solutions problematic.

OIG recommended that the Secretary and FAA: (1) establish and implement a uniform system for tracking delays, cancellations, and their causes; (2) develop capacity benchmarks for the Nation's top airports to provide a common framework for understanding what maximum arrival and departure rate can be physically accommodated by each airport, by time of day under optimum circumstances; and (3) develop a strategic plan for addressing capacity shortfalls in the immediate, intermediate, and long term. These capacity benchmarks are essential to understand the true impact of airline scheduling practices and what relief can be realistically provided by new technology, revised air traffic control procedures, and runway and airport infrastructure enhancements.

OIG also evaluated the level of success of the Airline Customer Service Commitment that 14 major airlines agreed to adopt to improve air travel. We found that Airlines are making a genuine effort to strengthen attention paid to customer service, but the bottom-line results are mixed, and the Airlines have a long way to go to restore customer confidence.

OIG recommended that Congress, in its consideration of Passenger Bill of Rights issues, has the option of first giving the Airlines the opportunity to, within a fixed time period, revise, modify, or add to the Commitment voluntarily. Our recommendations included: (1) adoption of Airline Customer Service Commitment by all U.S. air carriers; (2) making Airline Customer Service Commitment provisions enforceable under the contract of carriage or by regulation, including the provisions to offer the lowest fare for which the passenger is eligible; hold or cancel a reservations; accommodate passengers delayed overnight; and meet customers' essential needs during long, on-aircraft delays; and (3) adding a commitment under which the Airlines must establish a quality assurance and performance measurement system, and conduct internal audits to measure compliance with the Commitment and Customer Service Plan provisions. The quality assurance systems as well as the results of the internal audit will itself be subject to audit by the Federal government.

FAA's Air Traffic Control Modernization Program

The IG testified before Congress regarding OIG oversight work on FAA's air traffic control modernization efforts and related financial issues. Issues focused on continuing problems with key modernization programs; WAAS, STARS, and Oceanic Automation Program. The WAAS and STARS programs alone account for over $4 billion in total estimated program costs and have experienced cost increases and schedule delays.

With respect to WAAS, technical and program uncertainties continue and it is unclear when WAAS will be available due to as yet unsolved technical problems. OIG recommended FAA reduce contract expenditures until solutions to these technical problems are identified. We also recommended FAA seek advice on how to solve these technical problems from an independent scientific group, such as the National Academy of Sciences. Finally, given that WAAS is a cost-plus contract, we believe the contract should undergo a cost incurred audit and a series of unannounced floor/labor checks by the Defense Contract Audit Agency.

Regarding STARS, we testified that FAA was successful in achieving initial operations of the Early Display Configuration of STARS. However, we noted a risk to the program was the great amount of software that remained to be developed, tested, and integrated to resolve human factors concerns. As we recommended, FAA definitized the STARS contract modification incorporating the revised program

strategy. A major risk still remains in deploying all STARS systems by 2008. FAA must now definitize the additional cost to deploy these systems.

FAA recently initiated actions to acquire a fully integrated and interactive oceanic system consisting of flight data processing, radar data processing, weather data processing, conflict probe, and surveillance capabilities. We recommend FAA negotiate and award a contract to establish cost ceilings and provide incentives for timely contractor work. The contract should include clauses that would withhold payment to the contractor if progress on software development is not satisfactory, and require the contractor to implement an Earned Value Management System to provide FAA visibility into established cost and schedule milestones.

Lastly, with AIR-21 providing FAA with $18.5 billion in committed funding for capital investment over the next 3 years, FAA should develop a business plan that describes corporate strategies and operating plans over the next several years and the timing and impact of those plans, defines long-term capital requirements and strategies for investing in infrastructure and future technologies, and demonstrates the cash implications of the business plan actions, including strategies for controlling costs and implementing productivity enhancements.

Surface Transportation Mobility

With a record $218 billion in funding provided for surface transportation under the Transportation Equity Act for the 21st Century (TEA-21), oversight is critical to protect the Department's investment.

Oversight of Central Artery Project

The continuing need for greater oversight in the spending of federal funds on highway transportation infrastructure projects was highlighted by the recent experience with the Central Artery in Boston, Massachusetts. In testimony before Congress, OIG reported that in February 2000, the Department was surprised by a $1.4 billion cost increase to the CA/TWT project after FHWA had ignored OIG's warnings that the project's finance plan failed to accurately disclose continuing cost increases. Project managers failed to disclose the rising cost trends in finance plans and manipulated data to prevent detection. This occurred because FHWA's guidance on finance plans was inadequate to ensure complete and accurate financial reporting. FHWA has been directed to implement OIG's recommendation that the agency issue comprehensive guidance specifying minimum reporting requirements for finance plans. As a result, FHWA issued new guidance on finance plans and entered into an agreement with the state of Massachusetts to limit the federal contribution to the CA/TWT project to $8.549 billion.

FY 2000 Assessment of Amtrak's Financial Performance and Requirements

Although Amtrak's ridership and revenue trends are positive, increases in labor costs, depreciation, and train operation expenses have contributed to a significant growth in operating expenses. Amtrak will need to take major corrective actions if it is to achieve self-sufficiency in 2003, as required by law.

Amtrak's strategic business plan relies heavily on $737 million of unspecified management actions to increase revenues and reduce costs. In addition, delays in the introduction of high speed rail service on the Northeast Corridor are likely to reduce Amtrak's 2001 revenue below projections and increase pressure on Amtrak to reduce expenses and improve performance of both its passenger and non-passenger services. Finally, Amtrak will face serious shortfalls in the capital investment funds necessary to maintain Amtrak's infrastructure and assets in a steady state through 2003.

Contract and Grant Fraud Initiatives

OIG Investigations established a special Contract and Grant Fraud Initiative to protect the integrity of TEA and AIR-21 funded programs and grants. OIG appointed senior special agents to serve in the capacity of National Fraud Coordinators in Washington and Regional Fraud Coordinators in our investigative field offices. To date, our National and Regional Fraud Coordinators have made contact with over 4,100 individuals through our fraud awareness briefings and meetings with FHWA Officials, State Highway Departments, Transit Agency Officials, Airport Authorities and Federal, State and Local Law Enforcement Officials.

In October 2000, OIG spearheaded a National Fraud Conference on Highway Construction Fraud and Related Programs in Atlanta, Georgia with other co-sponsors, including FHWA and the Federal Bureau of Investigations. The conference attracted over 200 participants from Federal law enforcement and state highway agencies. OIG plans to continue leading this important event each year.

In FY 2000, contract and grant fraud related investigations resulted in 54 indictments, 36 convictions, and over $10 million in fines, restitutions and recoveries. We currently have 128 open cases in the area of contract and grant fraud. Of the 128 open cases, 51 involve contract and grant fraud on infrastructure projects.

In one significant case, sentenced in January 2001, two companies supplying steel culverts for highway construction agreed to pay the U.S. and the State of Louisiana a total of $30 million in the largest civil settlement involving substandard material in the history of the Department.

Another significant case resulted in a former FHWA engineer and his wife pleading guilty to bribery, wire fraud and receiving kickbacks for awarding contracts in return for approximately $150,000 in personal loans and consulting contracts. The former FHWA official was sentenced to 27 months in prison and ordered to pay $73,000 in restitution. His wife served 30 days in jail, 60 days home detention, and was ordered to pay $23,000 in restitution.

Future Mobility Initiatives

OIG will continue to provide oversight of transportation mobility programs and operations. In aviation, we will continue to assess acquisition, development, and deployment strategy of FAA's technology programs, such as Free Flight Phase One, WAAS, Automatic Dependent Surveillance-Broadcast and new weather systems. We will provide oversight of airport infrastructure projects authorized under AIR-21. In surface transportation, we will review Amtrak's operations annually; provide oversight of infrastructure projects authorized under TEA-21; review Intelligent T Transportation Systems open systems architecture; evaluate light rail transit projects, and conduct investigations of allegations concerning major infrastructure projects, including joint investigations with Federal and local law enforcement authorities.

➢ Economic Growth

"Support a transportation system that sustains America's economic growth."

Supporting economic growth is one of the most basic purposes of our national transportation system. Economic growth is supported by improving the U.S. international position in transportation of goods and services, improving the capacity of the transportation workforce, and expanding opportunities for all businesses, especially small, women-owned and disadvantaged businesses.

In FY 2000, our audits:

- Recommended FAA improve procedures to calculate aircraft overflight costs.
- Found challenges and risks to airline ticket sales over the Internet.
- Reported FHWA made $1.6 million in grant overpayments.

In FY 2000, our investigations resulted in the convictions of:

- The president of a construction company for fraud against the DBE program on five FHWA funded subcontract projects in West Virginia.
- A man for fraud who created a "front" firm illegally designated as a DBE.
- Executives of engineering firms for defrauding the Disadvantaged Business Enterprise (DBE) program.

- An export manager for arranging a shipment of aircraft parts to a prohibited country.
- A bus shelter supplier for not complying with the Buy American Act.

Descriptive examples of our recent work in the area of economic growth follows.

Internet Sales of Airline Tickets

Testifying before Congress, OIG said the rapid growth of airline ticket sales over the Internet offers potential benefits to consumers, but poses some challenges and risks. The Internet benefits consumers by giving them access 24 hours a day, 7 days a week, but a certain part of the population – senior citizens, individuals with certain types of disabilities, and the economically disadvantaged – access to the Internet is problematic. Another problem is finding the lowest fare "E-fare" on the airlines web sites. Also, Orbitz, a new Internet travel agency jointly owned by several major airlines could potentially benefit consumers and airlines by providing a wider range of fare options, bias-free displays, and reduced booking fees, but red flags raised by competitive issues, such as airlines potentially restricting their lowest fares exclusively to Orbitz, must first be reviewed. DOT needs to evaluate the potential long-term benefits of Orbitz on the marketplace and determine whether prior intervention is needed to protect competition and consumers.

Determining Aircraft Overflight Fees

In an audit, we determined that FAA must improve the system and procedures used to estimate costs of providing air traffic control for "overflights". Overflights are aircraft that fly in U.S.-controlled airspace, but do not take off from, or land in, the United States. FAA was calculating its costs based on the existing system and historical experience. OIG found that FAA needed more current, accurate, and comprehensive data to accurately assess overflight fees.

Specifically, we recommended FAA: (1) use FY 1999 costs, including property depreciation costs, and FY 1999 flight data to determine overflight costs and compute user fees; (2) update labor standards as a short-term improvement to estimate airway facilities labor costs; and (3) establish a labor distribution system to capture costs for the air traffic controller and airway facilities workforce.

Economic Growth Investigative Work

Part of enhancing economic growth is to ensure equal opportunities for all businesses, especially disadvantaged business enterprises and through programs that encourage the U. S. economy such as the Buy American Act. OIG investigates fraud and abuse in connection with these economic programs.

For instance, executives of two engineering firms were fined for fraudulently claiming that a subcontractor was a DBE in order to obtain a contract from FHWA. In another case, two men were convicted of fraud for obtaining highway contracts worth more than $747,000 by using a "front" firm designated as a DBE.

Future Economic Growth Initiatives

OIG will continue to provide oversight of DOT's economic growth and trade programs and operations. In aviation, we will assess the airline ticket distribution system and the impact of changes to the system brought on by the growth in e-commerce. We will initiate audits in various USCG programs to help revitalize and manage the growth in the Nations' Marine Transportation System. We will continue to dedicate investigative resources to procurement, grant, and disadvantaged business enterprise fraud.

➢ Human and Natural Environment

"Protect and enhance communities and the natural environment affected by transportation."

DOT is committed to avoiding or mitigating the adverse environmental effects that can accompany transportation.

In FY 2000, our audits:

- Recommended MARAD develop and implement a plan to dispose of obsolete vessels.
- Concluded FAA needs to better use AIP funds on Noise Compatability Projects.
- Recommended that DOT establish an intermodal authority to deliver a DOT-wide HAZMAT program.

In FY 2000, our investigations resulted in the convictions of:

- A company for illegally dumping cement, bridge pilings, and reinforcement bars into Pensacola, Florida's East Bay during bridge construction.
- Two officials of a chain of wastewater treatment facilities for discharging sewage into the water and attempting to conceal the discharging.
- Oil refinery executives for illegally transporting HAZMAT and dumping it into the Mississippi River.
- A plastic company for illegally transporting and dumping 55-gallon drums filled with HAZMAT.

Descriptive examples of our recent work in the area of human and natural environment follows.

Disposal of MARAD's Obsolete Vessels

MARAD is required to dispose of obsolete vessels in the National Defense Reserve Fleet (NDRF). Currently, the NDRF consists of 115 vessels designated for disposal, most of which are deteriorating, contain hazardous substances, and pose an immediate environmental threat. OIG has testified several times before Congress on this serious issue. After review, OIG concluded that the current approach of selling MARAD's vessels in the domestic market has not worked.

OIG recommended MARAD: (1) seek legislative approval to extend the 2001 mandate to dispose of obsolete vessels and to eliminate the requirement that MARAD maximize financial returns on the sale of its obsolete vessels; (2) continue to pursue programs to improve scrapping sales and identify alternative disposal methods that can contribute to the goal of reducing the number of obsolete vessels awaiting disposal, to include working with the Navy on the results of its studies in the environmental impact of sunken vessels; and (3) develop a proposal for submission to Congress seeking approval and funding for a project to pay contractors for vessel scrapping; and (4) develop and implement a plan that identifies methods and milestones for disposing of all obsolete vessels in the fleet. In September of 2000, MARAD announced plans to begin scrapping several vessels moored in the James River in Virginia with funding obtained from a pilot program to help cover the cost of scrapping these vessels.

Airport Noise Compatibility Program

OIG conducted a review to determine if Airport Improvement Program funds were used for the highest priority Noise Compatibility Program projects. We found that FAA's national priority system for awarding grants provided a systematic approach to evaluating the merits of noise projects. However, the system was not achieving its full benefits, and limited grant funds were not used for only the highest priority noise projects. Specifically, OIG found that FAA awarded new noise grants to airports with old noise exposure maps that did not reflect current noise levels, and to two airports that had not disposed of unneeded land previously purchased with noise grants, awarded new grants even though funds from previous grants were unspent, and awarded grants for ineligible noise projects.

OIG recommended FAA: (1) require that airports with substantial reductions in noise submit updated noise exposure maps to FAA prior to receiving noise grants, thereby ensuring an estimated $48 million in AIP funds are put to better use; (2) publish

revised Part 150 regulations requiring airports to submit updated noise exposure maps whenever noise levels substantially decrease; (3) require two airports to develop and implement plans for disposing of unneeded land acquired under their noise compatibility programs prior to awarding these airports new grants; (4) delay awarding grants to jurisdictions until they have made adequate progress in spending available grant funds; and (5) recover $328,000 in grant funds expended for ineligible projects.

DOT HAZMAT Programs

A team of OIG auditors and staff from USCG, FAA, FMSCA, FRA, and RSPA reported on the effectiveness of DOT programs involving HAZMAT transportation. The report concluded that no organization in DOT was responsible for coordinating and overseeing HAZMAT programs in the five OAs with HAZMAT responsibilities, the originators of HAZMAT shipments need more attention because they offer the greatest opportunity to improve safety; DOT has not changed the trend of human error being the greatest contributing factor in HAZMAT incidents; and DOT lacks reliable, accurate, and timely data to measure program effectiveness and make informed program-delivery and resource decisions.

The team recommended that DOT establish an intermodal authority in DOT to act as a focal point and deliver a DOT-wide HAZMAT program, HAZMAT shippers be scrutinized, training practices strengthened, and data collection and analysis be improved to make the data more useful.

Future Human and National Environment Initiatives

OIG will continue to provide oversight of Federal transportation actions as they relate to the protection of the natural environment and community life. We will maintain oversight of OA's compliance with environmental standards, laws, and regulations, and efforts to identify prioritize, and clean-up contaminated sites. In marine transportation, we will continue monitoring MARAD's progress in disposing of obsolete vessels. In aviation, we will continue assessing FAA's use of AIP funds for noise mitigation projects. We will continue to conduct criminal investigations in the priority investigative area of illegal HAZMAT transportation as well as other illegal dumping of pollutants into the environment.

➢ National Security

"Ensure the security of the transportation system for the movement of people and goods, and support the National Security Strategy."

DOT's national security strategies attempt to reduce the vulnerability of the transportation system to crime and terrorism, increase capability of transportation system to meet national defense needs, as well as reducing flow of illegal drugs and illegal immigrants.

In FY 2000, our audits:

- Reported that FAA must control access to secure airport areas and strengthen background investigation requirements for airport employees to gain access to secure areas.
- Recommended FAA develop a strategic plan to guide its efforts and prioritize funding needs for aviation security.
- Concluded that FAA should implement and deploy technology that enhances screener performance.
- Recommended improvements to the planning process for USCG's Deepwater Capability Replacement Project.

In FY 2000, our investigations resulted in the convictions of:

- An airline security contractor for falsely certifying on at least 70 occasions that criminal background checks had been made on employees accessing secure areas of the airport.
- An airport worker who used his security badge to enter a secure area of the airport to illegally transport cocaine.
- Three baggage handlers for allowing unauthorized persons to use their security badges to bypass airport security in exchange for bribes.

Some examples of OIG work in the area of national security follows.

Aviation Security

In the area of aviation security, we testified twice on the reliance of aviation security on each employee in the aviation system doing his or her part, and what needs to be done to ensure that these employees are well-trained, trustworthy, and held accountable for compliance with security requirements. We also addressed the need for FAA to have an integrated strategic plan to guide its efforts and prioritize funding needs.

Specifically we found that although FAA is making progress in deploying explosives detection equipment, the effectiveness of these advanced security technologies is dependent on the human operator. To increase the effectiveness of the human operators, FAA needs to have a means to measure screener performance, and methods of providing initial and recurrent training to ensure the screeners' performance and proficiency remains at an acceptable level. In addition, explosive detection equipment is still underused.

FAA also needs to improve the process used to ensure that employees with access to secure areas of the airport are trustworthy. Employees of airports and airlines must also be held accountable for compliance with airport access control requirements. FAA must issue regulations making the individuals directly accountable to FAA for noncompliance with access control requirements.

Finally, FAA needs an integrated strategic plan to guide its efforts and prioritize funding needs. This plan should include a balanced approach covering basic research, equipment deployment and use, certification and operator testing processes, data collection and analysis on actual equipment and operator performance, and regulation and enforcement.

Deepwater Capability Replacement Project

USCG is planning for the replacement of its Deepwater assets as a coordinated system rather than as a series of distinct procurements. Three industry teams are developing competing proposals for replacing or modernizing existing deepwater assets that include aircraft, vessels, and communications and navigation system. This approach is expected to enhance interoperability and reduce personnel and operating costs. However, based on an OIG review of the planning process, there are still areas of concern that USCG must address.

OIG recommended USCG: (1) complete its outstanding commitments to develop better data on existing Deepwater assets by completing internal engineering evaluations and providing for an independent assessment of current conditions and remaining useful life for 110-foot cutters, update the condition assessment for existing sensor, communications, and navigation's systems to reflect planned improvements, correct errors and omissions in the maintenance backlog and operating expense data and providing this information to the industry teams, and use a report by the Interagency task Force of Roles and Missions to revise the Mission Needs Statement and capability requirements included in the Project justification; (2) develop a strategy for justifying the planned $350 million Project budget request for FY 2002 which considers options including deferring the proposed budget request until the results of the planning process are known, expediting the planning process to identify the most critical Deepwater needs as a basis for requesting procurement funds for FY

2002, or using the industry teams' concept plans to develop a current cost estimate for the Project as the basis for requesting procurement funds in FY 2002; and (3) reduce its risk with respect to leadership continuity by providing for civilian staffing at the senior management level of the Deepwater Project team and extending tours of duty for senior military personnel.

Future National Security Initiatives

OIG will provide oversight of DOT programs and operations to reduce national security vulnerability and maintain readiness to the threat of terrorism. In the aviation security area, we will continue to place emphasis on FAA's oversight of aviation security programs such as explosives detection and cargo security. In maritime security, we will continue to monitor the Deepwater Capability Replacement Project and assess the readiness and availability of vessels and crews to meet deployment needs for military forces. Also, we will evaluate the Department's efforts to secure its critical safety computer systems.

➢ Organizational Excellence

"Advance the Department's ability to manage for results and innovation."

DOT's organizational excellence goal is defined as advancing the Department's ability to manage for results and innovation. This goal strives to improve customer satisfaction, improve employee satisfaction and effectiveness and improve organization performance and productivity

In FY 2000, our audits:

- Issued an unqualified opinion on DOT's FY 1999 consolidated financial statements.
- Reviewed DOT's contractual obligations and found $35.4 million of obligations that could be released.
- Found DOT Headquarters' computer networks had security weaknesses that made computers and web servers vulnerable to attack.
- Found FTA computer security controls for a financial-management system were not adequate to ensure operational integrity and continued operations.
- Identified significant internal control weaknesses with NTSB's Rapidraft third-party check system.

In FY 1999, our investigations led to the convictions of:

- Two former NTSB employees embezzled approximately $95,000 through the Rapidraft system.

- FAA employees for filing false travel reimbursement claims.
- A former FAA engineer for theft and destruction of FAA-owned computer software.
- A former FHWA contract employee for theft of Government property and embezzlement.
- An USCG employee for stealing CG funds.

Following are several descriptive examples of our work in FY 2000.

Hotline Operations

During FY 2000, our hotline operations center received 568 complaints from the public and Government employees involving fraud, waste, and abuse. As a result of OIG and DOT management inquiries into the complaints, approximately 27 percent of the hotline investigations resulted in some type of administrative action by the OA.

DOT's Financial Statements

For the first time, due to concerted effort and cooperation, DOT, including the Highway Trust Fund and FAA, achieved an unqualified or "clean" audit opinion on their financial statement for FY 1999. We found that the three entities balance sheets, statements of net cost, statements of changes in net position, statements of budgetary resources, and statements of financing were fairly presented in all material aspects and conformed with generally accepted accounting principles. Further, sufficient evidence was offered to support all material line items. Though we identified weaknesses, they were not so significant as to prevent the overall "clean" designations. OIG audits of the FAA's financial statements for FY 1999 and our audit of FAA's property, plant and equipment similarly found documentation adequate and accounting approaches reasonable. However, more work is needed. OIG urged FAA, which is developing a cost-accounting system and a property management system, to make financial management system improvements to avoid the future need for the extraordinary, expensive, and labor-intensive documentation that made this unqualified opinion possible.

DOT Computer Security

We conducted an audit on DOT Headquarters computer networks and found security weaknesses that made DOT's computers and web servers vulnerable to unauthorized access and attack by intruders. The computer networks are used to support transmission of critical administrative and financial data such as payroll, grant payments, safety statistics, and research information throughout DOT. Hundreds of DOT computers were accessible by unauthorized Internet users as well as being vulnerable to insider attack. Internet users were allowed to bypass DOT's "firewall"

security and gain access to DOT's private networks. We also found that DOT web sites were vulnerable to attack.

OIG recommended that DOT: (1) strengthen personnel security for DOT personnel and contractor personnel authorized to access DOT systems; (2) improve network security to prevent unauthorized access by Internet users or insiders; and (3) increase security on DOT's web sites.

Inactive Obligations on Contracts

OIG identified about 4,500 contractual obligations totaling about $143 million within DOT that had no activity within the last 36 months. Working with the OAs, we identified about $35.4 million of obligations on contracts that no longer represented valid financial liabilities. These occurred because contracting officers generally were not reviewing obligations on an annual basis and were not closing contracts quickly. Freeing up these unneeded funds earlier could allow their use to purchase other services or return of the taxpayers' money to the United States Treasury.

Future Organizational Excellence Initiatives

OIG will continue to aid the Department in improving organizational performance and productivity. We will work on issues such as monitoring the design and implementation of the new Departmental accounting system, DELPHI; reporting on FAA's Cost Accounting system efforts; and auditing FAA's planned telecommunications infrastructure project. Investigations will work to prevent fraud and abuse by Department employees, as well as reviewing cases from the Hotline.

FY 2002 BUDGET REQUEST

OIG's FY 2002 budget request is for **$56.138 million** in total budgetary resources in support of **455 FTE**. Of this total amount, OIG requests **$3.524 million** from FHWA to support costs associated with the audit and investigation of highway related issues, including audit of the HTF financial statements; **$2 million** from FTA for costs associated with audit and investigative reviews of transit-related issues; and the remaining **$50.614 million** funded through direct appropriations.

This total level of budgetary resources would fund PC&B costs of $45.166 million for 455 FTE, including $3.015 million in mandatory pay increases such as pay raises, within-grade increases, career-ladder promotions and the benefits associated with these increases.

OIG's FY 2002 operating costs represent an increase of $266,000 from OIG's FY 2001 operating costs. The majority of OIG's operating costs have been held to FY 2001 levels. The only two categories of operating costs that required increases based on estimates provided by the billing agency were General Services Administration Rent and Transportation Administrative Services Center costs.

OIG's requested level of funding and FTE is essential to carry out our oversight mission mandated under the Inspector General Act of 1978, as amended; produce Congressionally requested reviews; and support the six Departmental strategic goals.

DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL

Federal Funds

General and special funds:

SALARIES AND EXPENSES

For necessary expenses of the Office of Inspector General to carry out the provisions of the Inspector General Act of 1978, as amended, [$48,450,000] *$50,614,000: Provided,* That the Inspector General shall have all necessary authority, in carrying out the duties specified in the Inspector General Act, as amended (5 U.S.C. App. 3) to investigate allegations of fraud, including false statements to the Government (18 U.S.C. 1001), by any person or entity that is subject to regulation by the Department[: *Provided further*, That the funds made available under this heading shall be used to investigate, pursuant to section 41712 of title 49, United States Code: (1) unfair or deceptive practices and unfair methods of competition by domestic and foreign air carriers and ticket agents; and (2) the compliance of domestic and foreign air carriers with respect to item (1) of this proviso]. *(Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101(a) of P.L. 106-346.)*

Note:

In addition to direct appropriations, OIG is requesting reimbursable authority of $3.524 million from the Federal Highway Administration's Highway Trust Fund, and $2 million from the Federal Transit Administration.

DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL

PROGRAM AND FINANCING
($ in Thousands)

OMB ACCOUNT ID: 021-56-0130-0	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Obligations by program activity			
0.91 Total direct program	47,076	49,341	50,614
9.01 Reimbursable Program	1,580	3,624	5,624
10.00 Total new obligations	48,656	52,965	56,238
Budgetary resources available for obligation			
21.40 Unobligated balance carried forward, start of year	800	0	0
22.00 New budget authority (gross)	48,026	52,965	56,238
23.90 Total budgetary resources available for obligation	48,826	52,965	56,238
23.95 Total new obligations	-48,656	-52,965	-56,238
23.98 Unobligated balance expiring or withdrawn	-170	0	0
24.40 Unobligated balance carried forward, end of year	0	0	0
New budget authority (gross), detail			
Discretionary			
40.00 Appropriation	44,840	48,450	50,614
40.76 Reduction pursuant to PL 106-113	-170		
40.77 Reduction pursuant to PL 106-554		-109	
40.79 Reduction pursuant to PL 106-69	-224		
42.00 Transferred from other accounts [69-1129]		1,000	
43.00 Appropriation (total discretionary)	44,446	49,341	50,614
Discretionary spending authority from offsetting collections			
68.00 Offsetting collections (cash)	3,756	3.624	5,624
68.15 Adjustments to uncollected customer payments from Federal sources	-176	0	0
68.90 Spending authority from offsetting collections (total)	3,580	3,624	5,624
70.00 Total new budget authority (gross)	48,026	52,965	56,238

DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL

PROGRAM AND FINANCING
($ in Thousands)

OMB ACCOUNT ID: 021-56-0130-0	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Change in unpaid obligations			
Unpaid Obligations, start of year			
72.99 Obligated balance, start of year	4,593	3,500	4,934
73.10 Total new obligations	48,656	52,965	56,238
73.20 Total outlays (gross)	-48,467	-51,531	-56,111
73.40 Adjustments in expired accounts (net)	-1,282		
Unpaid Obligations, end of year			
74.40 Unpaid obligations, end of year	3,500	4,934	5,061
74.99 Obligated balance, end of year	3,500	4,934	5,061
Outlays (gross), detail			
86.90 Outlays from new discretionary authority	44,711	48,031	51,177
86.93 Outlays from discretionary balances	3,756	3,500	4,934
87.00 Total outlays (gross)	48,467	51,531	56,111
Offsets			
Against gross budget authority and outlays			
Offsetting collections (cash) from:			
88.00 Federal Sources	3,756	3,624	5,624
88.96 Adjustment to uncollected customer payments from Federal sources	-176	0	0
Net budget authority and outlays			
89.00 Budget authority (net)	44,446	49,341	50,614
90.00 Outlays (net)	44,711	47,907	50,487

DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL

PROGRAM AND PERFORMANCE

This appropriation finances the cost of conducting and supervising audits and investigations relating to the programs and operations of the Department to promote economy, efficiency, and effectiveness and to prevent and detect fraud, waste, and abuse in such programs and operations. In addition, funding to audit and investigate highway and transit-related issues will be reimbursed from the Federal Highway Administration and the Federal Transit Administration.

DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL
SALARIES AND EXPENSES
OBJECT CLASSIFICATION
($ in Thousands)

		FY 2000 ACTUALS	FY 2001 ESTIMATE	FY 2002 REQUEST
	Personnel Compensation:			
11.1	Full- time permanent	$26,789	$28,305	$28,813
11.3	Other than full-time permanent	$525	$543	$563
11.5	Other personnel compensation	$1,350	$1,514	$1,667
11.9	Total personnel compensation	$28,664	$30,362	$31,043
12.1	Civilian personnel benefits	$7,962	$8,273	$8,599
21.0	Travel and transportation of persons	$2,228	$2,700	$2,700
22.0	Transportation of others	$0	$5	$5
23.1	Rental payments to GSA	$2,787	$3,056	$3,166
23.2	Rental payments to other	$89	$93	$93
23.3	Comm, util, and misc charges	$392	$380	$380
24.0	Printing and reproduction	$9	$25	$25
25.1	Advisory and assistance services	$503	$500	$500
25.2	Other services	$1,318	$1,511	$1,511
25.3	Purchases of goods and services from government accounts (TASC)	$1,858	$1,756	$1,912
26.0	Supplies and materials	$277	$230	$230
31.0	Equipment	$989	$437	$437
42.0	Insurance Claims	$0	$3	$3
91.0	Unvouchered	$0	$10	$10
99.0	Subtotal, direct obligations	$47,076	$49,341	$50,614
99.0	Reimbursable obligations	$1,580	$3,624	$5,624
99.9	Total obligations	$48,656	$52,965	$56,238

DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL
RESOURCE SUMMARY - FINANCING
($ in thousands)

APPROPRIATION TITLE	BUDGET AUTHORITY FY 2000 ACTUAL	FY 2001 ENACTED	FY 2002 REQUEST
Salaries and Expenses	$44,446	$48,341	$50,614
Transfer from FTA		$1,000	
TOTAL, BUDGET AUTHORITY	$44,446	$49,341	$50,614
Reimbursable from FHWA	$2,000	$3,524	$3,524
Reimbursable from FTA	$1,500		$2,000
Reimbursable from NTSB *	$80	$100	$100
Carryover	$800		
TOTAL, OTHER AUTHORITY	$4,380	$3,624	$5,624
TOTAL, BUDGETARY RESOURCES	$48,826	$52,965	$56,238

* Reimbursable funding from NTSB is collected only if OIG performs work as requested by NTSB.

DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL
RESOURCE SUMMARY - FINANCING
($ in thousands)

	OUTLAYS		
APPROPRIATION TITLE	FY 2000 ACTUAL	FY 2001 ESTIMATE	FY 2002 REQUEST
Salaries and Expenses	$44,711	$47,907	$50,487
TOTAL, OUTLAYS	$44,711	$47,907	$50,487

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DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL
RESOURCE SUMMARY - STAFFING

DIRECT FUNDED, BY APPROPRIATION	POSITIONS (FULL-TIME PERMANENT) FY 2000 ACTUAL	FY 2001 ESTIMATE	FY 2002 REQUEST
Salaries and Expenses	420	419	411
Transfer from FTA		11	
Subtotal, Direct Funded	420	430	411
REIMBURSABLES			
FHWA	28	40	38
FTA	22		21
Subtotal, Reimbursables	50	40	59
TOTALS, POSITIONS	470	470	470

DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL
RESOURCE SUMMARY - STAFFING

	FTE - TOTAL		
DIRECT FUNDED, BY APPROPRIATION	FY 2000 ACTUAL	FY 2001 ESTIMATE	FY 2002 REQUEST
Salaries and Expenses	393	404	396
Transfer from FTA		11	
Subtotal, Direct Funded	393	415	396
REIMBURSABLES			
FHWA	28	40	38
FTA	22		21
Subtotal, Reimbursables	50	40	59
TOTALS, FTE	443	455	455

DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL
DISTRIBUTION OF FY 2001 ESTIMATED AND FY 2002 ESTIMATED BUDGETS
($ in Thousands)

OFFICE	FY 2001 Estimate PC&B	OPER COSTS	TOTAL	FTE	FY 2002 Estimate PC&B	OPER COSTS	TOTAL	FTE
Inspector General -								
Immediate Office	$1,012	$10,706	$11,718	8	$1,081	$10,972	$12,053	8
AIG for Auditing	$24,571		$24,571	277	$25,229		$25,229	264
AIG for Investigations	$10,734		$10,734	104	$10,855		$10,855	98
Office of Legal Counsel	$548		$548	5	$585		$585	5
Administrative Support	$1,770		$1,770	21	$1,892		$1,892	21
Total Budget Authority	$38,635	$10,706	$49,341	415	$39,642	$10,972	$50,614	396
Reimbursable from FHWA	$3,516		$3,524	40	$3,524		$3,524	38
Reimbursable from FTA					$2,000		$2,000	21
Reimbursable from NTSB	$100		$100		$100		$100	
Total OIG Budgetary Resources	$42,251	$10,706	$52,965	455	$45,266	$10,972	$56,238	455

DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL
FY 1992 - FY 2001 FUNDING HISTORY
($ in Thousands)

APPROPRIATION TITLE	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
TOTAL, BUDGET AUTHORITY	$37,005	$38,000	$39,000	$39,749	$38,727	$37,805	$41,941	$43,245	$44,446	$49,341
TOTAL, OTHER AUTHORITY	$0	$0	$0	$0	$0	$0	$0	$1,150	$4,380	$3,624
TOTAL, BUDGETARY RESOURCES	$37,005	$38,000	$39,000	$39,749	$38,727	$37,805	$41,941	$44,395	$48,826	$52,965

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OFFICE OF THE INSPECTOR GENERAL

SALARIES AND EXPENSES

ESTIMATES		APPROPRIATIONS		
1992	38,668,000	1992	37,005,000	
1993	42,200,000	1993	38,000,000	
1994	40,706,000	1994	39,000,000	
1995	38,319,000	1995	39,891,200	1/
1996	40,238,000	1996	38,727,000	2/
1997	39,771,000	1997	37,804,914	3/
1998	40,889,000	1998	41,941,000	4/
1999	42,491,000	1999	44,045,000	5,7&8/
2000	44,840,000	2000	44,446,000	6&9/
2001	48,050,000	2001	49,341,210	10/
2002	50,614,000	2002		

1/ Reflects reductions of $42,000 for working capital fund (Sec.330), $55,000 for bonuses and awards(Sec.331) and a transfer of $11,800 for a consolidated civil rights office.
2/ Reflects reductions of $1,454,000 for working capital fund, bonuses and awards, and field office consolidation and $57,000 from P.L. 104-134, the Omnibus and Consolidated Rescission Appropriation Act of 1996.
3/ Reflects reduction of $94,086 for TASC (Sec 321) and $1,000 for awards (Sec.346).
4/ Reflects reduction of $59,000 for TASC (Sec 320).
5/ Reflects reduction of $179,000 for TASC (Sec 3/0).
6/ Reflects reduction of $170,000 (0.38%)(Sec. 301 of P.L. 106-113).
7/ Reflects reduction of $71,000 for administrative and travel expenses, P.L. 106-51.
8/ Includes $800,000 transferred from FTA Formula Grants pursuant to P.L. 105-277.
9/ Reflects reduction of $224,000 for TASC (Sec. 319).
10/ Reflects 0.22% reduction of $108,790 (Sec. 1403 of P.L. 106-554) and includes $1 million transfer from FTA Formula Grants pursuant to P.L. 106-346.

DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL
MISSION, OBJECTIVES, AND ORGANZATIONAL STRUCTURE

MISSION AND OBJECTIVES

OIG will design its work to assist DOT in achieving the six goals established in DOT's Strategic Plan. In addition, OIG will work closely with DOT officials to find solutions to problems, identify actions that will make DOT programs more efficient, and assist in overseeing the implementation of DOT regulations.

As prescribed by the Inspector General Act, OIG will: (1) conduct and supervise independent and objective audits and investigations relating to the programs and operations of the Department; (2) promote economy, effectiveness, and efficiency within the Department; (3) prevent and detect fraud, waste, and abuse in Departmental programs and operations; (4) receive, and as appropriate, investigate complaints from any person or entity, including Congress; (5) report violations of law to the U.S. Attorney General; (6) notify the Secretary of Transportation and Congress of serious or flagrant problems in DOT or its programs; (7) review existing and proposed legislation and regulations; (8) keep the Congress and Secretary fully informed about problems and deficiencies and the necessity for and progress of corrective actions; (9) protect the identity of whistleblowers; and (10) prepare and submit semiannual reports to the Congress and Secretary.

OIG also has significant responsibilities under the Chief Financial Officers Act, the Government Performance and Results Act (GPRA), and the Government Management Reform Act. OIG will fulfill these responsibilities by completing required audits of DOT's financial statements, assessing the adequacy of internal control systems, and identifying opportunities to achieve financial benefits. OIG will also assist the Operating Administrations in determining that the performance measures established in accordance with GPRA are appropriate and supported by reliable data.

In carrying out these responsibilities, the Inspector General exercises executive direction over the functions of auditing, investigations, and six support units.

ORGANIZATIONAL STRUCTURE

The Office of the Assistant Inspector General for Auditing (AIGA) supervises and conducts all audit activities related to DOT programs and operations. As overseer of all audit activities, the AIGA ensures compliance with the standards established by the Comptroller General of the United States, the President's Council on

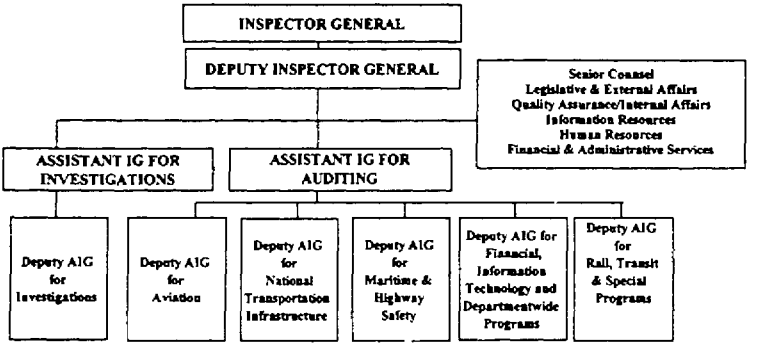
Integrity and Efficiency (PCIE), and other professional guidelines. The audit organization conducts both financial and performance audits as well as reviews in response to non-criminal allegations, investigations, Congressional inquiries, and departmental concerns. Auditors provide technical support where appropriate and perform quality assurance reviews of audit work performed by independent public accountants of grantees under the Single Audit Act of 1984.

The Office of the Assistant Inspector General for Investigations (AIGI) supervises and conducts all OIG investigative activities related to DOT programs and operations. These investigations involve both proactive and reactive activities designed to maintain the Department's integrity and protect its resources from fraud, waste, and abuse. The AIGI ensures compliance with the PCIE standards for OIG criminal investigations. Also, the AIGI manages the IG Hotline Complaint Center. The AIGI is responsible for the general oversight of criminal investigations within DOT and provides support to audit activities.

The Office of Legal Counsel (OLC) provides a full-range of professional legal services and advice. The OLC is also responsible for processing requests made under the Freedom of Information Act and the Privacy Act.

The offices of Information Resource Management, Human Resources, and Financial and Administrative Services report to the Deputy Inspector General, and provide support to the OIG audit and investigative missions. Services provided by these offices include: budget preparation and execution; financial and administrative services and oversight; personnel management services; information technology support; and management of the OIG's Management Information System.

The organizational chart follows:


INSPECTOR GENERAL
DEPUTY INSPECTOR GENERAL
Senior Counsel
Legislative & External Affairs
Quality Assurance/Internal Affairs
Information Resources
Human Resources
Financial & Administrative Services
ASSISTANT IG FOR INVESTIGATIONS
ASSISTANT IG FOR AUDITING
Deputy AIG for Investigations
Deputy AIG for Aviation
Deputy AIG for National Transportation Infrastructure
Deputy AIG for Maritime & Highway Safety
Deputy AIG for Financial, Information Technology and Departmentwide Programs
Deputy AIG for Rail, Transit & Special Programs

OFFICE OF INSPECTOR GENERAL
IMMEDIATE OFFICE

Description

The Inspector General Act of 1978, as amended, requires the OIG to conduct, supervise, and coordinate audits and investigations relating to the programs and operations of the Department. OIG is required to coordinate relationships between DOT and other Federal agencies and state and local governments with respect to their audit and investigative responsibilities. In carrying out its responsibilities, the Inspector General exercises executive direction over the functions of auditing, investigations, legal counsel, and administration.

The immediate office of the Inspector General consists of the Inspector General's office (J-1); the Deputy Inspector General's office (J-2); and the Quality Assurance Reviews/Internal Affairs and the Office of Legislative and External Affairs offices (J-3).

Positions in the immediate office of the Inspector General include the following:

Management and Supervision - The Inspector General and the Deputy Inspector General.

Technical Staff – Includes those personnel responsible for conducting Quality Assurance Reviews, internal investigations, and all communications and writing/editing support.

Clerical and Administrative Support - Two staff assistants who review and control correspondence, answer telephones, file documents, and perform other administrative duties.

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR AUDITS

Description

The Assistant Inspector General for Auditing (AIGA) supervises and conducts all audits and evaluations related to DOT programs and operations. As overseer of all audits and evaluations, the AIGA ensures compliance with the standards established by the Comptroller General of the United States and other professional guidelines. The audit organization conducts both financial and performance audits as well as reviews in response to non-criminal allegations, investigations, Congressional inquiries, and departmental concerns. Auditors provide technical support where appropriate and perform quality assurance reviews of audit work performed by independent public accountants of grantees under the Single Audit Act of 1984.

The Office of AIGA consists of the AIGA's immediate office (JA-1); the Planning, Training, and Technical Support office (JA-2); and five Headquarters offices supported by 10 field offices. OIG field offices conduct audits and evaluations under the direction of the Headquarters functional offices in their assigned program areas and provide staff to accomplish audits in other than their assigned program areas where appropriate.

Office of Aviation Audits

Supervises and conducts audits and evaluations of programs and operations of the Federal Aviation Administration.

Office of Financial, Information Technology, and Departmentwide Audits

Supervises and conducts audits and evaluations of information technology, financial management, and cross-cutting activities within DOT.

OIG is authorized under the National Transportation Safety Board Amendments Act of 2000, on a reimbursed basis, to review the financial management, property management, and business operations of the Board. This includes the review of internal accounting and administrative control systems, to determine compliance with applicable Federal laws, rules, and regulations. The Office of Financial, Information Technology, and Departmentwide Audits is the OIG office with responsibility for these reviews.

Office of National Transportation Infrastructure Activities

Supervises and conducts audits and evaluations of infrastructure projects and programs of the Federal Highway Administration, Federal Transit Administration, and Federal Aviation Administration.

Office of Rail, Transit & Special Program Audits

Supervises and conducts audits, evaluations, and reviews of programs and operations of the Office of the Secretary, Federal Railroad Administration, Federal Transit Administration, and Research and Special Programs Administration.

Office of Maritime & Highway Safety Programs

Supervises and conducts audits and evaluations of programs and operations of the U.S. Coast Guard, Maritime Administration, Saint Lawrence Seaway Development Corporation, Federal Motor Carrier Safety Administration, and the National Highway Traffic Safety Administration.

Positions in the Office of AIGA include the following:

Management and Supervision - Senior Headquarters and field office officials who direct all audits and evaluations of DOT programs and operations.

Auditor and Analyst Staff - Auditors and analysts who conduct performance and financial audits and evaluations of major programs and activities of the Department. These audits and evaluations involve the propriety of financial operations, the evaluation of economy and efficiency of operations, and reviews of program results.

Technical Staff - Includes two computer specialists who provide automated data retrieval and analysis services for the entire OIG, two statistical advisors, one training officer, and one planning officer. Automated Data Processing (ADP) and statistical advice is used extensively in the development of audit methodology. The statistical advisors provide consulting advice to OIG personnel and departmental requesters on the appropriate use of surveys, statistical and mathematical techniques in the execution of audits, evaluations, investigations, and departmental operations. The training officer is responsible for the direction, implementation, and administration of the training and education activity in the OIG, including compliance with yellow book standards for continuing professional education for OIG auditors and analysts. The planning officer is responsible for the audit plan and ensuring that appropriate audit processes are followed, a necessary function for our success during the required peer review.

Clerical and Administrative Support - Staff members who generate and edit reports and correspondence, answer telephones, file documents, and perform other duties in support of the audit mission.

Following are brief explanations of the types of audits and evaluations performed by the Office of AIGA.

Economy and Efficiency Audits - These audits determine: (1) whether the entity is acquiring, protecting, and using its resources (such as personnel, property, and space) economically and efficiently; (2) the causes of inefficiencies or uneconomical practices; and (3) whether the entity has complied with laws and regulations concerning matters of economy and efficiency.

Program Audits and Evaluations - These audits and/or evaluations determine: (1) the extent to which the desired results or benefits established by the Congress are being achieved; (2) the effectiveness of organizations, programs, activities, or functions; and (3) whether the entity has complied with laws and regulations applicable to the program.

Financial Statement Audits - These audits determine: (1) whether the financial statements of an audited entity present fairly the financial position, results of operations, and cash flows or changes in financial position in accordance with generally accepted accounting principles; (2) whether the entity has internal controls which provide reasonable assurance over financial reporting, including the safeguarding of assets; and (3) whether the entity has complied with laws and regulations for those transactions and events that may have a material effect on the financial statements.

Financial Related Audits - These audits determine: (1) whether financial information and related items are fairly presented in accordance with established criteria; and (2) whether the entity has adhered to specific financial compliance requirements.

Single Audit Act Audits – The audits, performed by independent auditors and overseen by OIG, review the financial and program compliance of state or local government grantees that receive $300,000 or more of Federal funds a year.

OFFICE OF ASSISTANT INSPECTOR GENERAL FOR INVESTIGATIONS

Description

The Assistant Inspector General for Investigations (AIGI) supervises and conducts all OIG investigative activities related to DOT programs and operations. These investigations involve both proactive and reactive activities designed to maintain the integrity of the Department's programs and protect its resources from fraud, waste, and/or program abuse. The AIGI ensures compliance with the PCIE standards for OIG investigations. Also, the AIGI manages the Hotline Complaint Center. The AIGI, in addition to investigating allegations of fraud referred from other DOT organizations, also monitors the investigations referred to other DOT investigative elements. The AIGI is responsible for the general oversight of criminal investigations within DOT and provides support to audit activities.

The Office of AIGI consists of the AIGI's immediate office (JI-1), the Deputy AIGI (JI-2), Headquarters Operations (JI-3), Field Operations (JI-4), and five regional offices.

Positions in the Office of the AIGI include the following:

Management and Supervision - Senior Headquarters and field investigative officials who direct the performance of all investigations relating to DOT programs and operations. The field managers and supervisors include Special Agents-in-Charge and Assistant Special Agents-in-Charge.

Investigative Staff - Special agents, investigators and analysts who conduct and support criminal and administrative investigations, including the Hotline Complaint Center staff.

Clerical and Administrative Support - Includes administrative assistants, investigative program technicians, secretaries, and clerk-typists who process and type reports and correspondence, answer telephones, file documents, and perform other administrative duties in support of the investigative mission, including responsibilities for input of data to the Management Information System and retrieval and analyses of this data.

Following are brief explanations of the diverse work performed by the Office of AIGI.

Reactive Investigations - These investigations focus on specific individuals or companies identified as targets or subjects at the outset of an investigation based

on some alleged or suspected violation of the law. Most of these cases are complex, sensitive, and of a protracted nature which require a substantial amount of investigative resources. Reactive investigations continue to be the area of greatest emphasis and dedication of staff effort.

Proactive Investigations - These investigations focus on DOT operations or activities identified by OIG as vulnerable to fraud, waste, and abuse. They may be narrow in scope and test a specific activity or broader-based, systematic reviews with an emphasis on the development and refinement of preventive measures. Quite often, reactive investigations are initiated as a result.

Preliminary Inquiries - These are limited reviews where a factual basis for a full investigation does not yet exist, but some investigative work is needed before the matter is resolved. Preliminary inquiries usually involve generalized, ambiguous, or incomplete information or preliminary information received from a source of unknown reliability and, therefore, require further work to determine if an investigation is warranted.

Hotline Complaint Center - Activities consist of the receipt, evaluation, investigation, and coordination of complaints received via the OIG Hotline.

OFFICE OF LEGAL COUNSEL

Description

The Office of Legal Counsel (OLC) provides the full range of professional legal services and advice with respect to the formulation, coordination, revision, and execution of OIG programs. These include: developing legal opinions, briefs, pleadings, and memoranda on significant litigation and policy matters; reviewing audit, evaluation, and investigative reports and issues for legal sufficiency and potential legal action; providing litigation support services; reviewing departmental legislative programs and regulations; and preparing initial responses and reviewing appeals made under the Freedom of Information (FOIA) and Privacy Acts and preparing responses for signature of the Deputy Inspector General.

Positions in OLC include the following:

Management and Supervision - The Senior Counsel directs the delivery of all legal services to the OIG and provides management guidance and direction to the OIG legal staff.

Professional Staff - Consists of two attorneys who perform the full range of OIG legal services under the supervision of Senior Counsel.

Technical Staff - Includes one FOIA Officer. The FOIA Officer provides OIG management with advice and guidance for the OIG's FOIA program, and develops OIG policy with respect to FOIA.

Clerical and Administrative Support - One staff assistant who develops correspondence, answers telephones, files documents, and performs other duties in support of the legal and administrative staff.

ADMINISTRATIVE SUPPORT OFFICES

Description

All administrative support to OIG is provided by three offices: the Office of Information Resource Management, the Office of Human Resources, and the Office of Financial and Administrative Services.

Office of Information Resource Management

The Office of Information Resources Management provides technical support for all information technology resources programs and activities, which include ordering, installing, operating, and maintaining OIG's computers and other information technology resources.

Office of Human Resources

The Office of Human Resources provides personnel and human resources services, which include recruitment, position classification, appointment, and employee relations activities.

Office of Financial and Administrative Services

The Office of Financial and Administrative Services is responsible for providing all financial and administrative services, which include the preparation and execution of OIG's budget, the procurement of goods and services, and interpretation of regulations relating to administrative matters.

Positions in the Administrative Support Offices include the following:

Management and Supervision - Senior Headquarters officials who direct the technical and administrative support functions for OIG.

Technical Staff - Includes those personnel responsible for conducting the work and functions assigned to the offices. These functions include: financial, administrative, human resources, and information technology resources support services.

Clerical and Administrative Support – Two secretaries who type correspondence, answer telephones, file documents, and perform other administrative duties.

Office of Inspector General
U.S. Department of Transportation

FY 2002 Performance Plan

FY 2002 PERFORMANCE PLAN

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FY 2002 PERFORMANCE PLAN

I. Introduction

The Office of Inspector General (OIG), Department of Transportation (DOT), Fiscal Year (FY) 2002 Performance Plan details our performance measures and future plans in support of DOT's Strategic Plan. The OIG is uniquely situated to be a proactive force that can effect constructive change. It is our goal to identify and eliminate problems early when it is practical to do so, rather than limit ourselves solely to reacting to allegations at the same time. We are committed, however, to our statutory mandate of detecting and preventing fraud, waste, and abuse and promoting effective and efficient government. The typical product of our office is the in-depth analysis of data, processes and systems which culminate in audit and investigative reports--a powerful commodity. We also provide advice and counsel to the senior management in the Department and, as requested, testimony to Congress. If we are to succeed in being proactive--in being out front on issues of concern to the vast and diverse transportation community--we must reach out to Members of Congress, department officials, industry, associations, interest groups, and the public. This plan, therefore, serves as an important instrument in our ongoing efforts to promote the most effective and efficient operation of DOT.

II. OIG Statutory Responsibilities

The Inspector General Act of 1978, as amended (Inspector General Act, P.L. 95-452), established the OIG as an independent and objective organization within DOT. The Inspector General is committed to fulfilling its statutory mission and assisting the Secretary and senior department officials in achieving a visionary and vigilant DOT. As prescribed by the Inspector General Act, OIG will:

- *Maintain independent and objective organizations to conduct and supervise audits and investigations relating to the programs and operations of DOT;*
- *Recommend policies for activities to promote economy, efficiency, and effectiveness in administration of departmental programs;*
- *Take appropriate actions to prevent and detect fraud, waste, and abuse in the Department's programs and operations;*
- *Receive, and as appropriate, investigate complaints from any person or entity, including Congress;*
- *Report violations of law to the U.S. Attorney General;*
- *Notify the Congress and Secretary of serious or flagrant problems in DOT or its programs;*
- *Review existing and proposed legislation and regulations;*

- *Keep the Congress and Secretary fully informed about problems and deficiencies and the necessity for and progress of corrective action;*
- *Protect the identity of whistleblowers; and*
- *Prepare and submit semiannual reports to the Congress and Secretary.*

As part of these responsibilities, OIG also reports on those departmental programs and operations that are working well.

OIG also has significant responsibilities under the Chief Financial Officers Act, the Government Management Reform Act, and the Government Information Security Reform Act, as well as the Government Performance and Results Act. OIG will fulfill these responsibilities by completing required audits of DOT's financial statements, assessing the adequacy of internal control systems and identifying opportunities to achieve financial benefits. OIG will also evaluate departmental performance measures to determine their appropriateness for measuring progress toward stated goals and will audit selected measures to validate and verify reported results. In addition, the House and Senate Committees direct OIG to respond to emerging issues of congressional concern.

III. OIG Resources and Organization

OIG's total FY 2002 budget request is $56.138 million. This will be used to support 455 FTE. In addition to $50.614 million in direct appropriations, the OIG budget request includes funds of $3.524 million from the Federal Highway Administration (FHWA) and $2 million from the Federal Transit Administration (FTA) to support costs associated with audits and investigations of transit and highway-related issues, including the audit of the Highway Trust Fund financial statements. Overall, OIG's requested level of funding is essential to carry out its oversight mission mandated under the Inspector General Act and to fully support the DOT's strategic goals.

The OIG is organized to concentrate the talents of our senior executives on OIG's core statutory responsibilities, which are to perform audits and investigations. Moreover, our most senior auditors and analysts are assigned to key subject areas. These assignments recognize that some subjects are mode-specific, while others are cross-modal in nature. Our organizational structure allows us to develop and maintain a high level of expertise to deal with complex transportation issues and programs.

IV. Strategic Plan Goals

In order to better serve Congress and the Department, OIG will focus a major portion of its work towards addressing the strategic goals outlined in the DOT Strategic Plan. The following comprises a listing of these goals.

DOT Strategic Goals

- ***Safety:*** *"Promote the public health and safety by working toward the elimination of transportation-related deaths and injuries."*
- ***Mobility:*** *"Shape an accessible, affordable, reliable transportation system for all people, goods, and region "*
- ***Economic Growth and Trade:*** *"Support a transportation system that sustains America's economic growth."*
- ***Human and Natural Environment:*** *"Protect and enhance communities and the natural environment affected by transportation."*
- ***National Security:*** *"Ensure the security of the transportation system for the movement of people and goods, and support the National Security Strategy."*
- ***Organizational Excellence:*** *"Advance the Department's ability to manage for results and innovation."*

These six goals emphasize the importance of improving America's transportation safety and infrastructure. OIG will work to find solutions to complex transportation issues, identify actions which may enhance transportation safety in all modes, make recommendations aimed at improving the efficiency and effectiveness of transportation programs, and assist the Secretary and Congress in oversight of the Department. Furthermore, through our audits and investigations, we are committed to promoting the most effective and efficient use of departmental resources, with a goal towards preventing fraud, waste, abuse, and mismanagement.

V. Top-Priority Management Issues

In support of departmental efforts to achieve the above strategic goals, OIG has identified the following Top 10 management challenges facing DOT. These issues will serve as a basis for focusing OIG's audit and investigative resources in FY 2002.

1. AVIATION SAFETY

Given the continued growth in demand for air travel and the limited capacity of the National Airspace System, the Federal Aviation Administration (FAA) must be more aggressive in evaluating known risks and identifying and evaluating unknown risks that may cause future accidents. The aviation industry expects continued growth in air traffic as a result of increased demand and the emergence of new technologies may result in closer spacing between aircraft due to more precise, satellite-based tracking and navigation capabilities.

While FAA has made progress in addressing factors that affect aviation safety, the agency needs to address several important safety issues, to include:

- Reducing air traffic operational errors and deviations by focusing on improving regional oversight of problem facilities with recurring operational errors and deviations.
- Reducing runway incursions by developing new education and training programs for controllers, implementing improved procedures and airport markings and lighting, and implementing new technology based initiatives.
- Complying with the new designation and selection guidelines for the expanded Controller-in-Charge Program to ensure that only the most qualified controllers are selected.
- Reviewing the effectiveness of FAA's new inspection process (ATOS) for air carriers.
- Resolving outstanding regulatory issues and implementing the flight operations quality assurance (FOQA) program.
- Identifying and correcting systemic issues within FAA that led to gaps in its oversight of air carriers' aircraft maintenance, aircraft manufacturers, and aviation parts manufacturers.
- Devising methods for reducing protracted delays in responding to safety issues brought to FAA's attention, including conducting a comprehensive investigation to reconcile the disparity in tests of fastener thread dimensional conformance found by a Fastener Quality Act accredited laboratory and tests performed by the manufacturers of the fasteners and a non-accredited consultant.
- Developing an overall strategy identifying efforts, and revamping how air carriers and repair stations report wiring problems.

- Moving forward with other long-delayed rulemakings, such as flight time limitations and rest requirements for flight crews.

2. SURFACE TRANSPORTATION SAFETY

Surface transportation – motor vehicle, large truck, railroad, and pipeline transportation – accidents in the United States continue to account for over 42,000 fatalities annually. In 1999, over 36,000 fatalities resulted from motor vehicle accidents not involving large trucks, over 5,000 resulted from crashes involving large trucks, and over 1,000 resulted from railroad, rail transit and pipeline accidents. While down from the over 46,000 fatalities a decade ago, the number of surface fatalities remains high, and the Department needs to continue its efforts on reducing fatalities.

Our work has identified five areas in surface transportation safety. They are motor vehicle safety, motor carrier safety, railroad safety, hazardous materials safety, and pipeline safety. Specific issues that need attention in each area are listed below.

Motor Carrier Safety

- Strengthening Federal oversight to ensure that states take timely action to disqualify commercial drivers who commit Federal disqualifying offenses.
- Taking prompt and meaningful enforcement action against carriers that do not comply with Federal Motor Carrier Safety Regulations.
- Improving the motor carrier safety program for vehicle maintenance, driver qualifications, and compliance with hours-of-service requirements.
- Continuing to revise the hours-of-service regulations for commercial truck and bus drivers.
- Increasing the level of safety oversight for commercial trucks and drivers entering the United States from Mexico.
- Strengthening oversight to ensure that states improve the testing and licensing processes for CDLs.
- Implementing the new authorities and penalties of the Motor Carrier Safety Improvement Act of 1999 by filling key FMCSA vacancies, expeditiously completing rulemakings, and issuing internal policies and procedures.

Railroad Safety

- Making further safety improvements at highway-rail grade crossings by targeting limited resources to proven, cost-effective strategies and addressing railroad trespassing

accidents.

- Increasing FRA's use of the railroad safety inspection database for selecting inspection sites and coordinating Federal and state inspections.
- Ensuring that Amtrak, the states of New York and New Jersey, and the Federal Government develop an action plan for addressing the nearly $900 million in unfunded fire and life safety projects in the rail tunnels approaching Penn Station-New York.

Hazardous Materials Safety

- Implementing Hazardous Materials Program Evaluation Report recommendations to better coordinate hazmat resources to place greater emphasis on shippers, developing strategies to reduce human error as a cause of hazardous materials incidents, and reviewing and analyzing existing databases to improve data quality.

Pipeline Safety

- Map and periodically inspect hazardous liquid pipelines located in areas unusually sensitive to environmental damage from a pipeline accident.
- Developing and implementing an action plan to improve pipeline safety in five areas addressed by the President's memorandum dated November 3, 2000.

Motor Vehicle Safety

- Developing better strategies for increasing seat belt usage.
- Implementing the TREAD Act requirements by developing an early warning system for identifying defects; reviewing all standards, criteria, procedures, and data gathering and analysis methods; and completing all rulemakings by the congressional deadline.

3. AVIATION SYSTEM CAPACITY AND AIR TRAFFIC CONTROL MODERNIZATION

Meeting the anticipated demand for air travel is an urgent issue because the National Airspace System is operating at the fringes of capacity — delays and consumer dissatisfaction are at all time highs. Complaints to the Department for 2000 increased 14 percent (20,438 to 23,381) over 1999 complaints.

U.S. airlines transport over 600 million passengers annually, and this number is expected to grow to over 900 million by 2010. Scheduled operations for the top 10 carriers increased from 4.6 million for the first 9 months of 1999 to over 4.7 million for the same period in 2000.

In January 2000, the Congress passed the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century, more commonly known as "AIR-21". AIR-21 will provide FAA with nearly $8.6 billion to modernize the air traffic control system (the Facilities and Equipment (F&E) account) and almost $10 billion in airport improvement program (AIP) funds from fiscal year (FY) 2001 through 2003.

Against a backdrop of growing demand for air travel, there has been a rapid increase in flight delays and cancellations. Between 1995 and 2000, FAA reported a 90 percent increase in flight delays. Likewise, the Bureau of Transportation Statistics reported a 104 percent increase in cancellations. In 2000, over 1 in 4 domestic flights—affecting approximately 163 million passengers—were delayed, canceled, or diverted, with the average delay exceeding 50 minutes.

FAA recognizes past problems in acquiring systems and has begun to address them through a more incremental approach. However, more needs to be done to address a number of significant issues. Key issues include:

- Developing uniform system for tracking delays, cancellations, and associated causes.
- Strengthening the capacity to oversee multi-billion dollar software-intensive development efforts such as STARS and WAAS. Establishing contract cost mechanisms such as earned value management or Defense Contract Audit Agency audits that will ensure products are delivered on time and within agreed upon budget. The WAAS monthly contract expenditure rate should be reduced.
- Working with airlines to establish credible tracking system for compliance with each provision of the Airline Customer Service Commitment and the implementing Airline Plan, buttressed by performance goals and measures.
- Completing development of capacity benchmarks for the Nation's 30 largest airports.
- Quantifying the capacity benefits expected from new air traffic control technology (e.g., Free Flight).
- Clarifying airspace redesign requirements for near-, mid-, and long-term goals.
- Periodically assessing FAA's progress to improve IPDS team operations, using our survey results as a benchmark, and take required actions to make improvements.
- Developing a strategic plan for addressing capacity shortfalls.
- Defining and implementing plans for transitioning to satellite-based navigation and landing systems.
- Developing reliable cost estimates and analyzing significant variances between FAA's cost estimates and the contractor's proposed cost estimates.
- Evaluating whether FAA's role in planning for nationwide airport infrastructure should move from a passive role to a more active one of facilitating a strategic view of airport

expansion, leveraging grant funds to capacity-constrained locations, and helping to resolve local opposition.

4. SURFACE AND AIRPORT INFRASTRUCTURE

The Transportation Equity Act for the 21st Century (TEA-21) and the Aviation Investment and Reform Act for the 21st Century (AIR-21) provided an unprecedented infusion of funds for highway, transit, and airport infrastructure projects. Highway and transit funding increased by over 40 percent and airport infrastructure funding by about 75 percent. TEA-21 provides $218 billion for highway and transit projects while AIR-21 makes $12.4 billion available for airport infrastructure projects.

The most pressing issues are ensuring that available funds are used as intended by 1) expeditiously advancing projects to improve capacity, relieve congestion, and enhance safety while respecting the letter and intent of environmental laws; and 2) exercising stewardship and oversight to prevent fraud and mismanagement.

Concerns abound over the length of time and process associated with environmental clearances (including noise) for infrastructure projects. All of the modes face this challenge. In 2000, the Department proposed environmental streamlining rules, but the proposed rules were not well received by state transportation officials and industry. This remains a top infrastructure challenge for the new Secretary and Congress.

History instructs us to be on the outlook for fraud and to take steps proactively to prevent it whenever major investments in infrastructure programs are made. The Inspector General, with the support of American Association of State Highway and Transportation Officials (AASHTO), the Justice Department, and the Federal Bureau of Investigations (FBI), has a major initiative in this area. In FY 2000 alone, the Office of Inspector General (OIG) investigations led to 52 indictments and 36 convictions in these areas (indictments increased 49 percent over 1999, convictions by 24 percent over the same period).

The Department needs to continue to improve its stewardship and oversight of transportation funding. The Federal Transit Administration (FTA) has improved its oversight and became one of a few agencies to be removed from the High-Risk list of the General Accounting Office. However, the Federal Highway Administration's (FHWA) focus has been on engineering, while inadequate attention has been paid to transportation planning, controlling project costs, and ensuring money is being spent appropriately. The painful Boston Central Artery Project disclosures last year, several internal embezzlement/kickback cases, and the $14 million in fines and jail terms in the Palumbo Brothers/Monarch Construction cases illustrate the need for improved stewardship and oversight. While Federal agencies must take the lead role the states also have an obligation, as front line authorizers, to ensure stewardship and oversight of Federal funds.

The Aviation Investment and Reform Act for the 21st Century (AIR 21) provides about $40 billion from the Aviation Trust Fund for FAA programs over the next 3 years. However, most of those funds are dedicated to FAA's modernization and airport improvement programs leaving FAA facing a shortfall of nearly $2.3 billion for its operations needs. The ways and means of bridging or reducing that shortfall is a significant issue and underscore the need for FAA to improve its fiscal responsibility.

Issues to focus on include:

- Diligently enforcing new guidance on finance plans and conducting critical analysis of the plans submitted.
- Performing Independent analysis of project performance and close oversight of project management on federally-funded highway projects by FHWA's "mega project team".
- Ensuring that all the recommendations for improving oversight made by the Secretary's Task Force on the Central Artery and the One DOT Oversight Task Force are implemented on a timely basis.
- Improving vigilance against fraud and corruption to deter unscrupulous contractors from attempting to raid the massive infusion of funding TEA-21 and AIR-21 provided by (1) conducting joint FHWA and OIG training sessions for state and local highway agencies on fraud indicators and reporting procedures; (2) developing fraud prevention and detection recommendations for enhancing FTA's Triennial Review and other oversight tools; (3) coordinating with FAA and airport authorities to conduct fraud awareness briefings and training; and (4) coordinating with FHWA and transportation/highway industry to include the OIG as a resource for reporting allegations of fraud, waste, and abuse on Federal-aid infrastructure construction projects.
- Addressing concerns regarding FTA funding for project oversight.
- Ensuring that states requesting Federal funding for mega projects provide adequate funding to maintain and operate the remainder of the statewide transportation infrastructure program.

5. COAST GUARD'S CAPITAL ACQUISITION BUDGET

Preliminary estimates indicate that capital improvement funding of $15 billion or more will be needed over the next 20 years to modernize assets that are critical to the Coast Guard's Marine Safety, Search and Rescue, Law Enforcement, and Marine Environmental Protection programs. Although Coast Guard has not yet provided definitive cost estimates, it has reported that the Deepwater Capability Replacement Project will cost more than $10 billion, and the National Distress and Response System Modernization Project will cost from $240 million to $300 million. Other ongoing major capital acquisition projects include the Seagoing Buoy Tender Replacement Project and the Ports and Waterways Safety Systems

Project. In addition, Coast Guard estimates that the annual capital investment in shore facilities will increase from $61 million in FY 2001 to $129 million in FY 2005.

The Department, the Administration, and Congress face long-term challenges in proceeding with Coast Guard's stated requirements for a significant and sustained increase in acquisition funding. Other transportation programs are also seeking budget increases and will be competing with Coast Guard for limited Federal funding. These funding decisions and trade-offs must be made in the context of the missions and responsiveness expected of the Coast Guard.

Challenges facing the Department and Coast Guard include:

- Establishing capital investment priorities and working with OMB to reconcile their respective capital funding proposals and budget targets. When full funding estimates for the Deepwater Capability Replacement Project are included, Coast Guard's capital needs exceed OMB targets by more than $300 million per year.

- Reconciling how it can proceed with a budget request in advance of completing its comprehensive planning process for Deepwater.

- Establishing realistic budget and schedule estimates for the National Distress System Project.

6. TRANSPORTATION SECURITY

DOT must do all it can to ensure that the transportation system is secure from acts of terrorism. The U.S. transportation system includes 3.9 million miles of public roads, 2.2 million miles of oil and natural gas pipelines, 123,000 miles of major railroads, over 24,000 miles of commercially navigable waterways, over 5,000 public-use airports, 508 transit operators in 316 urbanized areas, and 145 major ports on the coasts and inland waterways.

Key issues in this area include:

- Establishing an integrated strategic aviation security plan that includes a balanced approach covering advanced security technologies (including explosives detection equipment) acquisition, deployment and use.

- Implementing the Aviation Security Improvement Act of 2000, which requires:
  - → Increasing the usage of explosives detection equipment;
  - → Strengthening airport access control security systems and programs to safeguard passengers, aircraft, and airport property;

- → Improving screener training; and
- → Strengthening background investigation requirements (including Federal Bureau of Investigation criminal checks) for employees granted unescorted access to secure airport areas.

- Completing pending rulemaking requiring certification of screening companies.

- Completing pending rulemaking and developing standard procedures for airport operators to account for airport identification media required to access secure airport areas.

- Developing methods for assessing vulnerabilities in surface transportation and prioritize areas for Departmental action.

7. COMPUTER SECURITY

DOT must aggressively address known risks and also take on the challenge of identifying and addressing the unknown risks associated with computer security in today's interconnected world. A 1997 study by the President's Commission on Critical Infrastructure Protection pointed out widespread capability to exploit the Nation's infrastructure vulnerabilities, particularly through information networks.

Recent denial-of-service attacks on e-commerce sites and e-mail systems have served as "wake-up" calls for enhancing Internet security. Recognizing this, the President issued directives to all Federal agencies aimed at strengthening Internet security. The most important of the President's initiatives in this area is Presidential Decision Directive 63 (PDD-63) which requires that the Nation's critical infrastructure, both physical and cyber-based, be protected from intentional destructive acts.

In addition to managing unauthorized access or attacks by outsiders, agencies also need to enhance security over insiders, including employees, contractors, and grantees. A survey performed by the Federal Bureau of Investigation (FBI) reported that insiders constitute the greatest intruder threat. In DOT, two employees were recently prosecuted for embezzling funds through stolen passwords, including one who embezzled $600,000 from FAA.

E-Government is becoming an important part of Government operations. Web sites are powerful tools for the Federal Government to improve the quality of its services. However, until people are confident that their privacy is protected, they will not use the services provided on Government sites.

Some of the most significant issues the Department should address include:

- Completing vulnerability assessments of infrastructure mission-critical systems.
- Evaluating the security impact of the proposed integration of National Airspace System for air traffic control and FAA administrative systems.
- Ensuring that third-party networks connected to DOT systems are secured.
- Completing proper background checks on DOT and contractor employees, and incorporating background check requirements in all existing and new system contracts.
- Implementing security measures against attacks and improving controls over passwords.
- Completing certification and accreditation of DOT systems.
- Eliminating vulnerabilities on web servers and developing a "checklist" to help ensure proper configuration of web servers.
- Ensuring proper use of cookies on DOT web sites.

8. AMTRAK FINANCIAL VIABILITY AND MODERNIZATION

Since 1997, Amtrak has operated under a Federal mandate to become independent of Federal operating assistance while operating a nationwide passenger rail system. The 1997 Amtrak Reform and Accountability Act (ARAA) mandated that Amtrak develop a plan to eliminate its need for Federal operating support after FY 2002. The ARAA also established a mandate for the Office of Inspector General to conduct an annual assessment of Amtrak's financial needs and condition in each year that Amtrak requests Federal funds.

Open issues include:

- Identifying tangible, realistic, and measurable actions to fill the undefined management actions and projected revenue increases and cost reductions at risk of not being achieved in Amtrak's Strategic Business Plan.
- Moving with prudent speed to initiate and fully ramp up Acela Express and Acela Regional service between Boston, New York, and Washington, D.C. as soon as possible.
- Working with Congress and the Administration to determine an appropriate level of long-term capital funding necessary to sustain a viable railroad and identify the means by which these funds will be provided.
- Developing a long-term capital plan that identifies in a comprehensive manner systemwide capital needs, priorities, costs, and timing.
- Ensuring that appropriate investment is made in operational liability and other projects that are necessary to achieve and sustain revenues projected to result from high-speed

rail and other key services. Absent approval of significant additional capital funding, this would include reprogramming capital funds not yet spent on non-minimum needs projects and withholding approval for any non-minimum needs projects until minimum needs have been satisfied.

9. MARAD'S SHIP DISPOSAL PROGRAM

The Maritime Administration (MARAD) currently has 116 obsolete vessels in the National Defense Reserve Fleet (NDRF) awaiting disposal. These vessels are deteriorating and pose an immediate environmental threat in Virginia, Texas, and California. They contain hazardous substances such as fuel oil, asbestos, solid and liquid polychlorinated biphenyls, lead, radium, and chromates. Immediate state and Federal action would be required, should the hazardous materials escape into the water.

The so-called "40 worst condition" vessels are on average 50 years old and have been awaiting disposal for two decades. Some have deteriorated to a point where a hammer can penetrate their hulls. During FYs 1999 and 2000, MARAD spent over $2 million to repair leaking vessels and keep them afloat.

The approach of selling MARAD's vessels for domestic scrapping has not worked. Since 1995, only eight obsolete vessels were scrapped. The number of vessels awaiting disposal has grown from 66 in 1997 to 116 today and is expected to reach 155 by the end of FY 2001.

Key factors contributing to MARAD's limited progress are: (1) the loss of the overseas market for scrapping vessels; (2) current limitations in domestic capacity for scrapping; and (3) a Navy pilot program that is paying contractors to scrap its vessels.

Specific issues to be addressed include:

- In consultation with the Navy and the Environmental Protection Agency, MARAD must prepare and begin implementation of a plan for the vessels awaiting disposal, targeting the "worst condition" vessels. The plan must include disposal methods and milestones.

- The Navy and MARAD must report to the congressional defense committees no later than June 1, 2001, regarding the total number of vessels currently designated for scrapping, and the schedule and costs for scrapping these vessels.

10. DEPARTMENTAL BUSINESS PRACTICES

DOT has established corporate management strategies (departmental business practices) that cut across all organizational boundaries within DOT and are key to performing its missions

efficiently and providing its customers with consistent and seamless transportation policy and services.

Our work has identified five areas of DOT business practices that we think rise to the level of the agency's top management challenges. They are:

- financial accountability;
- timeliness of rulemaking;
- oversight of contract costs and closeouts;
- implementation of the Government Performance and Results Act (GPRA);
- administrative issues concerning space requirements for a new DOT headquarters building and the Transportation Administrative Service Center (TASC) role in providing administrative support.

Some of these issues are longstanding problems (financial accountability) while others are relatively new (DOT headquarters building). OIG has issued many key reports over the last few years with recommendations addressing the Department's business practices.

Significant issues include:

- Implementing of a state-of-the-art financial system.
- Developing and implementing a cost accounting labor distribution system for FAA.
- Implementing a commercial, off-the-shelf, integrated property management system for FAA.
- Establishing a DOT rulemaking tracking and monitoring system.
- Resolving space requirements for the new DOT headquarters building.
- Developing and implementing a departmentwide cost accounting system, especially in FAA.
- Linking GPRA performance measures to the cost of achieving targeted results.
- Verifying and validating the quality of GPRA performance data.
- Resolving issues concerning TASC's role in providing administrative support within DOT.
- Improving oversight of contract costs, particularly through independent closeout audits.
- Improving timeliness of contract closeouts and deobligation of funds on completed contracts.
- Maintaining and improving the Department's strategic plan and combined Performance Report/Performance Plan with effective use of human resources

VI. Performance Measures

To assess the outcome and effectiveness of OIG performance in terms of meeting our statutory responsibilities, we have adopted all of the performance measures developed by the President's Council on Integrity and Efficiency (PCIE) and the Executive Council on Integrity and Efficiency. In addition to the PCIE performance measures, we expanded the Advisory Functions measure to track Freedom of Information Act requests, Congressional and other requests for information, proactive initiatives, and Congressional testimony provided. We have also added a measure to track our annual performance agreement tasks and activities in support of DOT's six strategic goals. The focus of these performance measures, which are contained in OIG budget documents as well as the Semiannual Report to the Congress, has been on quantitative results, such as the number of audit reports and recommendations, questioned and unsupported costs, funds to be put to better use, indictments, convictions, fines, court ordered restitutions/civil judgments, and Federal recoveries. ***Annex 1*** includes a list of these measures, which will serve as a basis for our FY 2002 performance report.

Annex 2 lists a number of issue areas we anticipate addressing in FY 2002. These areas are consistent with our legislatively-mandated mission, are in harmony with the intent and spirit of the Secretary's Strategic Plan, the Vice President's National Partnership for Reinventing Government, and the President's Council on Integrity and Efficiency "Inspectors' General Vision Statement and Statement of Reinvention Principles."

Annex 2 does not list specific audits for year 2002. Much of the OIG's work is tied to current issues or problem areas and requests from senior DOT officials, Congress, transportation industry, and the public. Our planning is designed to place emphasis on quick turnaround and focused reviews. These factors make it difficult to project the OIG's audit or investigation programs 1-2 years in the future--especially to the level of citing specific audits, investigations, evaluations, congressional briefings, etc. The OIG's planning, therefore, must remain a "dynamic" process, focusing not only on our statutory requirements, but also the Secretary's Strategic Plan, congressional interest areas, major dollar programs of the Department, and quick redirection--when and where needed--to be truly timely, relevant, and effective.

VII. Measurement and Evaluation

Verification and Validation of Performance Data

DOT programs maintain extensive databases to track inputs, activities, outputs, and outcomes. OIG will be working with the Office of the Secretary of Transportation, operating administrations, and the Bureau of Transportation Statistics in selectively assessing these databases and associated performance data. OIG plans to selectively verify and validate performance measurement data each year. When pertinent to the conduct of ongoing

projects, OIG will also assess performance measures to determine their appropriateness for measuring progress toward stated goals. These assessments may lead to changes in the goals, improvements to or additions of data collection systems, or both.

Regarding our own performance data, the Transportation Inspector General Reporting (TIGR) system contains substantial information on our audit and investigative efforts (past and present). TIGR consists of various sub-systems covering each OIG program area. For example, the audit sub-system is used for tracking such data as the number of reports, number of recommendations issued and resolved, and the amount of questioned and unsupported costs. Similarly, the investigative sub-system is used to track the number of hotline complaints, indictments, and convictions, and amount of fines and Federal recoveries. Much of this data is later incorporated into the OIG's Semiannual Report to Congress and annual budget submissions.

Data for the activities listed under the Advisory Function performance measure is collected by various small reporting systems within the Office of Legal Counsel and the Office of Legislative and External Affairs. Data regarding OIG's Performance Agreement tasks is tracked through DOT's Performance Agreement Tracking System.

Program Evaluations

With respect to evaluating our own programs, we established an Office of Quality Assurance Reviews (QAR) and Internal Affairs in 1996. A key responsibility of this office is to conduct periodic reviews of all OIG offices to: (1) determine compliance with applicable laws, policies and procedures, and standards; (2) evaluate the adequacy of internal quality control systems; and (3) make recommendations for improvement, when appropriate. The QARs are designed to ensure that internal operations and functions are performed objectively and in an efficient and effective manner. All OIG offices are subject to QARs within a 24- to 36-month cycle.

In 2000, a peer review conducted by the Office of Inspector General, Department of Defense concluded that our Quality Controls Systems were designed properly, and provided reasonable assurance that our work met professional standards.

Annex 1

FY 2002 Performance Measures

1. STATISTICS AS DEFINED BY THE IG ACT OF 1978 AND RELATED PERFORMANCE INFORMATION

Audit (Dollars in millions)	FY 94	FY 95	FY 96	FY 97	FY 98	FY99	FY00
Costs Questioned/Funds to be Put to Better Use	$617.00	$1,641.20	$560.70	$138.30	$1,072.30	$1,016.0	$1,510.1
Management Decisions to Seek Recoveries	$325.50	$910.00	$416.20	$196.30	$742.10	$691.2	$2,057.8
CFO Audits Adjustments	$11,100.00	$82,300.00	$33,446.00	$32,000.00	$98,084.30	$220,000.00	$36,000.00

Investigative Results (Dollars in millions)	FY 94	FY 95	FY 96	FY 97	FY 98	FY99	FY00
Indictments	136	158	138	133	104	212	246
Convictions	125	105	127	103	120	164	235
Fines	$3.50	$5.80	$4.50	$2.70	$5.50	$3.5	$34.7
Court Ordered Restitutions/Civil Judgments	$2.20	$0.80	$2.40	$3.50	$6.50	$17.8	$28.8
Recoveries	$10.90	$45.60	$10.00	$6.20	$9.80	$2.9	$6.9
Years Sentenced	85	66	100	97	119.5	173	147
Years Probation	224	249	241	220	220	230	415
Years Supervised Release	N/A	N/A	N/A	N/A	N/A	130	137
Hours of Community Service	N/A	N/A	N/A	N/A	N/A	3,390	4,897
Debarments and Other Administrative Actions	119	102	63	120	141	122	163

2. NON-MONETARY PROGRAM IMPROVEMENTS

Non-Monetary Program Improvements	FY 94	FY 95	FY 96	FY 97	FY 98	FY99	FY00
Recommendations Issued	743	436	302	247	226	225	213
Recommendations Resolved	1,020	456	299	234	268	208	238

3. ADVISORY FUNCTIONS

Advisory Functions	FY 94	FY 95	FY 96	FY 97	FY 98	FY99	FY00
Proactive Functions Completed (PCIE Projects, Training DOT employees)	11	8	3	18	93	345	269
Congressional Testimony	N/A	N/A	N/A	2	14	16	28
Inquiries Received	N/A	N/A	N/A	N/A	446	355	380
Inquiries Completed	N/A	N/A	N/A	N/A	384	303	318
FOIA Requests Received	N/A	N/A	N/A	N/A	139	123	212
FOIA Requests Processed	N/A	N/A	N/A	N/A	200	115	121
Legislation Reviewed	60	14	6	38	61	397	407
Regulations Reviewed	109	58	42	99	67	92	66

4. HOTLINE COMPLAINTS

Hotline Results	FY 94	FY 95	FY 96	FY 97	FY 98	FY99	FY00
Hotline Complaints Received	356	345	427	473	482	562	568
Reviewed by OIG	59	146	107	91	171	146	128
Referred to Operating Administrations or Other Agencies *	297	199	320	382	311	416	440

* OIG tracks disposition of these complaints

5. PERFORMANCE AGREEMENT RESULTS

Performance Agreement Results	FY 94	FY 95	FY 96	FY 97	FY 98	FY99	FY00
Number of Performance Agreement Items	N/A	N/A	N/A	N/A	33	74	76
Number Initiated	N/A	N/A	N/A	N/A	33	74	76
Number Completed	N/A	N/A	N/A	N/A	23	68	74
Percentage Completed	N/A	N/A	N/A	N/A	70%	92%	97%

Note: The OIG will continue to work to improve upon these measures of its performance.

Annex 2

FY 2002 Issue Areas

OIG's oversight responsibilities play a key role in assisting DOT in reaching its long-term goals and objectives. During FY 2002, OIG performance will be measured by the successful accomplishment of its statutory responsibilities prescribed by the Inspector General Act and the completion of specific actions in support of the Department's six strategic goals. In addition, the House and Senate Committees direct the OIG to respond to emerging issues of congressional concern. The following lists some issue areas we anticipate addressing in FY 2002.

Furthermore, OIG is responsible for responding to specific congressional directives and requests. Although we cannot anticipate the requests that we may receive in FY 2002, we have provided examples of our work in FY 2000 and FY 2001 as a result of previous requests.

DOT Strategic Goal #1

Safety: "Promote the public health and safety by working toward the elimination of transportation-related deaths and injuries."

OIG Actions: To assist DOT in achieving this strategic goal, OIG's highest priority will be the oversight of safety programs in all modes of transportation. In doing so, OIG will:

- Aviation Safety: Maintain oversight of FAA's safety inspection programs involving air carriers and equipment manufacturers.

- Surface Transportation Safety: Review surface transportation safety programs with emphasis on commercial motor carriers, pipeline safety, and railroad safety.

- HAZMAT Safety: Focus on the transport of hazardous materials (HAZMAT) on the nation's marine and air transportation systems.

- Maritime Safety: Review U.S. Coast Guard (USCG) efforts to develop the Global Maritime Distress and Safety System.

- Investigations: Conduct criminal investigations in its priority investigative areas of HAZMAT transportation, motor carrier safety, and suspected unapproved parts.

- *Examples of FY 2000/FY 2001 congressional requests that we have received in this area included a review of the National Highway Traffic Safety Administration's Occupant Protection Program; an audit of FAA's Runway Incursion Program; the audit of FAA's oversight of airline maintenance and safety; a review of FAA's aircraft safety research and development program; a review of the accuracy of safety-related data gathered by*

FRA; reviews on disqualifying Commercial Drivers, the testing and licensing procedures for Commercial Drivers, the safety of Mexican-domiciled motor carriers, and motor carrier safety improvements.

DOT Strategic Goal #2
Mobility: "Shape an accessible, affordable, reliable transportation system for all people, goods, and regions."

OIG Actions: To assist DOT in achieving this goal, OIG will provide oversight of transportation mobility programs and operations. In doing so, OIG will:

- Surface Transportation Mobility: Continue emphasis on reviewing FHWA, FTA, FAA, and Federal Railroad Administration (FRA) programs designed to increase the nation's mobility of people and goods (e.g., ITS activities, major highway projects nationwide, high speed rail service in the Northeast Corridor, FTA funded major transit projects, and projects to improve airport access).

- Maritime Mobility: Maintain oversight of Coast Guard and MARAD's efforts to revitalize the nation's marine transportation system as well as provision of services such as icebreaking, licensing and inspections.

- Investigations: Continue to conduct investigations of allegations concerning major infrastructure projects, including joint investigations with Federal and local law enforcement authorities. Implement OIG's Contract and Grant Fraud Program to detect and prevent program fraud in such areas as: TEA-21, AIR-21, and Deepwater Capability Replacement.

- *Examples of FY 2000/FY 2001 congressional directives and requests that we have received in this area included audits of the Central Artery/Ted Williams Tunnel, the Springfield, Virginia Interchange Project, the South Boston Piers Transitway Project, and all FTA fixed guideway projects that are experiencing cost, schedule, or financing problems; and reviews of USCG procurement policies for the Great Lakes icebreaker replacement, and FAA efforts to increase the capacity of the air traffic control system.*

DOT Strategic Goal #3
Economic Growth and Trade: "Support a transportation system that sustains America's economic growth."

OIG Actions: To assist DOT in achieving its strategic goal, OIG will provide oversight of DOT's economic growth and trade programs and operations. In doing so, OIG will:

- Aviation Economic Growth and Trade: Review the effectiveness of FAA's procurement management system. Evaluate practices and methods of competition by air carriers and ticket agents; and perform studies of transportation industry mergers and their implications on consumer protection and customer service.

- Surface Transportation Economic Growth and Trade: Review FHWA, FRA, and FTA programs that are aimed at advancing efficient and flexible transportation to stimulate economic growth and competitiveness.

- Maritime Economic Growth and Trade: Maintain oversight of MARAD's efforts to increase productivity, reduce costs, and stimulate the construction of vessels in the U.S. through the Title XI loan guarantee program.

- Departmental Economic Growth and Trade: Review the Department's efforts in identifying and implementing solutions for the nation's intermodal transportation needs for the 21st century.

- Investigations: Continue to dedicate investigative resources to procurement, grant, contract, and disadvantaged business enterprise fraud, including the implementation of a fraud prevention and detection strategy involving nationwide outreach and education to state DOTs and FTA grantees.

- *Examples of FY 2000/FY 2001 congressional directives that we have received in this area included an assessment of aviation customer service, flight delay issues, and the impact of airline mergers on consumers and a review of airline ticketing and booking systems.*

DOT Strategic Goal #4
Human and Natural Environment: "Protect and enhance communities and the natural environment affected by transportation."

OIG Actions: To assist DOT in achieving this strategic goal, OIG will provide oversight of Federal transportation actions as they relate to the protection of the natural environment and community life. In doing so, OIG will:

- Departmental Human and Natural Environment: Maintain oversight of the Operating Administrations' compliance with environmental standards, laws, and regulations and efforts to identify, prioritize, and clean-up contaminated sites.

- Surface Transportation Human and Natural Environment: Review RSPA's pipeline safety and hazardous materials programs to protect and enhance communities and the natural environment.

- Maritime Environment: Monitor MARAD's progress in developing and implementing a plan to dispose of obsolete vessels in the National Defense Reserve Fleet.

- Investigations: Continue to conduct criminal investigations in its priority investigative area of illegal HAZMAT transportation.

- *At congressional request, we provided testimony in this area on the problems and environmental concerns connected with MARAD's scrapping of obsolete ships.*

DOT Strategic Goal #5
National Security: "Ensure the security of the transportation system for the movement of people and goods, and support the National Security Strategy."

OIG Actions: To assist DOT in achieving this strategic goal, OIG will provide oversight of DOT programs and operations to improve the security of all modes of transportation. In doing so, OIG will:

- Aviation Security: Continue to monitor FAA's oversight of aviation security programs.

- Maritime Security: Monitor the Deepwater Capability Replacement Project and assess the readiness and availability of vessels and crews to meet deployment needs for military forces.

- Departmental Security: Continue to evaluate DOT's efforts to secure its computer systems.

- *An example of a FY 2000/FY 2001 congressional directive received in this area is the requirement to perform an annual independent evaluation of the computer security programs and practices throughout the Department.*

DOT Strategic Goal #6
Organizational Excellence: "Advance the Department's ability to manage for results and innovation."

To assist DOT in achieving this strategic goal, OIG will:

- Audit required financial statements, including internal controls and compliance with laws and regulations, to improve financial management in DOT.

- Begin transition to automated workpapers to save costs, gain efficiencies, and streamline our audit process.

- Continue to deliver fraud awareness and bribery awareness briefings for employees of the Department.

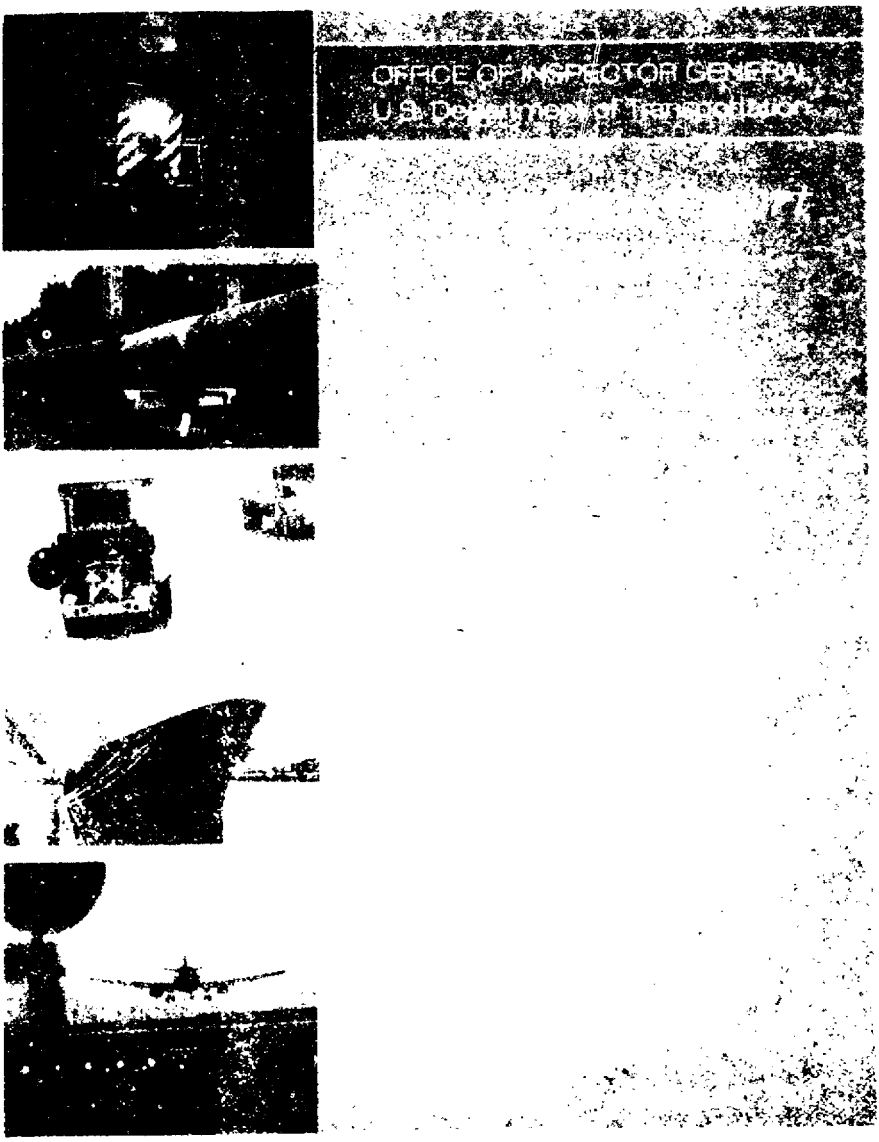
- Participate in training sessions, as requested, for: (i) FAA aviation safety inspectors relative to the Suspected Unapproved Parts investigative program; and (ii) FMCSA inspectors regarding OIG's Motor Carrier Safety investigative priority.

Examples of FY 2000/FY 2001 congressional requests that we have received in this area are to:

- *Analyze USCG's Research and Development programs.*

- *Provide a study assessing the cost to airport sponsors of changing the current practice of paying reasonable rental rates for FAA space occupied in airport sponsor-owned buildings.*

- *Monitor the number of DCAA contract audits requested by DOT modes.*



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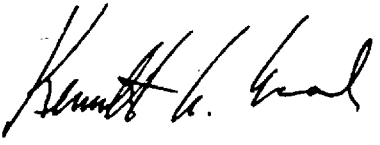
From the Inspector General

The first year of the 21st Century brought with it numerous challenges to the Office of Inspector General. During the past fiscal year, we issued 128 audit reports, testified before Congress 28 times and conducted criminal investigations that resulted in 235 convictions. These statistics indicate how seriously we take our statutory mission to detect and prevent waste, fraud and abuse while assisting DOT and Members of Congress in achieving a safe, efficient and effective transportation system.

Congress has authorized and appropriated record sums of Federal funds for highway, transit and aviation infrastructure projects. In 2000, Congress enacted the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (AIR-21) and appropriated nearly $58.5 billion to DOT for FY2001. This significant infusion of funds for transportation presents additional challenges to our oversight responsibilities. That is the reason why we have initiated a major proactive effort to prevent and detect possible fraud in transportation infrastructure projects. We investigated 58 such cases during the reporting period.

Our audit and investigative work covered diverse subjects on the transportation agenda of the Department and Congress. Highlights include: Amtrak's financial viability and the introduction of high speed rail on the Northeast Corridor, aviation system capacity and delays; airline customer service; aviation safety; runway incursions and operational errors; major infrastructure projects such as the Central Artery Project, San Francisco's Bay Area Rapid Transit system and the Woodrow Wilson Bridge; pipeline and hazardous materials safety; motor carrier safety and commercial drivers license fraud investigations; Coast Guard capital acquisitions, such as the Deepwater Project; computer security; financial accounting and management; timeliness of significant rulemakings; procurement and contracting practices and Government Performance and Results Act implementation.

We appreciate the cooperation, support and responsiveness of the Secretary, the Deputy Secretary, the Operating Administrations and Congress during our work on these and other efforts. We look forward to serving the American public by continuing our oversight of the Department's efforts to provide safe and efficient movement of people and goods.



Summary of Performance
Office of Inspector General

April 1, 2000-September 30, 2000

Reports Issued	***53***
Congressional Testimonies	***15***
Total financial recommendations	***$750,205,000***
— That funds be better-used	***$749,400,000***
— Questioned costs	***$805,000***
Referrals for prosecution	***109***
Cases accepted for prosecution	***68***
Indictments	***105***
Fines, restitutions, recoveries	***$40,156,119***
Convictions	***95***
Contract terminations/debarments	***11***
Actions affecting DOT employees	***28***

Audits & Investigations

The Office of Inspector General includes a staff of auditors and evaluators who review DOT programs and make recommendations to enhance their effectiveness and improve their efficiency. Our aim is to ensure the Department spends taxpayer funds in a prudent and proper manner. Some audits focus on financial issues; others provide oversight of safety programs, contract management, computer security and program performance. The Inspector General's staff also includes trained criminal investigators who build criminal cases against lawbreakers — such as trucking firms that force drivers to work too many hours without rest, haulers who illegally transport hazardous materials, vendors who traffic in illegal, unapproved aircraft parts and Department employees who abuse the public trust.

Many factors go into determining what to audit. Some audits are required by law. Others are requested by key decision-makers, such as the Secretary of Transportation, heads of the operating administrations within DOT or Members of Congress. The OIG audit plan is also based on the past experience of an audited entity, the strategic goals of DOT, and priorities established each year by OIG itself.

Information for OIG investigations also comes from many areas. DOT's operating administrations and state government officials often will refer tips or information about suspicious activity to OIG special agents. Those agents, often with assistance from other law-enforcement agencies, conduct investigations utilizing, as necessary, judicial tools such as search warrants and subpoenas to obtain evidence.

Another source of investigative direction is the Office of Inspector General Hotline, an "800" number that lets citizens — including federal workers — have direct access to OIG staff. The number is 1-(800)-424-9071. Hotline users are not obliged to disclose their identities and "whistle-blowers" within the government are protected from reprisal by federal law. The Hotline staff can also be e-mailed at hotline@oig.dot.gov.

The Inspector General Act requires the Department to provide the Inspector General with all requested information and for the IG to report any instance in which access was denied. DOT officials withheld no information requested by OIG during the 6 months covered in this report. ■

DOT Acting on Management Challenges Identified by OIG

In each of the last several years, lawmakers have asked federal inspectors general to identify and report on the top management challenges within their agencies. Our 2000 list identified 12 program areas requiring continual attention to ensure safer transportation, those in which there are significant economic and efficiency concerns and others with questionable success in achieving results. Our 2001 list, due to be released in December includes 10 program areas.

At the request of Senator Fred Thompson, the chairman of the Senate Committee on Governmental Affairs, we also issued a report in August 2000 reviewing how well DOT's 1999 Performance Report and 2001 Performance Plan covered the management issues we identified and whether the department is making appropriate progress.

We grouped these management challenges into the categories of:

- **Aviation Safety**
- **Surface Transportation Safety**
- **Air Traffic Control Modernization**
- **FAA Financing**
- **Surface, Marine and Airport Infrastructure**
- **Transportation Security**
- **Computer Security**
- **Financial Accounting/Chief Financial Officers Act**
- **Amtrak Financial Viability and Modernization**
- **Coast Guard Deepwater Replacement Project**
- **MARAD's Ship-Scrapping Program**
- **Government Performance and Results Act Implementation**

We have also recently written lawmakers interested in the Government Performance and Results Act, to state that the Department's new Strategic Plan for 2000-2005 incorporates detailed information drawn from our annual top management challenges report. The Strategic Plan is measurably strengthened through its treatment of these areas. ■

Top 12 Management Issues Facing DOT

DOT has shown Government-wide leadership in implementing the Government Performance and Results Act (GPRA). A recent study by the Mercatus Center of George Mason University ranked the Department's March 2000 Performance Report/Performance Plan among the best in the Government. The Department was able to report prior year data for over 90 percent of its performance measures, a significant improvement over the 63 percent attained in the dry run of the performance report prepared in March 1999.

We believe that further progress is possible. Improvements could be implemented to both strengthen the Performance Report/Performance Plan and increase the likelihood of the Department meeting performance goals where it currently falls short. In our August 28, 2000 report to Congress, we commented on each of the top 12 management challenges. Our most important observations include having the Department:

Focus Efforts on Lowering Runway Incursions and Operational Errors

Runway incursions, which are incidents on the ground, which create a collision hazard, increased 34 percent (from 230 to 321) between 1995 and 1999. In the first eight months of 2000, there were 288 runway incursions, a 39 percent increase from the same period in 1999. Operational errors, which occur when air traffic controllers allow planes to get to close to each other, increased 27 percent (from 764 to 939) between Fiscal Years 1996 and 1999. In the first 11 months of Fiscal year 2000, there were 1,053 operational errors, surpassing the 939 operational errors that occurred in all of Fiscal Year 1999.

While DOT's Performance Plan/Performance Report lays out plans for reversing increases in both these areas, it is clear that FAA's management efforts have been insufficient. FAA needs to establish a system to ensure that planned initiatives are completed, develop local action plans to correct airport-specific problems and revise its runway incursion data to better identify causal factors and risks. FAA should also take actions needed to reduce operational errors at its air traffic facilities that continue to have increases in the number and rates of operational errors. [Aviation Safety Management Challenge]

Promulgate Statutorily Mandated Safety Rulemakings

Our June 2000 audit report on the Department's rulemaking process concluded that DOT took twice as long to issue rules and completed half as many significant rules in 1999 as it did in 1993. Our analysis of 54 open and completed significant rules showed that Operating Administrations did not work on rules for an average of almost 2 years, which is even greater than the average time spent developing or reviewing rules.

Lack of progress in issuing these rules is impeding progress in many important areas including motor carrier and pipeline safety and security at marine passenger terminals. As this report goes to press, the Secretary has committed to developing a tracking system to help ensure timely action and accountability on the overdue rules, as well as instituting permanent improvements to the process. (See related story, page 10). [Crosscutting, but particularly relevant to the Surface Transportation Management Challenge]

Airline Flight Delays and Cancellations

Flight delays have increased significantly since 1995, but DOT and the airlines' efforts to improve service are hampered by conflicting data provided by FAA and BTS. Without reconciling the data, it will be difficult to quantify the success of the Department's initiatives to identify the causes of delays and cancellation, enhance airspace design technology, improve airport infrastructure and identify best practices in providing better service and accurate information to air travelers.

The Department needs to develop a set of capacity benchmarks measuring the traffic departure and arrival rate by time of day at the top 30 airports that can be accommodated without experiencing major delays or compromising safety.

Over the past year, DOT has announced a number of actions to address the growth of flight delays and cancellations, including the Spring/Summer 2000 initiative for managing air traffic. The Secretary has also formed task forces to: determine the causes of delays and cancellations; identify best practices in providing better information and service to air travelers, and; expedite investment in technology and infrastructure. (See related story, page 18) [ATC Modernization Management Challenge]

Oversight of Central Artery Project

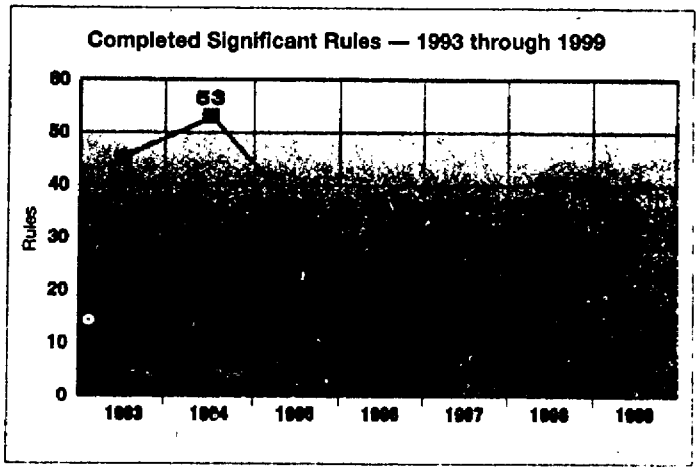
The need for greatly improved oversight was highlighted by the recent experience with the Central Artery Project in Massachusetts. (See related item, page 27.) In February 2000, the Department was surprised by a $1.4 billion cost increase on the Central Artery/Ted Williams Tunnel after FHWA had ignored our warnings that the project's finance plan failed to accurately disclose continuing cost increases. The situation could have been avoided if both Federal and state officials had closely examined the Finance Plans and independently verified the data they were provided.

FHWA has since issued new guidance on finance plans and entered into an agreement with the state of Massachusetts to limit the Federal contribution to the project of $8.549 billion. In addition, the state replaced top project management, committed to providing complete and accurate financial reports on a regular basis, and pledged to identify adequate funding to meet all of the cost overruns. [Surface Marine and Airport Infrastructure Management Challenge]

DOT Needs to Eliminate Downtime on Rulemaking Process

DOT took more than twice as long and completed half as many significant rules in 1999 as it did in 1993, we found in an audit of the department's rulemaking process.

Conducted at the request of Rep. James Oberstar, Ranking Democratic Member of the House Transportation and Infrastructure Committee, our review found that for the significant rules completed in 1999, DOT took an average of 3.8 years and a median of 2.8 years to issue a final rule. We also found that in 1999 DOT met only 10 percent of its congressionally mandated deadlines, as compared to 16 percent in 1993.

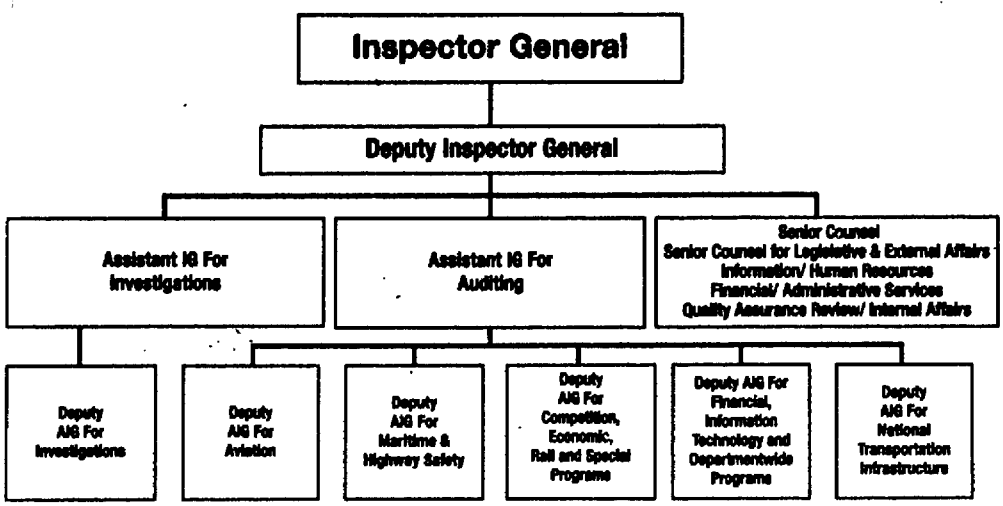


The Department's rulemaking process was slowed by significant periods of downtime, with an average of almost 2 years per rule passing without work being performed. Some operating administrations were not working on rules because they did not make timely decisions to advance the rules or did not consider the rules a priority.

We made several recommendations to the Secretary to help ensure that senior management officials are held accountable for the timely completion of rules, including establishing the timely completion of significant rulemaking actions as a priority within the DOT Strategic Plan, setting Departmentwide priorities and establishing schedules for significant rulemaking actions, and creating a Departmentwide rulemaking tracking and monitoring system to identify problems and take corrective actions to streamline the rulemaking process.

DOT concurred with our recommendations, including our suggestion to establish a rulemaking process training program for incoming senior managers. The Secretary also ordered Operating Administrations to identify high-priority rules for completion by the end of the year. In a letter to Rep. Oberstar, the Secretary said the Department will develop a tracking system to help institute timely action and accountability in the rulemaking process to prioritize key rulemakings in progress. ■

Organization/Management



The Office of Inspector General for the Department of Transportation was created by Congress through the Inspector General Act of 1978 (Public Law 95-452). The Act sets several goals for OIG:

- To conduct or supervise objective audits and investigations of DOT's programs and operations;
- To promote economy, effectiveness and efficiency within DOT;
- To prevent and detect fraud, waste, and abuse in the Department's programs;
- To review existing and proposed laws or regulations affecting the Department and make recommendations about them, and
- To keep the Secretary of Transportation and Congress fully informed about problems in Departmental programs and operations.

OIG is divided into two major units and five support units. The major units are the Office of Assistant Inspector General for Auditing and the Office of Assistant Inspector General for Investigations; each has headquarters staff and field staff. The support units are the Office of Legal Counsel, the Office of Legislative and External Affairs, the Office of Information Resource Management, the Office of Human Resources, the Office of Financial and Administrative Services and the Office of Quality Assurance Review/Internal Affairs.

Office of Inspector General Work Planned and in Progress

In the interest of maximizing the benefits provided by DOT to citizens, the Secretary of Transportation has developed a Strategic Plan setting priorities for DOT staff and allocating of resources. This section illustrates major OIG work planned and in progress in relation to the Secretary's priorities of Safety, Mobility, Economic Growth and Trade, Human and Natural Environment, National Security and Corporate Management.

For example, in the area of safety, we are evaluating the Federal Aviation Administration's efforts to identify and deploy new technologies to reduce runway incursions and examining how well the Federal Motor Carrier Safety Administration is overseeing the Commercial Driver's License Program.

We are also reviewing the Department's efforts to improve the mobility of our nation's citizens and stimulate economic growth and trade through the construction of "mega projects" such as Boston's Central Artery Project and the Woodrow Wilson Bridge just outside of Washington, D.C.

In the coming months, we will continue examining the security of the Department's computer networks in support of DOT's national security strategic goal. We will also continue to conduct financial audits in support of the Department's management goal of providing effective and efficient services.

Department-Wide:

Fraud Detection and Prevention

■ Continue oversight of infrastructure projects authorized under TEA-21 and AIR-21, including audits of financial plans, cost schedules, project management, and prevention and detection of fraud. Not since the construction of the Interstate Highway System has there been such an infusion of federal funds. Our efforts are intended to avoid a repeat of historical scandals associated with the building of the interstate system. (Mobility and Corporate Management)

Computer Security

■ Evaluate whether sufficient controls are in place to prevent, detect, and respond to unauthorized access, including via the Internet, to critical systems on DOT Headquarters computer networks. (National Security and Corporate Management)

■ Determine the effectiveness of the Department's implementation of the new Delphi accounting system. (Corporate Management)

Financial Statements

■ Determine whether FY 2000 financial statements prepared by the Department's Operating Administrations conform with Generally Accepted Accounting Principles; have adequate internal controls over financial reporting, and comply with laws and regulations that could have a direct and material effect on the financial statements. (Corporate Management)

Performance Goals

■ Continue verifying selected DOT performance measures such as operational errors, flight delay statistics and railroad track safety for data quality, reliability and appropriateness. (Safety)

Rulemaking

■ Audit the Department's implementation of a plan to expedite the rulemaking process. (Corporate Management)

Federal Highway Administration:

■ Evaluate the methodology used by FHWA to develop its most recent cost estimate to replace the Woodrow Wilson Bridge over the Potomac River between Maryland and Virginia near Washington, D.C. (Mobility and Economic Growth & Trade)

■ Evaluate the cost estimate for the Springfield, Va. Interchange Construction Project and review the adequacy of the funding and scheduling of the project. (Mobility)

■ Determine the effectiveness of FHWA's monitoring of Intelligent Transportation Systems projects. (Mobility and Economic Growth & Trade)

■ Assess the progress made on construction projects for which funds were congressionally earmarked. (Mobility)

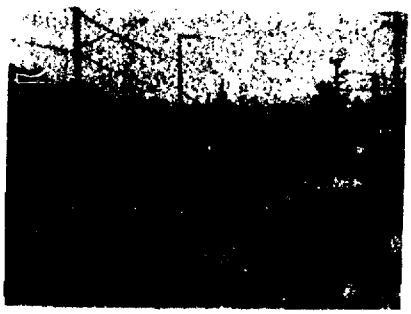
■ Provide oversight of infrastructure projects such as the $14.1 billion Central Artery Project, including audits of cost schedules, project management and mechanisms to detect fraud, waste and abuse. (Mobility)

Federal Motor Carrier Safety Administration:

■ Assess FMCSA's progress in implementing our April 1999 recommendations to improve motor carrier safety and validate the quarterly data submitted by the agency to Congress on the number of violations cited by safety investigators, the level of fines assessed and collected, and the number of enforcement cases citing extraordinary statistics. (Safety)

Office of Inspector General Work Planned and in Progress

■ Determine whether FMCSA is ensuring that state and third party testing facilities have sufficient oversight over the Federal testing and licensing requirements of the Commercial Drivers License program. (Safety)



Federal Railroad Administration/Amtrak:

■ Assess the accuracy of information in FRA's safety inspection reports and database, and determine whether the database information is used appropriately to calculate defect ratios. (Safety)

■ Evaluate the effectiveness of FRA's policies and actions to ensure railroads take appropriate remedial actions to correct safety deficiencies identified in the Safety Assurance and Compliance Program. (Safety)

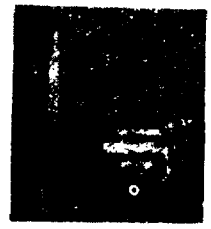
■ Perform an assessment of Amtrak's 2001 Strategic Business Plan and provide its overall financial status. (Mobility)

■ Evaluate Amtrak's progress toward introducing high-speed rail service to the Northeast Corridor. (Economic Growth & Trade)

■ Continue our review of efforts by Amtrak, the Long Island Railroad and New Jersey Transit to eliminate fire and other life-safety hazards under Penn Station and in tunnels connecting Manhattan with Queens and New Jersey. (Safety)

United States Coast Guard:

■ Evaluate the Coast Guard's progress in implementing interim measures to address deficiencies in the National Distress System; whether the proposed cost and schedule for the National Distress and Response System modernization project are reasonable; and the Coast Guard's progress in implementing interim measures to address system deficiencies. (Safety)



■ Determine whether the Coast Guard has adequately (1) planned the development, implementation, and operation of a centralized inventory system for spare and repair parts used on cutters, and (2) justified its decision to construct a parts warehouse at Curtis Bay.

■ Determine whether the Coast Guard has addressed issues raised in our March 2000 report on the Deepwater Capability Replacement Project, including remediating deficiencies in the planning process, justifying the planned budget requests and integrating the Deepwater Project's funding requirements with ongoing capital needs. (National Security and Safety, Corporate Management)

■ Analyze the management and direction of the Coast Guard's research and development program and the allocation and justification of research funds for R & D projects. (Corporate Management)

Federal Transit Administration:

■ Provide oversight of infrastructure projects authorized under TEA-21, including audits of cost schedules, project management oversight, and prevention and detection of fraud. (Mobility, Corporate Management)

■ Determine the current cost, funding and schedule data for the Minneapolis/Hiawatha Corridor Light Rail Transit Project and identify whether the project is at risk of exceeding costs; not having adequate Federal, state, and local funding; or not meeting the scheduled completion date. (Mobility)

■ Examine the FTA's oversight of the contracting practices of recipients of federal grants. (Economic Growth & Trade)

National Highway Traffic Safety Administration:

■ Evaluate how NHTSA identifies and investigates vehicle safety problems and issues consumer alerts and recalls; examine the agency's efforts to update its safety standards; identify notification, investigation, and recall requirements considered as "best practices" by other regulatory agencies that may be used as models for improving the Office of Defect Investigation; and assess NHTSA's efforts to enhance public awareness of its defects investigations. (Safety)

■ Assess NHTSA's efforts to increase seat belt use rate; evaluate whether NHTSA is allocating money to the projects most likely to achieve the Department's performance goals; and assess the quality and nature of the technical assistance provided by NHTSA to state and local governments. (Safety)

Research and Special Programs Administration:

■ Review DOT's implementation of President Clinton's recent directive to strengthen the Federal pipeline safety program and improve pipeline safety nationwide, including timeliness of key rulemakings. (Safety)

Federal Aviation Administration:

■ Evaluate FAA's efforts to identify and deploy new technologies to reduce runway incursions and evalu-

Office of Inspector General Work Planned and in Progress

ate the agency's efforts to reduce operational errors. (Safety)

■ Assess the progress of FAA's deployment of explosive detection equipment and whether cargo security requirements are adequate to prevent explosive devices and other contraband from being transported on commercial aircraft. (Safety & National Security)

■ Assess acquisition, development and deployment strategy of FAA's technology programs, such as Free Flight Phase One, Wide Area Augmentation Systems, Automatic Dependent Surveillance-Broadcast, and new weather systems, that are designed to enhance the capacity of the National Airspace System, improve the flow of air traffic, and help reduce flight delays. (Mobility and Safety)

■ Determine the effectiveness of FAA's efforts to deploy STARS on schedule and within budget. (Mobility)

■ Assess FAA's progress in implementing its Air Transportation Oversight System and identify any barriers to successful implementation. (Mobility and Safety)

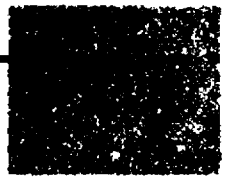
■ Determine the effectiveness of plans by 17 airlines to improve customer service and assess the extent to which actual or potential barriers exist to consumer access to independent comparative ticket prices and service information. (Mobility and Economic Growth & Trade)

■ Provide oversight of airport infrastructure projects authorized under AIR-21, including audits of cost schedules, project management oversight and tools to prevent and detect waste fraud and abuse. (Mobility, Corporate Management)

■ Assess whether negotiated workplace changes in the Department's contract with its air traffic controllers have been effectively implemented at field locations, and whether anticipated cost savings from projected productivity gains are being realized. (Corporate Management)

■ Determine whether FAA's telecommunications acquisition project reflects current and future user requirements and provides sufficient security for the transmission of air traffic control and administrative data on the same network platform. (National Security and Corporate Management)

■ Evaluate whether pay disparities exist between Air Traffic Managers, supervisors and specialists and the controllers they supervise and if limiting FAA's MS&S pay system to field locations has had an impact on the staffing, management and oversight of the air traffic control system. (Corporate Management)



Limited Progress in Disposing of Obsolete Vessels

The Maritime Administration (MARAD) is required to dispose of obsolete vessels in the National Defense Reserve Fleet (NDRF). Currently, the NDRF consists of 115 vessels designated for disposal, most of which are deteriorating, contain hazardous substances, and pose an immediate environmental threat.

The approach of selling MARAD's vessels in the domestic market has not worked. Since 1995 only seven of these vessels have been scrapped. The Department faces a challenge in determining how to dispose of MARAD's fleet of environmentally dangerous vessels in a timely manner. Key factors contributing to the lack of progress are: 1.) The loss of overseas markets due to concerns about worker safety and the environment; 2.) Current limits on domestic capacity for scrapping, and 3.) A Navy pilot project that pays contractors to scrap its vessels.

We included this issue in our list of DOT's top 12 management issues in December 1999. We testified before the Congress three times during the reporting period before the House Budget and Transportation committees and the Senate Committee on Commerce, Science, and Transportation.

In each of the testimonies, we called for prompt development and implementation of a plan that identifies methods and milestones for disposing of all obsolete vessels in the fleet. Such a plan should prioritize disposing of those ships that are in the worst condition. We also urged MARAD to develop a proposal for submission to Congress seeking approval and funding for a project to pay contractors for vessel scrapping.

Because of these heightened concerns, we are monitoring MARAD's efforts towards reducing the number of obsolete vessels.

In September, MARAD announced plans to begin scrapping several of the vessels moored in the James River near Newport News, VA. The agency obtained funding for a $10 million pilot program to help cover the cost of scrapping those ships in the United States as part of a recently passed Defense Department appropriations bill. ■

Flight Delays, Cancellations, and Customer Service

Increasing numbers of flight delays and cancellations in recent years have fueled in large part the public's dissatisfaction with the major Airlines. In response, Congress requested that OIG look into the causes of flight delays and cancellations and the efforts being undertaken by the Airlines to improve customer service, including implementation of the Airline Customer Service Commitment agreed to by 17 major carriers in 1999.

During the 6 month period ending September 30, we issued one report and testified twice before Congress on flight delays and cancellations. We also released an interim report on the Airlines' efforts to improve customer service.

Statistics graphically illustrate the magnitude of the problem. Between 1995 and 1999, the Federal Aviation Administration reported a 58 percent increase (from 236,802 to 374,116) in delays. The Bureau of Transportation Statistics reported a 68 percent increase (from 91,905 to 154,311) in cancellations over the same period. These trends worsened during the first 7 months of 2000, with delays and cancellations up 11 and 10 percent, respectively, over the same period in 1999. Overall, we found that nearly 1 in 4 flights either arrived late or was cancelled in 1999, with the average delay totalling almost 50 minutes.

The delays and cancellations are symptoms that the nation's aviation system is reaching capacity. Another

symptom is the increase in safety incidents. Runway incursions, which are incidents on the ground that create a collision hazard increased 34 percent between 1995 and 1999. Operational errors, which occur when air traffic controllers allow planes to get to close to each other, increased 23 percent between Fiscal Years 1996 and 1999.

Over the past year, DOT has announced a number of actions to address the growth of flight delays and cancellation, including the Spring/Summer 2000 initiative for managing air traffic. The Secretary has also formed task forces to: determine the causes of delays and cancellations; identify best practices in providing better information and service to air travelers, and; expedite investment in technology and infrastructure.

Understanding the Causes of Delays and Cancellations

A major finding of our work, and one to which urgent attention is required, is the absence of a system for collecting causal data and reporting a reasonably complete picture of the causes of delays and cancellations. This was reinforced by Congress in the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century enacted in. April. The new law directs the Secretary of Transportation to modify existing regulations governing the air carrier data submissions to DOT "... to disclose more fully to the public the

Web Is Changing Ticket Purchasing Patterns

Testifying July 20 before the Senate Committee on Commerce, Science, and Transportation, we said that the rapid growth of airline ticket sales over the Internet offers potential benefits to consumers, but also poses some challenges and risks. Marketplace changes and technological innovation are rapidly eclipsing rules that apply to airline computer reservation systems. DOT should revisit these rules without further delay.

Ticket sales over the Internet have increased from less than half of one percent in 1995 to an estimated six percent as of mid-2000. These sales are expected to grow to at least 11 percent by 2003. Airlines are encouraging that growth by offering deeply discounted "e-fares" available only on their web sites. These sales can result in cost savings of 75 percent or more, but consumers must be web-savvy to find these deals. The consumer who "clicks" on the wrong fare search button could wind up paying over 1000 percent more for the identical itinerary.

In October, the Department issued an order requiring airlines to tell customers seeking the lowest fare available for a flight that it may only be offered through the carrier's Internet site.

Orbitz, the new Internet travel agency jointly owned by several major airlines, could potentially benefit consumers and airlines, but certain competitive issues must be reviewed. Orbitz promises to provide a wider range of fare options, bias-free displays and reduced booking fees, but possible anti-competitive issues such as airlines potentially restricting their lowest fares exclusively to Orbitz must be resolved.

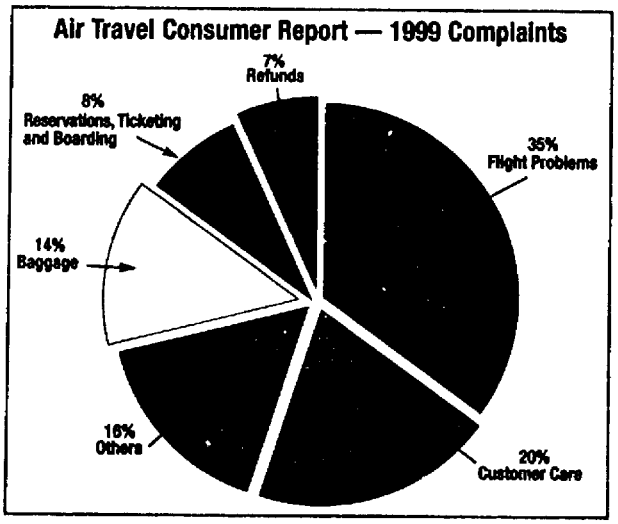
DOT and the Department of Justice need to evaluate the potential long-term benefits of Orbitz on the marketplace and determine whether prior intervention is needed to protect competition and consumers.

nature and source of delays and cancellations experienced by air travelers." DOT cannot understand the causes of delays and identify effective long-term solutions for delays until better data are available.

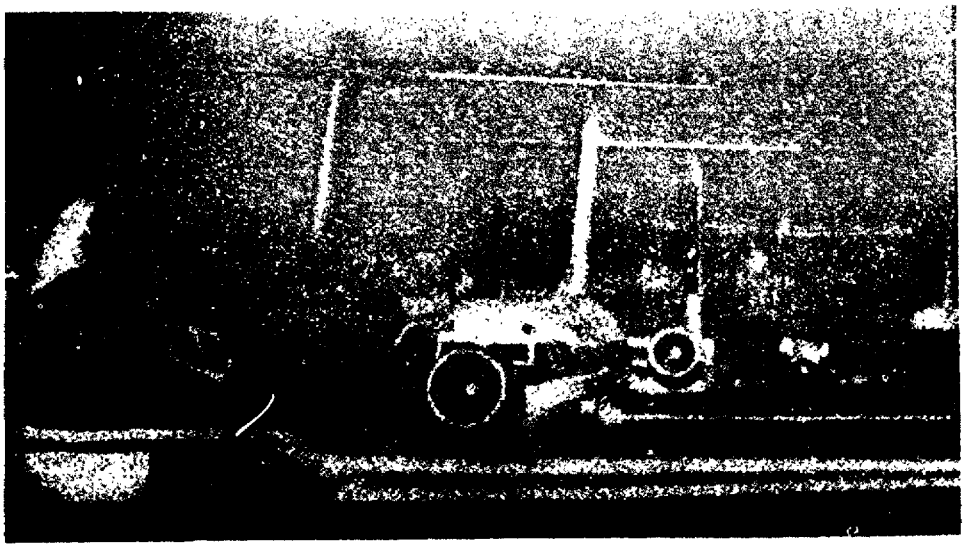
In testimony before the Senate Committee on Commerce, Science and Transportation in September, we cited the need for a set of capacity benchmarks for the Nation's top airports. A set of capacity benchmarks is essential in helping understand the true impact of airline scheduling practices and what relief can realistically be provided by new technology, revised air traffic control (ATC) procedures, and runway and airport infrastructure enhancements. We also discussed the need to determine exactly what impact ATC modernization will have on airport capacity and the traffic load in the short, intermediate, and long terms.

Congress Airs Concerns on Airline Customer Service

Congressional concern over increasing complaints in air travel soared following the January 1999 incident at the Detroit Metro Airport in which hundreds of passengers were stuck in planes on snowbound runways for up to 8 hours. Lawmakers debated whether to enact a "Passenger Bill of Rights." Hearings were held in both the House and Senate to discuss the treatment of aviation passengers and specifically the "Passenger Bill of Rights." Congress put legislation on hold after 17 major airlines agreed on June 17, 1999 to voluntarily adopt an Airline Customer Service Commitment pledging to improve air travel. The airlines agreed to develop individual customer service plans to implement the Commitment and to cooperate fully in any request from Congress for periodic review of compliance with the Commitment.



The Commitment addresses such matters as improved communication with passengers, quoting the lowest available airfare and meeting passengers' essential needs during long onboard delays. However, the Commitment does not directly address underlying reasons for customer dissatisfaction, such as extensive flight delays, baggage not showing up on arrival,



long check-in lines, and high fares in certain markets. Until the Airlines, FAA, and others effectively address these areas, we believe there will continue to be discontent among air travelers.

Airlines have also implemented other initiatives to improve customer comfort and convenience. These initiatives include reconfiguring airplanes to increase the room between rows of seats and replacing overhead luggage compartments with large, easier to use storage bins.

In June, we reported our preliminary results in our Interim Report on the Airline Customer Service Commitment. In our initial observations and testing, we found the Airlines are making a clear and genuine effort at strengthening the attention paid to customer service, but bottom-line results are mixed, and the Airlines have a long way to go to restore customer confidence. The results include areas where the Airlines can improve upon disclosures provided passengers, such as fare and refund availability, and required check-in times.

We also noted several other important factors concerning customer service. Each Airline needs to have a credible tracking system for compliance with the Commitment. The Airlines also need to ensure that non-Airline employees who interact with passengers are trained on the Airlines' plans because non-Airline personnel such as skycaps are often mistaken for Airline employees. We found that some Airlines' contracts of carriage terms were less advantageous to passengers than the provisions found in the Airlines' Plans. Finally, we are concerned that oversight and enforcement expectations for DOT, the agency responsible for airline consumer protection, may significantly exceed its capacity to handle the workload, since staff has significantly declined over the years.

Congress directed that we issue a final report on the effectiveness of the Airlines' Plans to improve customer service, including recommendations for improving accountability, enforcement, and protections afforded to commercial air passengers. By December, the Airlines will have had a full year in which to fully implement their Plans.■

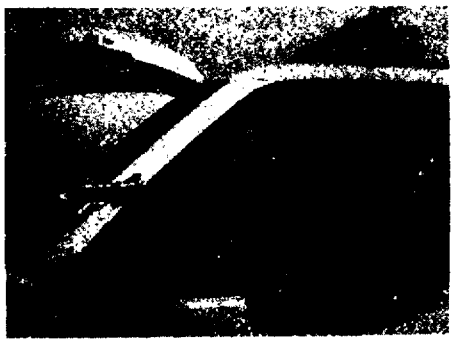
The Six Months

April 1, 2000-September 30, 2000

22

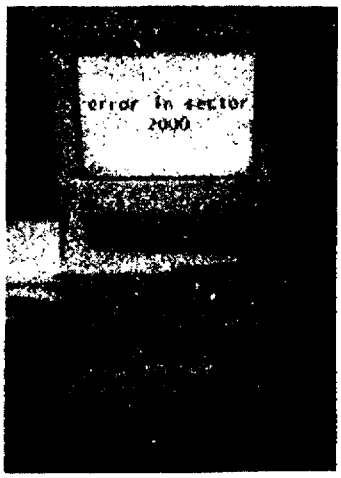
Improvements Needed in Aviation Security — April 6

Airport operators, airlines and airport users need to improve compliance with Federal regulations mandating background investigations for granting access to secure areas of airports, Alexis Stefani, Assistant Inspector General for Auditing said in testimony before the Senate Commerce Committee's Aviation Subcommittee. Stefani said the FAA needs to deploy technology that trains screeners in identifying threatening items in passenger baggage and establish a strategic plan that integrates employees and technology into a comprehensive, seamless security program.



Man Sentenced in Tank Truck Welding Fatality — April 7

Carl B. Johansson was sentenced to 15 months in prison by a U.S. District Court judge in Los Angeles for violating Federal transportation and hazardous materials laws that resulted in the death of a welder. Johansson pleaded guilty to violating Federal hours of service regulations limiting the amount of time a driver can spend behind the wheel of a truck. He also failed to obtain proper certifications for the repair of a gasoline tanker. A welder hired to repair a leaking gasoline tanker at Johansson's trucking facility was killed in an explosion ignited by his welding torch inside the tanker. OIG investigated this case with the FMCSA, FBI, and the California Highway Patrol.



DOT Spent Y2K Compliance Money Properly — April 11

The Department properly spent $227 million appropriated for it in Fiscal Year 1999 to address anticipated Year 2000 computer problems. About 94 percent of these funds were for the FAA and the U.S. Coast Guard. Both agencies maintained adequate internal controls over these funds. We identified four FAA procurements totaling $3.6 million that were not directly related to Year 2000 preparations, but which fell within the discretion of the agency as provided under law.

Van Line Owner Jailed **April 12**

Yaron Tishby, president and owner of All American Van Lines of Pembroke Park, FL, was sentenced in U.S. District Court in Miami to 5-1/2 years in prison and ordered to pay $1.5 million in restitution. He was ordered to report to the Immigration and Naturalization Service for deportation hearings following his sentence. Tishby pleaded guilty to violating Federal transportation-tariff laws, hiring illegal aliens, and illegally possessing a firearm. Tishby induced customers with low estimates and then grossly inflated costs of moves after customers' household goods were in the company's possession.

FAA Contract Tower Program Examined **April 12**

Contract towers — air traffic control towers at relatively low-traffic airports staffed by non-FAA personnel — continue to provide cost-effective services that are comparable in quality and safety to those provided at FAA-operated towers, our audit found. Users remain supportive of the program, and previously identified staffing shortages have been addressed. We also found that an FAA study did not fully consider several key factors involved in expanding the program that should be further analyzed and reported to Congress. We recommended that FAA revise its study of expanding the contract-tower program to provide Congress with a better perspective of the feasibility, costs, and benefits of expanding the program.

Restitution and Probation Ordered in Illegal Hazmat-Shipment case **April 13**

The president of a firm that attempted to secretly airfreight hazardous materials in violation of Federal law was ordered to serve 3 years' probation and pay $4,920 in restitution by an U.S. District Court judge in Miami. Alejandro O. Craig, president of Alpa International, Inc., was also ordered to report for deportation proceedings. Employees of the air carrier LANChile discovered the hazardous materials in July 1999 while loading an aircraft; the goods had been packaged to conceal the hazardous nature of the cargo. OIG investigated the case with assistance from FAA and the Miami Police Department.

NTSB's Rapidraft System Needs Stronger Controls **April 13**

An audit of the National Transportation Safety Board's Rapiddraft system identified significant internal-control weaknesses. The audit of the third-party check system intended for use by NTSB investigators to obtain services at accident investigation scenes was requested by the Safety Board's chairman after irregularities were found in August 1999. A simultaneous investigation by OIG and the FBI found

that two former NTSB administrative employees embezzled approximately $95,000 through the Rapidraft system. The IG testified on the audit and NTSB's corrective actions, which included cancelling the Rapidraft System, before the House Budget Committee's Task Force on Housing and Infrastructure.

Baggage-Handlers Sentenced in Airport Security Case April 18-May 4

Ricky B. Garner, Ronald Darby and Thomas Jacobs, baggage-handlers for American Airlines at the Dallas/Fort Worth International Airport, were sentenced by an U.S. District Court judge in Fort Worth, TX, for aiding the circumvention of airport security. Garner was given 5 years in prison. Darby was fined $1,000 and placed on 5 years' probation and Jacobs was placed on 5 years probation. The men pleaded guilty to allowing unauthorized persons to use their security badges to bypass airport security in exchange for bribes. A separate indictment charges drug dealers with using the security badges to transport cocaine on passenger planes. The investigation was conducted with DEA.

Cost Doubles for Pennsylvania Station Redevelopment April 19

The cost of New York City's Pennsylvania Station redevelopment has increased and its completion date has slipped, our audit found. The current $768 million cost of the project is more than twice the original 1992 estimate. The project is currently slated for completion in 2005, 6 years later than planned. In addition, Amtrak and other railroads have identified, separately from the project, $804 million in needed safety improvements in tunnels and areas beneath Pennsylvania Station. The Federal Railroad Administration must work with these parties to identify funding sources to ensure these requirements are completed in a timely manner.FRA is working with the Office of Management and Budget to address this issue in the President's Fiscal Year 2002 budget request.

Better Data Needed In Boat Safety Program April 20

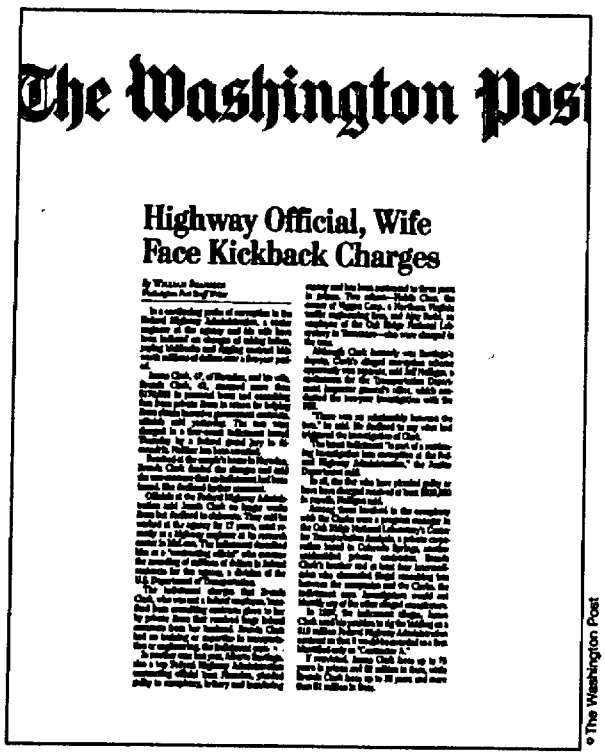
The U.S. Coast Guard is using inaccurate data to measure its performance in reducing recreational boating fatalities, our audit found. The Coast Guard also has not established criteria for monitoring the effectiveness of state recreational boat safety programs, and the formula for distributing funds does not consider the states' effectiveness in reducing fatalities. The Coast Guard agreed to improve data accuracy, develop a plan for monitoring state boating-safety programs, and develop a proposal for incentive funding.

Bay Area Rapid Transit Finance Plan Reasonable April 21

A proposal by the Bay Area Rapid Transit District (BART) to extend rail mass-transit service to San Francisco International Airport and provide additional service in San Mateo County accurately portrays costs to complete the project and the manner in which BART expects to finance the project, our audit found. BART provided the Federal Transit Administration with a revised finance plan that increases the project budget by $316 million, establishes a capital-reserve account of $27 million, substitutes a $70 million shop- and yard-improvement program for new vehicles budgeted to cost $100 million, and extends the project's revenue operation date by 9 months.

Wife of FHWA Official Sentenced to Prison in Kickback Scheme April 28

The wife of an FHWA engineer was ordered jailed for 30 days by an U.S. District Court judge in Alexandria, VA., for her role in a kickback scheme. Brenda Clark was also ordered to pay $23,000 in restitution to DOT. James Clark maintained authority over FHWA contractors. In exchange for awarding contracts, he and his wife solicited and received approximately $150,000 in personal loans and consulting contracts using a series of pass-through companies to conceal their activity. James Clark previously pleaded guilty to bribery and wire fraud. OIG investigated this case with the FBI. ■



The Washington Post

Highway Official, Wife Face Kickback Charges

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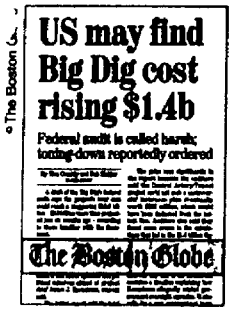
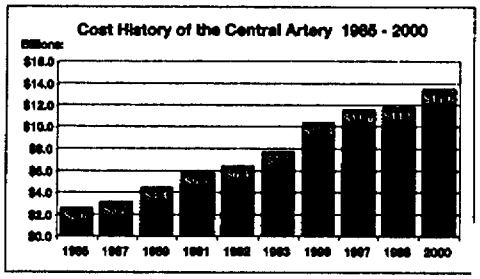

© The Boston Globe

US may find Big Dig cost rising $1.4b

Federal audit is called harsh; tolling down reportedly ordered

The Boston Globe

Cost Overruns Increase Price of Central Artery Project **May 3**



Continuing construction cost overruns on Boston's Central Artery project have raised the expected cost of the project to as much as $13.6 billion, the IG said in testimony before the Senate Commerce Committee. Project managers failed to disclose the rising cost trends in finance plans and manipulated data to prevent detection. This occurred because FHWA's guidance on finance plans was inadequate to ensure complete and accurate financial reporting. As a result, the project's finance plan understated construction costs by at least $942 million. Following our Feb. 10 report on the project, the Secretary of Transportation directed FHWA to implement our recommendation that the agency issue comprehensive guidance specifying minimum reporting requirements for finance plans. In response, FHWA issued new guidance and finance plans and entered into an agreement with the state of Massachusetts to limit the Federal contribution to the project to $8.549 billion.

Defendant in Chop-Shop Probe Sentenced for Fraud **May 5**

Dorin Bosancu was ordered imprisoned for 21 months and to pay $35,748 in restitution by an U.S. District Court in Seattle following his guilty plea to bank, mail and wire fraud charges and engaging in illegal monetary transactions. Bosancu defrauded insurance companies by stripping vehicles of parts and then claiming the parts were stolen; the removed parts subsequently were sold. OIG, the FBI, the U.S. Coast Guard, the U.S. Customs Service, the INS, and the Washington State Highway Patrol investigated the case.

Former FAA Employees Sentenced in Fraud Cases **May 11**

Former FAA electronics technician Charles Goffi was sentenced to 6 months home confinement and required to resign his FAA job by a U.S. District Court judge in Brooklyn, NY after pleading guilty to filing $32,800 in fraudulent travel-voucher claims. Goffi was ordered to reimburse the government for the money stolen. Separately, former FAA accountant Rodney D. Davis was sentenced to 6 months in jail and ordered to pay $28,000 to the agency in restitution for the funds he embezzled by accessing a protected computer without authorization and transferring funds from FAA into his own checking account. Davis resigned while he was being investigated. The case was investigated by OIG and prosecuted by the Department of Justice.

Changes Needed in FAA's Use of RTCA as Advisory Committee **May 11**

While RTCA, Inc. has made valuable contributions as a federal advisory organization in helping FAA shape the direction of air traffic control modernization initiatives, the lines have blurred between RTCA giving advice and providing elements of program decision-making and management, we found in this audit. We recommended that FAA officials no longer serve in voting and decision-making roles on RTCA boards, committees, subcommittees, and working groups; that RTCA adopt policies to ensure potential conflicts of interest and paid representation are disclosed and properly addressed; and RTCA provide adequate information to the public about closed meetings. FAA agreed to implement our recommendations and has taken steps to provide information to the public via the Internet.

Recommendations Made on Pipeline Safety Program Reauthorization **May 11**

The Research and Special Programs Administration needs to implement critical safety regulations for hazardous liquid and natural gas pipelines mandated by Congress in 1992, the IG said in testimony before the Senate Committee on Commerce, Science and Transportation. Other needed improvements include expanding pipeline safety research and development on pipeline inspection technologies; improving the collection of pipeline accident data and enhancing the training of pipeline inspectors and operators. President Clinton directed the Secretary to implement the Inspector General's recommendations.

Stronger Controls Needed on MARAD Contracts **May 12**

While MARAD had implemented effective policies and procedures for awarding ship-manager contracts, our audit found MARAD has not consistently adhered to established procedures for overseeing management contracts. For example, MARAD paid for work before it was performed and did not ensure that subcontracts were awarded based on competition. MARAD took action to strengthen its controls for administering ship-managers' and general-agency contracts.

May

Recommendations Made on MARAD Reauthorization — May 16

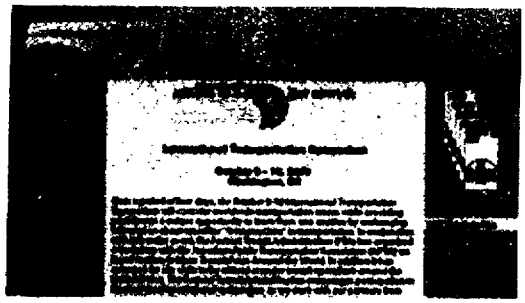
The Deputy Inspector General testified May 16 before the Senate Committee on Commerce, Science and Transportation on the reauthorization of the Maritime Administration. The statement involved three issues addressed in recent audit reports: the Title XI loan guarantee to the Massachusetts Heavy Industries Quincy shipyard; MARAD's growing inventory of obsolete vessels and the need for a disposal plan; and internal controls over maintenance contracts for Ready Reserve Force vessels. The DIG told the committee that the Quincy shipyard had defaulted on its $55 million MARAD Title XI loan guarantee in January 2000. Considerable work needs to be done to make the shipyard operational and the Environmental Protection Agency has advised MARAD that there are environmental problems in the shipyard that require remediation. After MHI missed its December 1999 payment, its bank made a payment demand on the loan guarantee. MARAD paid $59.1 million to settle the guarantee on February 25, 2000. The amount that MARAD can recover through liquidation cannot be determined at this time. He also warned that MARAD would not meet its legislative mandate to dispose of 115 obsolete vessels awaiting disposal at a profit and discussed the findings of a previous audit that recommended strengthening internal controls over maintenance contracts for ships in the Ready Reserve Fleet. MARAD took action in response to recommendations contained in the reports that were summarized in this testimony.

Minnesota Man Pleads Guilty to Shipping Undeclared Hazmat — May 22

Sean Barton turned himself in to federal authorities in Minneapolis, MN and pleaded guilty to shipping materials on commercial passenger aircraft without declaring the hazardous nature of the shipments. Barton had shipped large volumes of spray paint in cans and the express-shipping firms used to move the cargo were not informed of the hazardous nature of the shipments. OIG investigated the case jointly with the FBI and the FAA.

Better Computer Security Needed at FTA **May 23**

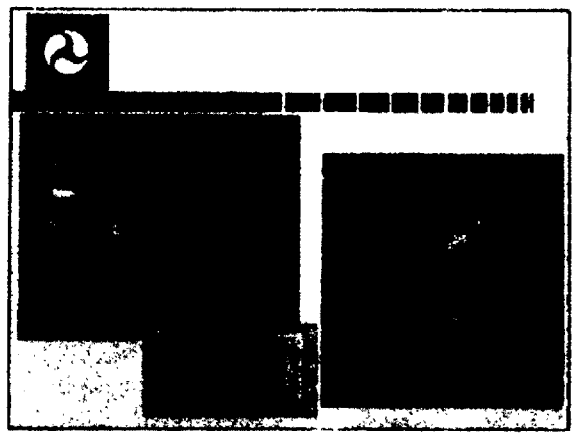
Computer-security controls for a Federal Transit Administration financial-management computer system



were not adequate to ensure operational integrity and continued operations, our audit found. Using a widely known user identification code, we were able to gain unauthorized access to the system's computer. We also identified seven system weaknesses and vulnerabilities, which occurred because FTA had not assigned a sufficient priority to computer security. These security weaknesses could significantly reduce FTA's ability to carry out its business mission and could cause FTA to lose its automated capabilities to maintain financial, project oversight, and operational control. FTA agreed with our findings and recommendations and has taken corrective actions.

Sentencing in Fire Extinguisher Fraud Case **May 24**

Peter C. Freund of East Hampton, CT, was sentenced to 4 months in jail, 4 months home confinement and fined $5,000 after pleading guilty in U.S. District Court in New Haven, CT to mail fraud charges. Freund, as the owner and operator of AAA Fire and Safety — an inspection service for fire-protection systems — caused fire extinguishers to be falsely stamped as having been hydrostatically tested and billed customers for the testing even though it had not been done. The investigation by OIG, the DCIS and the FBI arose from an RSPA referral. ■



June

Contractor Gets Five Years In Fraud Case

June 5

Kermit Bunn, president of Bunn Construction Company, was sentenced to 5 years' imprisonment and fined $18,000 fine for fraud against the Federal Disadvantaged Business Enterprise program on five FHWA-funded subcontract projects in West Virginia. Bunn also was convicted of obstruction of justice in U.S. District Court in Wheeling, WV for threatening the OIG special agent investigating the case. OIG investigated the case with the West Virginia Department of Transportation.

Aviation Parts Manufacturer Gets Jail Time and Fines

June 13

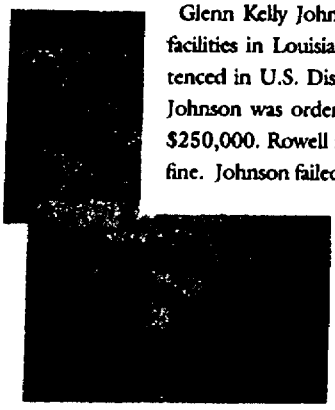
West Coast Aluminum Heat Treating Co. was fined $1.6 million by a U.S. District Court judge in Los Angeles for falsely recording aircraft parts as heat treated and tested. Company president June Fitch was ordered to pay a $70,000 fine and serve 3 years' probation. Vice president Eugene Fitch was sentenced to 55 months in prison for his role in the crime. OIG investigated the case with the Defense Criminal Investigative Service and NASA-OIG.

Airlines Fined For Obstructing Crash Probe

June 20

Fine Air Services, formerly known as Fine Airlines, was fined $3.5 million and Aeromar Airlines was fined $1.5 million by a U.S. District Court judge in Miami, following their guilty pleas for their roles in the August 7, 1997 crash in Miami of Fine Airlines Flight 101A. Fine Air was charged with obstruction of justice and Aeromar, with falsification of documents. The two cargo air carriers also must serve 4 years' supervised probation and be under a court-approved, supervised air safety program. The crash killed four crewmembers and a man sitting in a car parked near the airport. OIG investigated the case with the U.S. Customs Service and the FBI.

Pair Sentenced in Water-Testing Case **June 21**



Glenn Kelly Johnson, owner and operator of the largest chain of wastewater treatment facilities in Louisiana, and Carol Rowell, president of Enviro-Tech Labs, Inc., were sentenced in U.S. District Court in New Orleans, LA for violations of the Clean Water Act. Johnson was ordered to serve 3 years in prison, pay a $500,000 fine and restitution of $250,000. Rowell received 4 months home confinement and was ordered to pay a $2,000 fine. Johnson failed to properly operate and maintain six wastewater treatment plants in and around Houma and Thibodaux, LA, which caused the discharge of untreated sewage into Louisiana's Intercoastal Waterway. In an effort to conceal the poor maintenance and operation of the facilities, Johnson and Rowell submitted fraudulent discharge monitoring reports and laboratory analysis to the Environmental Protection Agency and the Louisiana Department of Environmental Quality. Johnson also attempted to impede the Federal investigation by offering money to a cooperating witness in exchange for false testimony. Johnson also pleaded guilty in August to conspiracy to commit bank fraud in connection with a $1.2 million loan used to buy more than 60 private sewage treatment facilities. Johnson was sentenced to 51 months' incarceration and ordered to pay $1.1 million in restitution and $75,000 in fines on top of his initial sentence. OIG investigated with the FBI, the U.S. Postal Service, and Louisiana Department of Environmental Quality.

Road Construction Manager Gets Jail Term **June 23**

David G. Webb, the former manager of a firm that contracted with the Virginia Department of Transportation on Federally-funded projects was ordered to serve 2 years in prison and to pay $435,038 in restitution for fraudulently inflating charges for aerial photography and ground surveys. Webb's employer, Photogrammetric Data Service Inc. of Sterling, VA, was ordered to pay $435,038 in restitution, a $522,045 fine and was placed on a year's supervised probation. OIG and the FBI investigated the case.

Airport Paving Contractor Agrees to Settle False Claims Suit **June 23**

Ball, Ball & Brosamer, a paving contractor for paving at two major airports, agreed to pay a settlement of $300,000 to dismiss a civil complaint. The company also agreed to pay $130,000 to the parties who advised the government of the circumstances, to cover attorneys' fees; those parties also will share equally in 22 percent of the settlement payment. It was alleged that Ball, Ball & Brosamer altered the concrete mix design without approval from the resident engineer on contracts at Denver International Airport and John Wayne International Airport in Santa Ana, CA.

Household-Goods Movers Sentenced **June 26**

Two men involved in a household-goods moving scheme in which customers' goods were held for ransom were sentenced to 33 months' imprisonment and jointly ordered to pay $484,765 in restitution to victims following their guilty plea in U.S. District Court in Los Angeles. Micha Grinberg and Eddie Tsitron admitted defrauding customers, some of whom were federal goverment employees, by offering a low bid to move goods, then upping the costs. Customers who refused to pay the higher prices were unable to get their property back. On June 6, in a related case, Amir Ben-David of Prime Moving and Storage was sentenced to 3 years' probation, fined $5,000 and ordered to pay $14,500 in restitution. OIG investigated this case with the U.S. Department of Agriculture and the U.S. Forest Service, with assistance from FMCSA and the IRS's Criminal Investigations Division.

Federal CDL Program Is Not Disqualifying Unsafe Drivers **June 30**

The Commercial Driver's License program has achieved its primary objective of limiting commercial drivers to one license, we found in the first of a series of audits of the CDL program requested by the House Committee on Transportation and Infrastructure. However, Federal oversight of state CDL programs did not ensure that unsafe commercial drivers were disqualified. When Federal oversight reviews identified deficiencies in states' CDL programs, available sanctions were not imposed. The Federal Motor Carrier Safety Administration agreed there is a need to strengthen the CDL program and concurred with all our recommendations for improvement, and began implementation actions.

Transport Topics

Guilty Drivers Hold on to CDLs

Federal Report Says State Screening Inadequate

Manufacturing Manager Admits Selling Bogus Aircraft Parts **June 30**

David Taeschler, general manager of Tam Metal Products of Mahwah, NJ, pleaded guilty in U.S. District Court in Trenton, NJ to charges of conspiracy to commit wire fraud for his role in a scheme to sell non-standard aviation parts. In 1996, Menasco, a Canadian company, ordered metal parts for Boeing 757 aircraft wheel assemblies from Tam and specified that the parts were to be heat-treated by a Boeing-authorized treater. Heat-treating strengthens certain aircraft parts. Tam did not get some parts heat-treated, but instead faxed the Canadian firm a falsified certification that the parts had been heat-treated. The case was investigated by OIG, based on information received from the FAA. ■

July

Bus Shelter Supplier Sentenced for Violating "Buy American Act" **July 13**

Daytech Manufacturing, Inc., of Orchard Park, NY was sentenced in U.S. District Court in Buffalo, NY to 12 months probation and ordered to pay a $110,000 fine for falsely certifying to the Public Transportation Benefit Corporation of Snohomish County, WA, that it would comply with "Buy America Act" requirements on a proposal to supply bus shelters. The "Buy America Act" requires FTA grantee projects to use components of United States origin or products manufactured in the United States. OIG investigated this case jointly with the FBI and with assistance from the FTA.

DOT Computer Security Needs Improvement **July 13**

DOT Headquarters' computer networks had security weaknesses that made its computers and web servers vulnerable to unauthorized access and attack by intruders, we found in reports issued on July 13 and Sept. 25 and our subsequent Sept. 27 testimony before the House Committee on Science. The computer networks are used to support transmission of critical administrative and financial data such as payroll, grant payments, safety statistics and research information throughout DOT. Hundreds of DOT computers were accessible by unauthorized Internet users as well as being vulnerable to insider attack. Internet users were allowed to bypass DOT's "firewall" security and gain access to DOT's private networks. We also found that DOT web sites were vulnerable to attack. We recommended: strengthening personnel security for DOT employees and contractor personnel authorized to access DOT systems; improving network security to prevent unauthorized access by Internet users or insiders; and increasing security on DOT's web sites. DOT agreed with our results and is taking corrective actions.

Couple Pleads Guilty in Avionics Repair Kickback Case **July 20**

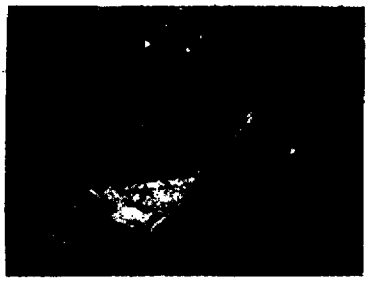
Marshall and Helen Bryant pleaded guilty in U.S. District Court in Fort Worth, TX to violating the Anti-Kickback Act and to conspiracy to commit mail and wire fraud for their roles in a scheme to inflate avionics repair contracts. The Bryants created a front company, Silver Jade Business Services, which would send parts to a parts broker, which would then forward the repair work to another Texas repair station, RTS Services for repair. Marshall Bryant would authorize payment to RTS for an inflated price, then receive a kickback. Some

of the kickbacks involved repairs for FAA and USCG. On Aug. 22, RTS vice presidents Gertrude Sickler and Timothy Couch were indicted on charges of money laundering and wire fraud for allegedly paying kickbacks to the Bryants. OIG, FBI and the Defense Criminal Investigative Service are investigating the case.

Miami-Dade Aviation Department Receives $50,000 in Restitution **July 27**

The Miami-Dade County Aviation Department received a $50,000 check from Aviation Safeguards in partial payment of the $100,000 owed the department for falsely certifying the completion of background checks on screeners who had access to secure areas at Miami International Airport. OIG received assistance from FAA in this investigation.

FAA Needs to Expand Oversight of WAAS Contracts **July 28**



It is unclear when the FAA's new satellite-based navigation system (Wide Area Augmentation System) will be available to provide pilots with precise landing directions, according to testimony prepared for a June 29 House Aviation Subcommittee hearing. In addition to reducing contract expenditures until solutions to technical problems are identified, the IG called for a series of Defense Contract Audit Agency reviews of the WAAS contract. FAA agreed with our recommendations and reviews of the WAAS contract, including floor checks to assess labor charges, are underway. ■

Illinois CDL Prosecution Continues

The probe of the illegal sale of commercial drivers licenses by employees of the Illinois Secretary of State's Office continued during the reporting period, with 9 people indicted, 7 convicted and 6 sentenced between April 1 and Sept. 30.

Since the investigation of the illegal sale of CDLs by Illinois Secretary of State employees to unqualified individuals, dubbed "Operation Safe Road" began in October 1998, local, state and federal officials have obtained evidence that at least 750 CDLs have been illegally issued. As of Sept. 30, 39 people have been indicted, including two third-party testers operating a driving school in Florida who sold in excess of 2,000 CDLs through the Florida state-licensing program. Twenty-nine individuals have been found guilty since the probe began. The ongoing probe is being conducted jointly by OIG, the FBI, the Postal Inspection Service and the Internal Revenue Service.

Other highlights of the investigation during the reporting period include:

■ The June 5 conviction by a Federal jury of Alex McLeczynsky, a trucking company instructor on charges of extortion, racketeering and conspiracy. McLeczynsky accepted $1,200 to $1,500 per applicant to assure that "sponsored" applicants passed both written and driving portions of the exam. McLeczynsky then would pay Illinois Secretary of State managers a portion of each applicant's bribe.

■ The 6 month jail term and deportation order handed Medbadreddin Djebli, an Egyptian citizen on Aug. 2 in U.S. District Court in Chicago following his guilty plea to counterfeiting Illinois driver's licenses, Social Security cards and immigration visas. Based on a OIG Hotline call, agents discovered Djebli and others had bribed Illinois Secretary of State employees to obtain driver's licenses that allowed illegal immigrants to work in the United States. Djebli agreed to provide information on co-conspirators after OIG and U.S. Immigration and Naturalization Service agents arrested Djebli earlier this year. The FBI also participated in the investigation.

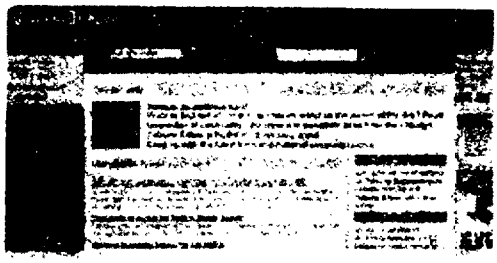
■ A July 18 indictment by a Federal grand jury in Chicago expanded the corruption charges brought against former state Inspector General Dean Bauer in February. The former state watchdog is charged with racketeering, mail fraud, obstruction of justice, and making false statements to the FBI for allegedly covering up bribery and other corruption by state employees . The grand jury also indicted five additional driving instructors for paying bribes to state employees to guarantee that their students would pass their road tests.

■ The Aug. 30 sentencing of veteran commercial drivers license supervisor Kenneth Golumb to 33 months in prison and a $20,000 fine after pleading guilty in U.S. District Court in Chicago to accepting bribes to pass people taking their CDL road tests. Golumb, a 26-year veteran of the Illinois Secretary of State's Chicago West Side facility, collected more than $120,000 in bribes (an average of $180 per day) during a two-year period.

■ The Sept. 5 guilty pleas by driving school instructors Valdez Araceli and Cristobal Gonzalez in U.S. District Court in Chicago to perjury and bribery charges involving the sale of drivers licenses to unqualified drivers.

■ The Sept. 7 conviction of Bhurat Patel, owner of the defunct New Delhi Driving School on charges of bribing at least seven road-test examiners at the Chicago West licensing facility in 1998 and 1999.

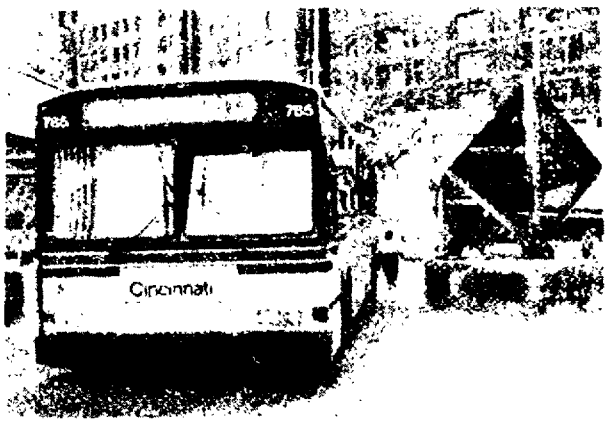
■ The sentencing of Waitung "Tony" Chan to five months in prison by a U.S. District Court judge in Chicago on Sept. 14. Chan, former owner of Advance Driving School in Chicago was also fined $3,000 for falsifying road exams for more than 170 unqualified motorists, including 20 who fraudulently obtained CDLs.



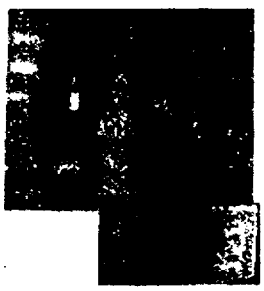
August

Transit Authority Employee Pleads Guilty to Stealing Fares — Aug. 4

David Gast pleaded guilty in U.S. District Court in Cincinnati, OH to stealing $120,000 in bus fares from Cincinnati's Metro bus system between May 1996 and October 1999. As a principal driver, Gast transported cash fare vaults to the bank for deposit from Metro, an FTA-funded entity. Metro auditors contacted federal authorities for assistance after an audit identified fare shortages. OIG and the FBI planted 1,000 one dollar bills marked with invisible ink and detection powder in the portable vaults. These bills were ultimately traced to Gast's personal bank account.



Company Owner Sentenced in Fire Extinguisher Cylinder Fraud Case — Aug. 7



Martin Albert, proprietor of Flashover Fire Equipment, Inc., was sentenced by a state superior court judge in New York to his choice of 6 months in prison or 840 hours of community service and ordered to pay $40,000 restitution for falsely stamping DOT re-tester numbers belonging to another company onto school district fire extinguishers. Albert and the now-defunct Flashover Fire Equipment pleaded guilty earlier in 2000 to state charges of fraud, larceny, and forgery. OIG investigated this case with the Suffolk County, New York, Police.

Third Party CDL Testers Sentenced for Falsifying Test Results — Aug. 7

Two brothers were placed on 3 years' probation after pleading guilty in U.S. District Court in Wilmington, NC to charges of falsifying test results of commercial driver's license applicants. Leroy Searsey was also placed on six months home confinement. He and Elmer Searsey were also ordered to

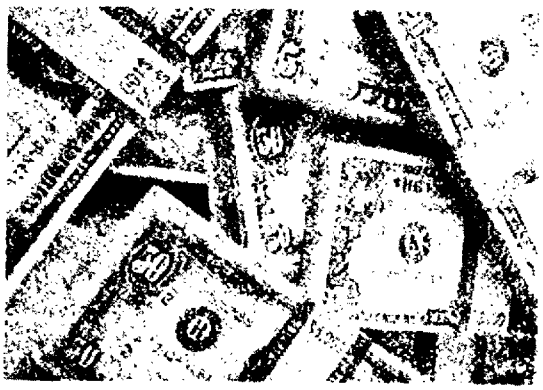
jointly pay $17,649 in restitution to the state of North Carolina for the retesting of more than 200 truck drivers who improperly received CDL licenses. OIG investigated this case along with the North Carolina Department of Motor Vehicles.

Trucking Company Fined for Hours of Service Violations **Aug. 8**

Ameri-Cana Transport, Inc, was ordered Aug. 8 by a U.S. District Court judge in Portland, ME to pay a $45,000 fine after pleading guilty to causing the falsification of log books of its truck drivers. The company also agreed to cease trucking operations and indicated that it was liquidating its assets. Ameri-Cana created approximately 100 false logs over a one-year period to understate the amount of time worked by its drivers. OIG investigated this case along with the Maine State Police and the FMCSA.

Former NTSB Employee Jailed for Rapidraft Scheme **Aug. 10**

Delia Jones was sentenced to 10 months incarceration and ordered to pay $74,095 in restitution by a U.S. District Court judge in Washington, DC after pleading guilty to charges of stealing government funds. While employed as a secretary for the National Transportation Safety Board, Jones embezzled over $74,000 using the Board's third-party check writing system, known as the Rapidraft Payment System. The Rapidraft Payment System was established to provide investigators a method to quickly procure materials, equipment and services needed during the course of accident investigations. OIG investigated this case with the FBI.



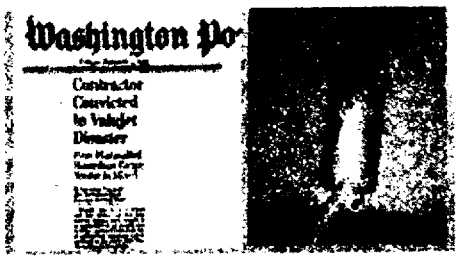
Fraudulent DBE Contractors Sentenced **Aug. 11**

Executives of two engineering firms were fined and placed on home confinement for defrauding the Federal Highway Administration's Disadvantaged Business Enterprise program. Paul Carey, co-owner of MTA, Inc., was sentenced to 6 months' home confinement and ordered to pay $40,000 restitution and $22,826 in fines by a U.S. District Court judge in Springfield, IL for claiming that MTA used Hsiong Associates as a minority subcontractor in order to meet FHWA's DBE program goals. MTA employees conducted the work on the Federal highway projects and the time sheets would be changed to reflect that the employees worked for Hsiong. Hsiong President Nancy Boyer was sentenced to 3 months' home confinement and ordered to pay $12,250 restitution for her role in the crime. Upon sentencing on the Federal charges, the state of Illinois agreed to accept a payment of $141,446 to recoup

the money stolen from the state construction program. OIG and FBI investigated the matter based on a referral from the Illinois Department of Transportation.

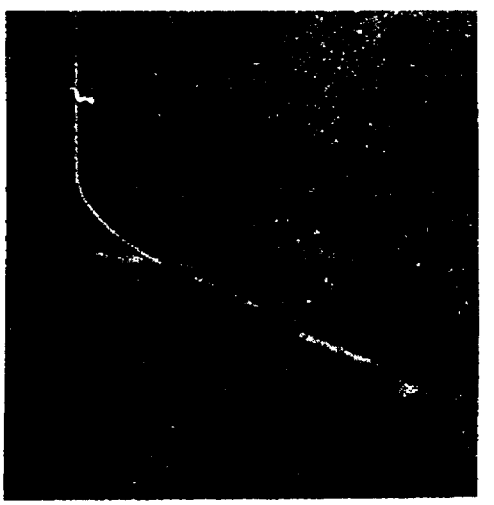
SabreTech Sentenced in ValuJet Crash Case **Aug. 14**

The company convicted in 1999 for its role in the 1996 crash of a ValuJet plane in the Florida Everglades was ordered to make $9,064,000 in restitution to family members and victims of the crash and to pay $2 million in criminal fines. SabreTech, Inc. was also placed on 3 years probation and ordered by an U.S. District Court judge in Miami to implement a comprehensive safety program. The investigation was conducted jointly by OIG and FBI and was prosecuted by the United States Attorney's Office in Miami.


Washington Po
Contractor Convicted in ValuJet Disaster

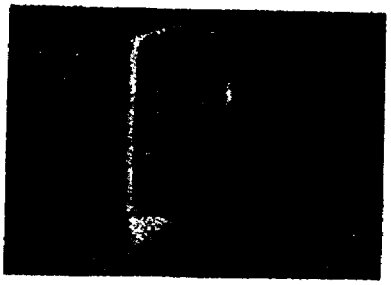
Guilty Pleas in Pensacola Dumping Case **Aug. 23**

A Florida company and several of its employees pleaded guilty in U.S. District Court in Pensacola, FL, to charges of violating the Clean Water Act. Oderbrecht-Metric, Inc. and company employees, Steven Spry, Frank R. Doddi and Marcellino Romero admitted to dumping cement, bridge pilings and reinforcement bars into Pensacola's East Bay during construction of the Garcon Point Bridge. Oderbrecht agreed to pay more than $4.2 million in fines, site cleanup costs, restitution and payments to an environmental crime trust fund. OIG, the Coast Guard Investigative Service, EPA's Criminal Investigation Division, the FBI and the Florida Department of Environmental Protection participated in the investigation.



Los Angeles Subway Contractor Pleads Guilty

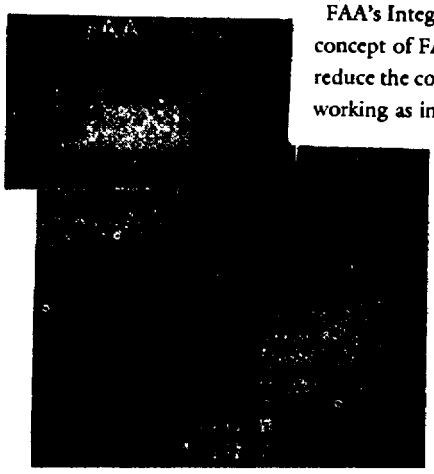
Aug. 28



William H. Benson, manager of inspection services for Twinning Laboratories of Southern California Corp. pleaded guilty Aug. 28 in U.S. District Court in Los Angeles to charges of submitting false non-destructive testing examination certifications to the Metropolitan Transportation Authority. The transit authority had contracted with Twinning to test the integrity of welds of various portions of the Metro Red Line, also known as the Hollywood Corridor project. The Metro Red Line is a $1.45 billion project receiving $695 million in funds from the Federal Transit Administration. Separately, the U.S. Attorney's Office on Aug. 29 filed a civil complaint against Twinning alleging the company conducted fraudulent inspections of defective welds at two subway stations in the Hollywood area. The case was investigated with the FBI and the MTA-OIG.

FAA's Procurement System Needs Improvement

Aug. 29



FAA's Integrated Product Development System (IPDS), a key team concept of FAA's new Acquisition Management System designed to reduce the cost and time to field new air traffic control systems, is not working as intended. FAA continues to operate by vertical management hierarchy, also called "stovepipes," which limits the effectiveness of IPDS team operations. Our survey of IPDS team members found that improvements are needed to address additional IPDS training, organizational barriers to communicating, and the lack of authority to make program decisions. Team members also perceived that FAA's senior management was not fully supportive of IPDS. FAA provided additional IDPS team training and is developing agreements with the unions and key associate administrators that include revised decision-making processes. ■

September

Truck Driver Pleads Guilty to Filing False Certification **Sept. 1**

A former driver for Speidel Transportation pleaded guilty in U.S. District Court in St. Louis to falsifying his medical history to obtain a commercial driver's license. In 1998, Dennis Auten's tractor-trailer crashed into a passenger vehicle, killing its two occupants. An investigation of Auten's DOT medical certification found that he had lied during his medical examination by hiding a pre-existing medical condition involving seizures, convulsions and fainting spells. OIG investigated this case with the FMCSA.

St. Louis Business Sentenced for Shipping Undeclared HazMat **Sept. 1**

A St. Louis restaurant was fined $100,000 in U.S. District Court in St. Louis after pleading guilty to charges of shipping undeclared flammables via Federal Express. Banana Joe's of St. Louis, Inc., pleaded guilty earlier in 2000 to attempting to illegally ship propane cylinders and several cases of paint to one of its restaurants. Federal Express discovered the undeclared hazardous material and rejected the shipment. Banana Joe's then re-packaged the material in unmarked boxes and again attempted to ship them. A Federal Express aircrew discovered the shipment when they smelled fumes from the boxes in the belly of the aircraft. The flight crew removed the boxes and OIG agents seized them. OIG investigated this case with FAA.

Contractor Pays $112,000 to Settle False Certifications Case **Sept. 6**

Paul Vibhandik, president and owner of Communications Network Systems, Inc. was ordered by a U.S. District Court judge in Seattle to pay a settlement of $112,000 after pleading guilty to charges of engaging in deceptive pricing and submitting false claims on two contracts awarded by the FAA for digital computer systems at Denver International Airport. OIG investigated this case with the FAA.

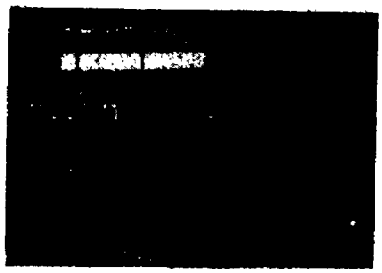
Former NTSB Employee Sentenced For Theft of Rapidrafts **Sept. 7**

Michelle E. Prentice, a former administrative assistant in NTSB's Southeast Region was sentenced in U.S. District Court in Atlanta to 6 months' home confinement and 5 years' probation. Prentice pleaded guilty in June to embezzling NTSB funds in the Rapidraft payment system by converting Rapidrafts (similar to bank checks) totaling approximately $21,000 to her own use. As part of her sentence, Prentice was also ordered to pay $20,183 restitution to NTSB.

Construction Company and Owner Debarred in Fraud Case **Sept. 7**

As a result of a criminal investigation conducted by OIG and FBI, the FAA debarred Max South Construction, Inc., of Miami, and its owner and president, Eric Pitchman, from Government contracting and subcontracting until Sept. 7, 2003. In March, Pitchman was sentenced to 12 months in jail. He was also fined $30,000 for submitting an application and certificate for payment to the FAA that incorporated more than $40,000 in inflated change orders on a contract to renovate FAA's Air Route Traffic Control Center in Miami. OIG investigated this case with the FBI and assistance from FAA.

Airport Security Employee Sentenced for Falsifying Records **Sept. 8**



Sandra Lawrence, former administrative assistant of Argenbright Holdings LTD., was placed on 5 years' probation and fined $15,000 in U.S. District Court in Philadelphia as a result of her guilty plea to charges of fraudulent and inadequate training, testing and background checks of airport security employees at Philadelphia International Airport. Argenbright and two other employees who previously pleaded guilty were scheduled to be sentenced in October. OIG investigated this case with the FAA.

Pennsylvania Airport Manager Sentenced for Theft of FAA Funds **Sept. 12**

William Santoro, former general manager of the Johnstown-Cambria County Airport Authority was sentenced to 4 months' home confinement and ordered to pay $11,055 in fines and restitution by a U.S. District Court judge in Philadelphia as a result of his guilty plea to theft, receiving stolen property and tampering with public records. An investigation by OIG and the airport authority found that Santoro commingled state and local monies with FAA Airport Improvement Program funds and then fraudulently converted $9,555 for his own use.

Final Sentencing in Massive Scheme to Forge NHTSA Documents **Sept. 15**

A former union official was sentenced by an U.S. District Court judge in Toledo, OH on charges of perjuring himself before a federal grand jury. David C. Poland, former business agent in Toledo for the International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers of America, was placed on 2 years' probation and fined $2,000 for perjuring himself before a federal grand jury probing activities of the operators of Central Trux & Parts, Inc., of Sylvania, Ohio. An OIG, IRS and U.S. Customs Service investigation determined that Central Trux imported several hundred tractor-trailer trucks and then affixed counterfeit NHTSA stickers to falsely indicate the Canadian manufactured trucks complied with U.S. standards. Poland is the final defendant in this case.

Amtrak's Finances Examined **Sept. 19**

Although Amtrak's ridership and revenue trends are positive, increases in labor costs, depreciation, and train operation expenses have contributed to significant growth in operating expenses. Amtrak will need to take major corrective actions if it is to achieve operating self-sufficiency in 2003, as required by law. Amtrak's strategic business plan relies on $737 million of unspecified management actions to spur revenues and cost savings. In addition, delays in the introduction of high speed rail service on the Northeast Corridor are likely to reduce Amtrak's 2001 revenue below projections and increase pressure on Amtrak to reduce expenses and improve performance in both its passenger and non-passenger services. Finally, Amtrak will face serious shortfalls in the capital investment funds necessary to maintain Amtrak's infrastructure and assets in a steady state through 2003. Amtrak plans to initiate revenue operations of its high-speed Acela Express service in the Northeast Corridor on December 11.

Fourth Conviction in Trucking Safety Case **Sept. 21**

Alan Archibald, former president of Aulenback, Inc., a trucking company in Mexico, ME, pleaded guilty in U.S. District Court in Portland, ME, to charges of failing to comply with a 1996 Federal order to cease operation. The out-of-service order had been issued for failing to maintain adequate records and accepting false drivers' logs. Three other defendants, including the trucking firm, were previously convicted on related charges. The prosecutions are the result of an investigation by OIG and FMCSA.

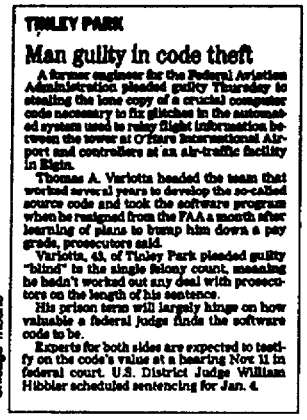

Transport Topics

Maine Fleet Executive Pleads Guilty in Out-of-Service Case

© Transport Topics

Ex-FAA Engineer Pleads Guilty to Computer Fraud **Sept. 21**

A former FAA electronics engineer pleaded guilty in U.S. District Court in Chicago to charges of computer fraud involving theft and destruction of FAA-owned computer software. Thomas Varlotta led a four-person team that worked for 5 years to develop an air traffic control navigation program dubbed the Automated Flight Data Processing System (AFDPS) that relayed critical flight data between Chicago O'Hare Airport and the Elgin, IL, Terminal Radar Approach Control facilities. Varlotta resigned his FAA



TINLEY PARK

Man guilty in code theft

A former engineer for the Federal Aviation Administration pleaded guilty Thursday to stealing the lone copy of a crucial computer code necessary to fix glitches in the automated system used to relay flight information between the tower at O'Hare International Airport and controllers at an air-traffic facility in Elgin.

Thomas A. Varlotta headed the team that worked several years to develop the so-called source code and took the software program when he resigned from the FAA a month after learning of plans to bump him down a pay grade, prosecutors said.

Varlotta, 43, of Tinley Park pleaded guilty "blind" to the single felony count, meaning he hadn't worked out any deal with prosecutors on the length of his sentence.

His prison term will largely hinge on how valuable a federal judge finds the software code to be.

Experts for both sides are expected to testify on the code's value at a hearing Nov. 11 in federal court. U.S. District Judge William Hibbler scheduled sentencing for Jan. 4.

© Chicago Tribune

position in June 1998, telling his supervisor that he had destroyed the original source code for the AFDPS program, for which FAA had spent more than $1,000,000 to develop. OIG special agents conducted a search of Varlotta's residence and discovered a floppy disk that contained an encrypted version of the AFDPS program source code.

Former FHWA Contract Employee Admits Theft **Sept. 25**

A former contract employee at the Federal Highway Administration's Turner-Fairbank Highway Research Center pleaded guilty in U.S. District Court in Alexandria, VA, to theft of Government property and embezzlement totaling $8,000. Christopher M. Remaley stole a Government test vehicle and auto parts from the McLean, Va., laboratory and used a Government credit card for personal fuel purchases. As a result of OIG's investigation, Remaley was removed from the contract and terminated by the contractor.

Audit Identified $35.4 Million in Inactive Obligations on Contracts **Sept. 25**

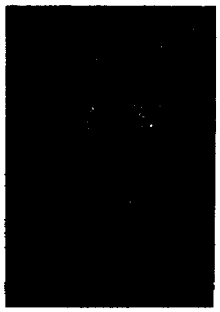
We identified about 4,500 contractual obligations totalling about $143 million within DOT that had no activity within the last 36 months. Working with the Operating Administrations, we identified about $35.4 million of obligations on contracts that no longer represented valid financial liabilities. These occurred because contracting officers generally were not reviewing obligations on an annual basis and were not closing contracts quickly. Freeing up these unneeded funds earlier could allow their use to purchase other services or return of the taxpayers' money to the United States Treasury. DOT agreed with our results and is taking corrective action.

Aviation Parts Company Sentenced for False Statements **Sept. 25**

International Helicopter, Inc. of Northvale, NJ was placed on 5 years' probation by an U.S. District Court judge in Newark, NJ following its guilty plea to charges of making false statements to the Federal Aviation Administration. The aviation parts distributor deceived an aircraft parts broker in the Netherlands by substituting turbine blades manufactured by an unapproved source. IHI applied to the FAA for an airworthiness approval tag for use in export to Indonesia and provided an altered invoice to the FAA to falsely indicate traceability to an approved source. Under the terms of its probation, IHI must retain a court appointed trustee, whose responsibility will include implementing a quality control system subject to periodic audit. OIG and the U.S. Customs Service investigated this case.

MARAD Needs to Improve Maritime Security Program Controls **Sept. 26**

The Maritime Administration had not established written internal control procedures for the review of Maritime Security Program vouchers, did not determine whether vessels were under charter to the U.S. Government, and did not conduct timely reviews of vouchers and associated payments at the completion of



the fiscal year, our audit found. MARAD concurred with our findings and took immediate action to implement all our recommendations.

Coast Guard Employee Sentenced for Welfare Fund Theft **Sept. 27**

Andrew Yantek, assistant manager of the Coast Guard Welfare Club for the Cleveland Area was sentenced in U.S. District Court in Cleveland, OH to 6 months' home confinement and ordered to pay $36,131 restitution after pleading guilty to stealing funds from Coast Guard club accounts and using them to pay his personal expenses between 1997 and October 1999. OIG investigated this case with the Coast Guard Investigative Service.

Guilty Plea in Air HazMat Case **Sept. 28**

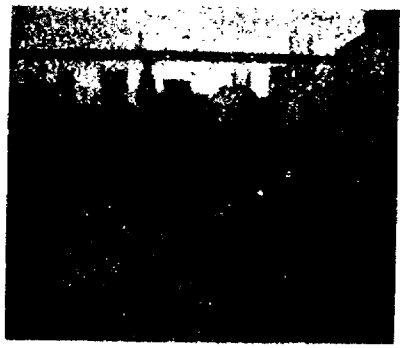
Concepcion Leon of Puerto Rico pleaded guilty in U.S. District Court in Brooklyn to charges of illegally offering concealed automotive paint and related flammable materials to an air carrier for shipment at New York's LaGuardia Airport. Leon was indicted in August on charges of concealing the box's DOT-required hazardous materials placard and telling a skycap that the box contained books. OIG investigated this case with the assistance of FAA.

Better Oversight of Technical Support Services Contract Needed **Sept. 28**

FAA has not exercised effective management oversight or followed its own guidelines on the $875 million Technical Support Services Contract to ensure that support services are cost-effective and efficiently meeting FAA requirements. As a result, FAA is at substantial risk for inflated and overpriced contract services. These weaknesses in FAA's oversight of the TSSC undercut one of the primary objectives of acquisition reform, which was to provide more timely and cost-effective acquisitions and improve the quality of equipment and services acquired by operating more like a business.

South Boston Piers Transitway Finance Plan Found Reasonable **Sept. 28**

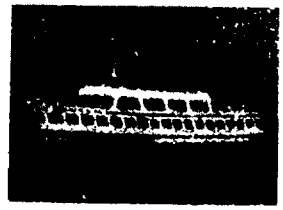
We issued a memorandum to the Acting FTA Administrator on our review of the February 2000 Massachusetts Bay Transportation Authority (MBTA) South Boston Piers Transitway finance plan. We found that the plan documents the estimated costs-to-complete the project and how MBTA expects to pay



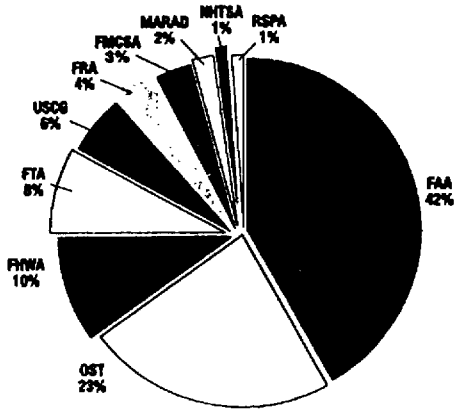
those costs. Our review determined that, based on current trends and projections, the projected funding for and the total cost to complete the Transitway were supportable and reasonable. Our analysis determined that MBTA would exhaust all project contingency funds and MBTA may have to use some of the reserved $50 million in local bond authority to cover future cost growth. However, our analysis concluded that this could be avoided because the project budget contains $13.7 million in costs that should be allocated to other MBTA cost centers. FTA had not certified the finance plan to Congress by the end of the fiscal year.

Passenger Ferry Safety Inspections Reviewed **Sept. 29**

A review of passenger ferry safety inspections found high levels of compliance with Coast Guard standards. When violations occurred, they were corrected. We did not assess the operation of ferries or the qualifications of crews. For the 50 passenger ferries reviewed at New York and Puget Sound, we found that Coast Guard performed 87 percent of the required quarterly or annual inspections and that 97.8 percent of the deficiencies identified during inspections were corrected. We attributed this level of compliance to the limited number of ferries operating in a port, the Coast Guard's knowledge of ferry operators, and the risk associated with operating without a valid inspection in waters continuously monitored by the Coast Guard. Based on the results at these two ports, we determined no further work on whether inspections were conducted was warranted. ■



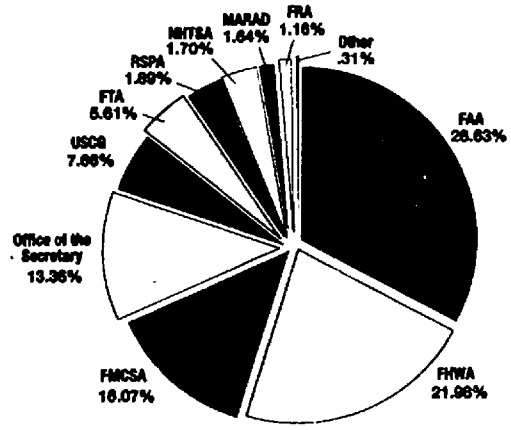
Application of Audit Resources by Operating Administration
April 1, 2000 - September 30, 2000



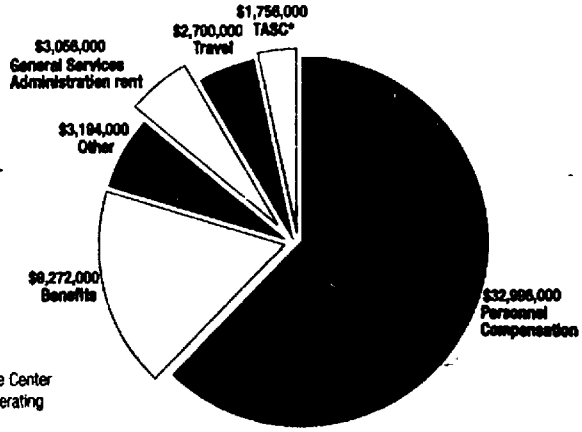
Note: Resources shown for OST include time spent performing the financial statement audit of DOT which includes all OAs.

Time expended on SLSDC, STB and BTS was less than 1 percent.

Application of Investigative Resources by Operating Administration



OIG Fiscal Year 2001 Budget
Total: $52,974,000



*The Transportation Administrative Service Center provides reimbursable services to DOT operating administrations.

Completed Audits April 1, 2000-September 30, 2000

(Dollars in Thousands)

Reported Amounts*

Type of Review	Number of Reports	Number of Recommendations	Costs Questioned	Costs Unsupported	Funds That Could Be Put To Better Use
Internal Audits:					
Program/Functional	34	79	$0	$0	$749,400
Chief Financial Officer					
Financial Statements	0	0	$0	$0	$0
Total Internal Audits	34	79	0	0	$749,400
Grant Audits:					
Audits of Grantees under Single Audit Act	19	11	$805	$0	$0
Other Grant Audits	0	0	$0	$0	$0
Total Grant Audits	19	11	$805	$0	$0
TOTALS	53	90	$805	$0	$749,400

* The dollars shown are the amounts reported to management. The actual amounts may change during final resolution.

Department of Transportation programs and operations are primarily carried out by the Department's own personnel and recipients of federal grants. Audits by DOT's Office of Inspector General, as a result, fall into 3 categories: internal audits of Departmental programs and operations, audits of grant recipients, and reviews of work and spending by contractors. The table above shows OIG's results in the 3 categories for the 6 months covered by this report.

Management Decisions Regarding Audit Recommendations

(Dollars in Thousands)

	Number of Reports	Number of Recommendations	Questioned Costs	Unsupported Costs*	Funds to be Put to Better Use
	39	111	$276	0	$137,702
	26	90	$805	0	$749,400
	65	201	$1,081	0	$887,102
	30***	82	$184	0	0
	15***	50	$470	0	$749,400
	45	132	$654	0	$749,400
	25	69	$427	0	$137,702
	12	40	$336	0	0
	9	19	$91	0	$136,000
	2	3	0	0	0
	2	7	0	0	$1,702
	0	0	0	0	0
	25	69	$427	0	$137,702

*Unsupported costs included with the figure shown as questioned costs.

**Considered unresolved if management decisions have not been made on all report recommendations.

***Includes some reports and recommendations where costs were both allowed and disallowed.

Audit Reports with Recommendations That Questioned Costs

(Dollars in Thousands)

	Number of Reports	Number of Recommendations	Questioned Costs	Unsupported Costs*
A. For which no management decision had been made by start of the reporting period	12	17	$276	0
B. Which were issued during the period	5	5	$805	0
Totals (A+B)	17	22	$1,081	0
C. For which a management decision was made during the reporting period	14	17	$654	0
(i) dollar value of disallowed costs	7**	8***	$506****	0
(ii) dollar value of costs not disallowed	9**	10***	$341	0
D. For which no management decision has been made by the end of the reporting period	4	5	$427	0

The Inspector General Act requires explanations of reasons for significant revisions to management decisions made during the reporting period. OIG follows up on audits reported in earlier semiannual reports. During this reporting period, there were no significant revisions of Departmental management decisions reported to OIG.

The Inspector General Act also requires this report to describe any significant management decision with which the Office of Inspector General disagrees. At the close of this reporting period, there were no significant management decisions with which OIG disagreed.

*Unsupported costs are also included in the figures shown as questioned costs.

** Includes reports in which costs were both allowed and disallowed.

*** Includes recommendations in which costs were both allowed and disallowed.

**** Management committed to an amount greater than that recommended.

udit Reports with Recommendations that Funds be Put to Better Use

(Dollars in Thousands)

	Number of Reports	Number of Recommendations	Better Value ($ thousands)
A. For which no management decision had been made by the commencement of the reporting period	3	3	$137,702
B. Which were issued during the reporting period	2	2	$749,400
TOTALS (A+B)	5	5	$887,102
C. For which a management decision was made during the reporting period	2	2	$749,400
(i) dollar value of recommendations that were agreed to by management	2	2	$749,400
(ii) dollar value of recommendations that were not agreed to by management	0	0	0
D. For which no management decision had been made by the end of the reporting period	3	3	$137,702

Audit Reports Recommending Changes for Safety, Economy or Efficiency

	Number of Reports	Number of Recommendations
A. For which no management decision had been made by the commencement of the reporting period	36	91
B. Which were issued during the reporting period	20	83
TOTALS: (A + B)	56	174
C. For which a management decision was made during the reporting period	38	113
D. For which no management decision has been made by the end of the reporting period	22	61

'atus of Unresolved Audit Recommendations Over 6 Months Old

CITED IN SEMIANNUAL REPORT FOR OCTOBER 1, 1998-MARCH 31, 1999

Motor Carrier Program for Commercial Trucks at U.S. Borders by the Office of the Secretary	TR-1999-034	12/28/98	Working with OST and FMCSA to resolve all open items
Deployment of EDS, FAA	AV-1999-001	10/06/98	Working with FAA to resolve all open items

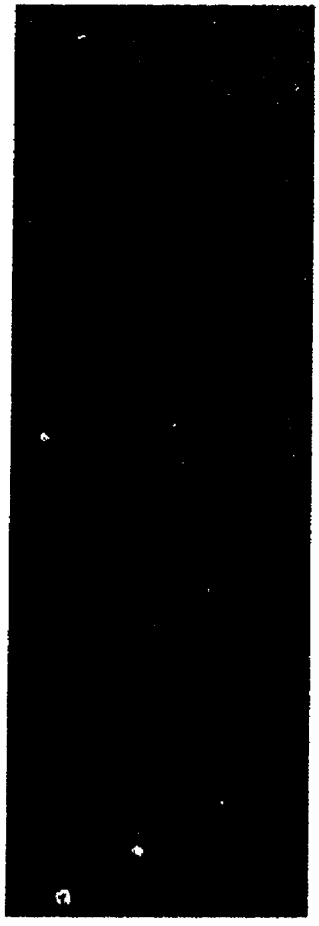
CITED IN SEMIANNUAL REPORT FOR APRIL 1, 1999-SEPTEMBER 30, 1999

Independent Assessment of Amtrak	CR-1999-116	7/21/99	Working with Amtrak to resolve all open issues
Motor Carrier Safety Program	TR-1999-091	4/26/99	Working with FMCSA to resolve all open issues

CITED IN SEMIANNUAL REPORT FOR OCTOBER 1, 1999-MARCH 31, 2000

Follow-up Review on the Progress of the Los Angeles Metro Rail Red Line	RT-2000-073	3/24/00	Will be resolved during first quarter of FY 2001
e Coast Guard's Planning Process for ...as Deepwater Replacement Project	MA-2000-065	3/09/00	Working with USCG to resolve all open issues
City of New York	QC-2000-027	12/21/99	Working with FHWA to resolve all open issues
Baseline Review of the St. Clair Extension, Federal Transit Administration	RT-2000-025	12/17/99	Will be resolved during first quarter of FY 2001
Airport Access Control, Federal Aviation Administration	AV-2000-017	11/18/99	Working with FAA to resolve all open issues
Cost Allocations by the Transportation Administrative Service Center	MA-2000-015	11/05/99	Working with TASC to resolve all open issues
ATA Foundation Affiliate	QC-2000-006	10/25/99	Working with FHWA to resolve all open issues
Suburban Mobility Authority for Regional Transportation	QC-2000-007	10/25/99	Will be resolved during first quarter of FY 2001
Review of the Alameda Corridor Project Federal Highway Administration, Federal Railroad Administration	TR-2000-004	10/22/99	Working with FHWA and FRA to resolve all open items

Profile of Pending Investigations



DOT Operating Administration	Number of Cases	Types of Cases					
		Contracts/ Grants	Employees	Aviation Safety	Motor carrier Safety	HazMat	Other*
	43		10		0		7
	185		31		0		62
	105		7		6		40
	8		0		0		3
	26		0		0		3
	7		1		0		3
	85		1		38		24
	10		3		0		4
	19		0		0		2
	12		6		0		6
	2		0		0		1
	502		59		44		155
	100		11		9		31

*Includes, for this reporting period, categories such as bribery/gratuities, motor fuel excise tax evasion and graft.

Investigations

Judicial Actions
April 1, 2000-September 30, 2000

Indictments	
Convictions	
Years Sentenced	
Years Probation	
Supervised Release	
Hours of Community Service	
Fines	11
Restitutions/Civil Judgments	9
Federal Recovery	6
State Recovery	
TOTAL	19

investigations in this report-
ered $40,156,119
including fines, resti-
judgments or settle-
federal and state recov-
recoveries go to the
state recoveries are
this states.

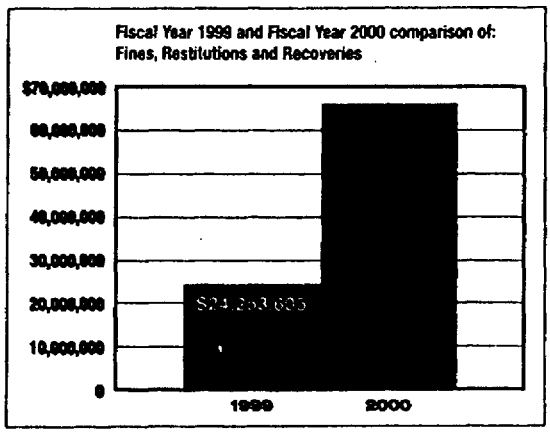
The 6 month
report opened
load of 491.
117 cases were
were closed,
load of 502.

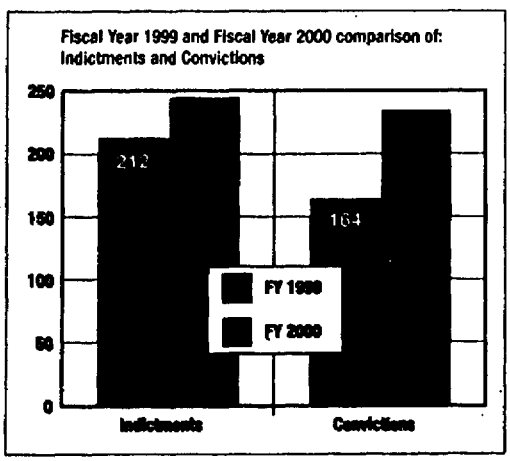
During the per
not accepted
17 were decli
of cases pend
of Septembe

Administrative Actions
April 1, 2000-September 30, 2000

Employee Suspensions	
Employee Terminations	
Employee Resignation/Retirements	
Employee Reprimand	
Employee Counseled	
Debarments/Suspensions	
Other Corrective Action	
Regulation/rule revised	
TOTAL	1

**These figures include action on cases referred during prior reporting periods.





List of Acronyms Found In This Report:

ATC	Air Traffic Control
BTS	Bureau of Transportation Statistics
CDL	Commercial Driver's License
DBE	Disadvantaged Business Enterprise
DCIS	Defense Criminal Investigative Service
FAA	Federal Aviation Administration
FBI	Federal Bureau of Investigations
FMCSA	Federal Motor Carrier Safety Administration
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
INS	Immigration and Naturalization Service
MARAD	Maritime Administration
NDRF	National Defense Reserve Fleet
NASA	National Aeronautics and Space Administration
NHTSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
OIG	Office of the Inspector General
OST	Office of the Secretary
RSPA	Research and Special Programs Administrations
SLSDC	St. Lawrence Seaway Development Corporation
STD	Surface Transportation Board
TASC	Transportation Administrative Service Center
USCG	United States Coast Guard

PCIE Awards

Established by executive order in 1981, the President's Council on Integrity and Efficiency (PCIE) is comprised of all Presidentially-appointed Inspectors General as well as the director of the Office of Government Ethics, special counsel of the Office of Special Counsel, the Federal Bureau of Investigations, and the deputy director of the Office of Management and Budget (OMB).

The PCIE is charged with conducting interagency and inter-entity audit, inspection and investigation projects to effectively and efficiently deal with government-wide issues of fraud, waste and abuse. On September 29, numerous members of the DOT-OIG team, as well as individuals from other agencies working with DOT-OIG were honored by their peers at an awards ceremony in Washington, DC.

The following employees received AWARDS FOR EXCELLENCE:

Runway Incursion Team

■ *In recognition of significant contributions made in evaluating and improving FAA's Runway Incursion Program.*

Richard A. Kaplan **Kevin Dorsey** **Robert L. Drake**

Aviation Safety Team

■ *In recognition of outstanding performance, dedication, and contribution to a major Congressional, Department and public transportation issue, improving aviation security.*

Robin K. Hunt	**A. Robert Lund**	**Humberto U. Melara**	**Judy W. Nadel**
Robert Y. Lee	**Paul Nagulko**	**Scott C. Seaborn**	**James H. Yeager**
Lisa H. Stone	**Kim P. Tieu**	**James K. Wahlelthner**	**Gerald L. Blumenthal**

Suspected Unapproved Aviation Parts Team

■ *In recognition of outstanding joint criminal investigation by three OIGs in the area of suspected unapproved aviation parts.*

Paul L. Blake **Fred Cosby** *(DCIS)* **Keith Tate** *(NASA)*

AWARD FOR EXCELLENCE — EVALUATION:

Hazardous Materials Program Evaluation Team

■ *In recognition of outstanding efforts in performing the Department-wide evaluation of DOT's Hazmat Program.*

Jackie A. Goff	**Edward M. Stulginsky**	**Greggory S. Bond**	**Kirk A. Gillett**
George A. Whitney *(RSPA)*	**Delmer F. Billings** *(RSPA)*	**Mark Lendvay** *(FAA)*	**Raymond Kasey** *(FRA)*
Curnis King *(FMCSA)*	**Capt. Geoffrey Powers** *(USCG)*	**Mark R. Dayton**	**Bahar Barami** *(VOLPE)*

AWARD FOR EXCELLENCE — MULTIPLE DISCIPLINE

National Transportation Safety Board Team

■ *In recognition of the thorough and well-coordinated audit and investigations of internal controls for the National Transportation Safety Board's check writing program. This joint effort identified fraud, abuse, and mismanagement, prompting swift and comprehensive corrective actions.*

Stephen J. Rybicki, Theodore M. Kilby, Jr., Keith A. Bonanno, Christopher R. Smith, George C. Hardin, Harry Schaefer, Richard C. Beitel, Jr., Eric A. Johnson, Ray Sanchez, Kevin P. Trebel

AWARD FOR EXCELLENCE — LAW AND LEGISLATION

Motor Carrier Safety Team

■ *For the dedication and perseverance exhibited to ensure audit recommendations resulted in timely legislative actions to improve highway safety.*

Barbara M. Cobble, Joseph W. Come, Margaret Uckert, Al J. Ruth, Kerry R. Barras, James W. Bess, David W. Brown, Carl H. Hamilton, Ann Kruszewski, Harriet E. Lambert, Kristen Massey, Frank H. Ochs, Petra Rose, Al J. Ruth, William E. Savage, Al Schenkelberg, Maurice Toval, Brian A. Dettelbach

AWARD FOR EXCELLENCE — MANAGEMENT AND ADMINISTRATIVE SERVICE

Y2K Team

■ *For outstanding leadership in auditing Y2K issues within the U.S. Department of Transportation.*

John L. Meche, Rebecca C. Leng, Phillip J. DeGonzague, Karl M. Beitel, Nathan J. Custer, Clarence S. Fujimoto

JOINT AWARD — INDIVIDUAL ACCOMPLISHMENT

■ *In recognition of his tireless efforts to advance, and enhance the legislative work of the PCIE/ECIE*

Brian A. Dettelbach

AWARD FOR EXCELLENCE — INDIVIDUAL ACCOMPLISHMENT

■ *In recognition of outstanding effort conducting criminal investigations of hazardous material violations in the aviation industry.*

Barbara Porraspita

CAREER ACHIEVEMENT AWARD

■ *For superior leadership and career contributions to the Inspector General community.*

Raymond J. DeCarli

AWARD FOR EXCELLENCE — JOINT AWARD

The DOT Members of the Cross Agency Team

■ *For superior efforts in establishing the "Business Side" of IGNET and improving communications among members of the IG community.*

Jeffrey W. Davis, Brian A. Dettelbach

Office of Inspector General Audit Reports

April 1, 2000-September 30, 2000

FEDERAL AVIATION ADMINISTRATION
INTERNAL AUDITS - 6 reports

REPORT	DATE	SUBJECT	FOCUS OF REPORT/ RECOMMENDATIONS:
AV-2000-127	09/28/00	•Technical Support Services Contract	Better management oversight and sound business practices needed
AV-2000-110	08/29/00	•Survey of the FAA's Integrated Product Development System (IPDS)	Improve the effectiveness of IPDS team operations
AV-2000-102	06/21/00	•Interim Report on Airline Customer Service Commitment Plan	Improve passenger service
AV-2000-095	05/15/00	•FAA's Use of RTCA, Inc. as an Advisory Committee	Strengthen FAA's use of advisory committee
FE-2000-087	04/27/00	•Proposed Rulemaking on Collection Costs Associated with Passenger Facility Charges	Perspectives on airlines' cost to collect PFC's
AV-2000-079	04/12/00	•Contract Towers: Observations on FAA's Study of Expanding the Program	Revise draft study of expanding the Contract Tower Program

GRANT AUDIT — POST-AWARD - 4 reports

QC-2000-114	02/29/00	•City and County of Denver, CO	$335,822 questioned costs
QC-2000-083	05/23/00	•Rhode Island Airport Corporation	Improve grantee ovesight
QC-2000-077	04/04/00	•Gulfport-Biloxi Regional Airport Authority	$144,893 questioned costs
QC-2000-105	06/21/00	•City of St. Louis, MO	Improve grantee ovesight

OTHER - 2 reports

AV-2000-113	07/26/00	•Observations of FAA's Satellite Navigation Efforts	Testimony before Congress
AV-2000-076	04/06/00	•Aviation Security Hearings	Testimony before Congress

Office of Inspector General Audit Reports

April 1, 2000-September 30, 2000

FEDERAL HIGHWAY ADMINISTRATION
INTERNAL AUDITS - 2 reports

REPORT	DATE	SUBJECT	FOCUS OF REPORT/ RECOMMENDATIONS:
TR-2000-090	05/09/00	•Review of Alternative Fuel Vehicles Purchased with Congestion Mitigation and Air Quality Improvement Funds	Improve information
TR-2000-088	05/07/00	•Central Artery/Ted Williams Tunnel Project Highlights Need for Effective Federal Oversight	$714,000,000 Better use

GRANT AUDIT - POST-AWARD - 5 reports

QC-2000-101	05/30/00	•State of Arizona	$310,877 questioned
QC-2000-078	04/04/00	•Grand Valley Metropolitan Council	$13,820 questioned
QC-2000-115	08/18/00	•Southern California Association of Governments	Improve grantee oversight
QC-2000-116	08/18/00	•State of Conneticut	Improve grantee oversight
QC-2000-117	08/18/00	•State of Rhode Island	Improve grantee oversight

FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION
INTERNAL AUDITS - 1 report

MH-2000-106	06/30/00	•Disqualifying Commercial Drivers	Improve safety

FEDERAL RAILROAD ADMINISTRATION
INTERNAL AUDITS - 2 reports

CR-2000-121	09/19/00	•2000 Assessment of Amtrak's Financial Performance and Requirements	Implement major corrective actions to its strategic business plan
RT-2000-081	04/19/00	•Pennsylvania Station Redevelopment Project	Improve oversight and fund safety needs

MARITIME ADMINISTRATION
INTERNAL AUDITS - 3 reports

MA-2000-097	06/21/00	•Limited Progress in Disposing of Obsolete Vessels	Enviromental protection
MA-2000-096	05/12/00	•Report on Ready Reserve Force Ship Managers' Contracts	Improve financial controls
MA-2000-123	09/26/00	•Follow-up of Audit Payments Under the Maritime Security Program	Improve financial controls

OTHER
INTERNAL AUDITS - 1 report

MA-2000-093	06/21/00	•Reauthorization of Maritime Administration	Testimony before Congr.

Office of Inspector General Audit Reports

April 1, 2000-September 30, 2000

OFFICE OF THE SECRETARY OF TRANSPORTATION

INTERNAL AUDITS - 9 reports

REPORT	DATE	SUBJECT	FOCUS OF REPORT/ RECOMMENDATIONS:
FI-2000-125	09/25/00	•Inactive Obligations on Contracts	$35,400,000 Better use
FI-2000-124	09/25/00	•Headquarters Computer Network Security	Improve security
FI-2000-119	09/08/00	•Third Interim Report on Travel Policies and Practices of Political Appointees	Reporting of travel and campaigning
CR-2000-112	07/24/00	•Air Carrier Flight Delays and Cancellations	Improve data collection
FI-2000-107	07/14/00	•Second Interim Report on Travel Policies and Practices of Political Appointees	Reporting of travel and campaigning
FI-2000-108	07/13/00	•Interim Report on Computer Security	Improve computer security
MH-2000-109	07/20/00	•The Department of Transportation's Rulemaking Process, Department wide	Improve rulemaking
FE-2000-089	05/01/00	•Interim Report on Travel Policies and Practices of Political Appointees	Reporting of travel and campaigning
-2000-080	04/11/00	•Use of Funds for the Year 2000 Computer Program	Proper use of funds

OTHER - 1 report

CR-2000-111	07/20/00	•Internet Sales of Airline Tickets	Testimony before Congress

UNITED STATES COAST GUARD

INTERNAL AUDITS - 2 reports

MA-2000-084	04/20/00	•Audit of the Performance Measure for the Recreational Boating Safety Program	Improve boating safety data
MH-2000-128	09/29/00	•Coast Guard Program for Overseeing Passenger Ferry Safety	High level of compliance with regulations found

FEDERAL TRANSIT ADMINISTRATION

INTERNAL AUDITS - 3 reports

RT-2000-085	04/21/00	•Bay Area Rapid Transit District Extension to San Francisco International Airport	Financial Plan reasonable
RT-2000-091	05/08/00	•Report on the Financial Plan for the Tren Urbano Rail Transit Project	Financial Plan reasonable
FE-2000-098	05/23/00	•Computer Security Controls of Financial Management System	Improve computer security

Office of Inspector General Audit Reports

April 1, 2000-September 30, 2000

GRANT AUDITS — POST-AWARD - 10 reports

REPORT	DATE	SUBJECT	FOCUS OF REPORT/ RECOMMENDATIONS:
QC-2000-082	04/13/00	• Metropolitan Atlanta Rapid Transit Authority	Improve grantee oversight
QC-2000-085	04/21/00	• San Francisco Bay Area Transit Authority	Improve grantee oversight
QC-2000-094	05/23/00	• Pioneer Valley Transit Authority	Improve grantee oversight
QC-2000-099	05/25/00	• Bi-State Development Agency	Improve grantee oversight
QC-2000-100	05/30/00	• City of Seattle, WA	Improve grantee oversight
QC-2000-103	06/21/00	• Santa Clara Valley Transportation Authority	Improve grantee oversight
QC-2000-104	06/21/00	• Kansas City Area Transportation Authority	Improve grantee oversight
QC-2000-120	07/18/00	• Regional Transit District	Improve grantee oversight
QC-2000-118	08/29/00	• Utah Transit Authority	Improve grantee oversight
QC-2000-126	09/28/00	• Chicago Transit Authority	Improve grantee oversight

BUREAU OF TRANSPORTATION STATISTICS
OTHER REPORTS - 1 report

CR-2000-122	09/15/00	• Flight Delays and Cancellations	Testimony before Congress

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
OTHER REPORTS - 1 report

RT-2000-069	03/13/00	• Pipeline Safety Program	Testimony before Congress
RT-2000-092	05/11/00	• Reauthorization of the Pipeline Safety Program	Complete rulemaking and improve oversight

Office of Inspector General — Other Congressional Testimonies

April 1, 2000-September 30, 2000

INTROL NO.	DATE	SUBJECT	BEFORE
FEDERAL AVIATION ADMINISTRATION			
CC-2000-380	10/05/00	• Observation on FAA and Industry Efforts to Address Concerns about Aircraft Wiring	Subcommittee on Oversight, Investigations and Emergency Management Committee on Transportation and Infrastructure, House of Representatives
CC-2000-359	06/26/00	• Observations on FAA's Satellite Navigation Efforts	Subcommittee on Aviation of the House Committee on Transportation and Infrastructure
CC-2000-079	06/28/00	• Airline Customer Service Commitment	Senate Committee on Commerce, Science and Transportation
CC-2000-356	09/14/00	• Flight Delays and Cancellations	Senate Committee on Commerce, Science and Transportation
CC-2000-303	07/25/00	• Air Carrier Flight Delays and Customer Service	Subcommittee on Transportation and Related Agencies of the Senate Appropriations Committee
CC-2000-111	07/20/00	• Internet sales of airline tickets	Senate Committee on Commerce, Science and Transportation
C-2000-076	04/06/00	• Aviation Security	Subcommittee on Aviation of the Senate Commerce, Science and Transportation Committee
OFFICE OF SECRETARY OF TRANSPORTATION			
CC-2000-359	09/27/00	• Computer Security Within the U.S. Department of Transportation	House of Representatives Committee on Science
FEDERAL RAILROAD ADMINISTRATION			
CC-2000-351	09/26/00	• Assessment of Amtrak's Financial Performance and Requirements	Senate Committee on Commerce, Science, and Transportation
MARITIME ADMINISTRATION			
MA-2000-097	06/09/00	• Maritime Administration: Disposal of obsolete ships	Budget Committee Task Force on Housing and Infrastructure, U.S. House of Representatives
MA-2000-097	05/24/00	• Maritime Administration: Limited Progress in Disposing of Obsolete Vessels	Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure
FEDERAL HIGHWAY ADMINISTRATION			
TR-2000-088	05/03/00	• Central Artery/Ted Williams Tunnel Project Highlights Need for Effective Federal Oversight	Senate Committee on Commerce, Science, and Transportation
ATIONAL TRANSPORTATION SAFETY BOARD			
ntsbrapid	04/13/00	• National Transportation Safety Board — Rapidraft Payment System	Budget Committee Task Force on Housing and Infrastructure, U.S. House of Representatives

Semiannual Report to the Congress

Office of Inspector General

U.S. Department of Transportation

October 1, 1999-March 31, 2000

From the Inspector General

Safety, Efficiency, Mobility. These are key Strategic Goals of the Department of Transportation (DOT), that identify with major accomplishments of DOT's Office of Inspector General in the 6-month period ending March 31, 2000.

The Office of Inspector General (OIG) issued 75 audits on transportation issues during that period, and also presented testimony before Congress on 13 occasions. Topics of testimony included Federal Aviation Administration (FAA) safety, security and modernization; motor-carrier safety; oversight of transportation infrastructure projects, and Amtrak's financial outlook.

Though a great deal of our work is motivated by the promotion of safety, one recent action by Congress speaks directly to that effort: the creation of the new Federal Motor Carrier Safety Administration. With more than 5,000 lives lost per year in the United States in accidents involving large trucks, OIG advised Congress that safety oversight would be strengthened by creation of a new DOT agency dedicated to truck and bus safety.

In the area of efficiency, DOT, the FAA and the Highway Trust Fund have received unqualified, or "clean," audit opinions on their FY 1999 financial statements. Government agencies have been required to perform businesslike accounting in the wake of the 1990 Chief Financial Officers Act. But many agencies, not having had to carry out such functions previously, lacked records or systems to help them balance their books. DOT deserves credit for the hard work that led to its unqualified opinions, but more remains to be done. At the FAA, putting in place a state-of-the-art cost-accounting system would avoid a repeat of the labor-intensive, costly work that made the latest accounting opinion possible.

In the interest of mobility and accountability, OIG has continued its reviews of billion-dollar-plus infrastructure "Megaprojects," including the Boston Central Artery/Ted Williams Tunnel project. Major cost overruns on this most expensive infrastructure project in U.S. history—with a current estimated cost of up to $13.6 billion—have made the Central Artery an object example of the need for strong federal oversight. OIG has been in the forefront of work to identify true costs and recommend tighter oversight of the project.

In addition to OIG's audit work—which resulted in $759.9 million in total financial recommendations—OIG's investigative staff joined other federal agencies and law-enforcers in laying groundwork for 140 indictments and 140 convictions, and $28.4 million in fines, restitutions and recoveries. In the interest of crime detection and—if possible—prevention, OIG is expanding its investigative initiatives against fraud on infrastructure projects, illegal transport of hazardous materials, and trafficking in unapproved aircraft parts.

Kenneth M. Mead

Summary of Performance
Office of Inspector General
October 1, 1999-March 31, 2000

Reports Issued 75

Total financial recommendations $759,939,000

—That funds be better-used $759,600,000

—Questioned costs $ 339,000

Referrals for prosecution 162

Cases accepted for prosecution 126

Indictments 140

Fines, restitutions, recoveries $ 28,412,241

Convictions 140

Contract terminations/debarments 7

Actions affecting DOT employees 22

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Audits and Investigations

The Office of Inspector General includes a staff of auditors and evaluators who review the programs and operations of the U.S. Department of Transportation to help its managers, and Congress, improve them. Some audits focus on financial issues; others review the effectiveness of programs. The Inspector General's staff also includes investigators who build criminal cases against lawbreakers—such as trucking firms that force drivers to work too many hours without rest, haulers who illegally transport hazardous materials, vendors who traffic in illegal, unapproved aircraft parts and Department staff who violate public trust.

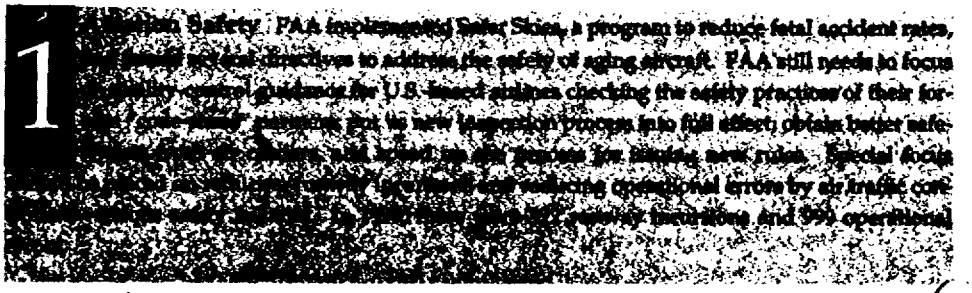
Many factors go into determining what to audit. Some audits are required by law. Others are requested by key decisionmakers, such as the Secretary of Transportation, heads of the operating administrations within DOT or Members of Congress. The OIG audit agenda is also based on the past experience of an audited entity, the strategic goals of DOT, and priorities established each year by OIG itself. The Inspector General Act requires the Department to provide the inspector general with all requested information and for the IG to report any instance in which access was denied. No information requested by OIG was withheld by DOT officials during the 6 months covered in this report; however, we had difficulty obtaining accurate, timely information about the Boston Central Artery/Ted Williams Tunnel project from State of Massachusetts officials during the period (see page 30).

Information for OIG investigations also comes from many areas. DOT's operating administrations and state government officials will refer tips or information about suspicious activity to OIG special agents for investigation. Those agents, often with assistance from other law-enforcement agencies, build the cases.

Another source of investigative direction is the Office of Inspector General hotline, an "800" number that lets citizens—including federal workers—have direct access to OIG staff. The number is **1-(800)-424-9071**. Hotline users are not obliged to disclose their identities and "whistle-blowers" within the government are protected from reprisal by federal law. The hotline staff now can be e-mailed at **hotline@olg.dot.gov**

Focus:

OIG prepared a summary of the 12 most pressing management issues in the Department of Transportation at the request of the Senate Governmental Affairs and Budget Committees, the House Majority Leader and the House Government Reform and Budget Committees. The issues are:



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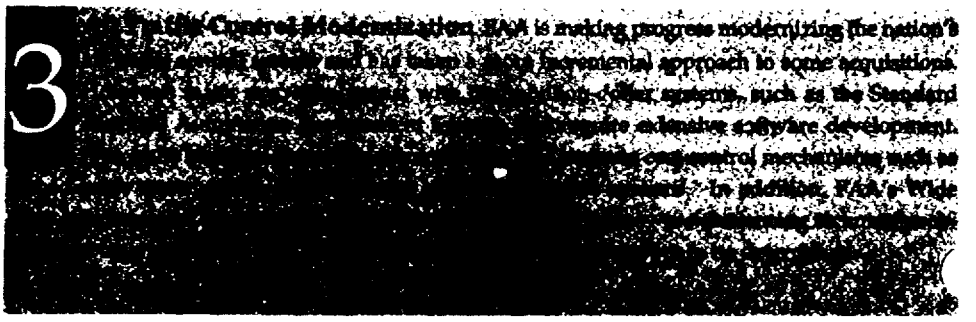
2 **Surface Transportation Safety** Congress created a new Federal Motor Carrier Safe(Administration. In response, the Department set a goal of reducing, by half, deaths in crashes involving large trucks within a decade, and added truck inspectors at the U.S.-Mexico border. Better data are needed in truck-safety oversight, and regulators' willingness to sanction—including stronger use of shutdown orders against unsafe motor carriers—must be made clear. More foreign trucks need to be inspected and sanctions need to be increased against those found unsafe; oversight of truckers' hours and commercial drivers' licensure needs tightening; programs that prevent crashes involving trains and cars need greater emphasis, and pipeline-safety programs should be strengthened.



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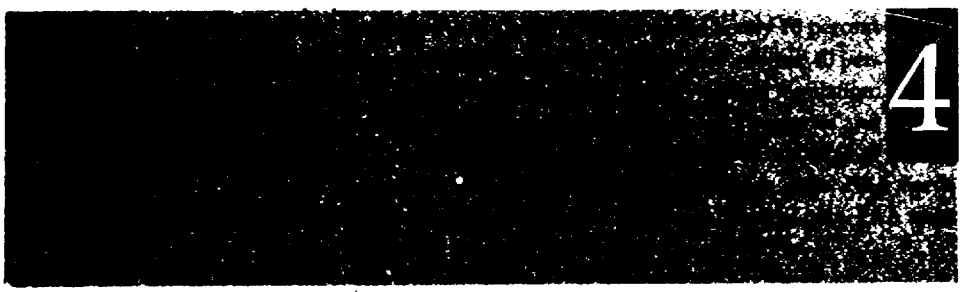
DOT's Top 12 Issues



urface, Marine, and Airport Infrastructure In FY 2000, there will be multi-billion dollar spending on surface, marine, and airport infrastructure. DOT has taken steps to improve oversight of large infrastructure projects, but more needs to be done. This was highlighted when managers of Boston's Central Artery project withheld information from FHWA about $1.4 billion in cost overruns. Federal grantors must demand complete, accurate data to ensure federal funds are properly used. The Department must strengthen internal controls to ensure project cost estimates are accurate; establish criteria to ensure finance plans are complete; promote "best practices" identified through experience; and take action to deobligate unneeded funds annually. Anti-fraud measures and compliance reviews should also be stepped up.

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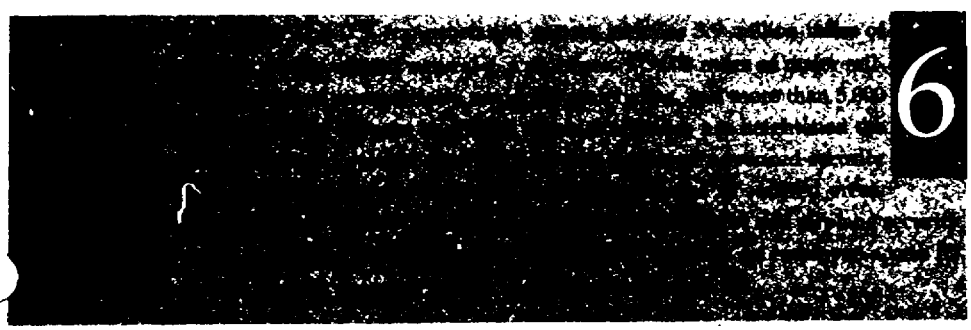
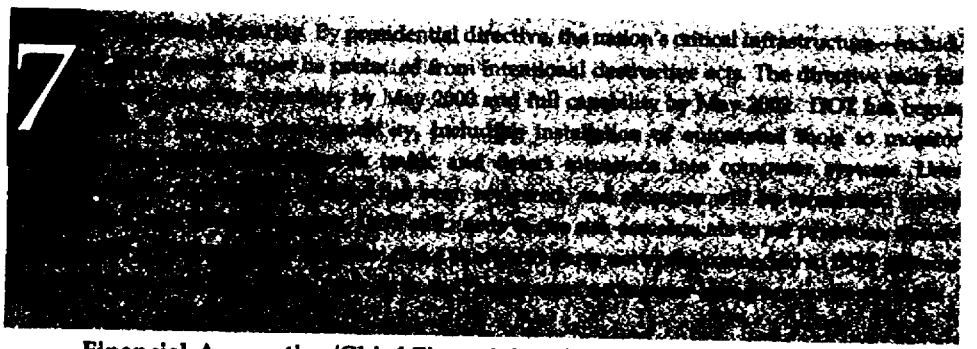
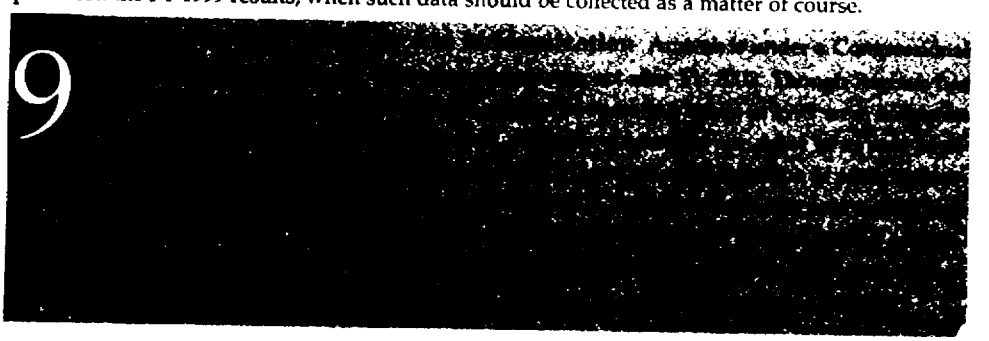


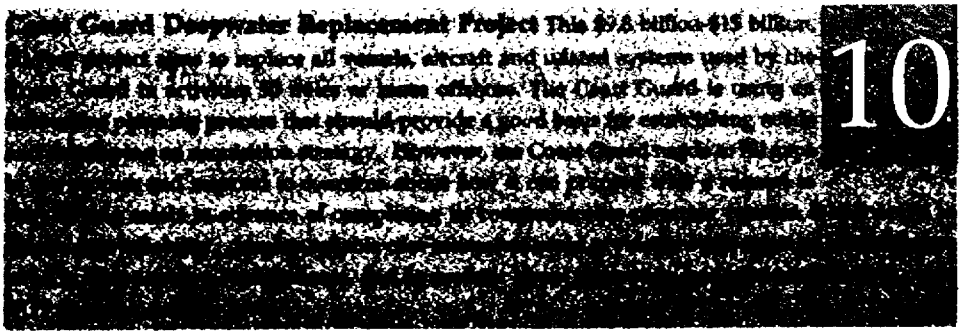
Focus:



Financial Accounting/Chief Financial Officers Act DOT has prepared consolidated financial statements since 1996, when new federal laws spurred government agencies to function in a more businesslike fashion. But DOT had not yet received an unqualified ("clean") audit opinion on its statements, largely due to weaknesses in some property an equipment accounts. Significant progress was made in FY 1999, which resulted in a clean opinion on FY 1999 financial statements. These statements show DOT had assets of $76 billion, liabilities of $30 billion, and operating costs of $42 billion. DOT still needs to make major improvements in its accounting systems. DOT should acquire a state-of-the-art management and accounting system and institute integrated property management at FAA. Lacking such improvements, DOT will need to continue the costly, labor-intensive—and in the long-term, unsustainable—effort that produced the FY 1999 results, when such data should be collected as a matter of course.



DOT's Top 12 Issues



MARAD's Ship-Scrapping Program The Maritime Administration currently has 110 obsolete ships, and 88 of them are deteriorating and need to be scrapped to prevent release of such hazardous materials as fuel oil, asbestos, polychlorinated biphenyls, lead, radium and chromates into the waters where they are moored. In the past, MARAD sold many such ships internationally, but that practice has halted. Sales of ships for scrapping have declined because the market is limited—the Navy is paying U.S. scrappers to take defunct warships. MARAD will not be able to meet a requirement that it scrap at a profit in 2001. MARAD's legal requirements need to be loosened, and it will need authorization and funding to pay for the disposal of its vessels.

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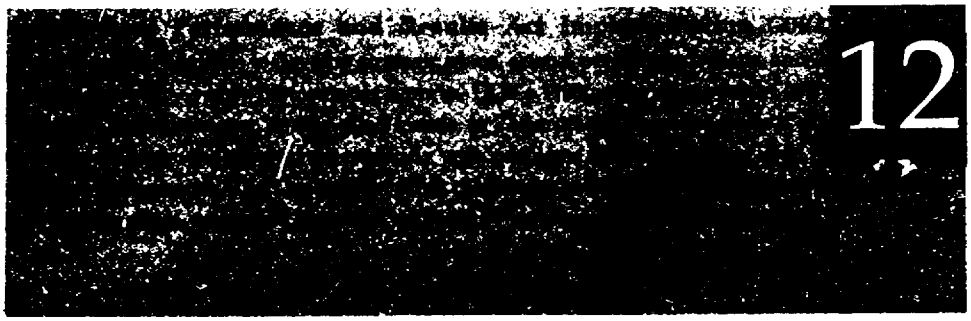


Focus:

Objective: Helping the Department of Transportation present businesslike accounts

Department of Transportation, Highway Trust Fund, Federal Aviation Administration achieve "clean" audit opinions on FY 1999 financial statements

Early in the year 2000, after 9 years of hard work, the Department of Transportation, including the Highway Trust Fund and the Federal Aviation Administration, posted significant accomplishments in financial management by achieving unqualified, or "clean," audit opinions on their financial statements. These statements show DOT had assets of $76 billion, liabilities of $30 billion, operating costs of $42 billion, and total budget authority of $57 billion. However, to avoid repeating the costly and extraordinary effort needed to achieve this worthy goal, DOT needs to put state-of-the-art accounting systems in place.

Financial accounting that meets businesslike standards is now a requirement for federal agencies, since the 1990 passage of the Chief Financial Officers Act and the 1994 adoption of the Government Management Reform Act. Under these laws, annual financial statements have been produced by DOT since FY 1996. The Office of Inspector General audits these statements and delivers an audit opinion on the reliability of the information they contain and whether the statements were created in conformance with generally accepted accounting principles.

In earlier years, OIG found deficiencies in the financial statements of the Department overall, particularly in the property and inventory accounting of the FAA and the U.S. Coast Guard. Starting in FY 1997, we urged FAA and the U.S. Coast Guard to establish accurate records of their property and inventory, which they estimated to be worth $25 billion. That year we also issued a qualified opinion on the Highway Trust Fund, largely due to a problem outside DOT's control—the inability of the Department of the Treasury to verify excise-tax revenues that go into that fund. Each year since then the agencies made progress toward a "clean" audit opinion. But until this year, that distinction was withheld from the Departmental and FAA financial statements.

Financial Statements

Due to concerted effort and cooperation, DOT, the Highway Trust Fund and the FAA earned unqualified audit opinions on their FY 1999 financial statements. We found that the three entities' balance sheets, statements of net cost, statements of changes in net position, statements of budgetary resources, and statements of financing were fairly presented in all material respects and conformed with generally accepted accounting principles. Further, sufficient evidence was offered to support all material line-items. Though we identified weaknesses, they were not so significant as to prevent the overall "clean" designations.

OIG's audits of the FAA's financial statements for FY 1999 and our audit of FAA's property, plant and equipment similarly found documentation adequate and accounting approaches reasonable. However, more work is needed. We urged FAA, which also is developing a cost-accounting system, to make financial management-system improvements to avoid the future need for the extraordinary, expensive, and labor-intensive documentation that made this unqualified opinion possible.

Focus:

Objective: to ensure public safety when hazardous materials are transported by land, sea, and air

Hazmats highlighted in work of special team, three investigations

A substantial portion of the work done by Office of Inspector General auditors and investigators involves hazardous materials, or "hazmats." In the U.S., there are about 300 million shipments a year of substances that could pose a threat to public health or safety if improperly handled. Toxic or potentially explosive or flammable substances are used for legitimate purposes every day, but must be moved from their makers to their users in keeping with federal regulations governing proper packaging, labeling, handling, and storage. Violation of these regulations can have tragic consequences.

DOT's Hazmat Program Evaluation

For a year, a team including OIG auditors and staff of the U.S. Coast Guard, the Federal Aviation Administration, the Federal Motor Carrier Safety Administration, the Federal Railroad Administration and the Research and Special Programs Administration analyzed DOT programs involving hazardous materials transportation and the effectiveness of those programs, as called for in the Department's Strategic Plan.

The team found:

—that no organization in the Department was responsible for coordinating and overseeing the hazmat programs of the five operating administrations with hazmat responsibilities.

—that originators of hazardous-materials shipments need more attention, DOT-wide, because they offer the greatest opportunity to improve safety.

—that DOT has not changed the trend of human error being the greatest contributing factor in hazardous-materials incidents.

—that DOT lacks reliable, accurate, and timely data to measure program effectiveness and make informed program-delivery and resource decisions.

The team recommended establishing a new institutional authority in the Department to act as a focal point to administer and deliver a DOT-wide hazardous-materials program. The authority should address intermodal and cross-modal issues to provide more effective use of resources. Further, the team recommended that hazmat shippers receive closer scrutiny, that training standards be strengthened to improve safety practices, and that data-collection and analysis be improved to make the data more useful. The full report is available on the Internet at *http://hazmat.dot.gov/hmpe.htm*

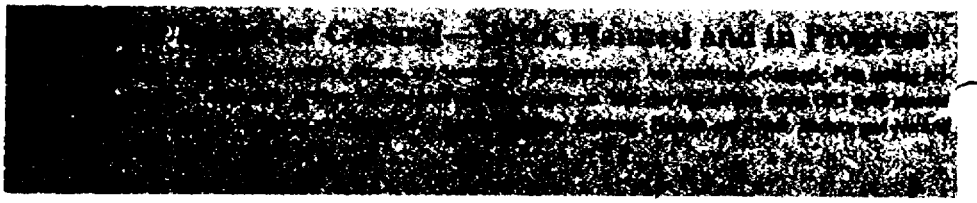
Hazmat crime

The Department of Transportation Office of Inspector General was instrumental in three major cases involving hazmat violators in the past 6 months:

—The AMR Corp. case, in which the holding company that owns American Airlines admitted to a 5-year pattern of violating hazardous materials regulations in its handling of freight on passenger jets. AMR pleaded guilty to illegally storing the potentially explosive chemical Dioxital for 3 years at Miami International Airport. The holding company was fined $6 million and also ordered to pay $2 million to the Miami-Dade County Fire Department hazmat program.

—The SabreTech case, in which a Florida-based aircraft-maintenance firm was convicted of recklessly causing transportation of hazardous materials on an air carrier. Sentencing is pending. Prosecutors alleged the company's actions allowed improperly capped oxygen generators to be loaded on ValuJet Flight 592. The generators were determined to have started a fire that caused the jet to crash May 11, 1996, killing all 110 people on board.

—The Royal Caribbean Cruises Ltd. case, in which the cruise line agreed to pay a record $18 million fine. Royal Caribbean agreed to plead guilty to multiple felony counts for dumping oil and hazardous chemicals into U.S. waters and lying to the U.S. Coast Guard. The affected jurisdictions were Anchorage, Miami, New York City, Los Angeles, the U.S. Virgin Islands, and Puerto Rico.



Strategic goal: Safety

☐Review the U.S. Coast Guard program overseeing safety of passenger ferries.

☐Review FAA's $40 million annual investment in aircraft safety research, engineering and development, including work to address aging-aircraft issues.

☐Review adequacy of controls to ensure that only qualified truck drivers retain commercial drivers' licenses.

☐Review enforcement activities of the Federal Motor Carrier Safety Administration.

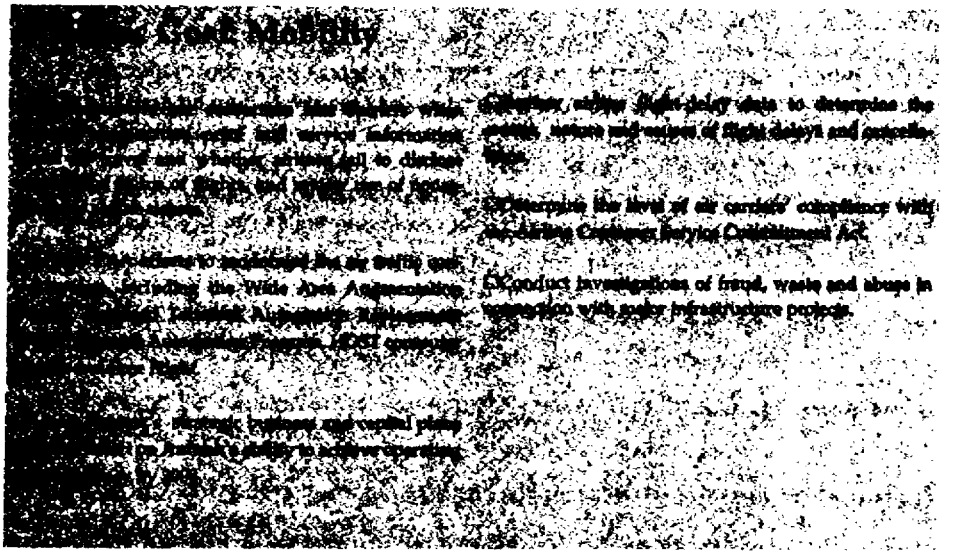
☐Assess the progress of FAA's deployment program for explosives-detection equipment.

☐Evaluate effectiveness of FAA's inspection system for makers of aviation fasteners.

☐Review railroad safety inspection data maintained by FRA to assess the accuracy of information in its safety-inspection reports and database.

☐Review FAA's data and efforts with regard to air traffic control operational errors and deviations, and follow up on FAA actions to reduce runway incursions.

☐Pursue OIG investigations affecting transportation safety, including suspected unapproved aircraft parts, motor-carrier safety, and illegal hazmat transports.



Strategic Goal: Economic Growth and Trade

☐Investigate contract, grant, and procurement fraud.

☐Conduct fraud-awareness briefings for Federal Highway Administration and Federal Transit Administration officials and for state and local FHWA and FTA grantees.

Strategic Goal: National Security

☐Determine whether FRA can effectively inspect up to 600 nuclear shipments per year and whether FRA has inspected alternate rail routes, should their use be necessary.

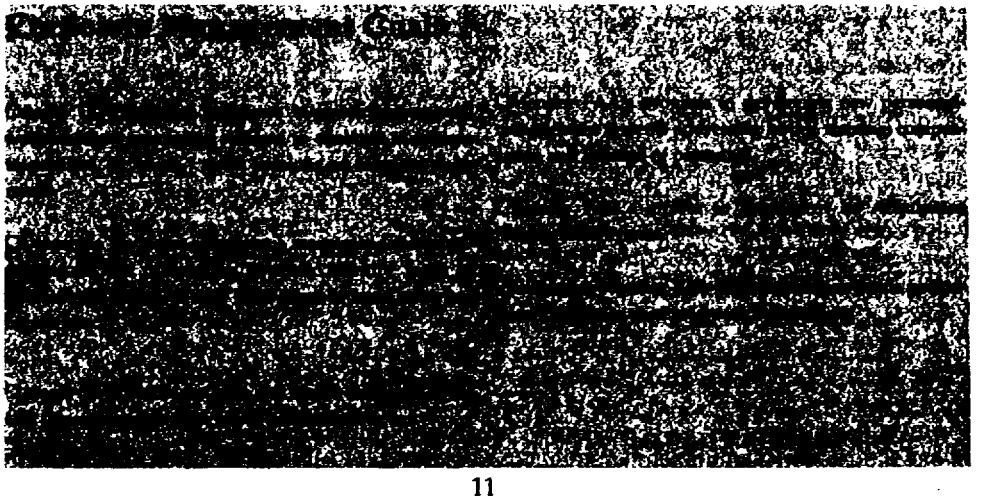
☐Assess the effectiveness of the Maritime Administration's internal controls under the Maritime Security Program.

☐Assist chief information officers throughout the Department enhancing computer security and effectiveness.

☐Review MARAD internal controls over ship-manager contracts for the Ready-Reserve Fleet.

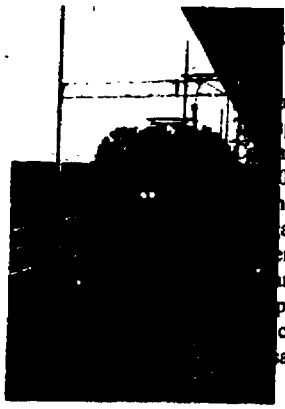
☐Review DOT and FAA telecommunication infrastructure for security and user adequacy.

☐Review the security of the FTA grants-management computer system.



FAA should set policy on use of Threat Image Projection tool for screener training

In our followup audit on the deployment of explosives detection equipment (report AV-2000-002), we found that FAA had not established policies and procedures for implementing Threat Image Projection (TIP). TIP is a computer-software program used to test airport-screener performance by electronically projecting fictitious images of bags containing bombs on the screens of bulk-explosives-detection machines. FAA had not provided sufficient instructions to air carriers and their screening companies managing the TIP program, or established controls over the use of restricted TIP program passwords. As a result the program was compromised because machine operators were using passwords to access the program and then disable or control it. FAA advised that control of TIP passwords has been attained, and uncompromised versions of TIP images are now resident on scanners.



trak: Self-sufficiency possible, but difficult to achieve

nspector General testified about Amtrak's financial viability before the Ground portation Subcommittee of the House Transportation and Infrastructure nittee. The OIG assessment of Amtrak's 1999 Strategic Business Plan (report 000-010) leads to the conclusion it is possible—but will be difficult—for Amtrak ieve operating self-sufficiency. It will depend on Amtrak filling the $692 mil- ap OIG identified in Amtrak's 1999 Strategic Business Plan. Further, high-speed rvice in the Northeast Corridor must begin as soon as possible so revenue bene- n accrue in 2001 at a full-service level. Then the service can achieve its full rev- otential in 2003, the first year Amtrak is supposed to achieve operating self-suf- cy. Amtrak also must provide its long-term strategic capital plan to Congress. afety issues need to be addressed in New York's Penn Station and adjoining tun-

Cruise line pays $9.5 million in fines for polluting waters of Florida, Alaska

Royal Caribbean Cruises Ltd. was sentenced, following guilty pleas to charges of making false statements and knowingly discharging pollutants into coastal waters of Alaska and Florida. The pleas cover two of six jurisdictions in which the cruise line has agreed to ultimately pay $18 million in total fines. In U.S. District Court in Anchorage, the corporation was fined $6.5 million, assessed $2,800 in court fees, and sentenced to 5 years' probation. Royal Caribbean admitted it bypassed an "oil/water separator" system meant to prevent discharge of oily pollutants, then made false reports to the U.S. Coast Guard that the system had been in service. A U.S. District Court judge in Miami also levied a fine of $3 million following Royal Caribbean's admission to illegal discharges, false statements about them and illegal storage of hazardous wastes.

Defendants sentenced in $140 million fuel-tax scam

Five men charged in a $140 million fuel-tax-evasion conspiracy with 20 other defendants were sentenced in U.S. District Court in Camden, NJ. They were Ilya Klotsman of Fort Lee, NJ, Anatoly Kogan of Woodside, NY, Gregory Khutorsky of Rocky Point, NY, Aaron Chervin of Brooklyn, NY and Arnold Zeidenfeld of Brooklyn, NY. The sentences ranged from 1 year in jail to $60,000 in restitution payments. The defendants were involved in a scheme in which hundreds of millions of gallons of home heating oil were purchased tax-free, then resold to a distributor as diesel fuel, which was bootlegged at a profit. The defendants set up sham fuel companies through which the oil was listed on paper as bought and sold, to disguise the tax evasion engaged in by the initial buyer and the final seller. In a separate case with a similar *modus operandi*, Roman Sobalevsky was sentenced to 2-1/2 years' imprisonment for evading $402,000 in taxes.

Alameda Corridor project on schedule; cost-estimate accurate

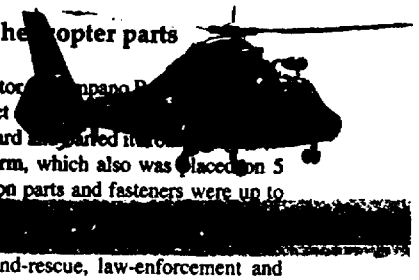
The Alameda Corridor project is a 20-mile rail corridor that will consolidate rail traffic between the Ports of Los Angeles and Long Beach and the railyards near downtown Los Angeles. In our review of cost, funding and schedule status and financing risk (report TR-2000-004), we concluded that the $2.4 billion cost estimate for the project is accurate. However, while the finance plan for the project identifies sufficient funding to meet costs, it does not specify that there are known and accepted funding risks, such as potential impact of a consent decree which may require one of the funding parties to spend as much as $76 million of the $355 million it committed for other purposes, and the possibility user fees and port contributions in the future will not cover debt repayment. We also concluded that the project is on schedule and the estimated completion date of December 2002 is reasonable.

Company superintendent sentenced in heavy-metal pollution scheme

Ira Sidney Campbell of Brighton, IL was sentenced to 9 months' home confinement and 3 months of probation for his role in a conspiracy that led to pollution of a Mississippi River tributary. Campbell was superintendent of maintenance for Chemetco, Inc., which operated a smelter near Hartford, IL. For about a decade ending in September 1996, the Chemetco facility discharged pollutants including zinc, lead and cadmium into Long Lake, a tributary of the Mississippi River.

October 1999

Plea entered in sale of substandard helicopter parts



P.A. International, Inc., an aircraft-parts distributor [illegible] ed guilty to making false claims. A U.S. District [illegible] pay $36,725 in restitution to the U.S. Coast Guard [illegible] ness with the government for 3 years. The firm, which also was placed on 5 years' probation, falsely claimed its transmission parts and fasteners were up to quality standards set out in a procurement contr[illegible] and fasteners were delivered to the Coast Guar[illegible] That model of helicopter is used on search-and-rescue, law-enforcement and environmental missions. P.A. International filled procurement requests issued by the Coast Guard's Aircraft Repair and Supply Center in Elizabeth City, NC.

Cylinder-testing firm, owner fined, permanently barred from the business

Charles Sheffield and City Fire Equipment Co., a firm formerly certified by RSPA to safety-test compressed gas cylinders, were sentenced in Biloxi, MS. Sheffield and the corporation each were fined $2,500 and sentenced to 3 years' probation by a U.S. District Court judge. As part of the plea agreement, Sheffield is barred from reentering the cylinder-testing business, which is regulated by DOT. Sheffield and the firm had pleaded guilty to violating the Federal Hazardous Materials Transportation Law Sheffield and City Fire falsely certified that cylinders were tested without performing the required tests. City Fire's retesting certification was revoked by the Research and Special Programs Administration in mid-1999.

Controls, safeguards needed for Mexico-domiciled motor carriers

Our report (TR-2000-013) concludes that motor carriers domiciled in Mexico are operating improperly in the U.S. and violating U.S. statutes, either by not obtaining operating authority or by operating beyond the scope of their authority. Our report shows that during Fiscal Year 1998, at least 52 Mexico-domiciled motor carriers operated improperly in 20 states beyond the border states and at least 202 operated improperly beyond the commercial zones within the four border states. To ensure that Mexico-domiciled motor carriers comply with U.S. statutes, controls should be established and safeguards enhanced. These should include the verification of registration information, the use of automated data and state safety inspectors to monitor compliance, the implementation of consistent enforcement policies, increased fines, and additional resources.

Guilty verdicts in disadvantaged business enterprise fraud trial

Two Ohio men who orchestrated schemes to defraud the disadvantaged business enterprise (DBE) program were convicted by a federal jury in Wheeling, WV of fraud, obstruction of justice, and perjury. Kermit Bunn of Marietta, head of Bunn Construction, conspired with Charles Striblin of Belpre, who created a "front" firm designated as a DBE to help Bunn obtain contract work on five highway projects worth more than $747,000. The work purportedly done by Striblin's firm was actually performed by Bunn Construction, which also handled all aspects of the Striblin firm's business including hiring and firing and negotiation of materials contracts. One of Bunn's obstruction counts resulted from his threat against a special agent of the Department of Transportation Office of Inspector General.

Prison term, $55,000 in fines levied for illegal chemical transport, dumping

Oil-refinery executives John R. Cooke and Donald A. Mullins, and their corporation, M&S Petroleum, Inc., were sentenced for illegally transporting hazardous chemicals and dumping them into the Mississippi River. Also, Barrett Refining Corp. of Vicksburg, MS, which leased the facility to M&S, was sentenced for discharging benzene-contaminated wastewater into the river Cooke was sentenced to 2 years and 5 months in federal prison, fined $5,000 and placed on 3 years' supervised release. Mullins was sentenced to 3 years' supervised probation and 150 hours of community service. M&S was fined $25,000 and placed on 3 years' supervised probation. Barrett Refining was fined $25,000, ordered to pay for the cleanup of the refinery site, and placed on 5 years' supervised probation.

November 1999

Airport access control needs strengthening

Our audit of controls over access to secure areas of airports (report AV-2000-017) showed FAA has been slow to take actions necessary to strengthen access-control requirements and adequately oversee the implementation of existing controls. Access controls were tested from December 1998 through April 1999 at eight major U.S. airports. In 117 of 173 tests—68 percent of the tests —we successfully entered secure areas by penetrating emergency exits, following airport personnel through access-control points, and penetrating air-cargo facilities. Once we gained access to these secure areas, we boarded aircraft operated by 35 different air carriers 117 times. We found airport operators and air carriers operating at those airports had not successfully implemented procedures for limiting access to, and within, secure airport areas. Employee failure to carry out security responsibilities was found to be the primary cause of access-control weaknesses.

Company owners jailed for kickbacks on FAA contr

Bradley W. Bowen of Vincentown, NJ and John J. Rachel of Nokesvil each were handed a year in jail for violating the Anti-Kickback Act guilty pleas also brought each a $10,000 fine and 2 years' supervised r Bowen was part-owner of Diez Management Systems, Inc.; Rach owner of the firms RGI, Inc. and Computer Software Engineering, Inc Management had been awarded a $2.5 million FAA contract for printe by air traffic controllers. The contract later was modified to add a s accessory for $310,957. Diez Management, through Bowen, falsely c Rachel's firms were supplying the accessory, when it was obtain $77,700 from another source; Rachel, Bowen and a third defendan was convicted and jailed last April, shared the $220,000 difference.

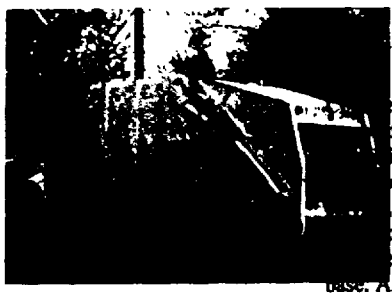
Exporter sentenced for false declarations

Ronni T. Jensen, export manager for Shipco Transport, Inc. of Hoboken, NJ, was sentenced in U.S. District Court in Newark for making false statements. He pleaded guilty to falsifying export documents. In January 1999, Jensen agreed to accept a package of aircraft parts from a New Jersey parts broker for shipment to a freight forwarder in Dubai. A Customs undercover agent informed Jensen that the final destination of the parts was Iran, a country under a U.S. embargo, and asked that the shipper's name be kept off any export documentation. Jensen, who was fined $1,000 and placed on 2 years' probation, arranged the shipment and supplied a certification falsely claiming compliance with security requirements.

November 1999

TASC: Provide speedier, more detailed billing

Our review (report MA-2000-015) showed that the Transportation Administrative Services Center (TASC) established effective procedures to record costs and bill them to departmental components. However, TASC bills were not timely and did not contain sufficient information for recipients to determine if the amounts billed were for services properly authorized and received. An average of 78 days elapsed from the time TASC received a contractor's invoice until TASC billed the departmental component, and bills identified most services only in general terms. In addition, TASC had not established controls to ensure that departmental components do not exceed their spending limits for TASC services as directed in the Conference Report on the FY 1999 DOT Appropriations and reiterated in the House Committee Report on FY 2000 DOT Appropriations. We recommended the Deputy Secretary direct TASC to address these issues.



-hauler sentenced in fraud

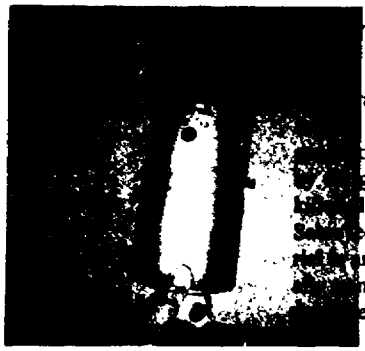
ntal Contractors, Inc., and its principal, Paul A. Lanigan, were sen- following their guilty pleas in a fraud against the government. A istrict Court judge in Philadelphia sentenced Lanigan to 2 years onfinement, 2 years of supervised release, 100 hours of community and a fine of $12,000. The company was sentenced to 1-1/2 years' on and ordered to pay $54,000 in restitution and a fine of $12,000. ntal held the garbage-removal contract for the Philadelphia Navy base. An investigation found that Continental transported the garbage to a solid-waste transfer station that lacked proper permits—violating laws, regulations and the contract provisions.

Motor carrier fined $100,000 for hazardous-materials violations

Superior Hauling and Fast Transit and Anthony N. Pallme, its vice president, were sentenced for transporting hazardous materials in violation of DOT safety regulations and for lying to Federal Railroad Administration inspectors. A U.S. District Court judge in St. Louis ordered Superior to pay a $100,000 fine and placed it on 3 years' probation. Pallme was sentenced to pay a $600 fine and was placed on 2 years' probation. Superior, a regional motor carrier, failed to identify hazardous materials in its shipments that were moved interstate by railroad.

The top-priority Department of Transportation management issues

Our report (CE-2000-026), an annual, Congressionally requested listing of top-priority management issues, includes a description of progress made by the Department in the past year and open issues and recommendations. These top issues include aviation safety, surface transportation safety, air traffic control modernization, FAA financing and reauthorization, surface, marine, and airport infrastructure, transportation security, computer security, financial accounting and the Chief Financial Officers Act, Amtrak financial viability and modernization, the Coast Guard's Deepwater Capability Replacement Project, the Maritime Administration's ship-disposal program, and implementation of the Government Performance and Results Act. The Deepwater project and the ship-scrapping program are new items since last year; our 1998 highlighting of Year-2000 computer issues was removed because the Department resolved those issues. For a more in-depth look at this issue, see our focus on page 2.



Tech found guilty in ValuJet crash

al jury in Miami found SabreTech, Inc. guilty of nine felony counts to the corporation's responsibility for the improper loading of oxygen ors. The National Transportation Safety Board found that a fire set off generators caused the May 1996 crash of ValuJet Flight 592, which l 110 on board; an oxygen generator is shown at left. The jury found ch guilty of recklessly causing the transportation of a hazardous mate- n air carrier and willfully failing to provide its employees with feder- ndated hazardous materials training. The jury acquitted two SabreTech ees charged in the indictment. A third defendant is still a fugitive.

AMR Corporation pleads guilty to hazardous-materials violation, pays largest hazmat-violation fine in U.S. aviation history

AMR Corp., American Airlines' holding company, pleaded guilty to storing hazardous waste illegally and agreed to pay a fine of $6 million and pay another $2 million as community service. The plea, entered in federal court in Miami, marked the first time a major air carrier pleaded guilty and accepted responsibility in a hazardous-waste case. AMR admitted its employees extinguished a July, 1995 fire caused by a chemical spill, then illegally stored the remaining 100 pounds of the chemical at Miami International Airport for more than 3 years. AMR further admitted the violation of the Resource Conservation and Recovery Act was part of a 5-year pattern of conduct. In addition to the $6 million fine and $2 million payment to the Miami-Dade County Fire Department's hazardous-materials response unit, AMR must upgrade its security and procedures. The case represents the largest dollar recovery related to hazardous materials in the history of U.S. aviation.

December 1999

Management of Free Flight needs cost-control incentives

Our report (AV-2000-028) concerns Free Flight Phase 1—initial steps toward giving pilots flexibility to fly more direct paths while maintaining air safety. The first phase is expected to cost about $722 million through Fiscal Year 2004. Of the total cost, 83 percent will be spent on two new automated controller tools. One, the Center-TRACON Automation System (CTAS) gives controllers suggested sequences for landing aircraft and runway assignments that can increase efficiency. The other, User Request Evaluation Tool (URET), helps controllers analyze airline requests for changes in en-route flight plans. We found that in order to provide early benefits to users, FAA has left little room with both systems for schedule slippage or unexpected problems. FAA is using earned-value management,which compares contract technical progress and costs, to monitor CTAS and URET contractors. However, not all contracts have pricing arrangements giving strong incentives to contractors to control costs.

MARAD contractors sentenced in kickback/theft schem

Three employees of Triplex Marine Maintenance were sentenced in U.S. D Court in Beaumont, TX on charges of providing kickbacks and theft of p money. The trio had offered kickbacks to Bay Ship Management in exchan for favorable treatment on ship-repair contracts. All were sentenced to 3 m home detention and 3 years' probation. Further, Donna LeMaire, Triplex dent, was ordered to pay $66,185 in restitution and a $10,000 fine; Keith Courvelle, Triplex superintendent, was ordered to pay $67,385 in restituti a $10,000 fine; and Danny Weldon, an estimator for the firm, was ordered $66,185 restitution and a $5,000 fine.

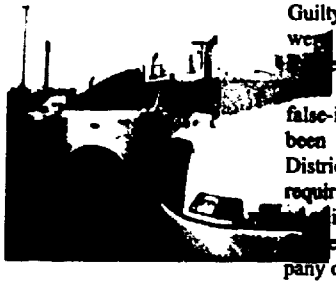
Company, president plead guilty in hazardous material air-freight case

Alpa International, Inc., an air-freight forwarder, and its president, Alejandro Craig, pleaded guilty in U.S. District Court in Miami to charges of willfully delivering hazardous materials to an air carrier in violation of federal hazmat regulations. Craig and other Alpa employees had removed hazardous material labels and wrapped opaque plastic around pallets of petroleum-based toner the firm was attempting to send to Paraguay. Employees of LanChile, the airline slated to carry the shipment, discovered the hazardous nature of the shipment when a pallet had to be broken down to fit in the hold. The investigation found evidence of Craig's personal involvement in the concealment.

Plastics company sentenced for illegal waste transport, dumping

Professional Technologies, Inc. of Ham Lake, MN, was fined $25,000 by a U.S. District Court judge in Minneapolis for illegally transporting and dumping 55-gallon drums filled with hazardous waste. The corporation produces plastic products, generating such hazardous wastes as paints, thinners and solvents in the process. Court records show that between 1995 and mid-1998, Professional Technologies collected such waste in 55-gallon drums and illegally trucked it to a farm owned by the president's father. The transports were not properly documented and the participants were not licensed to accept, treat, store, or dispose of hazardous wastes.

Guilty pleas entered in false-license case



Guilty pleas to violations of federal motor-carrier safety regulations were entered by Angus Daniel Senn, Senn Freight Lines, Inc., and Russell Elton Shields. Senn is president of the firm and Shields drove a truck for the company. The corporation was accused of supplying a false-identity commercial driver's license to a driver whose license had been revoked. The corporation and Shields pleaded guilty in U.S. District Court in Greenwood, SC to conspiracy to falsify records required by federal motor-carrier safety regulations. Daniel Senn pleaded guilty to one count of making false statements to the Office of Motor Carriers by maintaining false job-application files for a driver the company did not employ.

Californian sentenced in welding fatality

A sentence of 6 months' home detention and a fine of $3,000 were handed to a man who ordered a welder to attempt repairs on a cargo tanker at an unauthorized facility. The welder was killed in an explosion. In addition to the fine and confinement, George Granados was placed on 3 years' probation. He had pleaded guilty to conspiracy March 3, following an investigation that revealed neither the welder nor the firm where the death occurred, Atlas Bulk, Inc. of Montebello, CA, were certified to do such welding work.

December 1999

Puerto Rico contractor sentenced in highway fraud

Redondo Construction Co. and its owner and president Jorge Redondo were sentenced in a highway construction fraud case. The firm was fined $250,000 and ordered to pay $750,000 in restitution. Redondo was fined $250,000 and ordered to serve 6 months' home confinement and another 6 months in a halfway house. Redondo and his firm pleaded guilty to submitting false reports claiming that excavation work on the Jesus T. Pineiro Expressway had been completed, when it had not been. The company is barred from bidding on federal highway projects for a year.

FAA: improve methods, upgrade data needed to calculate aircraft overflight costs

In our report (FE-2000-024), we found improvements were needed in the FAA cost-accounting system and procedures used to estimate costs of providing air traffic control for "overflights." Overflights are aircraft that fly in U.S.-controlled airspace, but do not take off from, or land in, the United States. FAA is developing a cost-accounting system. The agency determined costs related to overflights were about $32 million for Fiscal Year (FY) 1998, or about 1.3 percent of the $2.5 billion spent by the en-route and oceanic control centers that handle such air traffic. FAA estimated about 242,000 overflights occurred within U.S.-controlled airspace for FY 1998. Before FAA establishes overflight fees, it should develop costs using the more current and accurate FY 1999 cost and flight data, and improve its methods for collecting these data.

Former government manager pleads guilty to contracting conflict-of-interest

H. David Reed of Carlisle, MA, a former employee of the Research and Special Programs Administration, pleaded guilty in U.S. District Court in Boston to a conflict-of-interest charge. While chief of the Advanced Development Concepts Division at the Volpe National Transportation Systems Center, Reed and others organized a privately held technology company. Reed tried to develop a private business relationship with a contractor working for the Volpe center, unlawfully participating personally, as a government officer, in the contract. He was sentenced to 2 years' probation and a $1,000 fine. As a condition of his sentence, Reed was required to retire from his position at Volpe.

December 1999

Transportation agency returns $1.7 million to state DOT

A transit agency in Vancouver, WA returned $1.74 million to the Washington State Department of Transportation after an OIG investigation showed the funds were used in a prohibited fashion. CTRAN (Clark County Public Benefit Transportation Area) returned the funds after a probe showed CTRAN made right-of-way acquisitions based on the value the properties would have following future improvements by the owners. Federal regulations require that the acquisition cost be based on the current value of the property. The improvements cited by the property owners had not been made when CTRAN acquired the property.

Three sentenced in ..ickback scheme involving Navy subcontracts

Joseph Wing, a former Maritime Administration employee, was sentenced on tax charges after receiving approximately $60,000 to recommend a firm for a subcontract award. Wing was fined $2,000 by a U.S. District Court in Boston and placed on 2 years' probation. He pleaded guilty to filing a false income tax return. Prosecutors alleged that Wing accepted $60,000 from Boston Ship Repair to recommend that firm to an executive of Bay Ship Management Co., which was awarding Navy subcontracts. Wing, who failed to report the money as income, also must pay back taxes and penalties expected to total more than $40,000. In a related case, two New York principals of Boston Ship Repair—Stephen DiLeo and Harry Nicholson—each were sentenced to a year in jail and fined $30,000 for paying kickbacks to a Bay Ship Management official.

Airport worker pleads guilty in security breach

Ricky B. Garner, an employee of a commercial airline, pleaded guilty to security violations in U.S. District Court in Dallas. Garner admitted he fraudulently used his airport security badge to enter a secure area of the Dallas Fort-Worth International Airport without being screened by security, to illegally transport 10 kilograms of cocaine onboard an American Airlines flight. According to the terms of the plea agreement—and subject to the concurrence of the sentencing judge—Garner will be sentenced to 5 years in prison followed by 3 years' supervised release.

Trucking company, three owners sentenced in phony logs case

A Grand Rapids, MI-based trucking firm and its owners were sentenced for violating federal trucking regulations and misleading federal safety inspectors. W.B. Produce Haulers Inc., and owners Gary Berenbrock, Aletha Curtis and William Berenbrock, Jr. were charged with conspiracy to make false statements to the Department of Transportation. They oversaw violations of federal trucking regulations by using "ghost" drivers and hid records from Federal Motor Carrier Safety Administration inspectors. The corporation was fined $28,400 and placed on a year's probation; it must reimburse the government $42,000. William Berenbrock, Jr. and Aletha Curtis each face 4 months' electronic monitoring, a fine of $1,050, 100 hours of community service and a year of probation. Gary Berenbrock must pay a $2,100 fine, perform 100 hours of community service and serve a year of probation.

January 2000

Three sentenced for illegally shipping hazardous materials

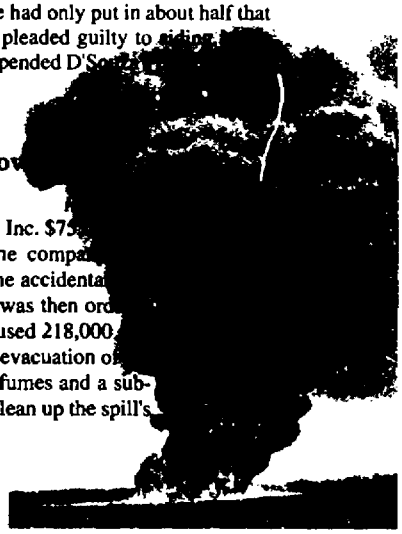
Three men were sentenced in U.S. District Court in Tallahassee, FL for conspiracy to deliver hazardous materials to an air carrier. Phillip Hinton, Jeffrey Sherman, and Adam Worobec were involved in a scheme that offered kits for sale over the Internet which contained chemicals used to manufacture gamma hydroxybutyrate or GHB, commonly known as the "date-rape drug." The defendants shipped the kits via air carrier without declaring that the packages contained dangerous goods. Sherman was handed a year in jail, a fine of $1,100 and 3 years' probation. Hinton and Worobec each were fined $1,100 and sentenced to 3 months' home detention and 3 years' probation. All three men also were sentenced on state charges of possession with intent to distribute GHB. Hinton got another 3 months in jail and a fine of $1,333; Worobec was ordered jailed another 9 months. Sherman was placed on probation in the state case.

Flight instructor pleads guilty, student pilot sentenced for log falsification

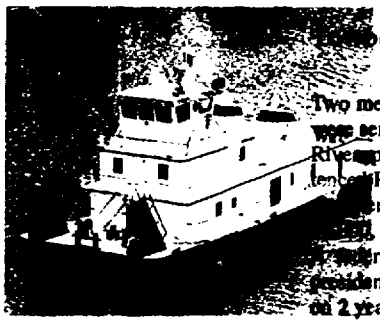
A U.S. District Court judge in Fort Worth sentenced student pilot Yasir Naser Balbaid for falsifying his pilot's logbook. Balbaid was fined $3,600, required to perform 200 hours of community service and placed on probation for 3 years. Balbaid admitted to the falsification, indicating he had flown 250 hours as required to receive a multi-engine commercial pilot's certificate, when he had only put in about half that time. Englebert D'Souza, Balbaid's flight instructor, pleaded guilty to aiding [illegible] falsification of Balbaid's pilot logbook. The FAA suspended D'So[illegible] es for a year.

Excavating company sentenced in oil-spill co[illegible]

A federal judge in Minneapolis fined Plummer Excavating, Inc. $75[illegible] sentenced it to serve 3 years' probation. Last April, the compa[illegible] charged with violation of the Clean Water Act following the accidenta[illegible] ture of a crude oil pipeline by a company employee, who was then ord[illegible] by a higher-up to cover up the accident. The pipe break caused 218,000 [illegible] lons of oil to leak into the Clearwater River and forced the evacuation o[illegible] town of Plummer, under threat from the oil leak, noxious fumes and a subsequent fire. Approximately $3 million has been spent to clean up the spill's environmental damage.



January 2000



Towboat captains fined for polluting Ohio River

Two men who captained towboats for M/G Transport Services Inc. were sentenced for dumping oil waste and bilge slops into the Ohio River, polluting it. A U. S. District Court judge in Cincinnati sentenced Robert Montgomery and Fred Moorehead to 120 days' home confinement and 6 years' probation. Moorehead also was fined $3,000, and Montgomery $2,000, for violating the Clean Water Act. A federal judge previously fined M/G Transport Services and its president, Harschel Thomassee, $155,000 and placed the corporation on 2 years' probation.

Two sentenced in fraud involving $1.8 million contract

Two officers of a New Jersey construction firm pleaded guilty and were sentenced to home confinement, community service and fines for making false claims to land a Coast Guard construction contract. Gothrie Short Jr., president of Tri-Gems Builders, Inc., and Jason D. Griffin, another officer of the firm, were accused of misrepresenting their profit and claiming their employees would perform sufficient work as required by the Minority Enterprise Development Program in order to be involved in the $1.8 million renovation and expansion of a Coast Guard child-care center in Cape May, NJ. Short and Griffin both were sentenced to 6 months' home confinement, 3 years' probation, 200 hours of community service, and fines of $10,000 each. Short also paid $210,000 in restitution to the Coast Guard, and Griffin paid $105,000.

Former MARAD employee sentenced for accepting gratuities

Former Maritime Administration employee Warren Hilton was sentenced in U.S. District Court in Beaumont, TX for accepting gratuities. Hilton, formerly a marine surveyor at the Beaumont Reserve Fleet office, will be jailed 4 months, serve another 4 months' home detention, and pay $7,460 in restitution for accepting gratuities from a government contractor. He also will be placed on a year of supervised release. In July, Hilton pleaded guilty, admitting he received a color television, a videocassette recorder, and other items from CBH Services, Inc., a MARAD subcontractor. Costs of these gratuities were concealed in invoices submitted to MARAD to cover costs of repairing government vessels.

Boston Central Artery cost now $13.1 billion; greater due diligence needed in management

OIG is conducting ongoing oversight of the Boston Central Artery project, which will place several miles of elevated highway below ground level. FHWA's executive director and the Central Artery project manager took exception to the finding in our latest report (TR-2000-050) that costs could rise if construction cost growth trends are not controlled. However, February 1 the Massachusetts Turnpike Authority announced a $1.4 billion cost increase, bringing total project costs to $13.1 billion. These extra costs were not identified in the project's finance plan or in response to our latest audit, showing a lack of management due diligence. FHWA should require project managers to identify funds or cuts to meet shortfalls, and FHWA needs to ensure more complete financial reporting on the project. February 17, the Secretary of Transportation accepted an FHWA plan that will implement all our latest report recommendations and spur a task-force review of FHWA's project oversight.

Federal Highway Administration official, wife guilty in bribery case

Federal Highway Administration engineer James Clark pleaded guilty to bribery and wire fraud in U.S. District Court in Alexandria, VA. His wife, Brenda Clark, pleaded guilty to a kickback charge. James Clark had authority over FHWA contractors who did transportation research and engineering under multi-million dollar government contracts. In return for awarding contracts, the Clarks solicited and received approximately $150,000 in personal loans and consulting contracts, using a series of pass-through companies and a business name to conceal their activity. James Clark faces up to 20 years' imprisonment and a fine of up to $500,000. His wife faces up to 5 years in prison and a fine of up to $250,000. OIG and the FBI investigated.

Fiscal Year 1999 financial statements for FAA achieve unqualified status

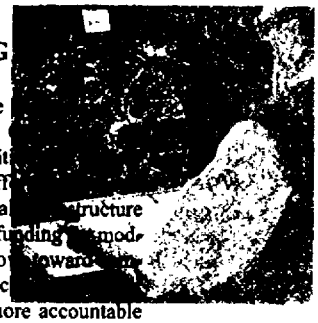
In our audit (report FE-2000-060) of the Federal Aviation Administration's Fiscal Year 1999 financial statements, we delivered an unqualified ("clean") audit opinion despite the identification of five areas involving weaknesses in internal controls and compliance with laws and regulations. Overall, FAA's balance sheet, statement of net cost, statement of changes in net position, statement of budgetary resources, and statement of financing for the covered period were fairly presented in all material respects and were in conformance with generally accepted accounting principles. During FY 1999, FAA overcame major problems with its financial records, allowing it to provide sufficient evidence supporting all material lines on the FY 1999 financial statements. However, FAA needs to make financial management system improvements to avoid the need for the extraordinary, expensive, and labor-intensive documentation that made this unqualified opinion possible.

February 2000

FY 1999 financial statements for Highway Trust Fund achieve "clean" audit status

Our report (FE-2000-056) delivered an unqualified ("clean") audit opinion on the Fiscal Year 1999 financial statements of the Department of Transportation's Highway Trust Fund. We found that the balance sheet, statement of net cost, statement of changes in net position, statement of budgetary resources, and statement of financing were fairly presented in all material respects and conformed with generally accepted accounting principles. During FY 1999, the Highway Trust Fund agencies overcame major problems with the statement of budgetary resources and statement of financing to achieve this "clean" audit opinion. The agencies provided sufficient evidence to support all material line-items. We identified four areas involving weaknesses in internal controls and compliance with laws and regulations. While these issues are important, they do not affect our overall opinion.

Modernizing the Federal Aviation Administration: OIG



The Inspector General testified before the U.S. Senate Committee on the Senate's Subcommittee on Transportation and Related Agencies, Appropriations. The topics were restructuring FAA, progress with acquisit nel reform, and FAA finances. FAA's air traffic control modernization eff capacity have not kept pace with demand for air travel. There are proposa ructure FAA air-traffic functions to perform more like a business, and to increase fu ding mod- ernization and airport- improvement programs. If Congress decides to mo oward mercialization, it must be done gradually and in a limited environment, suc traffic control. Regarding cost-control, FAA should make contractors more accountable and address human factors earlier in the development and acquisition process. We urged FAA to implement a cost-accounting system and develop a strategic business plan.

Audit spurs recovery of $1.6 million in FHWA grant overpayments

OIG (report FE-2000-053) audited Federal Highway Administration payments to the states of Virginia, California, New York, Pennsylvania, and Georgia during FY 1999. These states account for about 20 percent of highway maintenance and construction costs. We found such costs were valid, and supported by vendor invoices or appropriate reports in 109 of the 110 transactions reviewed. The final transaction revealed a duplicate payment to the State of Georgia. Closer review in cooperation with state officials revealed 42 duplicate payments, totaling $1.6 million, between July 12 and November 23, 1999; these were found to have resulted from installation of a new computer system in response to Year-2000 concerns and from weaknesses in controls over the FHWA billing process. The duplicate funds were recovered, and officials of FHWA and the state of Georgia are taking corrective actions to prevent future duplicate payments.

Review of FAA's HOST and Oceanic computer-system replacement

Our review (AV-2000-042) looked at FAA's work to date on replacement of its HOST and Oceanic air traffic control computers. FAA completed Phase 1 of the replacement program on schedule, meeting an extremely tight timeframe. Controllers at 20 domestic en-route centers and 3 oceanic and offshore sites have new computers. While there have been 28 HOST outages since the new computers were operational, none were caused by new computer hardware or software. FAA still needs to complete the four-phase replacement program. Phase 2 upgrades software to improve the efficiency of new processors, and software development is complete for en route, and nearly complete for Oceanic. Phases 3 and 4 will replace such aging peripheral equipment as printers, storage devices, and tape drives, which can cause unscheduled system outages if they fail. FAA must set priorities and define funding needs for Phases 3 and 4.

Truck driver incarcerated in manslaughter case

A state court in Portland, ME sentenced former truck driver Michael J. Rogers to 5 years' imprisonment and a fine of $3,000, plus 4 years' probation, in connection with a fatal March 1999 accident. Rogers, who admitted he was driving fatigued on the Maine Turnpike when the accident occurred, must also surrender his commercial driver's license and perform 200 hours of community service; the court suspended 4 years of his sentence and will give him credit for time served on the remainder. He pleaded guilty to manslaughter, reckless conduct with a dangerous weapon (a tractor-trailer), maintaining a false driver's log and failure to maintain records.

Coast Guard actuarial model approved

The report (FE-2000-041) reviews the U.S. Coast Guard actuarial model for estimating liabilities for retired pay and medical benefits. The study was conducted by the Hay Group, under contract with the Office of Inspector General, as part of our audit of the Department of Transportation Fiscal Year (FY) 1999 consolidated financial statements. The study was to determine whether the methodology used by the Coast Guard contractor to calculate liabilities and annual actuarial activity of the Coast Guard military retirement system was reasonable and reliable as of September 30, 1998. The Hay Group concluded the methodology was reasonable and reliable.

February 2000

OIG testimony: Amtrak financial viability and modernization

In testimony before the U.S. Senate Committee on Commerce, Science and Transportation's Subcommittee on Surface Transportation and Merchant Marine (report CE-2000-055), the Inspector General discussed Amtrak's Congressional mandate to end its need for federal operating support after FY 2002. Self-sufficiency still appeared possible, although the delays in Amtrak's Acela Express service posed additional obstacles. Amtrak's success will hinge on its aggressive pursuit of projects such as the service improvements identified in its Market-Based Network Analysis, and implementing fast, reliable high-speed rail service between Boston and Washington. Though Amtrak has made progress toward the goal, its $916 million in audited operating losses in 1999 were its largest ever. Although systemwide passenger revenue grew by nearly 6 percent in 1999, it was about 3 percent short of Amtrak's goal. A multi-billion-dollar backlog of capital investments must be addressed to prevent deterioration of service in the revenue-producing Northeast Corridor, and $654 million in life-safety issues in Penn Station and the East River and Hudson River tunnels must be addressed.

DOT wins "clean" designation on Fiscal Year 1999 financial statements

Due to extraordinary efforts in the past 2 years, DOT was able to provide evidence supporting all material line-items on its FY 1999 Consolidated Financial Statements (report FE-2000-062), thereby earning DOT its first "clean" audit opinion. The Department's chief financial officers and the many DOT employees who worked on this important effort are to be commended. DOT still needs a state-of-the-art Departmental financial management and accounting system and an integrated property-management system for FAA.

Budgetary game plan needed for the Coast Guard's Deepwater modernization project

We concluded (report MA-2000-065) that the Deepwater Project planning process for replacement of Coast Guard ships and other assets is sound and that the Coast Guard took actions to strengthen the process in response to recommendations by the Office of Management and Budget and the General Accounting Office. However, significant data gaps need to be filled before the planning process ends. The question is not whether the Deepwater assets have to be replaced or modernized but how, when, and at what cost. We recommended that the Coast Guard develop a strategy for justifying the expected $350 million FY 2002 budget request, because the planning process will not be complete in time to prepare the justification. In order to ensure continuity in project management, we recommended that the Coast Guard consider the need for civilian staffing at the senior-management level.

FAA contractor sentenced for false claims conspiracy

A Florida construction-company owner was ordered jailed for a year and fined $30,000 for conspiracy to pad invoices on a government renovation contract. A U.S. District Court judge in Miami also ordered 3 years' supervised release for Eric Pitchman, owner and president of Max South Construction. Pitchman's company was under contract with the FAA to renovate an air-traffic-control center in Miami.

March 2000

Maritime ship-scrapping requirements need revision

Our report (MA-2000-067) analyzes the challenge faced by the Department and the Congress in determining how to dispose of MARAD's fleet of environmentally dangerous vessels in a timely manner. MARAD will not achieve the legislative mandate to dispose of its obsolete vessels by 2001, nor will the disposals yield financial benefits to the United States. MARAD will need relief from these requirements. Selling obsolete vessels for scrapping is not likely to work in today's marketplace. Overseas sales have halted, there is limited domestic scrapping capacity, and the Navy is paying to have its combat ships scrapped. We concluded that MARAD will need authorization and funding to pay for the disposal of vessels if it is to significantly reduce the number of obsolete vessels in the fleet.

Los Angeles Red Line shows progress, but MTA must show funding ability

In our latest review of the Los Angeles Metro Rail Red Line proj we noted that the full cost of the project now is estimated to be $482 million higher than the original estimate. The Downtown Wilshire Center segments are open; the North Hollywood segme in June, 6 months early. However, the Metropolitan Transit Autho on its resources that could affect its ability to operate the Red Li riders' lawsuit for more service, $99 million in federal funds com appropriated, and the potential need to return $76 million in fe earmarked for two suspended segments. The authority should reduce costs and delay expansion decisions until the final outcom known.

Inspector General testifies on motor-carrier safety

The Inspector General testified before the House Subcommittee on Transportation of the Committee on Appropriations about the new Federal Motor Carrier Safety Administration's progress in improving motor-carrier safety. Since we last testified on that topic, the Department has placed emphasis on enforcement efforts. Compliance reviews have increased, most carriers identified as high-risk have been reviewed, and civil penalties have increased. However, the leadership needed to give direction to the new FMCSA is not in place. Further, inspection resources at southern border crossings are inadequate; the TEA-21 mandatory shutdown provision for unfit carriers is not being used effectively; and rulemakings take too long. In addition, federal oversight of the commercial drivers' license program has not yet dealt with significant problems. Some states still need to pass legislation implementing federal requirements and end programs that conceal violations and provide for special licenses.

ce RSPA's pipeline-safety and inspection pro-

equest of Sen. Patty Murray of Washington, OIG reviewed RSPA's Safety Program. The report (RT-2000-069) notes actions taken by ce of Pipeline Safety in response to Congressional mandates on safety. It also addresses current research and development on interection devices, the need for sufficient accident data, and responses B recommendations. The audit recommends that RSPA complete required by Congress, expand the focus of pipeline research and pment, train Office of Pipeline Safety inspectors on pipeline-inspechnologies, revise the collection of accident data and related enforceensure accurate reports from operators, and set timetables for carry-NTSB safety recommendations.

DOT needs to provide effective, independent oversight of major infrastructure projects

The Deputy Inspector General testified (report RT-2000-063) before the House Committee on Appropriations' Subcommittee on Transportation about DOT oversight of major transportation construction projects. The testimony focused on three points. We addressed the Federal Transit Administration's use of full-funding grant agreements, which have effectively limited the federal government's financial risks and promoted accountability for transit projects; the need for better guidance on finance plans, some of which currently offer little of use to grantors or oversight agencies; and the need for DOT to provide effective, independent oversight of major projects.

OIG testifies on management oversight issues

The Inspector General testified on major management issues facing DOT before the Subcommittee on Transportation of the Senate Appropriations Committee (report TW-2000-064). These issues include aviation safety, surface transportation safety, air traffic control modernization, FAA financing and reauthorization, surface, marine, and airport infrastructure, transportation security, computer security, financial accounting and the Chief Financial Officers Act, Amtrak financial viability and modernization, the Coast Guard's Deepwater Capability Replacement Project, the Maritime Administration's ship-disposal program, and implementation of the Government Performance and Results Act. The Deepwater project and the ship-scrapping program are new items since last year; our 1998 highlighting of Year-2000 computer issues was removed because the Department resolved those issues. We also outlined our ongoing work, at the request of Congress, analyzing airline flight delays, airline pricing, and customer service.

March 2000

Airline, freight forwarder plead guilty to obstruction of post-crash probe

Cargo air-carrier Fine Air Services Inc. and freight forwarder Aeromar Airlines pleaded guilty in U.S. District Court in Miami to obstruction of justice and making false statements in response to a probe following a Fine Air cargo-jet crash in August 1997. Employees of the firms discarded and altered documents, and destroyed a videotape showing placement of cargo pallets on the crashed aircraft. Under the plea agreement, Fine Air will pay a criminal fine of $3.5 million and Aeromar will pay a fine of $1.5 million; both firms must serve 4-year supervised probations and institute air-safety programs subject to review by the court and probation office.

Quality, inconsistency of DOT data leads to improvements

OIG was asked to testify before Congress (report FE-2000-071) on the quality of program data used by the U.S. Department of Transportation. Decisionmaking relies on access to good data, and in DOT good data are key to ensuring the safety of the traveling public. We found that the quality of DOT's extensive data varies considerably, and in some cases reflects lack of completeness, accuracy or timeliness. We also found DOT's ability to collect good data is hindered by inconsistent definitions, poor input into collection systems, and extensive reliance on such third parties as states, transit authorities, airports, and private firms that operate airlines, railroads and pipelines. In recognition of the importance of reliable data, the Department has improved its financial data, and the Deputy Secretary has established a committee on transportation statistics. Its goal is improvement of DOT data quality.

Airport security contractor must pay $110,000 for falsifying employee background checks

Aviation Safeguards of Florida, Inc. was ordered to pay $110,000 in fines and restitution, and placed on 2 years' probation, after pleading guilty in Miami Federal court to making false statements to FAA. The firm falsely certified on at least 70 occasions that criminal background checks had been made on employees seeking access to secure areas at Miami International Airport. As a result, some employees were hired who might have presented a security risk to the traveling public. Aviation Safeguards' former general manager separately pleaded guilty to 22 felony counts of making false statements to FAA; he was sentenced last April to more than 5 years' imprisonment for those crimes and an unrelated sex case.

FAA's FY 2001 Request for Research, Engineering, and Development

The Assistant Inspector General for Auditing testified before the House Subcommittee on Technology, Committee on Science, on FAA's research, engineering, and development program (report AV-2000-054). The program plays an important role in developing new technologies for aviation safety, air traffic control capacity enhancement, and security. Discussed were changes in the nature of FAA's research and development efforts and how they are financed; government-wide cooperation and coordination on aviation research; FAA's aircraft-safety research efforts; and the continued need for human-factors work in developing new safety, capacity, and security technologies.

Illinois commercial driver-licensing prosecutions continue

As the ongoing commercial driver-licensing corruption probe dubbed "Operation Safe Road" continued in Illinois, 22 defendants saw action during the 6 months covered by this report. A total of 30 people have been charged in connection with the conspiracy, in which more than 250 unqualified applicants for truck and bus licenses were waved through Illinois Secretary of State facilities without required testing, in exchange for hundreds of thousands of dollars in bribes. Two of those charged remain under indictment only; eight more entered guilty pleas to various charges. Twelve were handed sentences ranging from 4 months' home confinement to a year and a half in prison, plus community service. One driver licensed under the scheme was involved in a fiery accident near Milwaukee that killed six children. It was determined that much of the bribe money was directed to political fundraising.

State transportation department pays $300,000 fine in fraud case

The Washington State Department of Transportation paid $300,000 to the federal government in a settlement agreement filed in U.S. District Court in Seattle, for obtaining federal excess property. The state agency wrongfully obtained approximately $5 million in property by using the Federal Highway Administration's property screening authority. The investigation revealed that employees of the Washington DOT converted a substantial amount of the property for personal use.

March 2000

Coast Guard needs justification strategy for asset-replacement plan

In testimony before the U.S. House Committee on Appropriations' Subcommittee on Transportation and Related Agencies and the U.S. House Transportation and Infrastructure Committee's Subcommittee on Coast Guard and Maritime Transportation, we concluded (reports MA-2000-057 and MA-2000-066), that the Deepwater Project planning process for replacement of Coast Guard ships and other assets is appropriate and that the Coast Guard improved the process, reacting to recommendations by the Office of Management and Budget and the General Accounting Office. However, significant data gaps remain and should be filled before the planning process ends. The assets will need replacement, but questions remain about how, when, and at what cost. We recommended that the Coast Guard develop a strategy for justifying the expected $350 million FY 2002 budget request, because the planning process will not be complete in time to prepare the justification. We also recommended that the Coast Guard consider the need for civilian staffing at the senior-management level.

OIG testifies on Amtrak

In testimony before the U.S. House Appropriations Committee's Subcommittee on Transportation and Related Agencies (CE-2000-068), the Inspector General presented OIG's views on Amtrak's Fiscal Year 1999 and first-quarter 2000 financial results. Five months into FY 2000, it appeared possible that Amtrak still could achieve operating self-sufficiency, although the delays in Acela Express service posed additional obstacles. Amtrak's audited 1999 operating loss of $916 million, including depreciation, was $56 million more than its 1998 loss and the largest in Amtrak history. On the positive side, Amtrak's systemwide passenger revenue grew by almost 6 percent in 1999. That was short of Amtrak's goals by $31 million, or about 3 percent. Separately, $654 million in life-safety needs in New York's Penn Station and Hudson/East River tunnels must be addressed.

Inspector General testifies on key safety, modernization and financial issues facing FAA

In testimony (report AV-2000-072) before the U.S. House Appropriations Committee's Subcommittee on Transportation and Related Agencies, the Inspector General discussed FAA issues including its FY 2001 budget request—$11.2 billion, an increase of 12 percent over the previous year—along with safety and modernization. FAA must contain its operations costs because recently passed legislation requires funding of airport improvements and facilities and equipment before salaries and operations costs are met. It also needs to underscore its commitment to safety by reducing near-collisions on runways (runway incursions) and operational errors by air traffic controllers, and by implementing guidelines for U.S.-based air carriers to follow in assessing the safety of their foreign code-share partners. Two key air traffic control modernization programs—the Wide Area Augmention System and the Standard Terminal Automation Replacement System—continue to have schedule delays and cost increases, adding to their estimated $4 billion

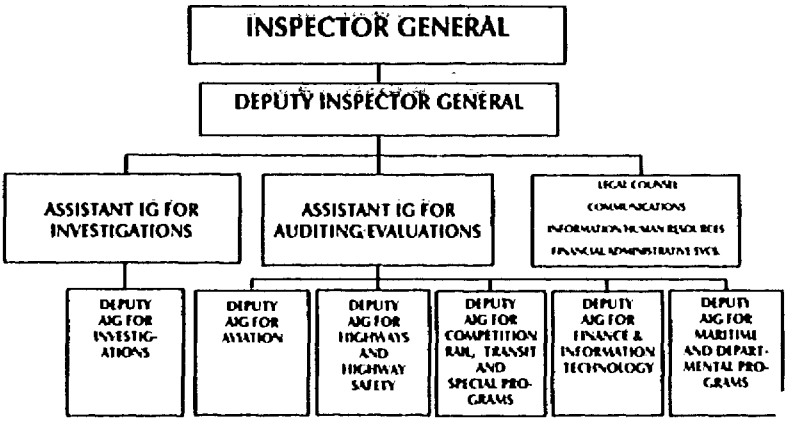
OIG testifies on potential aviation security improvements

In testimony before the U.S. House Transportation and Infrastructure Committee's Subcommittee on Aviation (report AV-2000-070), the Assistant Inspector General for Auditing discussed technology improving screener performance, employee background checks, access to secure airport areas, and strategic security plans. FAA has increased its use of a computer program used to keep baggage-screeners focused on threats, but needs to increase screener training and expand the use of some baggage-screening equipment. Background checks on prospective employees can, and should, be more extensive, and employees need to be held responsible for their roles in keeping limited-access areas secure. FAA needs to create an integrated strategic security plan to guide its work.

Major sentences in drug and stolen aircraft parts case

Two Florida residents were sentenced on conspiracy and drug-related charges by a U.S. District Court judge in Miami. Joan Pereira must serve a 7-year, 3-month term and Orlando Hernandez must serve 2 years and 4 months for conspiracy to transport stolen aircraft parts across state lines and possession, with intent to distribute, of cocaine, crack cocaine, and marijuana. Michael Malagon also pleaded guilty to the same charges. Hernandez and Pereira will serve 3 years' supervised release after confinement.

Organization/Management



The Office of Inspector General for the Department of Transportation was created by Congress through the Inspector General Act of 1978 (Public Law 95-452). The Act sets several goals for OIG:

- ☐ To conduct or supervise objective audits and investigations of DOT's programs and operations;
- ☐ To promote economy, effectiveness and efficiency within DOT;
- ☐ To prevent and detect fraud, waste, and abuse in the Department's programs;
- ☐ To review existing and proposed laws or regulations affecting the Department and make recommendations about them, and
- ☐ To keep the Secretary of Transportation and Congress fully informed about problems in Departmental programs and operations.

OIG is divided into two major units and five support units. The major units are the Office of Assistant Inspector General for Auditing/Evaluations and the Office of Assistant Inspector General for Investigations; each has headquarters staff and regional staff. The support units are the Office of Legal Counsel, the Communications Office, the Office of Information Resource Management, the Office of Human Resources, and the Office of Financial and Administrative Services.

Completed Audits October 1, 1999-March 31, 2000
(Dollars in Thousands)

Type of Review	No. of Reports	No. of Recomm.	Estimated Amounts* Costs Questioned	Costs Un-Supported	Funds to Better Use
Internal Audits:					
Program/Functional	33	80	$ 0	$ 0	$ 137,600
Chief Financial Officer					
Financial Statements	5	5	$ 0	$ 0	$ 622,000
Total Internal Audits	38	85	$ 0	$ 0	$ 759,600
Grant Audits:					
Audits of Grantees under Single Audit Act	37	74	$ 339	$ 0	$ 0
Other Grant Audits	0	0	$ 0	$ 0	$ 0
Total Grant Audits	37	74	$ 339	$ 0	$ 0
Contract Audits:					
Contracts	0	0	$ 0	$ 0	$ 0
Total Contract Audits	0	0	$ 0	$ 0	$ 0
TOTALS	75	159	$ 339	$ 0	$ 759,600

* The dollars shown are the amounts reported to management. The actual amounts may change during final resolution.

Department of Transportation programs and operations are primarily carried out by the Department's own personnel and recipients of federal grants. Audits by DOT's Office of Inspector General, as a result, fall into 3 categories: internal audits of Departmental programs and operations, audits of grant recipients, and reviews of work performed by contractors. The table above shows OIG's results in the 3 categories for the 6 months covered by this report.

Management Decisions Regarding Audit Recommendations

(Dollars in Thousands)

[illegible]	Number of Reports	[illegible]	Questioned Costs	Unsupported Costs	Funds to be Put to Better Use
[illegible]	31	[illegible]	$5,629	[illegible]	$ 680,202
[illegible]	56	[illegible]	$ 339	0	$ 759,600
[illegible]	87	[illegible]	$5,968	0	$1,439,802
[illegible]	23***	[illegible]	$5,629	0	$678,500
[illegible]	31***	[illegible]	$ 61	0	$623,600
[illegible]	54	[illegible]	$5,693	0	$1,302,100
[illegible]	39	[illegible]	$ 276	0	$137,702
[illegible]	29	[illegible]	$ 276	0	$136,000
[illegible]	7	[illegible]	0	0	$ 0
[illegible]	3	[illegible]	0	0	$ 1,702
[illegible]	0	[illegible]	0	0	$ 0
[illegible]	0	[illegible]	$ 0	0	$ 0
[illegible]	39	[illegible]	$ 276	0	$137,702

*Unsupported costs included with the figure shown as questioned costs

**Considered unresolved if management decisions have not been made on all report recommendations

***Includes some reports and recommendations where costs were both allowed and disallowed

Audit Reports with Recommendations That Questioned Costs

(Dollars in Thousands)

	Number of Reports	Number of Recommendations	Questioned Costs	Unsupported* Costs
A. For which no management decision had been made by start of the reporting period	10	14	$ 5,629	$ 0
B. Which were issued during the period	18	26	$ 339	$ 0
Totals (A+B)	28	40	$ 5,968	$ 0
C. For which a management decision was made during the reporting period	16	23	$ 5,693	$ 0
(i) dollar value of disallowed costs	10**	11***	$ 6,269****	$ 0
(ii) dollar value of costs not disallowed	12**	17***	$ 1,204	$ 0
D. For which no management decision has been made by the end of the reporting period	12	17	$ 276	$ 0

*Unsupported costs are also included in the figures shown as questioned costs. ** Includes reports in which costs were both allowed and disallowed. *** Includes recommendations in which costs were both allowed and disallowed. **** Management committed to an amount greater than that recommended.

The Inspector General Act requires explanations of reasons for significant revisions to management decisions made during the reporting period. OIG follows up on audits reported in earlier semiannual reports. During this reporting period, there were no significant revisions of Departmental management decisions reported to OIG.

The Inspector General Act also requires this report to describe any significant management decision with which the Office of Inspector General disagrees. At the close of this reporting period, there were no significant management decisions with which OIG disagreed.

Audit Reports with Recommendations that Funds be Put to Better Use

(Dollars in Thousands)

		Number of Reports	Number of Recommend-ations	Dollar Value (in thousands)
A.	For which no management decision had been made by the commencement of the reporting period	[redacted]	3	[redacted]
B.	Which were issued during the reporting period	[redacted]	4	[redacted]
	TOTALS (A+B)	[redacted]	7	[redacted]
C.	For which a management decision was made during the reporting period	[redacted]	4	[redacted]
	(i) dollar value of recommendations that were agreed to by management:	[redacted]	4*	[redacted]
	(ii) dollar value of recommendations that were not agreed to by management	[redacted]	0*	[redacted]
D.	For which no management decision had been made by the end of the reporting period	[redacted]	3	[redacted]

*May include reports and recommendations in which some costs were allowed and others were disallowed

Audit Reports Recommending Changes for Safety, Economy or Efficiency

		Number of Reports	Number of Recommendations
A.	For which no management decision had been made by the commencement of the reporting period	29	88
B.	Which were issued during the reporting period	52	129
	TOTALS: (A + B)	81	217
C.	For which a management decision was made during the reporting period	45	126
D.	For which no management decision has been made by the end of the reporting period	36	91

Status of Unresolved Audit Recommendations Over 6 Months Old

CITED IN SEMIANNUAL REPORT FOR OCTOBER 1, 1998-MARCH 31, 1999

State Safety Oversight Program for Rail Systems	TR-1999-071	03/12/99	Will resolve when FTA provides target dates for implementation
Motor Carrier Program for Commercial Trucks at U.S. Borders	TR-1999-034	12/28/98	Unresolved issues under review by the Office of the Secretary
Deployment of EDS, FAA	AV-1999-001	10/05/98	Working with FAA to resolve all open issues

CITED IN SEMIANNUAL REPORT FOR APRIL 1, 1999-SEPTEMBER 30, 1999

Safety Issues Concerning Alliances and Code-Share Agreements	AV-1999-138	9/29/99	Working with FAA to resolve all open issues
Independent Assessment of Amtrak	CE-1999-116	7/21/99	Working with Amtrak to resolve all open issues
Carson City, NV	QC-1999-110	6/25/99	Will resolve during third quarter of FY 2000
Motor Carrier Safety Program	TR-1999-091	4/26/99	Working with FMCSA to resolve all open issues

Profile of Pending Investigations

DOT Operating Administration	Number of Cases	Types of Cases					
		Contracts/ Grants	Aviation Safety	Truck/Bus Safety	HazMat	Employ-ees	Other
[redacted]	189	20	68	0	19	30	52
[redacted]	96	44	0	0	0	7	45
[redacted]	89	0	0	60	24	1	4
[redacted]	40	12	0	0	13	9	6
[redacted]	23	19	0	0	0	0	4
[redacted]	18	2	0	0	15	0	1
[redacted]	11	3	0	0	0	4	4
[redacted]	8	3	0	0	0	0	5
[redacted]	11	0	0	0	0	5	6
[redacted]	5	2	0	0	0	0	3
[redacted]	0	0	0	0	0	0	0
[redacted]	1	1	0	0	0	1	0
	491	106	68	60	71	57	130
Percent of total:		21%	14%	12%	14%	12%	26%

Investigations
Judicial Actions
October 1 1999-March 31, 2000

Indictments	140
Convictions	140
Years Sentenced	89
Years Probation	223
Supervised Release	68
Fines	$24,506,200
Restitutions/Civil Judgments	$3,081,790
Federal Recovery	$31,992
State Recovery	$792,259
TOTAL	**$28,412,241**

OIG investigations in this reporting period spurred $28,412,241 in recoveries including fines, restitution, civil judgments or settlements, and federal and state recoveries. Federal recoveries go to the U.S. Treasury. State recoveries are retained by the states.

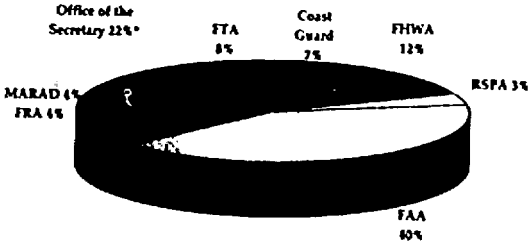
The 6 months covered by this report opened with a pending caseload of 412. During the period, 131 cases were opened and 96 were closed, leaving a pending caseload of 491.

During the period, 126 cases were accepted for prosecution, while 14 were declined. The number of cases pending before prosecutors as of March 31, 2000 was 87.

Investigations
Administrative Actions
October 1, 1999-March 31, 2000

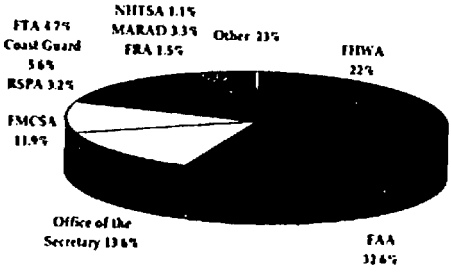
Employee Suspensions	1
Employee Resignation/Retirement	4
Employee Terminated	4
Employee Reprimand	5
Employee Counseled	8
Debarments/Suspensions	7
Other Corrective Action	18
Regulation/rule revised	1
TOTAL	**48**

Application of Audit Resources by Operating Administration

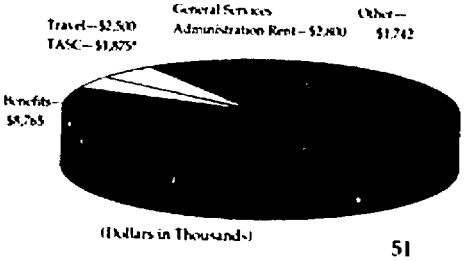


*A substantial portion of this percentage reflects OIG's work auditing the Department's Consolidated Financial Statements, which includes work at FAA, FHWA, the U.S. Coast Guard and other operating administrations.

Application of Investigative Resources by Operating Administration



OIG Fiscal Year 2000 Budget



(Dollars in Thousands)

*The Transportation Administrative Service Center provides reimbursable services to DOT operating administrations.

The Wendell H. Ford Aviation Investment and Reform Act for the 21st Century: New Safeguards Against Counterfeit and Defective Aircraft Parts

On April 7, 2000 the President signed H.R. 1000, the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (AIR 21), into law (Public Law 106-181). This important legislation, which reauthorizes the programs and operations of the Federal Aviation Administration, also contains several provisions recommended to Congress by the Inspector General and supported by the Secretary.

To combat the danger posed by counterfeit or defective parts in U.S. civil, public, and military aircraft and spacecraft, Congress incorporated the "Aircraft Safety Act," which provides tough new civil and criminal penalties for trafficking in suspect parts. It also will help prevent offenders from reentering the commercial marketplace, and allows destruction of defective parts stockpiles. This measure will give law-enforcement authorities a potent weapon to protect the safety of the traveling public. This effort is the culmination of a 3-year interagency task force comprised of the FBI, the Department of Defense, the Customs Service, the National Aeronautics and Space Administration, the FAA, and OIG.

To maintain full confidence in the objectivity and integrity of the new FAA Acquisition-Management System, Congress subjected FAA to the provisions of the Procurement Integrity Act (41 U.S.C. 423). This law imposes restrictions on the conduct of business and information disclosed between federal employees and government contractors. Specifically, it subjects employees and contractors to certain criminal, civil, and administrative penalties if contractor bid, proposal, or source selection information is exchanged for anything of value or results in a competitive advantage in the award of a federal contract.

Finally, the new law also ensures that FAA employees have "whistleblower" protection, through investigation and enforcement by the Office of Special Counsel, to prevent retaliation for disclosure of information pertaining to waste, fraud, or abuse. Additionally, the law provides FAA employees with recourse to the Merit Systems Protection Board (MSPB) to contest certain adverse personnel actions.

Office of Inspector General
Audit Reports
October 1, 1999-March 31, 2000

FEDERAL AVIATION ADMINISTRATION

INTERNAL AUDITS - 7 reports

REPORT	DATE	SUBJECT	FOCUS OF REPORT/ RECOMMENDATIONS
FE-2000-060	02/29/00	Fiscal Year 1999 Financial Statements	Improve financial data
FE-2000-058	02/28/00	Property, Plant and Equipment	$622,000,000 better use
AV-2000-042	02/04/00	Status of HOST Replacement Program	Modernize National Airspace
AV-2000-028	12/21/99	Management of Software-Intensive Acquisitions for Free Flight Phase 1	Modernize National Airspace
FE-2000-024	12/17/99	Cost and Flight Data for Aircraft Overflights	Improve financial data
*V-2000-017	11/19/99	Airport Access Control	Improve Aviation Security
-2000-002	10/21/99	Follow-up Audit of Deployment of Explosives Detection Equipment	Improve Aviation Security

GRANT AUDIT - POST-AWARD - 9 reports

QC-2000-061	02/29/00	Wayne County, MI	Improve grantee oversight
QC-2000-044	02/09/00	City of Syracuse, NY	Improve grantee oversight
QC-2000-040	02/02/00	State of Hawaii DOT, Airports Division	Improve grantee oversight
QC-2000-032	01/05/00	Department of Airports of the City of Los Angeles	Improve grantee oversight
QC-2000-030	12/28/99	Port of Oakland, CA	Improve grantee oversight
QC-2000-023	12/10/99	Republic of Palau National Government	Improve grantee oversight
QC-2000-009	10/26/99	Williams Gateway Airport Authority	Improve grantee oversight
QC-2000-005	10/25/99	City of Bisbee, AZ	Improve grantee oversight
QC-2000-003	10/20/99	Metropolitan Nashville Airport Authority	$25,883 questioned

OTHER - 4 reports

AV-2000-072	03/21/00	FAA FY 2001 Budget Request	Testimony before Congress
AV-2000-070	03/21/00	FAA Aviation Security	Testimony before Congress
AV-2000-054	02/17/00	FAA FY 2000 Research, Engineering and Development	Testimony before Congress
AV-2000-039	02/03/00	FAA Structure and Reform	Testimony before Congress

FEDERAL HIGHWAY ADMINISTRATION

INTERNAL AUDITS - 5 reports

REPORT	DATE	SUBJECT	FOCUS OF REPORT/ RECOMMENDATIONS:
FE-2000-056	02/28/00	FY 1999 Financial Statements, Highway Trust Fund	Improve financial data
FE-2000-053	02/14/00	Duplicate Payments	$1,600,000 recovery
TR-2000-050	02/10/00	Current Costs and Funding for the Central Artery Project	Ensure complete reporting
TR-2000-043	02/04/00	Baseline Reviews of Four Highway / Transit Megaprojects	Independent oversight
TR-2000-004	10/22/99	Review of the Alameda Corridor Project	Specify funding risks

GRANT AUDIT - POST-AWARD - 15 reports

QC-2000-074	03/31/00	City of Miles City	$10,886 questioned
QC-2000-051	02/14/00	State of Delaware	Improve grantee oversight
QC-2000-048	02/09/00	State of Indiana	Improve grantee oversight
QC-2000-047	02/09/00	Commonwealth of Kentucky	$24,000 questioned
QC-2000-046	02/09/00	National Institute for Environmental Renewal	Improve grantee oversight
QC-2000-036	01/27/00	New Mexico Highway and Transportation Department	$20,247 questioned
QC-2000-034	01/10/00	State of Tennessee	Improve grantee oversight
QC-2000-033	01/10/00	State of Minnesota	Improve grantee oversight
QC-2000-031	12/28/99	State of Illinois, Department of Transportation	Improve grantee oversight
QC-2000-027	12/21/99	City of New York	Improve grantee oversight
QC-2000-022	12/10/99	Town of Hamden, Connecticut	Improve grantee oversight
QC-2000-019	11/09/99	Cass County	$25,781 questioned
QC-2000-016	11/15/99	City of San Pablo	$52,013 questioned
QC-2000-012	10/29/99	State of New Jersey	Improve grantee oversight
QC-2000-006	10/25/99	ATA Foundation Affiliates	$91,576 questioned

FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

INTERNAL AUDITS - 1 report

REPORT	DATE	SUBJECT	FOCUS OF REPORT/ RECOMMENDATIONS:
TR-2000-013	11/04/99	Mexico-Domiciled Motor Carriers	Ensure statutory compliance

FEDERAL RAILROAD ADMINISTRATION

FERNAL AUDITS - 1 report

REPORT	DATE	SUBJECT	FOCUS OF REPORT/ RECOMMENDATIONS:
RT-2000-020	12/14/99	Amtrak's High-Speed Rail Electrification Project	Improve oversight

OTHER - 3 reports

CE-2000-068	03/21/00	Amtrak's Financial Outlook	Testimony before Congress
CE-2000-055	02/22/00	Amtrak's Financial Outlook	Testimony before Congress
CE-2000-010	03/21/00	Amtrak's Financial Outlook	Testimony before Congress

MARITIME ADMINISTRATION

INTERNAL AUDITS - 1 report

MA-2000-067	03/10/00	Report on the Program for Scrapping Obsolete Vessels	Alternate approaches needed

OFFICE OF THE SECRETARY OF TRANSPORTATION

INTERNAL AUDITS - 4 reports

REPORT	DATE	SUBJECT	FOCUS OF REPORT/ RECOMMENDATIONS:
FE-2000-062	03/08/00	Fiscal Year 1999 Consolidated Financial Statements	Improve financial data
CE-2000-0[illegible]	12/22/99	Top 12 Management Issues	Improve management oversight
MA-2000-015	11/05/99	Cost Allocations by the Transportation Administrative Service Center	Improve business practices
FE-2000-014	11/04/99	Year-2000 Readiness of the Financial Sector -- Domestic, International	Enhance readiness

OTHER -- 3 reports

FE-2000-071	03/22/00	Program Data Quality	Testimony before Congress
IN-2000-064	03/07/00	Management Oversight Issues	Testimony before Congress
FE-2000-059	02/28/00	Motor Carrier Safety	Testimony before Congress

UNITED STATES COAST GUARD

INTERNAL AUDITS - 1 report

REPORT	DATE	SUBJECT	FOCUS OF REPORT/ RECOMMENDATIONS:
FE-2000-041	02/03/00	Actuarial Estimates for Retired Pay and Medical Benefits	Financial oversight

OTHER - 3 reports

REPORT	DATE	SUBJECT	FOCUS OF REPORT/ RECOMMENDATIONS:
MA-2000-066	03/15/00	Deepwater Capability Replacement Project	Testimony before Congress
MA-2000-065	03/09/00	Deepwater Capability Replacement Project	Testimony before Congress
MA-2000-057	03/01/00	Deepwater Capability Replacement Project	Improve project management

FEDERAL TRANSIT ADMINISTRATION

INTERNAL AUDITS - 2 reports

REPORT	DATE	SUBJECT	FOCUS OF REPORT/ RECOMMENDATIONS
RT-2000-073	13/24/00	Los Angeles Metro Rail Red Line	$76,000,000 better use
RT-2000-025	12/21/99	St Clair Light Rail Extensions, St. Louis, MO	$60,000,000 better use

GRANT AUDITS – POST-AWARD - 11 reports

REPORT	DATE	SUBJECT	FOCUS OF REPORT/ RECOMMENDATIONS:
QC-2000-075	03/27/00	Central Florida Regional Transportation Authority	Improve grantee oversight
QC-2000-052	02/14/00	Massachusetts Bay Transportation Authority	Improve grantee oversight
QC-2000-049	02/09/00	Transportation and Motor Buses for Public Use Authority	Improve grantee oversight
QC-2000-045	02/09/00	City of Columbia	Improve grantee oversight
QC-2000-037	02/01/00	Milford Transit District	$77,062 questioned
QC-2000-035	01/02/00	Los Angeles County Metropolitan Transit Authority	Improve grantee oversight
QC-2000-029	12/28/99	Kleberg County, TX	$12,000 questioned
QC-2000-021	12/13/99	Metropolitan Transit Authority of Harris County, PA	Improve grantee oversight
QC-2000-018	11/22/99	City of El Paso, TX	Improve grantee oversight
QC-2000-008	10/25/99	CTTransit	Improve grantee oversight
QC-2000-007	10/25/99	Suburban Mobility Authority for Regional Transportation	Improve grantee oversight
QC-2000-001	10/20/99	Greater Attleboro-Taunton Regional Transit Authority	Improve grantee oversight

OTHER - 1 report

RT-2000-063	03/07/00	Transportation Investment Project Management/Oversight	Testimony before Congress

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

..ITERNAL AUDITS - 1 report

REPORT	DATE	SUBJECT	FOCUS OF REPORT/ RECOMMENDATIONS:
QC-2000-011	10/29/99	City of Savannah, GA	Improve grantee oversight

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

INTERNAL AUDITS – 1 report

REPORT	DATE	SUBJECT	FOCUS OF REPORT/ RECOMMENDATIONS
RT-2000-069	03/13/00	Pipeline Safety Program	Improve OPS inspections

ST. LAWRENCE SEAWAY DEVELOPMENT CORPORATION

ITERNAL AUDITS – 1 report

REPORT	DATE	SUBJECT	FOCUS OF REPORT/ RECOMMENDATIONS
QC-2000-038	02/01/00	Quality Control Review of FY 1999 Audited Financial Statements	Financial oversight

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U.S. Department of Transportation

BUDGET ESTIMATES

FISCAL YEAR 2002

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

SUBMITTED FOR USE OF
THE COMMITTEES ON APPROPRIATIONS

U. S. DEPARTMENT OF TRANSPORTATION

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

FY 2002 BUDGET SUBMISSION TO CONGRESS

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RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

FY 2002 BUDGET SUBMISSION TO THE COMMITTEES ON APPROPRIATIONS

GENERAL STATEMENT

In FY 2002, RSPA is seeking a total of $95.9 million in discretionary budget authority (BA) and $90.7 million in discretionary outlays to support its critical safety programs. The major portion of our budget, 73 percent, is offset by user fees. RSPA is requesting additional funding in support of initiatives that will protect lives and safeguard the environment, increase Mobility and National Security, achieve cross-cutting goals and increase the effectiveness of the human capital in RSPA. These initiatives help to achieve the Department's and RSPA's Strategic Goals and Performance Plans.

This request also will give us the resources and ability to make E-Government the standard in support of our mission. This goal will focus on expanding and improving the electronic delivery of RSPA services and information to our customers.

These resources will enable us to continue our investments in critical infrastructure protection, research and development, and technology transfer; while building partnerships among government, industry and academia to deploy innovative solutions for today's challenges and our future goals. These investments will promote safe transportation which is key to economic success and quality of life in America.

Protecting Lives and Safeguarding the Environment

Pipeline Safety: RSPA requests $53.8 million for the Pipeline Safety program, an increase of $6.8 million. The requested increase will focus on two initiatives: 1) ***Integrity Management Program*** and 2) ***Damage Prevention Community Assistance Program.*** These two programs will increase our efforts to protect people and the environment by improving, enforcing and communicating standards for managing pipeline system integrity and to prevent the leading cause of pipeline incidents, construction damage by outside parties.

This new initiative will provide technical support which will help ensure that pipeline operators are complying with new integrity management requirements. The new rules will require operators to establish comprehensive programs to assess pipe condition and to use all available information to manage their pipelines' integrity. The Office of Pipeline Safety (OPS) will conduct field reviews of operators' integrity management plans, beginning with the 66 large liquid operators from whom compliance is required. OPS will need additional technical support to review operators' identification of High Consequence Areas (HCA), time lines for mandatory testing, risk factors considered, leak detection systems adequacy, and other prevention and mitigation measures.

Hazardous Materials Safety: RSPA is requesting $21.2 million an increase of $2.5 million, in support of Hazardous Materials Safety. RSPA has included proposed legislation to offset these appropriated funds with additional collections of approximately $12 million from shippers/carriers who register annually.

The requested increase is for our ***Strategic Hazardous Material Incident Reduction Initiative***. This initiative is a comprehensive, multi-disciplinary risk reduction campaign targeting less obvious yet major causes of hazardous materials incidents. New resources are requested to fund outreach and education, research, analysis, training, and enforcement activities.

This initiative will address gaps identified in the ONE DOT Hazardous Materials Program Evaluation. The evaluation cited the need for improving the quality of hazardous materials data and better utilization of the information available. Funding will be used to tailor outreach efforts to specific groups of the regulated community, to target companies for enforcement activities, and to retool current training to reflect new knowledge about hazardous materials transportation regulation, including registration and reporting requirements, performance-oriented packaging, and new materials.

Increasing Mobility and National Security

Emergency Transportation: RSPA requests $1.9 million, for the Emergency Transportation program, an increase of $0.1 million. This amount represents mandatory increases for the program. OET will continue to manage the transportation emergency response during regional and national crises. OET recently activated the Crisis Management Center in response to the Washington state earthquake.

RSPA will continue to enhance the operations of the DOT Crisis Management Center which is fully activated for significant events impacting the transportation system, ranging from labor strikes, hurricanes, earthquakes, other natural or man-made disasters, to national security emergencies. Additionally, we will continue to maintain and improve the operational readiness of the DOT Continuity of Operations (COOP) site. New COOP initiatives assigned the Department new roles in the areas of Weapons of Mass Destruction, Critical Infrastructure Protection, and Continuity of Government Operations. OET has the lead role to implement and coordinate these complex and responsibilities.

Achieving Crosscutting Goals and Increasing the Effectiveness of Human Capital

Research and Technology: RSPA requests $4.8 million, for the Research and Technology program, an increase of $0.1 million. This amount represents mandatory increases for the program. Funding will enable RSPA to continue to provide the Department with leadership for national transportation innovation, research, and education. Through partnerships with state and local governments, other Federal agencies, industry, and academia , DOT will leverage these funds with private resources to facilitate innovation and technology transfer.

RSPA will continue to chair and provide staff support to the Department's Research and Technology Coordinating Council; manage a strategic planning process for transportation R&D in the Department and the Federal Government; manage and coordinate a nationwide program of transportation research, education and technology transfer through a network of 33 University Transportation Centers (UTC's); and, represent the Department on national and international committees and at meetings on transportation R&D.

The Research and Technology program works cross-modally through various research and technology councils and partnerships on issues that impact all DOT Operating Administrations. Funding will support Research and Development of new technologies that will provide safer and more efficient transportation in the future. And those innovations in science and technology will continue to propel America's economic growth.

Program Support: RSPA requests $14.1 million for Program Support, an increase of $3.0 million. RSPA is requesting $2.6 million funding to support a ***Business Modernization Initiative.*** RSPA has already taken significant steps towards E-Government. For example, RSPA now accept hazardous materials registration fees electronically. RSPA needs to insure that all such transactions are safe and secure. Computer hackers and viruses are a growing threat. While the DOT firewall is RSPA's front-door defense against outside intrusion, RSPA must also protect against back-door access (i.e., modems) or internal threats.

During the Bellingham, Washington and the Carlsbad, New Mexico pipeline accidents, RSPA learned that electronic communications were extremely helpful in providing information to the public, the press and our inspectors in the field, even though access was very limited to RSPA's network. RSPA's communication network operations must be extended beyond an eight-hour, five-day a week operation. Emergencies occur and the network needs to be operational 24 hours a day, 7 days a week. Regional access is limited to 23 simultaneous users. RSPA requires a Wide-Area-Network (WAN) with adequate bandwidth to enable regional inspectors and telecommuting staff to access the network at any time of day, from outside the normal business office and to support emergency operations. This and other demands of an increasingly agile organization have

far out stripped the capacities of RSPA's Program Support Offices. Despite RSPA's significant growth over the last three years, it's program support offices have experienced an actual reduction in resource capabilities. We must improve the delivery of support services to our customers. This initiative will provide technology and human capital investments in administrative activities which support RSPA's program office and ultimately DOT's and RSPA's safety mission.

In addition to ensuring the integrity of RSPA's communications networks, Program Support will continue to provide policy, legal, public affairs, management, financial, and administrative support to our program offices. Funding is also included for GSA rent and TASC estimates. The Program Support offices collectively promote RSPA's Strategic Goals and Performance Plan while supporting DOT's Strategic Goals and Performance Plan through their focus of providing needed support to RSPA's program offices.

Conclusion

RSPA's FY 2002 request continues to develop technology that will shape and develop a smart transportation system. The initiatives will ensure America has an integrated transportation system that allows products and services to flow to market more efficiently and safer with minimal disruptions. This is important because the transportation system drives the economy. These initiatives will make our highways and communities safer and cleaner and continue to protect the environment and the public from the dangers of transporting hazardous materials throughout our nation and the world. Finally, this request will help foster a transportation system which can better respond to natural disasters and threats of terrorism.

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
RESOURCE SUMMARY - BUDGET AUTHORITY
(in thousands of dollars)

APPROPRIATON TITLE	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Research and Special Programs			
From the General Fund	31,110	35,649	41,288
From the Pipeline Safety Fund	645	644	645
Subtotal, Research & Special Programs	31,755	36,293	41,933
Emergency Preparedness Grants:			
Mandatory Authority (permanent, indefinite)	24,799	14,069	14,100
Discretionary Appropriations	200	200	200
Subtotal, Emergency Prep. Grants	24,999	14,269	14,300
Pipeline Safety (SF)			
From the Special Fund	29,802	36,476	46,286
From the Special Fund "Reserve"	1,400	2,993	0
From the TF Share of Pipeline Safety	5,479	7,472	7,472
Subtotal, Pipeline Safety	36,681	46,941	53,758
TOTAL BUDGET AUTHORITY	93,435	97,502	109,991
Discretionary	*68,636*	*83,434*	*95,891*
Mandatory	*24,799*	*14,069*	*14,100*

GENERAL OFFSETTING RECEIPTS:			
Pipeline Safety User Fees (new collections)	30,340	37,120	46,931
Emergency Prep. Fund (EP Grants)	24,999	14,269	14,300
HazMat Registration Program--Discretionary	0	0	12,000
HazMat Registration Program--Mandatory	1,382	1,200	1,200
TOTAL: GENERAL OFFSETTING RECEIPTS	56,721	52,589	74,431

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
RESOURCE SUMMARY - OBLIGATIONS
(in thousands of dollars)

APPROPRIATION TITLE	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Research and Special Programs	32,048	37,291	41,933
Emergency Preparedness Grants	14,001	14,269	14,300
Pipeline Safety	29,610	43,408	46,286
Trust Fund Share of Pipeline Safety	5,728	7,840	7,472
Subtotal, Pipeline Safety	35,338	51,248	53,758
Volpe National Transportation Systems Ctr.	199,285	205,000	208,000
TOTAL OBLIGATIONS	280,672	307,807	317,991

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
RESOURCE SUMMARY - OUTLAYS
(In thousands of dollars)

APPROPRIATION TITLE	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Research and Special Programs	(2,807)	67,491	40,448
Emergency Preparedness Grants:			
Mandatory	8,048	12,760	13,936
Discretionary	200	200	200
Emergency Preparedness Grants	8,248	12,960	14,136
Pipeline Safety	27,295	32,608	42,894
Trust Fund Share of Pipeline Safety	9,432	4,490	7,069
Subtotal, Pipeline Safety	36,727	37,098	49,963
Volpe National Transportation Systems Ctr.	131	0	0
TOTAL OUTLAYS	42,299	117,549	104,547
Discretionary	*34,251*	*104,789*	*90,611*
Mandatory	*8,048*	*12,760*	*13,936*

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

RESOURCE SUMMARY - FTP POSITION STAFFING

DIRECT FUNDED, BY APPROPRIATION	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Research & Special Programs	195	200	220
Pipeline Safety	105	109	135
Subtotal, Direct Funded	300	309	355
ALLOCATIONS/REIMBURSEMENTS			
Volpe National Transportation Systems Ctr.	515	515	515
Transportation Safety Institute	42	44	47
Other (Honors Attorneys and UTC)	11	11	11
Subtotal, Allocations/Reimbursements	568	570	573
TOTAL POSITIONS	868	879	928

RESOURCE SUMMARY - FTE (Workyears)

DIRECT FUNDED, BY APPROPRIATION	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Research & Special Programs	189	197	207
Pipeline Safety	97	107	122
Subtotal: Direct Funded	286	304	329
ALLOCATIONS/REIMBURSEMENTS			
Volpe National Transportation Systems Ctr.	526	550	550
Transportation Safety Institute	44	44	47
Other (Honors Attorneys and UTC)	7	11	11
Subtotal: Allocations/Reimbursements	577	605	608
TOTAL FTE	863	909	937

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
FY 2002 PRESIDENT'S BUDGET
R&D BUDGET AUTHORITY
(in thousands of dollars)

	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Research and Special Programs			
1. Hazardous Materials	1,200	1,193	1,375
2. Research & Technology	2,085	3,535	3,535
3. Emergency Transportation	235	235	235
4. PC&B and Administrative Expenses	1,605	1,463	1,754
Subtotal, RSP	5,125	6,426	6,899
Pipeline Safety			
1. Pipeline Safety	1,894	2,744	2,744
2. PC&B and Administrative Expenses	180	190	200
Subtotal, Pipeline Safe	2,074	2,934	2,944
TOTAL R&D BUDGET AUTHORITY	**7,199**	**9,360**	**9,843**

DEPARTMENT OF TRANSPORTATION

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

10 YEAR HISTORY OF BUDGET AUTHORITY

(In thousands of dollars)

	APPROPRIATION					
Fiscal Year	Research & Special Programs	Pipeline Safety	TF Share of Pipeline Safety	Alaska Pipeline Task Force	Emergency Preparedness Grants	Total BA
2002	41,933	46,286	7,472		14,300	109,991
2001	36,293	39,469	7,472		14,268	97,502
2000	31,755	31,202	5,479		24,999	93,435
1999	30,978	30,308	4,248		7,636	73,170
1998	29,402	29,421	3,300		7,970	70,093
1997	29,703	29,358	2,528		7,372	68,961
1996	23,550	28,472	2,698		6,910	61,630
1995	25,998	34,663	2,433	(544)	6,873	69,423
1994	24,008	16,927	2,449		8,357	51,741
1993	23,504	15,050		550	11,000	50,104
1992	22,366	13,553				35,919
1991	15,833	11,042				26,875

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

RESEARCH AND SPECIAL PROGRAMS

ESTIMATES		APPROPRIATIONS	
1992	23,912,000	1992	22,366,000 1/
1993	25,610,000	1993	23,504,000 1/
1994	24,587,000	1994	24,008,000 1/
1995	26,982,000	1995	25,995,100 2/
1996	31,662,000	1996	23,550,000 3/
1997	28,169,000	1997	26,703,000 4&5/
		1997 Omnibus	3,000,000
1998	30,102,000	1998	28,402,000 5&6/
1998 (Suppl.)	0	1998 (Suppl.)	1,000,000
1999	29,655,000	1999	30,646,000 5,7,8&12/
2000	33,340,000 9/	2000	31,765,000 10&13/
2001	42,531,000 11/	2001	36,292,979 10&14/
2002	41,933,000 15/	2002	

1/ Appropriated as separate accounts.
2/ Reflects reductions of $125,000 for working capital fund (Sec. 330), $5,000 for bonuses and awards (Sec. 331), $95,000 for procurement reform (Sec. 323), and a transfer of $17,900 for a consolidated civil rights office (P.L. 103-331).
3/ Reflects reduction of $387,000 for working capital fund, bonuses and awards, and field office consolidation.
4/ Reflects reduction of $179,100 for TASC(Sec. 321) and $3,900 for awards (Sec. 346).
5/ Includes $574,000 from Pipeline Safety Fund.
6/ Reflects reductions of $48,000.
7/ Reflects reductions of $314,000 for TASC (Sec. 320) and $42,000 for administrative and travel expenses, P.L. 106-51.
8/ Excludes $282,000 in emergency Y2K funds.
9/ Includes $45,000 from Pipeline Safety Fund and $4,575,000 in new user fees.
10/ Includes $645,000 from the Pipeline Safety Fund.
11/ Includes $45,000 from Pipeline Safety Fund and $4,722,000 in new user fees.
12/ Includes $1,722,000 transfer from USAID Caribean Emergency Disaster Relief Recovery Fund.
13/ Reflects reduction of $296,000 for TASC (Sec. 319).
14/ Reflects 0.22% reduction of $80,021 (Sec. 1403 of P.L. 106-554).
15/ Includes $645,000 from the Pipeline Safety Fund and $12 million in new user fees.

PIPELINE SAFETY

ESTIMATES		APPROPRIATIONS		
1992	13,953,000	1992	13,553,000	
1993	15,578,000	1993	15,050,000	
1994	16,322,000	1994	16,927,000	
1995	37,424,000	1995	34,907,500	1/
1996	42,418,000	1996	28,472,000	2/
1997	34,028,000	1997	29,357,958	3/
1998	32,988,000	1998	29,421,000	4/
1999	32,163,000	1999	30,158,000	5,6&7/
2000	33,939,000	2000	31,202,000	8/
2001	42,876,000	2001	39,468,977	9/
2002	46,286,000	2002		

1/ Reflects reduction of $84,000 for working capital fund (Sec.330 of P.L. 103-331).
2/ Reflects reductions of $213,000 for working capital fund, bonuses and awards, and and field office consolidation and $65,000 from P.L. 104-134, the Omnibus and Consolidated Rescission Appropriation Act of 1996.
3/ Reflects reduction of $100,742 for TASC (Sec. 321) and $1,300 for awards (Sec. 346).
4/ Reflects reduction of $44,000 for TASC (Sec. 320).
5/ Reflects reductions of $210,000 for TASC (Sec. 320) and $32,000 for administrative and travel expenses , P.L. 106-51.
6/ Excludes $150,000 in emergency Y2K funds.
7/ Includes $1,400,000 pipeline safety reserve.
8/ Refects reduction of $198,000 for TASC (Sec. 319).
9/ Reflects 0.22% reduction of $87,023 (Sec. 1403 of P.L. 106-554).

PIPELINE SAFETY
(Oil Spill Liability Trust Fund)

ESTIMATES		APPROPRIATIONS		
1992	0	1992	0	
1993	0	1993	0	
1994	2,565,000	1994	2,449,000	
1995	2,685,000	1995	2,432,500	
1996	2,698,000	1996	2,698,000	
1997	2,528,000	1997	2,528,000	
1998	2,328,000	1998	3,300,000	
1999	3,300,000	1999	4,248,000	
2000	4,248,000	2000	5,479,000	
2001	4,263,000	2001	7,471,526	1/
2002	7,472,000	2002		

1/ Reflects 0.22% reduction of $16,474 (Sec. 1403 of P.L. 106-554).

EMERGENCY PREPAREDNESS GRANTS

ESTIMATES		APPROPRIATIONS		
1992	0	1992	0	
1993	850,000	1993	700,000	
1994	700,000	1994	400,000	
1995	400,000	1995	400,000	
1996	400,000	1996	400,000	
1997	200,000	1997	200,000	
1998	200,000	1998	200,000	
1999	200,000	1999	200,000	
2000	200,000	2000	200,000	
2001	200,000	2001	199,560	/1
2002	200,000	2002		

1/ Reflects 0.22% reduction of $440 (Sec. 1403 of P.L. 106-554).

EMERGENCY PREPAREDNESS GRANTS (Appropriation Limitation)

ESTIMATES		APPROPRIATIONS		
1992	0	1992	0	
1993	0	1993	10,300,000	
1994	14,975,000	1994	11,000,000	
1995	11,350,000	1995	10,729,000	1/
1996	11,338,000	1996	8,881,000	3/
1997	0	2/ 1997	0	
1998	0	1998	0	
1999	0	1999	11,200,000	
2000	0	2000	0	
2001	0	2001	14,268,980	4/
2002	0	2002		

1/ Reflects reduction of $71,000 for procurement reform (P.L. 103-331 Sec. 303)
2/ Legislation deletes language limiting obligations for emergency preparedness grants.
3/ Reflects reduction of $9,000 for field office consolidation.
4/ Reflects 0.22% reduction of $31,020 (Sec. 1403 of P.L. 106-554).

ALASKA PIPELINE TASK FORCE

ESTIMATES		APPROPRIATIONS	
1992	0	1992	0
1993	1,000,000	1993	550,000
1994	0	1994	0
1995	0	1995	(544,000)
1996	0	1996	0
1997	0	1997	0
1998	0	1998	0
1999	0	1999	0
2000	0	2000	0
2001	0	2001	0
2002	0	2002	

Federal Funds

General and special funds:

RESEARCH AND SPECIAL PROGRAMS

For expenses necessary to discharge the functions of the Research and Special Programs Administration, [$36,373,000] *$41,993,000* of which *$645,000* shall be derived from the Pipeline Safety Fund, and of which [$4,704,000] *$5,145,000* shall remain available until September 30, [2003] *2004*: *Provided*, That up to $1,200,000 in fees collected under 49 U.S.C. 5108(g) shall be deposited in the general fund of the Treasury as offsetting receipts: *Provided further*, That there may be credited to this appropriation, to be available until expended, funds received from States, counties, municipalities, other public authorities, and private sources for expenses incurred for training, for reports publication and dissemination, and for travel expenses incurred in performance of hazardous materials exemptions and approvals functions. *(Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101(a) of P.L. 106-346.)*

RESEARCH AND SPECIAL PROGRAMS
PROGRAM AND PERFORMANCE STATEMENT

The Research and Special Programs Administration provides vital services to advance safety in hazardous materials transportation, protect the environment, foster innovation in transportation by supporting scientific and technological research, and minimize the consequences of natural and man-made disasters affecting transportation in American communities. In 2002, resources are requested for hazardous materials safety programs, including emergency preparedness activities. Funding is also provided for the management of the Office of Emergency Transportation, the Office of Innovation, Research and Education, and the Transportation Safety Institute. The 2002 Budget proposes to increase hazardous materials registration fees to finance hazardous material safety activities previously financed by general fund appropriations to this account. This proposal is described on page 15.

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

RESEARCH AND SPECIAL PROGRAMS

PROGRAM AND FINANCING (in thousands of dollars)

Identification code 69-0104-0-1-407-0

	Obligations by program activity:	2000 actual	2001 estimate	2002 estimate
	Direct program			
00.01	Hazardous Materials	16,702	19,188	21,217
00.03	Emergency Transportation	1,555	1,963	1,897
00.04	Research & Training	2,761	5,072	4,760
00.05	Program Support	11,030	11,068	14,059
00.91	Total direct program	32,048	37,291	41,933
09.01	Reimbursable program	57,743	53,000	55,000
10.00	Total obligations	89,791	90,291	96,933
	Budgetary resources available for obligation			
21.40	Unobligated balance available, SOY	1,562	998	0
22.00	New budget authority (gross)	89,499	89,293	96,933
22.10	Resources available from recoveries of prior year obligations	149	0	0
23.90	Total budgetary resources available for obligation	91,210	90,291	96,933
23.95	New obligations	(89,791)	(90,291)	(96,933)
23.98	Unobligated balance expiring	(421)	0	0
24.40	Unobligated balance carried forward, EOY	998	0	0
	New budget authority (gross), detail			
	Discretionary			
40.00	Appropriation (definite)	31,416	35,728	41,288
40.75	Reduction pursuant to PL 106-69	(296)		
40.77	Reduction pursuant to PL 106-554		(80)	
41.00	Transferred to other accounts [GSA]	(10)		
42.00	Transferred from other accounts [69-5172]	645	645	645
43.00	Appropriation (total discretionary)	31,755	36,293	41,933
	Discretionary spending authority from offsetting collections:			
68.00	Offsetting collections (cash)	72,212	53,000	55,000
68.10	Change in uncollected customer payments from Federal sources	(14,636)	0	0
68.15	Adjustment to orders on hand from Federal sources	168		
68.90	Spending authority from offsetting collections (total discretionary)	57,744	53,000	55,000
70.00	Total new budget authority (gross)	89,499	89,293	96,933
	Change in unpaid obligations			
	Unpaid obligations, SOY:			
72.40	Total unpaid obligations, SOY	55,838	76,058	45,858
72.95	Uncollected customer payments from Federal sources, SOY	(48,561)	(33,925)	(33,925)
72.99	Obligated balance, SOY	7,278	42,133	11,933
73.10	New obligations	89,791	90,291	96,933
73.20	Total outlays (gross)	(69,405)	(120,491)	(95,448)
73.40	Adjustments in expired accounts (net)	(18)	0	0
73.45	Recoveries of prior year obligations	(149)	0	0
74.00	Change in uncollected customer payments from federal sources	14,636	0	0
	Unpaid obligations, EOY:			
74.40	Unpaid Obligations, EOY	76,058	45,858	47,343
74.95	Uncollected customer payments from Federal sources, EOY	(33,925)	(33,925)	(33,925)
74.99	Obligated balance, EOY	42,133	11,933	13,418
	Outlays (gross), detail			
86.90	Outlays from new discretionary authority	32,000	77,679	83,514
86.93	Outlays from discretionary balances	37,405	42,812	11,933
87.00	Total outlays (gross)	69,405	120,491	95,448
	Offsets:			
	Against gross budget authority and outlays:			
88.90	Offsetting collections (cash) from: Federal sources	72,212	53,000	55,000
	Against gross budget authority only:			
88.95	Change in uncollected customer payments from Federal sources	(14,636)	0	0
88.96	Adjustment to uncollected customer payments from Fed sources	168	0	0
	Net budget authority and outlays			
89.00	Budget authority (net)	31,755	36,293	41,933
90.00	Outlays (net)	(2,807)	67,491	40,448

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
RESEARCH AND SPECIAL PROGRAMS
OBJECT CLASSIFICATION (In thousands of dollars)

Identification code 69-0104-0-1-407

Direct Obligations:	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Personnel Compensation:			
11.1 Full-time permanent	12,674	14,713	16,512
11.3 Other than full-time permanent	938	707	764
11.5 Other personnel compensation	242	191	206
11.9 Total personnel compensation	13,754	15,610	17,483
12.1 Civilian personnel benefits	2,723	3,424	3,872
21.0 Travel and transportation of persons	857	822	788
23.1 GSA Rent	1,538	1,592	1,627
23.3 Communications, util, & misc. charges	569	197	269
24.0 Printing and reproduction	216	249	249
25.1 Advisory & Assistance Service	4,002	5,479	7,092
25.2 Other services	288	243	948
25.3 Other purchases of goods & services from government accounts	1,962	2,648	2,764
25.4 Operation & maintenance of facilities		217	203
25.5 Research and development contracts	3,672	5,097	4,640
25.7 Operation & maintenance of equipment	1,772	1,156	1,180
26.0 Supplies and materials	115	166	137
31.0 Equipment	580	390	681
41.0 Grants			
99.0 Subtotal, direct obligations	32,048	37,291	41,933
99.0 Subtotal, reimbursable obligations	57,743	53,000	55,000
99.9 Total obligations	89,791	90,291	96,933

PERSONNEL SUMMARY

Direct Civilian:			
Full Time Equivalent Employment	189	197	207
Full Time Equivalent of Overtime and Holiday Hours (Non-Add)	1	1	1
Reimbursable Civilian:			
Full Time Equivalent Employment			
Transportation Safety Institute	44	44	47
Other (Honors Attorneys and UTC)	7	11	11
Total FTE	240	252	265

RESEARCH AND SPECIAL PROGRAMS
(Legislative Proposal)

GENERAL PROVISION LANGUAGE

Sec. 323. The Secretary of Transportation shall increase fees charged for hazardous material registration and inspection under chapter 51 of title 49, U.S.C. (except sections 5108(g)(2), 5109, 5112, 5115, 5116 and 5119), so as to result in additional collections in fiscal year 2002 of an estimated $12,000,000 to be credited to a special fund in the Treasury as offsetting receipts: Provided, That the amount credited to the special fund shall be transferred to and be available until expended for the purposes of the Research and Special Program Administration's "Research and Special Programs" account: Provided further, That the amounts appropriated for fiscal year 2002 from the general fund for the "Research and Special Programs" account shall be reduced by $12,000,000.

PROGRAM AND PERFORMANCE STATEMENT
(Legislative Proposal)

The hazardous materials safety program, proposed to be funded at $21 million in FY 2002, is presently financed entirely by general fund appropriations. Beginning in FY 2002, however, we propose to finance $12 million of this program by offsetting collections of hazardous materials registration fees.

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

RESEARCH AND SPECIAL PROGRAMS
Legislative Proposal
PROGRAM AND FINANCING (In thousands of dollars)

Identification code 69-0104-0-1-407-02

		2000 actual	2001 estimate	2002 estimate
	New budget authority (gross), detail			
	Discretionary			
40.00	Appropriation (definite)			(12,000)
40.25	Appropriation (special fund, indefinite)			12,000
43.00	Appropriation (total discretionary)			0
	Net budget authority and outlays			
89.00	Budget authority (net)			0
90.00	Outlays (net)			0

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

Summary of Budget Authority, Positions and FTE

for the

RESEARCH AND SPECIAL PROGRAMS APPROPRIATION

BUDGET AUTHORITY (by type of expense):	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Personnel Compensation & Benefits (PC&B)	17,300	19,035	21,355
Administrative Expenses	4,884	5,534	5,910
Contract Programs	4,981	5,691	8,453
Hazmat Registration Program	1,070	1,070	1,070
Research and Development	3,520	4,963	5,145
TOTAL BUDGET AUTHORITY	31,755	36,293	41,933
BUDGET AUTHORITY (by Program Activity)			
Hazardous Materials	17,700	18,709	21,217
Emergency Transportation	1,378	1,827	1,897
Research & Technology	3,397	4,689	4,769
Program Support	9,280	11,068	14,059
TOTAL BUDGET AUTHORITY	31,755	36,293	41,933
FULL TIME PERMANENT (FTP) POSITIONS and FTE:			
Direct:			
FTP (Positions)	195	200	220
FTE (Workyears)	189	197	207
Reimbursable:			
Transportation Safety Insitute			
FTP (Positions)	42	44	47
FTE (Workyears)	44	44	47
All Other (Honors Attorneys and UTC)			
FTP (Positions)	11	11	11
FTE (Workyears)	7	11	11

APPROPRIATION SUMMARY
RESEARCH AND SPECIAL PROGRAMS
EXPLANATION OF ADMINISTRATIVE EXPENSE CHANGES
(in thousands of dollars)

Total Personnel Compensation	$21,355	+2,320

FY 2001 COLA and Locality Pay Annualization +179
Our request funds the annualization of the FY 2001 cost of living and locality pay increase at 3.7% (with the remaining increase absorbed) for the first quarter of FY 2002.

FY 2002 COLA and Locality Pay Adjustment +529
Our request funds a 3.7 percent cost of living increase and locality pay increase estimated to begin in January 2002.

Merit Increases +512
Our request provides mandatory increases for employees who have met the required criteria.

Annualization of FY 2001 FTE +246
Our request funds the 3 FTE (work years) for the 5 new positions and 2 FTE granted by Congress in FY 2001.

Increase for 261 Paid Days in FY 2001 +74
This increase is the cost of one paid day. We increased the FY 2002 request by the amount of 1/260 of the FY 2001 Enacted Budget level for pay. This was necessary because FY 2002 contains 261 paid days and FY 2001 only contains 260 paid days.

New FTE Requested +780
We request funding for 10 new FTE (work years) for 20 new positions FY 2002.

Administrative Expenses $5,832 +376

Travel and Transportation $788 +0
Our request maintains the FY 2001 level. It does not include inflation in an effort to limit administrative costs.

GSA Rent $1,627 +35
Our request for GSA Rent represents funding for space requirements in Headquarters and in the field. The increase is for the requested 10 new FTE.

Communications, Utilities & Miscellaneous $365 +60
Our request is needed to cover costs associated with communications, utilities, and miscellaneous charges not covered under the working capital fund. These charges include: local phone charges; long-distance phone calls made under C&P or AT&T; etc. Our request does not include inflation in an effort to limit administrative costs. However, +$60K is needed to fund telecommunications costs for the 10 new FTE.

Printing $241 +0
Our request maintains the FY 2001 level. It does not include inflation in an effort to limit administrative costs.

Training $193 +20
Our request maintains the FY 2001 level except for some needed additional training for Hazardous Materials staff. Staff training has been at a low level for several years and this +$20 represents a modest increase.

Accounting $133 +0
Our request represents the FY 2002 prorated cost estimate for accounting services provided by the FAA. The total RSPA estimate for accounting services is $221 thousand.

TASC (WCF) $1,793 +12
Our request reflects a proration of RSPA's share ($2,961K) of DOT's TASC budget estimate for FY 2002. The +12K are the service costs for ID's, library services and miscellaneous administrative support for the requested increase of 10 FTE. All other TASC increases are being absorbed.

Supplies & Materials $129 +3

Our request maintains the FY 2001 level except for additional supplies for the 10 new FTE.

Equipment & Furniture $372 +55

Our request maintains the FY 2001 level except for one-time costs needed to provide modular furniture for the 10 new FTE.

Administrative Support for
Hazardous Materials Safety $191 +191

The Hazardous Materials administrative support budget has remained at essentially $1.27 million over the past five years despite FTE increases of 7%, including 5 new regional offices. To compensate for the administrative budget shortfall, it has been necessary to use program funds to provided the Hazardous Materials regions with office support. $191K will remedy this problem.

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
Summary of Requirements - Budget Authority, Positions and FTE
RESEARCH AND SPECIAL PROGRAMS APPROPRIATION

Program Activity: Hazardous Materials Safety

BUDGET AUTHORITY:	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Personnel Compensation & Benefits (PC&B)	10,497	11,492	12,707
Administrative Expenses	1,269	1,274	1,535
Contract Programs:	3,664	3,680	4,531
Information Systems	1,250	1,250	1,850
Research and Analysis	531	531	582
Inspection and Enforcement	155	155	155
Rulemaking Support	282	282	282
Hazmat Training	475	475	525
Information Dissemination	520	520	670
Emergency Preparedness	370	370	370
International Standards	81	97	97
Hazmat Registration Program	1,070	1,070	1,070
Research and Development:	1,200	1,193	1,376
Information Systems	300	300	300
Research & Analysis	664	423	505
Regulation Compliance	236	470	570
TOTAL BUDGET AUTHORITY	17,700	18,709	21,217
PC&B and Operating Expenses funded by offsetting collections from the Emergency Preparedness Fund	300	400	400
MEMO: Total Budgetary Resources	18,000	19,109	21,617
FULL TIME PERMANENT (FTP) POSITIONS and FTE:			
FTP (Positions)	129	129	135
FTE (Workyears)	126	129	132

HAZARDOUS MATERIALS SAFETY

FY 2002 BUDGET REQUEST

FEE FUNDED PROGRAM

Currently, registration fees are used only to fund RSPA's $14.3 million Hazardous Materials Emergency Preparedness Grants program. However, legislation is being proposed to also fund from these registration fees $12 million of RSPA's $21.2 million FY 2002 Hazardous Materials Safety program. Industry is generally more willing to pay fees used to improve the quality and consistency of programs and regulations that directly affect them.

STRATEGIC HAZARDOUS MATERIAL INCIDENT REDUCTION INITIATIVE

RSPA's Office of Hazardous Materials Safety (HMS) is planning a comprehensive, strategic, multi-disciplinary risk reduction campaign, using enhanced statistics and new engineering capabilities to target less obvious yet major causes of hazardous materials incidents with more extensive compliance initiatives. New resources are requested totaling $1.5 million to fund critical coordinated information, research, analysis, training, and enforcement activities and essential administrative support services. The new resources are allocated by functional area.

The new resources will be largely dedicated to addressing gaps identified in the ONE DOT Hazardous Materials Program Evaluation completed in FY 2000. The evaluation specifically cited the need for improving the quality of hazardous materials data and better utilization of the information available.

As part of the risk reduction campaign, HMS will intensify its efforts to address causes of hazardous materials incidents. Part of the new funding will be used to tailor outreach efforts to specific groups of the regulated community and to retool current training to cover recent trends in all aspects of hazardous materials transportation regulation, including registration and reporting requirements, performance-oriented packaging, and new materials.

Some new funding is also dedicated to shoring up HMS' administrative infrastructure. The HMS administrative expenses budget has remained essentially constant since 1997. Since that time, our mandate has grown dramatically in conjunction with both international and domestic trade growth. Since 1997, HMS established a fifth Regional office in Atlanta, and five additional outreach staff have been assigned to Regions, with the resultant increased demand on funds for travel, office space, telecommunications, and other support. These additional requirements are in addition to the expected inflationary increases in such items as rents and administrative support contract costs, which have not been addressed in past budget submissions.

MISSION

RSPA'S Office of Hazardous Materials Safety (HMS) will help DOT achieve its Strategic Goal for Safety. We will measure our success by the number of serious reportable hazardous materials transportation incidents. HMS administers a comprehensive, nationwide safety program to protect the Nation from the risks to life, health, property, and the environment inherent in the transportation of hazardous materials by water, air, highway, and rail; to protect the environment from damage by oil and other pollutants; and to ensure the safe transportation of food.

In carrying out its mission, HMS strives to meet the following goals to maximize the public benefit from this important safety program:

- To maximize the safety and economic benefits, and minimize the adverse economic impact, of national and international regulations and program actions;
- To facilitate trade and maximize the safety and economic benefits of uniformity;
- To develop international regulations that are practical and effective and provide United States industry equal trade opportunities;
- To foster and facilitate innovation in new materials, technologies and operations; and
- To advance common interests in transportation safety improvements with industry, public interest groups and government stakeholders (including State and local enforcement agencies) that result in greater compliance with regulations and programs which are practical and effective.

HMS has made significant progress in achieving these goals. RSPA represents the United States in international hazardous materials regulatory forums and leads in the development of a core of hazard and performance-based international regulations to ensure the safe transportation of hazardous materials within the United States and among other nations. Uniformity in national and international regulations improves safety and compliance, facilitates national and international trade, and helps United States industry maintain a large positive trade balance in chemicals. Increases in economic activity have resulted in increased quantities of hazardous materials transported, yet have not resulted in a corresponding increase in adverse consequences resulting from hazardous materials incidents. Performance standards and regulatory exemptions and approvals have supported rapid use of new materials, technologies, and operational methods. HMS has developed effective partnerships with industry and State and local governments in hazardous materials employee training, emergency response training and guidance and enforcement activities.

HMS plans, implements, and manages hazardous materials transportation programs in the following functional areas:

Information Systems -- Maintains and operates an analytical and information resource to support all program activities;

Research and Analysis -- Analyzes and monitors hazardous materials transportation issues with emphasis on safety elements; develops regulatory actions and analyzes costs, benefits, and other impacts associated with current and planned rulemaking projects; develops countermeasures for safety problems; and evaluates factors impacting current and proposed regulations. Supports United States participation in the development of international safety standards that promote safety and competitiveness of United States industry; and maintains a system for providing exemptions and approvals to improve safety and to facilitate implementation of new technologies that result in more cost-effective operations;

Inspection and Enforcement -- Plans and manages a national program of safety inspection and enforcement to gain compliance with the Hazardous Materials Regulations (HMR);

Safety Standards -- Promulgates safety standards to assure they reflect new technologies and new industry practices;

Hazmat Training -- Provides formal training and develops educational materials using various media to enhance compliance;

Information Dissemination -- Disseminates educational materials and descriptive literature concerning specific requirements of the HMR to enhance compliance, and operates the Hazardous Materials Information Center to assist shippers, carriers, enforcement personnel and the public in their understanding of particular requirements in the HMR. Establishes and maintains cooperative relationships with State and local governments, other modal administrations, and industry concerning inspection and enforcement matters; provides internships and mechanisms to obtain comments or feedback concerning enforceability of proposed or existing regulations;

Emergency Preparedness -- Provides emergency response support and information to mitigate the consequences of hazardous materials incidents;

International Standards -- Represents the United States in the development of international standards for hazardous materials transportation to protect the public, environment, and economic interests;

Safe Food Transportation -- Ensures the safe transportation of food in accordance with the requirements of the Sanitary Food Transportation Act of 1990 (P.L. 101-500);

Registration Program -- Registers and maintains a database of certain shippers and carriers of hazardous materials and collects fees to support emergency preparedness programs and activities; and

Emergency Preparedness Grants -- Implements a national grant and technical assistance program to increase public capability to plan for and respond to hazardous materials incidents.

HMS uses funds from the Emergency Preparedness Grants appropriation to offset personnel compensation and benefits and administrative expenses necessary to conduct the Emergency

Preparedness Grants program. The resources available to be transferred for this activity are as follows (dollars in thousands):

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
300	400	400	0

Accordingly, these funds are not included in the HMS request, but are scored in the request for the Emergency Preparedness Grants Appropriation.

POSITIONS:

Hazardous Materials Safety is requesting an increase of 6 staff members (3 FTE) to help achieve DOT's and RSPA's Strategic Goals for Safety. The positions will be dedicated to supporting a comprehensive DOT-wide effort at identifying and correcting the major threats to the public in the course of handling more than 800,000 hazmat shipments daily. The new positions directly address the Hazardous Materials Program Evaluation report finding that DOT is hampered by lack of accurate and complete data to make informed program delivery and resource decisions.

Two staff members will support enhancing risk assessments by utilizing existing data enhanced with other data sources from within DOT (such as FMCSA's SafetyStat and FAA's discrepancy reports) plus other non-transportation sources (e.g., FEMA's National Fire Incident Reporting System) to identify critical gaps in the hazmat transportation system. The objective is the early identification of failure trends in package design and human factors.

Two additional staff members will be responsible for evaluating incidents to identify critical gaps in the hazmat safety program requiring immediate actions to prevent the occurrence of similar incidents with more severe consequences. The goal is to determine causes behind the failure trends identified through engineering analysis, field investigations, and simulation.

Two new engineering staff members will address the problems newly-revealed in the comprehensive effort by applying innovative technologies in new materials, package design, and non-destructive testing.

PROGRAM: HAZARDOUS MATERIALS INFORMATION SYSTEM

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
1,250	1,250	1,850	+600

NEEDS FOR FY 2002:

- RSPA will dedicate new resources to integrate and support enhanced data collection, validation, retrieval and analyses through the application of new interactive computer technologies, utilizing the Internet to: streamline administrative burdens on the public in areas such as incident reporting, registration, and petitions to the agency; and enhance customer service and outreach by expanding public access to regulatory information, safety data and training materials.

- RSPA will continue to upgrade the Hazardous Materials Information System (HMIS) and expand an electronic image and data management system to allow easier and more user-friendly access to vital hazardous materials data and information by HMS employees, Federal and State agencies, industry and the public. Sixty State and local government agencies and over 530 staff in over 70 Federal offices use the HMIS. At the State level, incident data are used to support legislative and regulatory actions, prioritize enforcement efforts, allocate emergency response training resources, conduct studies, and plan and implement hazardous materials programs.

- RSPA will also expand its presence on the Worldwide Web. The HMS home page will continue to be updated and topic areas broadened. RSPA will modify filing procedures to allow industry to transmit Incident Report data via electronic means.

- RSPA plans to complete migration of the HMIS from the current mini-computer database management system to a more robust system to increase data collection and dissemination capabilities. While the current system has performed well, it is based on 30-year-old software technology that is no longer supported by the manufacturer.

- RSPA will continue to improve data quality through the use of additional data verification audits in its data entry process and enhance quality control procedures. RSPA will continue to improve data retrieval accessibility through modified menu-driven programs and by posting data to the Internet.

ACTIVITIES PRIOR TO FY 2002:

- RSPA continued to upgrade the HMIS and expand an electronic image and data management system to allow easier access to vital hazardous materials data and information by HMS employees, Federal and State agencies, and industry and the public. To satisfy both internal and external information requirements, RSPA needs to ensure consistent application of safety standards to enhance its regulatory actions. Although the current HMIS is highly computerized, there is still considerable reliance on paper documents. The generation, storage and retrieval of data from the system is being streamlined, and the overall information system made more efficient by using electronic imaging technology.

- By implementing, expanding, and maintaining a HMS-wide on-line information storage and retrieval system, RSPA simplified and accelerated the processing of documents, thereby making available a variety of information, such as interpretations, exemptions, approvals, docket files, enforcement data, and hazardous materials incident information, to its own employees, other DOT administrations, Federal and State agencies, as well as to industry and the public. The HMS on-line system contains archived Registration program forms, Hazardous Materials Incident Report forms, and exemptions documents.

- RSPA is improving compliance with reporting requirements by correlating HMIS reports with the Federal Railroad Administration's Accident report data and the HMIS telephonic data. RSPA also plans to incorporate procedures to correlate HMIS reports with the Federal Highway Administration's Safetynet Accident File data. More complete reporting will enable RSPA and the modal administrations to perform more accurate trend analysis and to target non-compliance of shippers and carriers in their compliance programs.

- RSPA initiated an evaluation of the HMIS Incident Reporting Subsystem in conjunction with industry and users. As part of the evaluation, RSPA solicited comments on the merits of revising the current incident reporting requirements of the Hazardous Materials Regulations and the Hazardous Materials Incident Report form (DOT Form F 5800.1). Any actions resulting from this rulemaking are intended to increase the usefulness of data collected for risk analysis and management by government and industry and, where possible, provide relief from regulatory requirements.

BACKGROUND/SITUATION:

Federal, State, and local government agencies that respond to hazardous materials transportation emergencies require technical and other information to mitigate threats to public safety resulting from hazardous materials incidents. The Secretary of Transportation is required by 49 U.S.C. 5101 et seq. to establish and maintain a central reporting system and information center for this purpose. This information is required to conduct a thorough statistical compilation of accidents and casualties, as well as a list of exemptions in effect and their basis.

HMS depends on HMIS data to inform, support, and set priorities for all of its mission activities: develop regulations; issue exemptions, approvals, and interpretations; and target those shippers

and packaging manufacturers that warrant the most attention. This function is becoming more critical as HMS endeavors to expand its capabilities to engage in trend analysis. The HMIS is operated by an on-site contractor that provides data entry, system development and maintenance, and data retrieval support. HMS oversees improvements to the system.

Amendments to the Federal hazardous materials transportation laws expanded the scope of HMIS by requiring the Department to collect additional information, including intrastate highway incident reports and certain other information on carriers and shippers of hazardous materials.

PROGRAM: RESEARCH AND ANALYSIS

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
531	531	582	+51

NEEDS FOR FY 2002:

- RSPA will enhance its ability to identify critical safety gaps in the hazmat transportation system by utilizing existing data in tandem with other data sources from within DOT plus other non-transportation sources (e.g., EPA's Emergency Response Notification System, FEMA's National Fire Incident Reporting System, industry, Census Bureau).

- In FY 2000, RSPA had 5 high priority rulemakings in progress requiring extensive analytical support and, in some cases, the use of outside technical expertise to analyze the impact of the proposed rulemakings. A number of these rulemakings are expected to extend into FY 2002, including RSPA's proposals to comprehensively revise requirements for cylinders and to consider changes to basic cargo tank motor vehicle regulations including the prohibition (except for minimum quantities) of flammable liquids such as gasoline in unprotected wet lines. New rulemakings are also expected to arise in this time frame. Other ongoing regulatory activities which will continue into FY 2002 include harmonization of requirements in the Hazardous Materials Regulations (HMR) with corresponding provisions of international standards and clarification of jurisdictional lines that identify when certain activities are in transportation and subject to the HMR.

- RSPA will expand its efforts to conduct detailed analyses of the causes of the most serious hazardous material incidents. In this analysis, we will look for product, operational, and other patterns that may indicate cause. Results are used to improve RSPA's overall risk management mission.

- Significant studies, technical analyses, risk assessments, and cost-benefit analyses are necessary to support all elements of the hazardous materials transportation program in FY 2002. National Transportation Safety Board recommendations pose further needs for analysis. Additional guidance and tools for use by government and industry for hazard classification, risk assessment, and risk management may need to be generated. The Guidance Manual for Explosives, expected to be finalized in FY 2001, is an example of the type of material that supports risk management and regulatory compliance. Other guidance materials may need to be developed in areas such as reactive materials and risk analysis.

- RSPA will continue to provide technical support for the development of Acute Exposure Guideline Levels (AEGLs) for selected chemicals. This multi-year project uses a National Advisory Committee (NAC) under the sponsorship of the Environmental Protection Agency and is supported by many Federal agencies. AEGLs for chemicals are vital in developing the Table of Initial Isolation and Protection Action Distances "green pages" in

past and future updates of the Emergency Response Guidebook. The Guidebook, which serves as the basic reference for first responders during the initial phase of a hazardous materials incident, was last revised in FY 2000 and will be updated in FY 2004.

- RSPA requires continued analytical support in FY 2002 for on-going operational projects such as development of a comprehensive risk management database to support hazardous material transportation risk management and risk analysis. RSPA's efforts in this area ensure that the significant body of transportation risk related information and data are organized and accessible for use. Material is being identified, cataloged, and made available at the DOT's Office of Hazardous Materials Safety risk management web page for use by stakeholders in government, industry, and the public. Key risk analysis models and tools are planned to be included in the database.

- Each year, RSPA typically processes over 2,000 exemptions annually. Exemptions permit alternatives to existing regulations when equivalent levels of safety can be demonstrated and risks are not increased. HMS will continue its use of task order contracts and interagency agreements with organizations having the ability to provide quick-turnaround evaluations and analyses of technical issues relating to incidents, operational controls, classification criteria, and packaging and performance standards associated with these exemptions as industry seeks to transport new products or use innovative advancements in the transportation of hazardous materials.

ACTIVITIES PRIOR TO FY 2002:

The HMS Research and Analysis program continued to provide on-going analytical support for our basic hazardous materials rulemaking mission. We also provided technical support for the development of AEGLs for selected chemicals.

In addition to these efforts, we will have completed the following studies prior to FY 2002:

- RSPA completed a threat assessment of the vulnerabilities of transporting hazardous materials in aircraft cargo compartments in compliance and non-compliance situations. The study identified chemicals and substances that pose the greatest hazards in this environment. The study concluded that, when a hazardous material is shipped by air in compliance with the regulations, the threat of a catastrophic event is low. The results of this study support the development of more effective regulatory and non-regulatory countermeasures to reduce the number of undeclared hazardous materials and shipments that are not in compliance with regulations.

- Research and analysis support was provided to participants in the negotiated rulemaking on unloading liquefied compressed gases from cargo tank motor vehicles. Research focused on the capabilities and limitations of existing emergency discharge control systems and the potential for new devices, including pressure or flow sensing devices and remote controls, to address safety concerns. RSPA hosted periodic progress reviews with industry and other stakeholders during the two-year development and testing cycle for emergency discharge control technology with a mandatory implementation date of July 1, 2001. This promoted

the free exchange of information concerning emergency discharge control systems on cargo tank motor vehicles, including recent technology developments, test results, and operating experience.

- As part of an International Atomic Energy Agency rulemaking, in FY 2000 DOT completed a review of criticality safeguards in the regulations for the transport of fissile radioactive materials to ensure they adequately protect the general public and the environment.

BACKGROUND/SITUATION:

In order to respond to threats to public safety posed by the transport of hazardous materials, RSPA is required to analyze, monitor, and integrate safety issues; develop countermeasures for safety problems; develop regulatory actions and analyze costs, benefits, and other impacts associated with current and planned rulemaking projects; evaluate factors impacting current and proposed regulations; conduct analyses to support evaluation of exemptions involving cutting-edge technologies; and study new or proposed changes to international transportation safety regulations which may affect safety or industry competitiveness.

RSPA staff provide the regulatory, legal, and technical expertise to evaluate rulemaking actions, exemptions and approvals requests, and preemption issues. When RSPA does not have either the specific technical skills or available staff to accomplish specific evaluations or studies, RSPA must rely on outside technical expertise.

PROGRAM: INSPECTION AND ENFORCEMENT

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
155	155	155	0

NEEDS FOR FY 2002:

- Continue to conduct a greater percentage of shipper inspections compared to other inspections, with emphasis placed on targeting those entities causing or contributing to the greatest risk;
- Continue to focus inspections on hazardous materials shippers who offer materials for air transportation;
- Reinvent the way we do business by increasing voluntary compliance. Because the vast majority of hazardous materials transportation incidents are caused by human error, we intend to better align our programs to address this problem. RSPA will implement an intensive effort to reach the hazmat community through training and customer service. We intend to raise awareness and promote industry involvement in hazmat transportation compliance by initiating and implementing joint partnership programs with industry and multimodal enforcement groups to identify and verify high-risk hazardous materials shippers within the small business community. RSPA's regional hazardous materials offices will provide technical assistance to small businesses needing compliance guidance;
- Maximize effective use of Regional inspection staff by contracting for part-time staff support for each of the five regional offices. $150,000 is requested for this purpose; and,
- Conduct formal hearings. Each respondent in a civil penalty enforcement case has the right to request a formal hearing before an administrative law judge (ALJ). Funding in the amount of $5,000 is required for cases referred to ALJs.

ACTIVITIES PRIOR TO FY 2002:

HMS conducts more than 1,700 inspections each year, and, when appropriate, submits enforcement reports of probable violations of the HMR to the Office of Chief Counsel (OCC) for civil penalty enforcement action. With the establishment of five HMS regional offices between 1991 and 1997, and with a significant increase of inspectors in 1997, reports submitted to the OCC for civil penalty enforcement have increased by 50 percent. RSPA has taken a number of actions to streamline and minimize processing time in those steps of the civil penalty enforcement process under its control, including:

- Delegating authority for referring cases to OCC directly to each inspection unit;
- Making prompt issuance of a Notice of Probable Violation (NOPV) a top priority to encourage early corrective action and to provide companies with a timely opportunity to respond to alleged violations;
- Reevaluating and adjusting processing standards and incorporating most of those standards into personnel performance appraisals; and,
- Making permanent our ticketing program to simplify enforcement of certain violations which do not have a direct impact on the safe transportation of hazardous materials by offering significantly reduced penalties and eliminating administrative procedures for those respondents who pay the ticket.

As a result of these actions, the processing of HMS enforcement cases and the issuance of NOPVs and orders has improved. The ticketing program saves industry and government time and money. In 1999, tickets were closed in an average of 1.9 months, while civil penalty cases in that year took 16.4 months to close on average. Reinspection of the facilities that have been issued tickets has shown a compliance rate of more than 90 percent for provisions formerly violated.

In the summer of 1996, RSPA began to place emphasis on shippers offering hazardous materials by air, working with the DOT modal administrations, especially the FAA, through information sharing, planning, and joint inspections. Since the beginning of FY 1998, we have conducted 652 aviation-related inspections.

We actively participate in the Cooperative Hazardous Materials Enforcement Development (COHMED) program meetings and solicit information from State enforcement agencies about noncompliance in areas under RSPA's jurisdiction.

In FY 1999, HMS's five regional hazardous materials enforcement offices participated in numerous joint inspection activities with the FAA, the FHWA, the FRA and the USCG. In addition, the regional offices worked with other Federal agencies, such as Environmental Protection Agency, the Federal Bureau of Investigation, and U.S. Customs, and a number of state enforcement agencies.

BACKGROUND/SITUATION:

We estimate that more than 800,000 shipments of hazardous materials move in the Nation's commerce every day. A consistent and strong enforcement program is essential to maintain an enforcement presence sufficient to encourage and enforce compliance with the HMR to protect the American public from the risks to life, health, property, and the environment inherent in the transportation of hazardous materials. The enforcement program focuses on obtaining the highest rates of compliance, with emphasis placed on targeting those entities causing or contributing to the greatest risk.

HMS has several major groups of affected parties within its more than 100,000-entity inspection jurisdiction. These include manufacturers of packaging (and related businesses such as cylinder retesters and drum reconditioners), offerors (shippers) of hazardous materials, non-vessel-operating common carriers, and exemption holders (which are either manufacturers, carriers or offerors). HMS also conducts shipment inspections in port areas. These affected parties increased significantly with the extension of the HMR to all intrastate highway transportation of hazardous materials. RSPA cooperates with the hazardous materials enforcement programs of the four modal administrations: FAA, FRA, FHWA and USCG, to ensure compliance with the HMR.

PROGRAM: RULEMAKING SUPPORT

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
282	282	282	0

NEEDS FOR FY 2002:

- HMS estimates that it will require $160,000 in FY 2001 to meet its obligations for Federal Register publications. HMS is also requesting $117,000 to fund the annual republication of the volume comprising Parts 100-180 of Title 49, Code of Federal Regulations.

- To increase opportunities for public participation in rulemakings, HMS is requesting $5,000 to fund four one-day rulemaking hearings, two in the District of Columbia and two elsewhere. The funding will cover room rentals, court reporter fees, and other expenses of such public meetings.

ACTIVITIES PRIOR TO FY 2002:

In FY 2000 and 2001, RSPA conducted public meetings on the following rulemaking proceedings:

- Regulatory Review. RSPA conducted three public meetings, in Secaucus, New Jersey, Cleveland, Ohio, and Long Beach, California, to seek information on improving hazardous materials transportation safety, reducing industry costs to comply with the hazardous materials regulations (especially to small businesses), and increasing customer service; and

- Cargo Tank Motor Vehicles in Compressed Gas Service. RSPA sponsored a public meeting in Des Plaines, Illinois, to promote an exchange of information concerning industry compliance with new operating and equipment requirements applicable to cargo tank motor vehicles used to transport liquefied compressed gases. Meeting participants exchanged information concerning recent technological developments, the results of real-world testing of new equipment and devices, and operating experience.

In FY 2000 and 2001, RSPA published the following rulemaking documents:

- International Harmonization. This rulemaking addresses a wide range of changes to the Hazardous Materials Regulations (HMR) for the purpose of maintaining alignment with international standards for the transport of hazardous materials. On October 23, 2000, we published a notice of proposed rulemaking to revise the HMR for consistency with international standards; on February 1, 2001, we published a final rule updating the international standards incorporated by reference into the HMR. We expect to publish a final rule to complete rulemaking under this docket in the spring of 2001;

- Infectious Substances and Genetically Modified Micro-organisms. This rulemaking addresses transportation requirements for infectious substances, including regulated medical waste, and genetically modified micro-organisms. We published a notice of proposed rulemaking on January 22, 2001; we expect to publish a final rule by December 2001;

- Emergency Response Information on Board Aircraft. In an advance notice of proposed rulemaking published August 15, 2000, we solicited comments and suggestions on ways to implement a recommendation from the National Transportation Safety Board (NTSB) to require that air carriers transporting hazardous materials have the means to quickly retrieve and provide information about the identity of a hazardous material on an airplane;

- Lithium Batteries. Lithium batteries have been involved in several incidents involving short circuits and fires related to transportation of these batteries on aircraft. On September 7, 2000, we published advisory guidance to inform persons of the potential hazards that shipments of lithium batteries may present while in transportation and to recommend actions to offerors and transporters to ensure the safety of such shipments;

- Registration Program. This final rule, published February 14, 2000, amends the statutorily mandated registration and fee assessment program for persons who transport or offer for transportation certain categories and quantities of hazardous materials;

- Miscellaneous Amendments. We published several final rules to revise the regulations to incorporate miscellaneous improvements suggested by the regulated industry and to make editorial corrections and minor regulatory changes to improve the clarify of the regulations; and,

- Advisory Notices. We published eight safety advisory notices concerning safety problems identified with the transportation of hazardous materials in cylinders and portable tanks.

BACKGROUND/SITUATION:

As the number, volume and complexity of hazardous materials movements in the U.S. increases, HMS is required to determine the need for, develop, promulgate and maintain national safety standards for hazardous materials transportation, to protect the public from risks inherent in the transportation of hazardous materials. In compliance with the Administrative Procedure Act and other applicable legislative and executive requirements, the public is given an opportunity to comment on proposed rulemaking actions. This process entails publishing all proposed and final actions in the Federal Register, including exemptions, formal interpretations and preemption determinations; maintaining a public docket section; holding public meetings when appropriate; and annually republishing the applicable parts of the Code of Federal Regulations.

PROGRAM: HAZARDOUS MATERIALS TRAINING

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
475	475	525	+50

NEEDS FOR FY 2002:

Our request will provide for:

- Incorporation of new information into Transportation Safety Institute (TSI)-based training and other technical assistance for state, local and industry partners. New material on packaging vulnerabilities, failure trends, and trends in non-compliance will be folded into our current curricula on a continual basis;

- HMR compliance training to public safety personnel through TSI;

- Development of HMS training modules specifically targeted at areas of noncompliance. We plan to revise and update modules and develop new specialized safety training modules (cylinders, radioactive materials, cargo tank) which will provide effective compliance training which is critical for the safe transportation of hazardous materials; and,

- development of training materials to educate and train our stakeholders to ensure that safety principles and concepts are understood and that skill levels are raised and incorporated into day-to-day transportation activities to enhance transportation safety. We will continue to forge partnerships and alliances among trainers, enforcement personnel and the regulated industry to enhance the development of these materials.

ACTIVITIES PRIOR TO FY 2002:

- In FY 2001, RSPA continued its sponsorship of the DOT-wide Multimodal Seminars. These five nationwide outreach training seminars, which featured specialists from the DOT modal administrations, were intended to enhance compliance with hazardous materials regulations among shippers, carriers, the enforcement community, and all other persons who transport or prepare hazardous materials for shipment. Improved marketing efforts resulted in increased seminar participation from 50 to over 300 attendees.

- In FY 2001, RSPA continued to make compliance training available to State and local compliance personnel through TSI's resident and train-the-trainer courses. More than 2,000 participants were trained at RSPA-sponsored seminars and conferences.

- In FY 2001, a CD-ROM modular training series was updated and revised to include a new module developed specifically for the transportation of hazardous materials by water. This modular training series was distributed on CD-ROM at a nominal cost and is available for

downloading free from the HMS web site. Both distribution avenues are cost-effective for small businesses to train employees in compliance with the HMR. These training modules were developed as self-paced tutorials which do not require an instructor, and were designed to reach a much wider audience, especially among those smaller jurisdictions that cannot afford formal classroom safety training.

- In FY 2001, RSPA expanded its Hazardous Materials e-commerce website for requesting publications to include conference and training registrations. This effort resulted in broader distribution of publications and increased participation in training opportunities and conferences.

BACKGROUND/SITUATION:

RSPA develops and distributes cost-effective training and up-to-date educational materials to industry to enhance compliance, to local emergency response agencies to promote emergency preparedness, and to local enforcement personnel. These activities include development and dissemination of training, technical assistance, and information initiatives that address the hazardous materials transportation safety concerns of management, technical, and operations personnel.

RSPA's training services to industry are geared to promoting compliance with the HMR. In addition, RSPA provides emergency preparedness support to public safety personnel to perform their jobs safely. Such training is the most effective defense for protection against threats to public safety, health, property, and the environment resulting from hazardous materials incidents.

PROGRAM: INFORMATION DISSEMINATION

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
520	520	670	+150

NEEDS FOR FY 2002:

HMS intends to strategically expand its outreach activities to enhance compliance with HMR. The components of this effort include:

- Hazardous Materials Information Center. The Center consists of both HMS and contractor staff located at Headquarters. Its purpose is to assist shippers, carriers, packaging manufacturers, enforcement personnel, and others in their understanding of requirements in the HMR for the purpose of maximizing voluntary compliance. In addition, the Center staffs the statutorily mandated toll-free number for transporters of hazardous materials, and others, to report possible violations of the HMR or any order or regulation issued under Federal hazardous materials transportation law. The Center has experienced a dramatic 25 % increase in call volume in the past year, due to changes in regulations, more effective outreach, and changes in Registration program requirements. We anticipate further volume increases in the coming year. In addition, the support contract is scheduled to be competed in FY 2002. Additional funding will be used to fund the new contract. The new contract will expand the capacity of the Center;

- RSPA web site (http://hazmat.dot.gov). RSPA will continue to enhance the site. The site includes: copies of rulemaking proposals and final regulations; the hazardous materials registration form and guidance; information related to the development of international dangerous goods regulations; the hazardous materials incident report form and guidance; searchable HMR, interpretations, and active exemptions; the Emergency Response Guidebook; upcoming training classes provided by TSI; hazmat training and information publications; conferences and meetings; and general information on the program including information on contacting persons within the organization;

- Cooperative Hazardous Materials Enforcement Development (COHMED) program support costs. Spring and Fall conferences which provide for the exchange of hazardous materials safety information among States, local governments and industry on compliance and enforcement issues. We will utilize COHMED's network of state officials to assist in evaluating and determining shipper compliance with the Hazardous Materials Regulations. This initiative will provide data necessary for developing future training and outreach materials directly targeted at areas of noncompliance;

- Hazardous Materials Safety Publications. To improve voluntary compliance with the HMR, HMS will provide hazmat training, technical assistance and safety information. Each

year, HMS distributes approximately 2 million items, including safety training materials, fact sheets, newsletters and other safety-related information; and,

- Hazardous Materials Specialist Internship Program (IPA) support costs. Funds the six-week internship program for State and local emergency response personnel. Under the program, interns are stationed at RSPA Headquarters and participate in activities related to hazardous materials transportation. The activities include inspections performed by RSPA, FAA, and FRA. Typically four State and local personnel participate annually.

ACTIVITIES PRIOR TO FY 2002:

- RSPA maintained the capabilities of the Hazardous Materials Information Center through the acquisition of up-to-date telephone, facsimile, and computer hardware and software for Internet accessibility; and through exercising its option to renew the service contract for personnel to augment telephonic-inquiry responses provided by the HMS permanent staff. In 2000, the Center handled over 29,000 telephone calls. Since 1993, the HMS-operated Hazardous Materials Information Center offers a single nationwide toll-free telephone service (1-800-467-4922) weekdays from 9:00 a.m. to 5:00 p.m. (Eastern Time). The Center has assisted shippers, carriers, packaging manufacturers, enforcement personnel, and others in their understanding of requirements in the HMR for the purpose of maximizing voluntary compliance. In addition, the Center staffs the statutorily mandated toll-free number for transporters of hazardous materials and others to report possible violations of the HMR or any order or regulation issued under Federal hazardous materials transportation law.

- In 2001, a modular training CD-ROM was updated and made available for downloading from the HMS web site free-of-charge to aid small businesses in meeting the training requirements and promoting education and compliance.

- In FY 2001, RSPA established its Hazardous Materials Safety Assistance Team field staff to expand partnership efforts to reach small businesses previously not accessible through associations or Federal Register notifications.

- In FY 2001, RSPA spearheaded a ONE DOT multi-modal effort to develop hazardous materials publications relating to the proper transportation of hazardous materials. These training and outreach publications were distributed by all modal administrations.

- RSPA continued to distribute to the airline industry a passenger brochure, "These Fly...These May Not" and a "Forbidden Hazmat Poster" on awareness of hazardous materials that are not allowed to be in luggage or carried aboard an aircraft. By the end of FY 2001, about 5,000 posters will have been distributed to airlines.

- In FY 2001, RSPA distributed over 2 million copies of hazardous materials training and technical assistance documents to the public for inclusion in their training programs and for replication and distribution to their employees and students.

- RSPA sponsored the COHMED Spring and Fall conferences, which provide for the exchange of information among States, local governments, and industry on compliance and enforcement issues. During these sessions, specific emphasis was placed on detecting undeclared shipments of hazardous materials.

- RSPA also continued the six-week Hazardous Materials Specialist Intern Program with participants from the State Police and local emergency response personnel.

BACKGROUND/SITUATION:

RSPA's outreach program is a cornerstone of efforts to ensure compliance with the HMR. Timely access and accurate information on requirements for compliance with the HMR, the hazards of certain materials and appropriate procedures to manage emergency situations enhances public and worker safety, public and industry. Industry also needs to be aware of, and participate in, the development of proposals affecting the international transportation of hazardous materials to maintain the United States' positive annual $20.5 billion dollar chemical trade balance. The needs for information have increased substantially with the extension of the HMR to all intrastate highway transportation, new hazardous materials employee training requirements, medical waste regulations, and the North American Free Trade Agreement (NAFTA). NAFTA has precipitated an increased need for delivery of training materials and guidance in French and Spanish.

PROGRAM: EMERGENCY PREPAREDNESS

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
370	370	370	0

NEEDS FOR FY 2002:

HMS will continue its reimbursable agreement with the Coast Guard's National Response Center (NRC) to receive telephonic notification of incident reports from carriers of hazardous materials. Federal hazardous materials transportation laws require the Secretary of Transportation to issue regulations for the safe transportation of hazardous materials in intrastate, interstate, and foreign commerce. The NRC currently collects over 27,000 telephone reports annually, of which 1,100 are related to hazardous materials (non-pipeline) spills.

ACTIVITIES PRIOR TO FY 2002:

The NRC has supported HMS through the receipt of thousands of telephonic reports of transportation incidents involving hazardous materials. The NRC provides callers with immediate technical advice on responding to incidents through telephone links with the Chemical Transportation Emergency Center, a service of the Chemical Manufacturers Association. The NRC also notifies either the Environmental Protection Agency or Coast Guard on-scene coordinator, if warranted. RSPA receives immediate notice of major incidents, such as the closing of a major transportation artery. A permanent record of telephonic reports is established and integrated within the HMIS data system. The telephonic report data are correlated to HMIS incident reports to improve compliance with reporting requirements.

BACKGROUND/SITUATION:

To mitigate the consequences of hazardous materials incidents, RSPA maintains a central reporting system and information center to provide law enforcement and fire fighting personnel, government officers and other interested persons with time-critical technical and other information and advice, as required by The Federal Hazardous Materials Transportation Law(49 U.S.C. 5101 et seq.).

PROGRAM: INTERNATIONAL STANDARDS

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
81	97	97	0

NEEDS FOR 2002:

RSPA will continue to lead or participate in the U.S. delegations to five international organizations: the UN Economic and Social Council Committee of Experts on the Transport of Dangerous Goods, the Working Party on the Transport of Dangerous Goods of the UN Economic Commission for Europe, the International Civil Aviation Organization (ICAO) Dangerous Goods Panel, the International Atomic Energy Agency, and the International Maritime Organization Dangerous Goods (IMDG), Solid Cargoes and Containers Sub-Committee. RSPA staff will continue to prepare official United States position papers and positions on papers from other countries and organizations in order to convey formal United States positions and proposals that represent U.S. interests on various issues concerning the international transportation of hazardous materials. RSPA will begin work on publishing amendments to the HMR with the twelfth revised edition of the UN Recommendations. RSPA plans to continue to work with its counterparts in Mexico and Canada to further harmonize the regulations of the three NAFTA countries and to participate in the NAFTA Land Transportation Standards Sub-Committee. In partnership with Canada, Mexico and industry, RSPA plans to develop a North American Transport of Dangerous Goods Standard to facilitate further harmonization of North American hazardous materials regulations. The funds requested will be used as follows:

- Travel to continue participating in international forums and other standard-setting meetings;
- Translation of international documents, and assistance to RSPA in communicating with its foreign non-English speaking counterparts;
- Purchase of international hazardous materials regulations including the IMDG Code, United Nations Recommendations on the Transport of Dangerous Goods (UN Recommendations), and the ICAO Technical Instructions on the Safe Transport of Dangerous Goods By Air (TI);
- Contractor support in harmonizing the hazardous materials regulations among the NAFTA countries, including transcription of rail tank car requirements and tank truck requirements into a standard format.
- Conduct of and participation in outreach activities to inform, update and solicit feedback from stakeholders relative to RSPA's international activities and to ensure US interests are taken into account in international forums and in the development of amendments to international regulations.

- Management information enhancements and computer hardware/software to support RSPA's international activities.

- RSPA will continue to maintain a database of documents submitted to international organizations, provide public access to international papers by placing them on HMS' home page, and represent the interests of the United States before bodies formulating international regulations.

ACTIVITIES PRIOR TO FY 2002:

- International regulations require continual updating to respond to changes in technology, new and unique hazardous materials, and concerns for safety. Each year, RSPA represents the United States in approximately 12 international meetings. In order to ensure the interests of the United States are taken into account and to solicit public participation in international standards development, RSPA hosts public meetings and maintains an Internet web site. RSPA staff prepares on average over 100 official United States position papers annually in order to convey formal U.S. positions and proposals on various hazardous materials transport issues at international meetings. RSPA also develops on average over 400 U.S. positions in response to proposals from other countries in cooperation with U.S. industry and the general public. In addition, RSPA meets with other government agencies to formulate key United States positions. For example, RSPA actively participates in a Department of State-led interagency group on global harmonization of chemical classification and labeling systems. RSPA reaches out to industry and public interest groups by participating in several hazardous materials transportation conferences each year. RSPA also meets frequently with industry trade groups and associations to ensure United States industry interests are well understood and taken into account in global standards development efforts.

- RSPA published a Final Rule on February 1, 2001 (HM-215D) to align the HMR with the eleventh revised edition of the UN Recommendations, the 2001-2002 edition of the ICAO TI and Amendment 30 of the IMDG Code. A second final rule to address additional issues not covered in the February 1, 2001 final rule will most likely be published in April 2001. The regulatory amendments adopted in the Final Rules are necessary to facilitate the transportation of hazardous materials in international commerce. The uniformity of national and international hazardous materials transportation regulations directly affects the U.S. chemical industry, which exported over $70 billion in chemical products during 1998. In addition to enhancing safe transportation through improved regulatory consistency, international harmonization of hazardous materials regulations has played a significant role in maintaining the United States' positive balance of trade in chemicals and results in significant savings to the regulated public.

- RSPA contributed a leading role in developing internationally acceptable United Nations gas cylinder requirements. Prior to this effort gas cylinder requirements were not internationally harmonized. As a result of RSPA's efforts, UN marked and certified gas cylinders will be capable of being transported and accepted throughout the world.

- For several years, RSPA has worked with Mexico and Canada to ensure the safe transportation of hazardous materials across our borders. It is important for each country that hazardous materials regulations be consistent with the UN Recommendations and the United States HMR. The United States and Canadian hazardous materials regulations are for the most part compatible, and Mexico has made great progress toward adopting the UN Recommendations. Prior to NAFTA, Mexico had no hazardous materials regulations which were compatible with United States regulations. Since adopting its first hazardous materials transportation law in 1993, Mexico has enacted more than 25 Official Mexican Standards which apply to hazardous materials transport within Mexico and that are consistent with the UN Recommendations.

- RSPA, with its Canadian and Mexican counterparts, published the 2000 Emergency Response Guidebook in English, French and Spanish. The Guidebook provides emergency responders arriving on the scene of a hazardous materials incident with appropriate safety information relevant to the hazardous material involved.

BACKGROUND/SITUATION:

To enhance mobility of international hazardous materials shipments while maintaining or improving safety levels, RSPA participates in a number of international meetings. The formulation and advocacy of United States policies with respect to international hazardous materials safety standards are critical to public safety. Our objective is to promote a worldwide system that provides consistency among modes and regions sufficient to guarantee the free movement of hazardous materials. Consistency improves safety and compliance with the United States regulations; and reduces the need for imposing different United States' domestic regulations on import shipments.

PROGRAM: SHIPPER AND CARRIER REGISTRATION

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
1,070	1,070	1,070	0

NOTE: These appropriated funds will be offset by collections of approximately $1.2 million to the General Fund from shippers/carriers who register annually.

NEEDS FOR FY 2002:

- The Federal Hazardous Materials Transportation law requires RSPA to charge shippers, carriers, and other persons subject to registration for the cost of administering the registration program and for processing the registration statements. Unlike the funding mechanism for the HMEP grant program, the administrative costs of the registration program require an annual appropriation. These funds must be available prior to each registration year to enable RSPA to enter into contracts to process the registration statements. An equal amount of money will be returned to the United States Treasury upon receipt of the fees within the same year.

- We are requesting an appropriation of $1,070,000 to continue to provide support for the collection and processing of data and fees required by Federal hazardous materials transportation laws, for administrative costs to maintain an increasingly complex record keeping system, to provide greater accountability for the information and funds, to provide Federal, State and local governmental agencies and industry and public representatives with data collected by the program, and to issue Certificates of Registration.

- As a result of revisions to the registration requirements in FY 2000, the number of registration statements that must be processed is expected to rise to approximately 44,000 annually.

- The funding is also required to continue an aggressive industry technical assistance and customer assistance program, which is available 24 hours a day, to assist registrants in understanding and complying with the Federal registration requirements.

ACTIVITIES PRIOR TO FY 2002:

- RSPA has administered the Hazardous Materials Registration Program since its inception in July 1992. In FY 2000, RSPA processed more than 42,000 registration statements. RSPA's Registration Program relies on the resources and coordinated efforts of seven major work units: RSPA; HMS; a Data Manager contracted by RSPA to process the registration statements, issue certificates of registration, and maintain and manage the registration data file; an on-site contractor to provide programming support, data analysis,

and public information; the United States Treasury; and two banks selected by Treasury to collect the fees and provide other banking services.

- As a result of revisions to the registration requirements in FY 2000, we anticipate processing more than 44,000 registrations in FY 2001, collecting approximately $14.0 million to fund emergency response activities, and collecting approximately $1.2 million for administrative costs.

- RSPA implemented a technical assistance program to inform industry of the requirements of the program. In FY 2000, RSPA continued to refine the administration of the program to ensure that shippers and carriers paid fees for each year of the registration program, where applicable, based on experience gained in previous fiscal years.

BACKGROUND/SITUATION:

RSPA has been delegated responsibilities assigned by the Federal hazardous materials transportation law (49 U.S.C. 5101 et seq.) to the Secretary of Transportation to collect company-specific information via the registration of certain shippers and carriers of hazardous materials, and to collect an annual fee of not less than $250 or more than $5,000 from the shippers and carriers to support an emergency response program. Funds are also collected, and must be appropriated, to administer the registration program.

RESEARCH AND DEVELOPMENT

MISSION & OVERVIEW

The HMS R&D program is authorized by 49 U.S.C. 5101 et seq. This program provides the technical and analytical foundation necessary to support the DOT's regulatory, enforcement, and emergency response activities in the area of hazardous materials transportation safety.

FUNDING LEVELS: (dollars in thousands)

	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
Activity Breakdown				
Information Systems	300	300	300	0
Research & Analysis	664	423	505	+82
Regulation Compliance	236	470	570	+100
TOTAL	1,200	1,193	1,375	+182

PROGRAM: RESEARCH AND DEVELOPMENT

ACTIVITY: Information Systems

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
300	300	300	0

NEEDS FOR FY 2002:

RSPA utilizes two sources for developing means to support and maintain the HMIS:

- A contract that provides system development services. The contractor provides software that enables RSPA to access and efficiently use HMIS data and prepare specialized presentations of HMIS data; and
- Volpe National Transportation Systems Center, which provides research and development services related to data collection.

Both sources will be requested to:

- Continue refining and updating the intermodal database. This will allow the modes to obtain more information on previous shipper violations when assessing penalties. Federal hazardous materials transportation law requires the Secretary to take prior shipper violations into consideration when assessing penalties;
- Expand user-friendly access assistance and tracking programs for the HMIS and registration data; and,
- Continue working with industry to test and assess the feasibility of enabling the filing of incident reports through electronic means. Electronic filing of incident reports has been requested by industry because it would save staff time and money and is important to RSPA because it would increase the timeliness of the reports;

ACTIVITIES PRIOR TO FY 2002:

- HMS uses data in the HMIS to support its mission activities: develop regulations; issue exemptions, approvals, and interpretations; track program performance in accordance with the Government Performance and Results Act of 1993; and enforce safety regulations.

  This function is even more critical as the Department of Transportation (DOT) monitors the transition to performance-based packaging begun in 1991.

- RSPA also uses the HMIS to develop information to plan inspections and to track data on enforcement activities. This tracking system has been completely redesigned, increasing the efficiency of inspector resources. In addition, a multi-modal group under the leadership of HMS has been established to coordinate intermodal hazardous materials enforcement efforts. This group developed a shared intermodal database of inspections and enforcement data relating to shippers of hazardous materials. The information collected in this database has been expanded and enhanced.

- Access to the HMIS has been provided to 60 State and local government agencies and to over 530 users in more than 70 Federal offices. Incident data have been used at the State level to support their legislative and regulatory actions, prioritize enforcement efforts, allocate emergency response training resources, conduct research studies, and assist in planning and implementing hazardous materials programs.

- Registration information in the HMIS provides the Federal, State and local governments the capability of correlating hazardous materials activity to geographic locations and to interrelate RSPA data with other Federal, State, and local government information systems for emergency preparedness and enforcement purposes.

- We also continued to upgrade the Grant Automated Document, Information and Control System (GADICS), an administrative tool of the Hazardous Materials Emergency Preparedness Grants Program, to conform to HMS software standards and improve usability by the Grants program specialists.

BACKGROUND/SITUATION:

Developing regulations and other interventions which address clearly defined public safety threats in an optimal manner requires timely information. In addition, Federal, State, and local government agencies that respond to hazardous materials transportation emergencies require technical and other information to ensure public safety. The Secretary of Transportation is required by 49 U.S.C. 5101 et seq. to establish and maintain a central reporting system and information center to provide this service. HMS collects information supporting mission-critical activities on a continual basis, and maintains it on HMIS.

PROGRAM: RESEARCH AND DEVELOPMENT

ACTIVITY: Research and Analysis

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
664	423	505	+82

NEEDS FOR FY 2002:

RSPA plans to conduct the following research projects in FY 2002:

- "Analyses of Packaging Standards". Proper definition of packaging requirements for hazardous materials is essential to ensure the packaging functions as intended in the transportation environment. Packaging must be able to withstand the full range of forces and stresses encountered in a variety of modes. Additional engineering staff and contract support will allow RSPA to examine a broader range of packaging issues, such as puncture resistance standards for performance oriented packaging, and to participate in commercial packaging standards development activities of organizations such as the American Society for Testing and Materials;

- "Undeclared Shipment Reduction". Reducing undeclared hazardous materials are a high priority for RSPA. Discovering practical ways to better communicate requirements, conducting surveys to determine the level on undeclared shipments, and developing noninvasive ways to screen for undeclared hazardous materials are areas that will benefit from additional resources;

- "Hazard and Consequence Analysis Tools". Conducting transportation risk assessment critical to implementing DOT's strategic plan and supporting rulemaking requires an integrated set of planning tools for hazard and consequence analysis for releases of hazardous materials from transportation sources. Continued development of such planning tools will build upon the prior experience with programs such as the Automated Resource for Chemical Hazard Incident Evaluation (ARCHIE), which was primarily designed for emergency planning purposes;

- "Increased Effectiveness of Design Methodologies for Cargo Tank Motor Vehicle Accident Damage Protection". RSPA will sponsor research to improve the design of accident damage protection of cargo tank motor vehicles. The National Transportation Safety Board (NTSB) conducted an investigation into a representative number of "overturn" accidents involving DOT specification cargo tanks. Their report concluded that improvements were badly needed in industry's state-of-the-art understanding of the physical forces and stresses involved in overturn accidents and improvements in their analytical methodologies;

- "2003 Emergency Response Guidebook (ERG2003)". RSPA will undertake critical research providing a scientific basis for the periodic revision of this guidebook. The Emergency Response Guidebook provides vital information for those responding to a hazardous materials incident;

- "Risk Performance Measures". The ability to gauge system performance is important in understanding and managing risk. However, this is often difficult when high consequence, low probability events are involved. This research is aimed at taking a formal, comprehensive look at hazardous materials transportation and establishing a better set of indices that provide a more realistic and meaningful measurement of risk. This will help identify where resources are best utilized and serve as a basis for Government Performance and Results Act (GPRA) type measures; and,

- "Incident Cost Research". U.S. hazmat transportation results in more than 14,000 incidents annually, causing fatality, injury, property damage, environmental, vehicle loss, clean-up and other costs. Identifying the costs and estimating their magnitude provides important risk management information that helps OHMS in its hazmat oversight and regulatory activities. Research efforts to improve incident cost data will be undertaken during FY 2002, with findings expected to be reported in 2003.

ACTIVITIES PRIOR TO FY 2002:

RSPA has completed several long-term mission-critical studies addressing different aspects of risk management. We have or plan to complete the following studies prior to FY 2002:

- "Applicability of Hazard Analysis and Critical Control Points (HACCP) or Similar Systems to Hazardous Materials Transportation." In FY 2000, RSPA completed exploratory efforts examining the applicability of the HACCP or similar systems to the transportation of hazardous materials. The result is a Risk Management Self-Evaluation Framework (RMSEF), which is intended to aid all parties in assessing and managing hazardous material transportation risk. RMSEF provides a risk management framework and a step-wise approach to risk management. It is a tool for voluntary self-assessment by all parties (regulators, shippers, carriers, emergency response personnel) involved in hazardous materials transportation;

- "National Transportation Risk Assessment for Selected Hazardous Materials". This multi-year research effort, recently completed, more accurately portrays the spectrum of risks involved in the transportation of hazardous materials. Reliance on historical data does not depict true risk when low-probability, high-consequence events are involved. Results of the study provide a better understanding of hazardous material transportation risk across the continuum of accident probabilities and consequences;

- In support of publication of the 2000 Emergency Response Guidebook (ERG2000), RSPA sponsored critical research aimed at identifying greater numbers of water-reactive chemicals and applying statistical methodology to predict initial isolation and protective

action distances. In addition, research and improved methodologies permitted continued refinement of recommended actions based on spill size as well as updating of initial isolation zones and health criteria. Heavy gas effects were investigated and incorporated into models used for the final guidebook. RSPA also incorporated guidance on response to criminal or terrorist use of chemical or biological agents;

- "Establishing Acceptance/Rejection Criteria for Requalification of DOT Cylinders Based on Fitness for Service Assessment Methodology". Retest methods, such as acoustic emission/ultrasonic and ultrasonic examination, as alternatives to the traditional hydrostatic/visual inspection are being developed for requalification of DOT cylinders. Advanced retest techniques are capable of more precise measurement and support more sophisticated acceptance/rejection criteria, sometimes called "Fitness-for-Service Assessment." Work initiated in FY 2000 on Fitness-for-Service Assessment methodology will establish a technically sound basis for the acceptance/rejection criteria for all of the various types of DOT cylinders and for future advanced types of cylinders;

- "Study of Radiation Dose Received by Hazardous Materials Employees and the General Public as a Result of Transportation of Radioactive Materials". In FY 2001, RSPA initiated efforts to review, evaluate, and update available data concerning radiation doses received by workers and the general public which is a direct result of the transportation of radioactive material. RSPA began to assess these doses and explore methods to improve radiation protection;

- "Evaluation of the Transport Regulations for Radioactive Materials". This study, begun in FY 2001, examines containment, radiation control, criticality prevention, and thermal protection criteria used in the transport regulations for radioactive materials and look for ways to simplify and clarify transport regulations;

- "Puncture Resistance of Specification Cylinders Used for the Transportation of Toxic Materials". Welded and thin-walled DOT specification cylinders are currently authorized for the transportation of toxic gases and liquids. RSPA conducted a study of HMIS incident reports and concluded that there is a potential for damage to these cylinders during handling, or during vehicle overturns or accidents. Because toxic materials pose a higher risk to the public if released from a punctured cylinder, RSPA has proposed a performance-oriented puncture resistance requirement. To support the proposed requirements, research was started in FY 2001 to conduct tests to determine the actual puncture resistance of currently authorized cylinders to help determine the required design levels for new cylinder specifications;

- "Enhanced Protection for MC-331 Cargo Tank Motor Vehicles in Frontal Collisions". As a result of two severe accidents and a National Transportation Safety Board recommendation, RSPA is completing a multi-phase study on how to increase accident survivability of front heads on MC-331 cargo tank motor vehicles. Results are being used to suggest improved design for heads (shape and thickness) and secondary heads (at various distances and with energy absorbing materials). Prototype designs for manufacture and testing were developed during the final phase of this project in FY 2000.

Successful demonstrations will aid RSPA in evaluating rulemaking options to reduce the risk associated with severe accidents involving MC-330 and MC-331 Cargo Tank Motor Vehicles;

- "Lithium Battery Hazard Analysis". Potential hazards posed by lithium batteries in transportation have become an area of increased concern based on recent incidents, particularly in air transportation. In FY 2000, work began to develop new experimental procedures establishing the likelihood of lithium batteries causing uncontrollable fires during transportation. Testing on a number of battery types and designs is expected to extend through FY 2001 to FY 2002;

- "Information Technology and Emergency Response". As a result of recommendations contained in a 1993 study by the National Academy of Sciences (NAS), Special Report 239, the first of several periodic evaluations was undertaken to assess technology options for improving emergency response to hazmat transportation incidents. The first post-NAS study effort was based largely on 1995-96 technologies and deployment projects. Additional technology evaluations were undertaken in FY 1999 and FY 2000, with findings reported in FY 2001. Improved position location technology, wireless access to the Internet, satellite-based voice communication, and other technologies were examined;

- "Analysis of Diagnostic Specimens Shipments". Diagnostic specimens, primarily blood and tissue samples, are widely transported throughout the U.S. Traffic levels exceed millions of specimens shipped annually, with a substantial portion being infectious substances potentially subject to hazmat regulations. To better assess the volume and nature of this traffic, with its implications for hazmat regulation, initial research on diagnostic shipments was undertaken in FY 2000 and completed in FY 2001. Research findings were used to support rulemaking efforts in this subject area.

BACKGROUND/SITUATION:

The transport of hazmat exposes large numbers of the public to the risks inherent in these materials. Identifying those risks -- *risk assessment* -- and minimizing their potential impacts -- *risk management* -- are fundamental to ensuring public safety. Compounding the public safety problem is the fact that industry's drive to become more productive and competitive means continuing development of new, potentially hazardous materials; at the same time, industry is developing innovative packagings, testing devices, operational controls, and other technologies with risk mitigating capability. Research and Development funding plays a crucial role in helping RSPA assess existing and future risks to public safety; identify the latest packaging materials, testing and other equipment that help companies reduce hazmat transport risks; and identify communication and other technologies that help emergency responders contain incident damages when they occur.

To balance the needs of public safety with continuing developments within industry, RSPA continually reviews and revises the regulations and international standards, often in response to industry petitions for rulemaking or changing international standards. The work carried out under this budget item provides RSPA with the technical information, analyses and research necessary to achieve this regulatory balance: managing the public risk associated with hazmat transportation without imposing undue burdens on industry. Our research and development work is generally organized into four areas that support risk management: (1) risk assessment, including accident and incident analysis, (2) hazard classification, (3) packaging and operational controls, and (4) emergency response.

RSPA budgetary amounts in this area are modest and the projects are of relatively short duration. Projects in any fiscal year generally reflect immediate needs and are subject to change to reflect the highest priorities at the time.

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PROGRAM: RESEARCH AND DEVELOPMENT

ACTIVITY: Regulation Compliance

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
236	470	570	+100

NEEDS FOR FY 2002:

In FY 2002, we will continue the package testing program to ensure the integrity of our risk management system by random sampling of all types of packaging, and to provide more general monitoring of packaging manufacturers. The continually expanding economy has led to an increase in the volume of hazardous materials shipments. RSPA will continue purchasing and testing intermediate bulk containers, which are significantly more expensive than the packaging most frequently being purchased and tested. The United States Army Materiel Command, Logistics Support Activity, Packaging, Storage, and Containerization Center, Tobyhanna, Pennsylvania (Tobyhanna) will continue to provide testing services. The additional funding requested will be used to procure testing services for compressed gas cylinders. Tobyhanna is not equipped to test this type of packaging, so a new testing source must be identified. The results of these tests will help confirm the adequacy of current specifications and whether these specifications are being achieved in practice.

ACTIVITIES PRIOR TO FY 2002:

In FY 1996, RSPA entered into an interagency agreement with Tobyhanna to test packages in accordance with the United Nations standards published in the HMR. Since that time, HMS inspectors have been actively purchasing packaging they believe will not perform to the levels indicated in the UN standard markings on the packaging. Tobyhanna conducts the testing and provides HMS with preliminary results. This test information not only serves as the basis for enforcement action with regard to any discovered noncompliance, but it also enables the enforcement program to better plan and target its compliance inspection effort.

The testing program has uncovered a large number of packagings that do not meet the performance-based standards, including steel, plastic, and fiber drums of various sizes, and fiberboard boxes. HMS contacts the manufacturers of any failed packaging, which enables them to determine the causes and make modifications to the manufacturing process. The testing program has spurred the trade associations representing the majority of manufacturers and reconditioners to meet and discuss issues. The program has been highly successful in focusing industry's attention on the importance of manufacturing packaging which will safely contain hazardous materials during transportation.

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

Summary of Requirements - Budget Authority, Positions and FTE

RESEARCH AND SPECIAL PROGRAMS APPROPRIATION

Program Activity: Emergency Transportation

BUDGET AUTHORITY:	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Personnel Compensation & Benefits (PC&B)	764	917	987
Administrative Expenses	99	101	101
Contract Programs:			
Crisis Response Management	280	574	574
Research and Development	235	235	235
TOTAL BUDGET AUTHORITY	1,378	1,827	1,897
FULL TIME PERMANENT (FTP) POSITIONS and FTE:			
FTP (Positions)	7	9	9
FTE (Workyears)	7	9	9

EMERGENCY TRANSPORTATION

FY 2002 BUDGET REQUEST

MISSION

The mission of RSPA's Office of Emergency Transportation (OET) is to ensure the Department's ability to execute its emergency preparedness and response and recovery responsibilities in all domestic and national security emergencies affecting civil transportation. OET oversees these responsibilities in all 10 DOT regions and Alaska through the Regional Emergency Transportation Coordinator (RETCO) program. OET also develops national policy guidance for transportation emergency preparedness and response.

ACTIVITIES

To execute its responsibilities, DOT must maintain a level of readiness *before* a crisis occurs, so the Department can respond immediately and decisively to disasters and national security emergencies. OET's critical program elements support DOT National Security and Mobility goals which include regional response readiness. OET:

- Acts as the information clearinghouse for the Secretary. On a daily basis, manages, operates, and enhances the DOT Crisis Management Center which is fully activated for significant events impacting the transportation system, such as labor strikes, hurricanes, earthquakes, other natural or technological disasters, or national security emergencies.

- Manages the RETCO system, which provides effective Departmental emergency management close to disaster sites. This program uses existing departmental resources from all modes before and during a Federal Response Plan activation.

- Ensures the efficient transportation, deployment, and tracking of critical relief supplies into disaster areas anywhere in the Nation. This is mandated by the Federal Response Plan.

- Maintains and improves the operational readiness of the DOT Continuity of Operations (COOP) site. New COOP initiatives assigned the Department new roles in the areas of Weapons of Mass Destruction, Critical Infrastructure Protection, and Continuity of Government Operations. OET has the lead role to implement, coordinate, and report on the response to these complex issues.

- Works with the Department's Operating Administrations to establish emergency transportation response procedures, plans, training, and exercises.

- Serves as the Department's representative on the Catastrophic Disaster Response Group, the national level policy body consisting of key Federal agencies under the Federal

Response Plan, chaired by the Director of the Federal Emergency Management Agency (FEMA). This group convenes to resolve the most complex and sensitive issues during a disaster response.

- Provides technical expertise and policy formulation to NATO as the U.S. Representative to the Civil Aviation Planning Committee (CAPC) of the Civil Emergency Planning Directorate.

- Conducts ongoing research, and prepares studies on threats to the transportation system in specific risk areas. In addition, works with industry stakeholders to develop transportation response plans which effectively use the resources of private sector.

- Implements national mitigation strategies, such as Project Impact, which place requirements on Federal agencies to reduce the costs from disasters and improve response efforts.

- Maintains an operational COOP Plan for the Office of the Secretary and coordinates the Department's COOP planning effort for each of the DOT Operating Administrations. The DOT's overall and inclusive COOP Plan must be continually maintained. The COOP site must always be ready to become operational in any situation in which the Headquarters facility becomes unusable.

POSITIONS

No new positions are being requested. The current staffing level is 9 FTE.

PROGRAM: CRISIS RESPONSE MANAGEMENT

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
280	574	574	0

NEEDS FOR FY 2002:

The following describes major activities planned as part of Crisis Management Response base for FY 2002. To ensure DOT's ability to protect lives and property during major crisis situations, OET needs to conduct the following planning and training efforts:

- Enhanced training for Headquarters and regional response teams programs will utilize Activation Information Management System (AIM) software to improve the delivery of relief and recovery resources to victims. OET's goal is to train seventy-five percent of the team members every year. Training is critical to maintaining the readiness of response teams. Realistic seminars using the latest training innovations will be conducted for each disaster risk area in the United States. In addition to DOT team members, these sessions will involve other Federal agencies, States, and industry to ensure that the entire transportation community is familiar with their role in a disaster.

- Continuity of Operations (COOP), Continuity of Government (COG) and related efforts dealing with Weapons of Mass Destruction (WMD) and cyber warfare are major initiatives for OET. The Office will review and enhance COOP plans as needed, and plan for and conduct exercises and training to improve the response efforts in these program areas.

- The Regional Emergency Transportation Coordinator (RETCO) program enhances our ability to perform field disaster activities throughout the country. In addition, it provides specialized terrorist training in the regions. We will provide more training to the Regional Emergency Transportation Representatives (RETREPs) to enhance their abilities to manage and direct large scale disaster responses. The RETCOs and the RETREPs continue to be the Department's first responders. With increasing emphasis on terrorism and consequence management issues involved in a Federal response, added requirements have been placed on both headquarters and regional response personnel to develop cohesive plans for these threats. Funding support for the RETCO program will enable them to meet the demands of regional disaster response and planning.

- In FY 2002, plans continue for critical technology maintenance and upgrades for all in-house systems, at headquarters, the regions, and at the alternate site. Equipment will be purchased for the alternate site to allow for the full range of telecommunication

connections - locally and with the regions. The alternate site could be occupied for up to 60 days, day and night, under the worst possible external conditions, so it is essential that maximum functionality and at least minimal comfort be achieved at the relocation site. Without these upgrades, the COOP site does not meet the overall requirements for an effective relocation site.

- Department-wide planning efforts will continue as part of the Federal efforts to provide disaster mitigation support and assistance to State and local entities. In addition, OET, with FHWA and FEMA, will facilitate the multi-state Evacuation Liaison Team work with the States on evacuation concerns.

ACTIVITIES PRIOR TO FY 2002:

- In FY 2001, OET disaster responses ranged from flooding to hurricane response to international earthquake monitoring and reporting. In addition to orchestrating the Department's Y2K activities at the beginning of CY 2000, OET was also involved in the Leap Rollover activation and the government-wide, Congressionally mandated Top Official (TOPOFF) terrorism exercise.

- DOT managed the Movement Coordination Center (MCC) located at FEMA headquarters. OET undertook improvements to the MCC's plans and procedures to enhance its overall effectiveness. The MCC organization and operating procedures are routinely reviewed to ensure it is operating at an acceptable level to meet transportation demands during a disaster.

- OET developed and implemented intensive team-building exercises for each of the 10 DOT regions and the headquarters response team. OET also coordinated an introductory exercise for the Office of the Secretary at the DOT COOP relocation site.

- The leased space for DOT's COOP relocation facility has achieved initial operability. Surplus furniture and computers were installed, and the telephone system became operational during CY 2000. The telephone system is being enhanced to meet the needs of the various DOT offices. OET is keeping the site ready at all times in order to sustain DOT operations during terrorist, weapons of mass destruction, or other national crises.

- AIM software was installed to facilitate information processing in the Crisis Management Center, as well as anywhere in the U.S. AIM continues to receive enhancements based upon usage during real-time disasters and training exercises.

- International technical assistance, including a vulnerability reduction project for Central America, funded by the Agency for International Development (AID) was conducted. This effort was managed by OET for the Department. This project has been so successful, several South American countries are interested in emulating it and have scheduled a workshop to begin their work.

- During FY 2001, OET began training the DOT headquarters and 10 regional crisis response teams on Presidential Decision Directives requirements.

- OET also is leading the Department's efforts to rewrite the Presidential Emergency Action Directives (PEAD's) which activate the Presidential extraordinary powers in extreme crisis situations.

BACKGROUND/SITUATION:

The Emergency Transportation program supports DOT's Strategic Goals of National Security and Mobility by providing Departmental leadership during natural and man-made disasters and in fulfilling the Department's responsibilities under the Federal Response Plan, including the consequences of weapons of mass destruction incidents.

Emerging terrorism threats require Federal agencies to develop, exercise and maintain a viable plan to continue essential government functions following an attack to the computer infrastructure; an event involving a chemical, biological or nuclear weapon; or other disasters. Adequate expert DOT staffing should be available to meet these demands. DOT does not have all the expertise needed, so outside support must be obtained to interpret requirements, keep abreast of government procedures, and offer advice and assistance in developing training exercises with subject specific scenarios.

The RETCO program should be standardized across the regions. Standardization will help the program clarify its organizational framework, support adequate funding for professional development programs and ensure the development of risk-specific scenarios for regional response training. The RETCO program has been held at a minimal funding level for years. In order for the program to meet new requirements, additional funding is needed to provide an effective and efficient disaster response. As the Secretary's representative in the region during a catastrophic disaster, the RETCO's need direction and a standardized program.

The condition of DOT COOP relocation site continues to be an issue in meeting the requirements of the Presidential Decision Directives. The COOP site meets the initial requirements using somewhat obsolete equipment, but needs further improvements in computer systems, and a more reliable telecommunications system to reach other Federal agencies and our regional entities during a COOP relocation, including access to appropriate LAN lines and have remote access for DOT staff not able to relocate to the alternate site. Additionally, secure telephones and faxes, as well as additional individual software licenses or a DOT site license for AIM must be provided.

PROGRAM: RESEARCH AND DEVELOPMENT

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
235	235	235	0

NEEDS FOR FY 2002:

The following describes major activities planned for FY 2002:

- Continue to improve our capability to respond to the Secretary's need for information, and strengthen disaster preparedness, response and recovery activities.
- Improve our crisis management systems and source data for transportation resources and mapping. Assessing the effects of a disaster on the transportation system, documenting the findings, tracking the flow of critical relief resources, and providing up-to-the-minute briefings for the Secretary and Senior DOT officials will be emphasized.
- Provide an effective means for controlling NATO and U.S. classified documents, enhance our database for the retrieval of policy documents for use during disaster planning and response. Research state-of-the-art software upgrades for our existing database systems.
- Outreach to the Federal, State and local emergency management and transportation authorities and the transportation industry will continue. Assistance will be provided to State and local entities as appropriate.

The following are products and milestones we expect to achieve in FY 2002:

- The multi-modal disaster information system will be improved to meet user needs and new requirements.
- Research transportation information resources and test software upgrades to streamline the flow of disaster information within the Department, especially information on transportation infrastructure damage during crisis events.
- Upgrade controls of computer databases used in managing classified NATO/US documents, the database for retrieving policy documents and other access-restricted databases.
- Upgrade the CMC audio visual system upgrades to ensure peak operating efficiency.

- Develop a Departmental level Continuity of Operations Plan, and integrate it with modal plans and procedures.

- Continue research efforts to improve transportation disaster mitigation, the results of which will be used in outreach to States and localities.

- Continue multi-state evacuation planning research in partnership with FHWA for modeling and simulations and conducting training and exercises.

ACTIVITIES PRIOR TO FY 2002

- OET identified transportation resources and mapping software applications for use in DOT's integrated multi-modal crisis management system, as well as evaluate the latest computer and audio visual hardware or enhancements to existing equipment for possible incorporation into the DOT Crisis Management Center.

- OET formulated an initial capability DOT COOP Plan as required by PDD 67. This included a combination of continuity of government, continuity of operations and weapons of mass destruction requirements.

- Developed and conducted COOP training exercises for designated OST staff in support of current PDD requirements.

- OET, in partnership with the Central U.S. Earthquake Consortium (CUSEC), met with the seven State DOT's in the New Madrid Earthquake area and developed methodologies and plans for responding to a catastrophic earthquake event in the region.

BACKGROUND/SITUATION:

The Response Management Support portion of the Emergency Transportation program helps achieve DOT's Strategic Goals of National Security and Mobility by providing Departmental leadership during natural and man-made disasters and in fulfilling the Department's responsibilities under the Federal Response Plan, including the consequences of weapons of mass destruction incidents.

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
Summary of Requirements - Budget Authority, Positions and FTE
RESEARCH AND SPECIAL PROGRAMS APPROPRIATION

Program Activity: Research and Technology

BUDGET AUTHORITY:	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Personnel Compensation & Benefits (PC&B)	1,207	1,062	1,132
Administrative Expenses	105	92	92
Research and Development:	2,085	3,535	3,535
R&D Planning & Management	2,085	2,235	2,235
Transportation Infrastructure Assurance		1,000	1,000
Human Centered Research		300	300
TOTAL BUDGET AUTHORITY	3,397	4,689	4,759

Reimbursable Funding for the Advanced Vehicles Technology Program (AVTP):			
From FHWA Highway Trust Fund - CA	5,000	0	0

Reimbursable Funding for UTC Grants	FY 2000 Authorized	FY 2001 Authorized	FY 2002 Authorized
From FTA General Funds Appropriation	1,200	1,200	1,200
From FTA Highway Trust Fund - CA	4,800	4,800	4,800
From FHWA Highway Trust Fund - CA	27,250	27,250	26,500
Total reimbursable funding for UTC Grants	33,250	33,250	32,500

FULL TIME PERMANENT (FTP) POSITIONS and FTE:			
Direct:	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
FTP (Positions)	11	9	9
FTE (Workyears)	11	9	9
Reimbursable:			
University Transportation Center program--FHWA TF			
FTP (Positions)	3	3	3
FTE (Workyears)	2	3	3
Transportation Safety Insitute			
FTP (Positions)	42	*	*
FTE (Workyears)	44	*	*

* RSPA Reorganization moved TSI to Program Support.

RESEARCH AND TECHNOLOGY
FY 2002 BUDGET REQUEST

MISSION

RSPA's Research and Technology program supports the Department's *Strategic Plan* and its Research and Development Management Strategy by: (1) fostering innovation in transportation through private-public partnerships; (2) promoting world-class transportation research; and (3) building the transportation workforce of the future. This is accomplished by leading Federal and Departmental transportation research and development strategic planning activities and by investing in advanced technology, enabling research and education for the Department and transportation enterprise.

ACTIVITIES

To help achieve Departmental goals through the application of scientific and technical advances, the Office of Innovation, Research and Education:

- Promotes Department of Transportation research policy and program coordination efforts.
- Chairs and provides staff support to the Department's Research and Technology Coordinating Council.
- Manages a strategic planning process for transportation R&D in the Department of Transportation and the Federal Government.
- Conducts transportation systems-level analyses and peer reviews to assure the integrity of this process.
- Fosters innovation in transportation, particularly through public-private partnerships.
- Manages and coordinates a nationwide program of transportation research, education and technology transfer through a network of 33 University Transportation Centers (UTC's).
- Manages transportation R&D programs with intermodal/multi modal applicability (e.g. technology sharing/transfer, remote sensing, advanced vehicle technologies, human factors, infrastructure assurance)
- Represents the Department on national and international committees and at meetings on transportation R&D.

POSITIONS

New: No new positions are being requested.

PROGRAM: RESEARCH AND DEVELOPMENT

ACTIVITY: R&D Planning and Management

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
2,085	2,235	2,235	0

Four positions and funding are needed to establish automated systems and maintain proper accounting practices and procedures, and to insure integrity in the execution of RSPA's appropriated funds. Without such positions RSPA is vulnerable to internal control weakness, waste, fraud and abuse, and even possible anti-deficiency violations.

NEEDS FOR FY 2002:

Technical knowledge is doubling every 2-5 years. To meet its mission of providing leadership and coordination of transportation R&D, RSPA must assess and expand its knowledge in several key areas:

- RSPA must identify future transportation trends, needs, and opportunities and highlight emerging technologies and discoveries which provide opportunities for transportation system improvements.

- The Fourth Edition of the Department's *Transportation R&D Plan* (originally mandated in TEA-21) must focus domestic and international research and technology innovation on the needs of the global transportation system of the 21st century. Attention must be given to three critical transitions which will take place in the future:

  - An emphasis from extensive capital investment toward better system management and operations
  - From systems that require users to adapt to them toward "human-centered" systems that adapt to users
  - From a mode-by-mode control approach to a seamless and intermodal vision of transportation systems operations.

  The Plan must include consideration of needed partnerships, basic and enabling research, and educational programs to fulfill this vision.

- RSPA must assess the results of international R&D to identify research needed to maintain the competitiveness of U.S. transportation-related industries, as well as opportunities for

international cooperation and technology exchange. Data needed include current and future international transportation R&D needs, trends, capabilities, and opportunities.

- As required in Section 5108 of TEA-21, independent assessments of DOT's research strategies and planning processes by the National Research Council/Transportation Research Board Committee on Federal Transportation R&D Strategic Planning Process must continue.

- RSPA must continue effectively managing research programs with Department-wide benefit on Advanced Vehicle Technologies, Commercial Remote Sensing, Human Factors, and Transportation Infrastructure Assurance. They were authorized in TEA-21 or subsequently funded by the Congress. These programs frequently pool funding from several modal participants.

- RSPA must support a robust Federal science and technology base to improve transportation system performance and advance technological innovations. RSPA will work to improve utilization of the Small Business Innovation Research (SBIR) Program to stimulate innovation through small business.

- RSPA must assure easy access to information on domestic and international transportation research and the Federal transportation R&D planning process through new and upgraded Internet tools and automated research and development databases.

ACTIVITIES PRIOR TO FY 2002:

- **Improved Planning/Program Development:** Building on TEA-21 mandates beginning in FY 1999, RSPA's strategic planning efforts have significantly improved the way transportation R&D programs and budgets are planned, implemented and evaluated Government-wide.

- **Implementation Partnerships:** Working through the National Science and Technology Council and other interdepartmental mechanisms, RSPA promoted partnerships to implement emerging transportation technologies. These partnerships included DOT; key Federal, State and local Government agencies; the private sector; and academia. They addressed Aviation Safety, Security, Efficiency and Environmental Compatibility (FAA/NASA lead); the Intelligent Vehicle Initiative (FHWA lead); the Partnership for the Advancement of Infrastructure and its Renewal (Civil Engineering Research Foundation lead); Transportation Infrastructure Assurance (RSPA/DOT Office of Intelligence and Security lead), Application of Remote Sensing Data in Transportation (RSPA/NASA lead), and Transportation and Sustainable Communities (FHWA/EPA lead).

- **International Cooperation:** RSPA supplied analytical and program support for the Five-Year North American Transportation R&D Plan, developed under the North America Free Trade Agreement (NAFTA). This Plan established R&D collaboration among the United States, Mexico and Canada on: safety and security, trade and tourism, environmental impacts of transportation, infrastructure renewal, and access and mobility.

- **World-Class R&D:** In response to Section 5108 of TEA-21, RSPA worked with the National Research Council/Transportation Research Board to establish a merit-based peer review of the Department's and Federal Government's transportation R&D strategic planning activities. Working through the DOT R&D Coordinating Council, RSPA also led the development of quality reviews of DOT R&D programs and research laboratories annually using Malcolm Baldrige, ISO 9000 or similar quality criteria.

- **Education:** RSPA developed and, with the other operating administrations, implemented the first DOT *University Research and Education Plan* to forge closer relationships among DOT and the universities that perform transportation research and education.

BACKGROUND/SITUATION:

Transportation decision-makers will have to address the increased demand for transportation while balancing the values of safety, security, economic productivity, environmental quality, energy efficiency, and accessibility. This requires a long-term, integrated and global perspective.

Technological, operational and institutional innovation are key to solving the emerging global transportation challenges. RSPA research activities help meet the nation's transportation needs for safety, security, mobility, economic growth and environmental quality through effective use of emerging scientific and technological innovation. These activities include international technology assessments, R&D planning in consultation with stakeholders, outreach to validate plans and confirm emerging trends, and maintenance of data and management systems to assure information sharing with clients and stakeholders.

PROGRAM: RESEARCH AND DEVELOPMENT

ACTIVITY: Transportation Infrastructure Assurance (TIA) R&D

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
0	1,000	1,000	0

NEEDS FOR FY 2002:

- To preempt threats to American travelers and shippers, RSPA must continue – in conjunction with the Department's Office of Intelligence and Security and other operating administrations – to research and assess possible countermeasures to threats to the security of transportation's physical and information infrastructure. RSPA has identified three priority areas:

  (1) **Chemical and Biological Agent Detection for Passenger Terminals** - The United States must have the capability to detect and monitor chemical and biological agents in major passenger terminals such as subways, bus/rail stations, and airports. Terminals provide opportune places to disperse toxic biological and chemical agents. In addition to conducting evaluations of detector technologies, RSPA must also participate in information sharing on technological advances in chemical and biological agent detection across the Federal Government.

  (2) **Intermodal Freight Terminal Security** -- The United States must develop technologies and procedures for improving the security of intermodal freight and the network upon which it travels. This includes the security of cargo, terminals, energy supplies and facilities; public security; and the security of vital communication and information systems that service these facilities.

  (3) **Human Factors Analysis for Transportation Systems** -- The United States must be able to recognize problems associated with human preparedness, prediction, and response to threats in all modes of transportation. In the longer term, RSPA research activities should identify alertness problems and develop technological or behavioral remedies.

ACTIVITIES PRIOR TO FY 2002:

- In FY 2001, RSPA and the DOT Office of Intelligence and Security collaborated to identify several high-priority need areas. RSPA and FAA funded single and multi-year research and technology transfer initiatives to: identify cyber-security gaps and vulnerabilities in transportation control systems, use high efficiency particulate arresting (HEPA) filters to establish "clean air" baselines for transportation terminals and facilities, conduct broader vulnerability assessments of intermodal terminals, establish transportation requirements for teams responding to attacks with weapons of mass destruction (WMD's), and transfer information on improving infrastructure security to Governmental and non-Governmental stakeholders.

BACKGROUND/SITUATION:

Reports from the White House Commission on Aviation Safety and Security (1997), and the Presidential Commission on Critical Infrastructure Protection or PCCIP (1997), highlighted the potential vulnerabilities of key national transportation infrastructure to damage and disruption by determined adversaries. Chemical/biological threats and 'cyber' threats are of particular concern because of their potentially dire impact on the traveling public.

This activity provides the Department with an integrated and comprehensive approach for assessing these vulnerabilities and developing technologies to ensure the safety and security of the Nation's transportation system. RSPA's Office of Innovation, Research and Education, Office of Emergency Transportation, and Office of Pipeline Safety, are collaborating with the OST Office of Intelligence and Security and the other operating administrations to assess and share research findings and define follow-on research needs on this topic.

PROGRAM: RESEARCH AND DEVELOPMENT

ACTIVITY: Human-Centered Systems Research Program

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
0	300	300	0

NEEDS FOR FY 2002:

- DOT must expand the knowledge base and technologies which forecast and detect fatigue-compromised operators and support active fatigue management to restore alertness and safety. Human error, much of it linked to fatigue, is responsible for 70 to 90 percent of transportation crashes, and results in an annual loss of over 44,000 lives and over 3.5 million injuries. This translates to an estimated direct and indirect cost of over $160 billion.
- DOT must also develop Advanced Instructional Technologies (AIT) using interactive and computer-based training, modeling and simulation to upgrade operator skills and improve performance. The greater benefits will come from applying the lessons learned with novice, and younger and older age drivers who are more prone to crashes.

ACTIVITIES PRIOR TO FY 2002:

- The first project awards from this activity were made in FY 2001. Results of the first year projects are expected to be: (1) consensus findings on fatigue management approaches; (2) a first edition of a Fatigue Management Reference, which will be a resource of best practices on effective fatigue management; (3) an assessment of promising fatigue management strategies; and (4) an action plan for future fatigue management research.

BACKGROUND/SITUATION:

This program is intended to obtain a better understanding of human behavior and performance in transportation, expanding the state of human factors knowledge, and integrating a wide variety of agency activity which has taken place.

REIMBURSABLE FUNDING FROM FTA AND FHWA

ACTIVITY: University Transportation Center (UTC) Grants

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
1,200*	1,200*	1,200*	0
4,800**	4,800**	4,800**	0
27,250***	27,250***	27,250***	0
33,250	33,250	33,250	0

Reimbursable Funding from FHWA and FTA

* Appropriations from *General Revenues* (FTA)
** Contract Authority from the *Transit Account* of the Highway Trust Fund
*** Contract Authority from the *FHWA Account* of the Highway Trust Fund

The amounts above are not requested in RSPA's Budget submission, but are requested from FTA and FHWA's budget.

NEEDS FOR FY 2002:

- The Centers must conduct peer-reviewed basic and applied research, which will advance the body of knowledge about transportation; provide a multi-disciplinary education program that includes participation in research; and promote technology transfer by making research results available to potential users. Because UTC grants are limited to 50 percent of total Center costs, each Center must foster positive partnerships with state, local and private sector entities. In FY 2002, the 33 Centers will be eligible for fifth year funding without further competition.

- To assure effective utilization of these funds, RSPA must maintain a system to coordinate the education, research, and technology transfer activities of the Centers and to disseminate the results of the research.

ACTIVITIES PRIOR TO FY 2002:

By 2000, the UTC Program had already:

- instituted 4 new PhD and 5 new MA programs.
- increased the number of PhD and MA graduates by 21.4 percent.
- reached 11,205 pre-college and 21,311 transportation professionals through outreach programs.
- leveraged more than 51 percent in non-Government funds for research projects.

The grants that were awarded with FY 1998 funding authorized under TEA-21 provided funding for the establishment and operation of 33 UTC's. Each Center's program plan included common baseline measures, and each Center reported annual progress from those baselines using a common set of quantifiable performance indicators. Moreover, each center has published a homepage on the Internet which includes project descriptions and peer-reviewed results of all research projects funded under the UTC grant.

BACKGROUND/SITUATION:

To achieve its strategic goals for economic growth and trade, the Department must ensure the availability of a future cadre of professionals who are prepared to design, deploy, operate and maintain the complex transportation systems of the future. The Department invests in university-based centers of excellence that simultaneously conduct research to advance transportation knowledge, share that knowledge with stakeholders, and use that knowledge to educate students in a broad range of disciplines.

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
Summary of Requirements - Budget Authority, Positions and FTE
RESEARCH AND SPECIAL PROGRAMS APPROPRIATION
Program Activity: Program Support

BUDGET AUTHORITY:	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Personnel Compensation & Benefits (PC&B)	4,832	5,564	6,528
Administrative Expenses	3,411	4,067	4,183
Contract Programs:	1,037	1,437	3,348
Policy and Program Support:			
Budget and Financial Management	200	200	200
Civil Rights:			
Drug Program	5	5	5
Program Mgmt and Administration:	832	1,232	3,143
Information Resources Management	807	1,007	1,007
Business Modernization		200	2,111
Human Resources Support Systems	25	25	25
TOTAL BUDGET AUTHORITY	9,280	11,068	14,059
FULL TIME PERMANENT (FTP) POSITIONS and FTE:			
Direct Positions & FTE's			
FTP Positions	48	53	67
FTE (Workyears):	45	50	57
Executive Direction	5	5	5
Policy and Program Support	4	9	11
Civil Rights	2	2	2
Management and Administration	18	18	23
Chief Counsel	16	16	16
Reimbursable Positions & FTE's:			
Honors Attorneys (Positions)	8	8	8
Honors Attorneys (FTE)	5	8	8
Transportation Safety Insitute (Positions)		44	47
Transportation Safety Insitute (FTE)		44	47

PROGRAM SUPPORT

FY 2002 BUDGET REQUEST

MISSION

Program Support provides policy, legal, financial, management and administrative support to operating offices in their mission to promote the Administration's policies and the Department's programs. Program Support includes essential services which directly support the agency's programs in a variety of areas, including the Office of the Administrator (Executive Direction), Staff Offices to the Administrator (Office of Chief Counsel and Office of Civil Rights), the Office of Policy and Program Support and the Office of Management and Administration.

The offices within Program Support collectively help promote the Department's and RSPA's strategic goals and performance plans. Specifically, the offices support many of the Department's Organizational Excellence Goals such as:

- *Make E-Gov the Standard* - Expand and improve the electronic delivery of government services and information to the public and staff.
- *Sound Resource Management* - Earn an clean audit opinion on consolidated and stand-alone financial statements. This will give RSPA the ability to provide reliable and timely financial information to decision makers.

EXECUTIVE DIRECTION

The Office of the Administrator provides overall management, strategic direction, and implementation of Administration policy for the agency and its programs.

POSITIONS

No new positions are requested in FY 2002.

POLICY AND PROGRAM SUPPORT

MISSION

The mission of RSPA's Office of Policy and Program Support is to formulate, articulate, and implement policy for all agency programs and actions, to ensure that agency actions are aligned with Departmental and Administration policies, and to serve as liaison between RSPA and the Congress, other governmental agencies, and the media. The Office provides leadership on agency-wide strategic planning, legislative proposals, public information, RSPA-wide budget and financial management, and implementation of the Government Performance and Results Act (GPRA).

ACTIVITIES

To fulfill its mission, the Office of Policy and Program Support undertakes policy review and analysis on all RSPA matters; provides policy direction and guidance for budget requests, legislative proposals, regulations, reports and all other documents having policy making ramifications; oversees the public information program; and ensures that accurate and timely information is provided to the Administrator, the Department, the Administration, Congress, industry, media, and the general public. The Office of Policy and Program Support provides policy leadership; coordination and technical assistance on program matters relating to transportation research, technology, and education; regulations concerning hazardous materials and pipeline transportation; and guidance on all RSPA financial transactions including grants to universities and state governments.

POSITIONS

Four new positions are requested in FY 2002 to improve efficiency in financial management. *(Funding is requested under our Modernization Program)*

PROGRAM: BUDGET AND FINANCIAL MANAGEMENT

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
200	200	200	0

NEEDS FOR FY 2002:

There is no increase in funding requested for this item for Fiscal Year 2002.

- Existing funding will be used to maintain a user-friendly financial management tool that is able to produce reports and other information quickly as required by RSPA program managers, the Administration, and Congress. RSPA also is required to safeguard the tracking of its operating budgets during the commitment stage and beyond.

- RAMIS II (RSPA Accounting & Management Information System) is RSPA's only automated system (database) that enables fund managers to control their respective commitments and obligations within funding ceilings. It is imperative that RSPA maintain an accurate account of its funds control to assure that it does not violate the Anti-Deficiency Act.

ACTIVITIES PRIOR TO FY 2002:

- RAMIS II has incorporated the document control systems for all of the various procurements. This closes the gap that restricts any procurement activity outside of funds control. Also featured is an alert system that allows fund managers the ability to be notified by Email of funds that fall below a set percentage limit. This gives the fund manager pro-active control over their respective allotments.

- It is necessary to maintain an Oracle-literate, contractor programmer to continue strengthening the RAMIS II database design.

LEGAL SERVICES

MISSION

The mission of the RSPA Office of Chief Counsel is to advise, assist, and represent RSPA and serve the public by developing, implementing, and promoting legal, ethical, and practical agency actions that have been coordinated with interested parties.

ACTIVITIES

The Office of the Chief Counsel provides legal services to RSPA's safety, research, emergency preparedness and administrative programs, as well as the Administrator, program officials, and agency employees. These critical services include litigation, legislation, rulemaking, preemption, outreach, ethics counseling, and resolution of general law issues. A major portion of these services is directed toward hazardous materials and pipeline safety enforcement and compliance issues. The Office of the Chief Counsel also manages and coordinates RSPA's Freedom of Information Act (FOIA) Program.

The Office of Chief Counsel also administers the DOT Honors Attorney Program, under which nine law graduates are competitively selected for a two-year appointment involving rotational assignments throughout the Department. The program is funded through reimbursable agreements with eight participating operating administrations.

ACTIVITIES PRIOR TO FY 2002:

With no increase in resources in Fiscal Year 2001, the RSPA Office of Chief Counsel is currently performing at the same high levels set in Fiscal Year 2000. Those Fiscal Year 2000 activities included the following:

- Safety Enforcement: Provided legal support for both the hazardous materials and the pipeline safety enforcement programs. Issued more than 500 compliance notices and orders.
- General Law: Ensured the legal sufficiency of more than 150 grants with a total value of more than $50,000,000.
- Rulemaking: Participated in the development, review, coordination, and issuance of more than 40 docketed rulemakings.
- Legal Analysis: Reviewed, coordinated and commented on more than 200 legislative, regulatory, and executive documents.
- Legislation: Drafted, coordinated, and advocated the Administration's legislative proposal on reauthorization of the pipeline safety program and provided timely analysis of and response to multiple proposed amendments and alternative legislative provisions.

Initiated and led Department-wide effort to identify and analyze issues associated with reauthorization of the hazardous materials safety program.

- Litigation: Actively defended the agency's position in eight cases involving challenges under the pipeline safety or hazardous materials safety statutes.

- Preemption: Issued two preemption determinations and actively defended four others that were challenged in litigation.

- FOIA Program: Received, reviewed, coordinated, and responded to 239 requests for information under the Freedom of Information Act.

- Ethics Program: Solicited, collected, and reviewed for possible conflict, financial disclosure statements from 206 RSPA employees. Provided ethics training for more than 300 employees.

CIVIL RIGHTS

MISSION

The mission of the RSPA Office of Civil Rights is to implement, monitor, and enforce all applicable civil rights statutes, rules, regulations, and guidelines. In addition, the Office of Civil Rights manages and coordinates RSPA's internal drug program activities.

ACTIVITIES

The Office of Civil Rights:

- sponsors a wide range of EEO-related educational programs and training sessions;
- participates in DOT-wide Special Emphasis Programs and initiatives;
- coordinates reporting requirements relative to RSPA's participation in educational initiatives with Minority Serving Institutions; and,
- coordinates drug and alcohol testing and training activities, as required.

POSITIONS

No new positions are requested in FY 2002.

PROGRAM: CIVIL RIGHTS

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
5	5	5	0

NEEDS FOR FY 2002:

There is no increase in funding requested for this item for Fiscal Year 2002.

ACTIVITIES PRIOR TO FY 2002:

- The RSPA Office of Civil Rights has for many years been actively involved in the development and implementation of effective civil rights programs and initiatives. These programs and initiatives are designed to: (1) eliminate barriers to equal opportunity; (2) ensure non-discrimination in federally-assisted programs; and (3) increase the participation of minorities in programs sponsored by the Department of Transportation.

- The RSPA Office of Civil Rights also manages RSPA's Drug and Alcohol Program in accordance with DOT Order 3910.1C. The Drug and Alcohol Program is not just for DOT employees but also includes families and communities. In addition to providing necessary drug and alcohol testing, RSPA provides educational films, brochures and literature for employees to take home and for public display. New managers and supervisors, as well as Hazardous Materials Safety Inspectors, receive training on drug and alcohol abuse, as required by regulation.

MANAGEMENT AND ADMINISTRATION

MISSION

The mission of Office of Management and Administration is to pro-actively respond to the agency's administrative support requirements which support the primary goals of the Research and Special Programs Administration. The office of Management and Administration serves as the principal advisor to the Administrator on safety and security training within DOT and RSPA.

ACTIVITIES

- Provides direction and advice for human resources, management, and development programs, and organizational planning and management.
- Provides for, or coordinates, the procurement and the management of real and personal property, transportation and supplies, general administrative/support services, computerized data services, and contracting and procurement services in support of agency program needs.
- Develops and administers the implementation and operation or organizational plans, management systems and controls, information resource management, management productivity improvement, and administrative standards and procedures.
- Provides data processing, graphics, and publishing services clearance support to the Washington headquarters.
- Serves as liaison for GAO and IG issues and assures recommendations are adequately addressed.
- Administers paperwork management functions, including records management, directive management and the information collection budget. Also administers the RSPA Executive Secretariat function and responsibilities.

POSITIONS

Ten new positions are requested in FY 2002.
(Funding is requested under our Modernization Program)

PROGRAM: INFORMATION RESOURCES MANAGEMENT

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
807	1,007	1,007	0

NEEDS FOR FY 2002:

- No new needs are requested for the baseline program. Baseline support for the IRM program will continue very minimal Local Area Networks (LANs) support links for the computers and automated systems serving RSPA Offices. Baseline funding will continue to provide one LAN administrator, one assistant LAN administrator, LAN hardware and software, LAN maintenance, and RSPA's connection to the Department's fiber optic network that provides external electronic communications. Baseline funding will provide technical support to RSPA computer users to diagnose and solve hardware, software or telecommunications difficulties, will provide computer supplies, and offer some training classes and security awareness information.

ACTIVITIES PRIOR TO FY 2002:

A stable, dependable and reliable infrastructure is a critical requirement for enabling the RSPA program and staff offices to adequately plan and perform RSPA's mission essential functions. During FY 01 this infrastructure was supported and enhanced as follows:

- Maintained and improved RSPA's corporate data bases such as the mail system, RAMIS, FOIA, Training, PRISM, the help desk tracking system, and a National Transportation Safety Board Tracking System for executive use.
- Maintained and improved the RSPA Home Pages on the Internet adding more information.
- Created and deployed a RSPA Intranet for internal office use.
- Maintained a successful security program achieving no network intrusions and effective virus eradication.
- Initial investments have been made in network communications to start the modernization of RSPA's communications network.

PROGRAM: BUSINESS MODERNIZATION

FUNDING LEVELS: (dollars in thousands)

	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
Contract funding	0	200	2,111	+ 1,911
PCB + adm. costs				+ 689
TOTAL				+ 2,600
Positions (+7 in IRM, +3 in administrative support and +4 in financial management)				+ 14
FTE (all positions funded at .5 FTE in FY 2002)				+ 7

NEEDS FOR FY 2002:

- A full service Information Resources Office - The Research and Special Programs Information Resources Management operation is significantly understaffed. Canvassing other DOT operating administrations and the DOT CIO's office we find the minimal HQ staff composition of an Information technology operation is:

Director	GS-15	
Technical Specialist-COTR	GS-14	
Security Officer	GS-13	}
Network Administrator	GS-13	}
Computer Systems Analysts	GS-13 (2)	} RSPA does not have
Program Analyst	GS-12	} these 7 positions.
Web Master	GS-13	}
Telecommunications Specialist	GS-13	}

RSPA has only a Director and technical specialist. Other DOT organizations commensurate to RSPA have the following resources allocated to their IRM activity:

	MARAD	NHTSA	FRA	FTA	RSPA	Add'l Needs
HQ Staff	6	9	7	14	2	+ 7 positions
HELPDESK	$1.8 M	$2.5 M	$1.9 M	$1.6 M	$1.3 M	+ .5 M
Admin. Systems	$.8 M	$1.0 M	$4.0 M	$.8 M	$.2 M	+ $1.4 M

Even with this additional funding of +7 positions and $1.9M, RSPA is still not at parity because RSPA must use that funding to build, maintain and operate its IRM infrastructure, whereas the other modes shown here have essentially already built their infrastructures and therefore can devote their funding exclusively to just maintaining and operating their existing systems.

The additional $1.9 M contract dollars and +7 positions will go approximately half way towards our final goal of instituting the following improvements:

- Enhanced Regional Communications. The RSPA information technology architecture design currently allows robust e-mail communications in headquarters but minimal performance and support to the regions. This must be changed. Regional access is limited to 23 simultaneous users. Users cannot transmit any significant loads over the network during peak hours because it would tie up the network for indefinite periods of time. Large reports and graphical information take anywhere from 5 - 30 minutes to transmit via dial-up 56K modems. To correct this problem, RSPA requires a Wide-Area-Network (WAN) with adequate bandwidth to allow regional inspectors and telecommuting staff to access the network at any time of day and outside the normal business office.

- Establish Network Management Center. RSPA currently has network coverage eight hours a day, five days a week. Thus when network problems occur after hours, the network is inaccessible until the next operating day. During the Bellingham, Washington and the Carlsbad, New Mexico gas pipeline accidents, we learned that the Internet was extremely helpful in pushing information to the public and our inspectors in the field, even though access was very limited. RSPA's communication network operations must be extended beyond an eight hours a day, five days a week operation. Emergencies occur and the network needs to be operational 24 hours a day, 7 days a week.

- Local Area Network and Desktop Services.

  - RSPA has maintained its first generation 166 MHZ Pentium computers for several years. However, the more robust operating systems and applications software require more efficient and higher speed systems. RSPA needs to manage the life cycle replacement of desktop computers and laptops so that one third are replaced every three years. A thirty-six month life cycle is well above the commercially recommended eighteen to twenty-four month cycles. Further, RSPA must ensure that the LAN cabling and networking infrastructure in the Regions are sound and functioning properly. Right now they are not.

  - The Office of Hazardous Materials Safety regional personnel are currently equipped with outdated machines. Typically, most staff member machines are running on first generation Pentium platforms. Moreover, most machines are 166 MHZ or less, contain 16 MB RAM, and have hard drives of 1 GB or less. They need new machines equipped with the latest technology, including a Pentium III processor, 128 MB RAM, and a sizeable hard drive. These newer machines will allow RSPA to provide on-the-spot information to enforcement personnel during inspection activities.

- **Enterprise Architecture**. The RSPA architecture (applications, technology, competencies and processes) has to be much more automated so we can strategically focus and provide products and services where they are needed, when they are needed. A successful example of this is the acquisition system, PRISM, which automates acquisition workflow, reduces paper, and streamlines and improves the management of the acquisition process. A second successful example is the collection of hazardous materials user registration fees via an Internet based website. The use of e-commerce and improved customer outreach to conduct business is a winning combination.

- **Security**. We have already taken steps towards E-Government. For example, we now accept user fees electronically. Because of this, we need to insure that all transactions are managed in a safe and secure manner. We don't yet do this. Computer hackers and viruses are a growing threat. While the DOT firewall is the front door to RSPA's defense to outside intrusion, we must also protect against back door access (i.e., modems) or internal threats.

In addition to the 7 information technology positions discussed above, 3 administrative support positions are need as follows:

- One additional human resources position is needed to: support the data and counseling needs of the 33 percent of the RSPA population eligible to retire; to process new hires resulting from those retirements as well as normal attrition; and improve workforce planning and employee development which recent surveys have found deficient.

- Two additional administrative support positions are requested to provide the important real estate, space, property and telecommunications requirements of RSPA's employees, contractors and consultants nationwide. RSPA's existing administrative support staff is far overburdened compared to all similar-sized agencies within DOT, as illustrated in the table below (data current as of March 2001). The table shows that RSPA needs another 5 administrative support positions to gain parity with these other modes.

	FTA	NHTSA	FRA	RSPA	FMCSA	MARAD	IG
# of HQ administrative support staff	7	8	6	2	9*	8	5
# of HQ employees, contractors & consultants serviced by the admin. staff	350**	388	300	318**	350	363	280
Ratio of employees, contractors and consultants serviced by each administrative support staff member	50**	49	50	159**	39	45	56

* FMCSA has 6 positions as of March 2001 and their FY 2002 budget request will show an additional 3 positions.

** FTA and RSPA's HQ administrative support staff also must take care of all the logistical needs of their field offices (210 field employees, consultants and contractors for FTA and 144 for RSPA).

- Lastly, RSPA needs 4 positions to improve efficiencies in financial management. We have evaluated three administrations similar in complexity in DOT to obtain a standard of the level of accounting oversight and functional resources. Excluding accounting FTE related to their Title 11 Guaranteed Loans funding, MARAD has 9 positions in accounting operations and 6 positions in management accounting. FTA has the equivalent of 20 positions in their accounting function. NHTSA has 4 accounting positions and contract dollars of 200K per year.

	MARAD	FTA	NHTSA	RSPA
Accounting & Fin. Mgmt In-house positions	16 positions	20 positions	4 positions	2 positions
Accounting Contract $'s	0	0	$200K	$200K
Transaction count for Fiscal Year 2000	234k	151k	109k	106k

In summary, four positions are needed to establish proper accounting procedures and to insure the integrity in the execution of RSPA's appropriated funds. Without these positions RSPA is vulnerable to internal control weakness, waste, fraud and abuse, and even possible anti-deficiency violations.

ACTIVITIES PRIOR TO FY 2002:

In FY 2001, Business Modernization received $200,000. These funds were used to begin the process of improving connectivity and technical support to our regions by modifying access to the local area network and providing additional technical support specifically for our regional staff. Some inspectors received new personal computer docking stations for travel and office use with increased computing capacity. Additionally, we increased technical support from an existing contract with the addition of one PC/Assistant LAN technician. Finally, more communications data lines have been installed using FTS-2001 services and deployment to the regional sites is expected in late March 2001.

PROGRAM: HUMAN RESOURCES (HR) SUPPORT SYSTEMS

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
25	25	25	0

NEEDS FOR FY 2002.

- No additional resources are needed in FY 2002. We plan to continue a full range of HR services to RSPA managers and employees while maintaining capability to respond to critical RSPA and Departmental requirements. These exiting contract dollars allow existing personnel staff to focus on hiring and maintaining a full compliment of inspection and other RSPA staff.

ACTIVITIES PRIOR TO 2002:

- Implemented automated time and attendance procedures.
- Initiated Intranet to serve as a virtual HR information service to all employees.
- Introduced one-stop shopping to provide customers a single point of contact for their various HR issues. This model featured one-on-one consultation in resolving employment related issues, strengthened the relationship between the HR function and line operations, and reduced costs associated with errors in the decision-making process.
- Implemented a number of automated initiatives, such as Employee Express, BenefitsLine and TALX, and have obtained services from various sources, such as TASC and contractors, for non-routine requirements.

TRANSPORTATION SAFETY INSTITUTE

FY 2002 BUDGET REQUEST

MISSION:

Transportation Safety Institute's mission is to provide premier worldwide training, products, and/or services for people in the public and private sectors through innovative, state-of-the-art methods and technologies that contribute to the protection of life, property, and the environment.

POSITIONS:

Three new reimbursable positions and FTE are needed for FY 2002.

NEEDS FOR FY 2002:

- One additional staff member is needed for the Motor Carrier Safety Program in order to expand training to industry and local law enforcement personnel. This program is currently managed by one person.

- The Transit Division needs an additional program specialist for the following new training programs: Instructor's Course in Paratransit Bus Operator Training; Crime Prevention Through Environmental Design; Safety Certification Guidelines; Advanced Rail Accident/Incident Investigation; Transit Bus System Safety; Threat Management and Emergency Response to Rail Highjackings; and Bus Collision Analysis.

- In conjunction with the National Association for Pupil Transportation (NAPT), TSI is developing a training program leading to a NAPT certification program for public/private school transportation managers. In addition, TSI has agreed to support the Department of the Interior (DOI) Drivers' Improvement Training Initiative through development of an exportable training module in digital format with a student workbook, and providing a train-the-trainer program for DOI instructors to train departmental employees in using the latest driving techniques. These two initiatives require a program specialist.

ACTIVITIES PRIOR TO FY 2002:

In FY 2000, TSI accomplished the following:

- Trained 58,469 students (up from 39,241 in FY 1999) on a total budget of $9,024,000 which resulted in 1,265,808 training hours (an average of over 21 hours per student), developed 10 new courses, and substantially revised a total of 57 other courses.

- Conducted a stakeholder satisfaction survey on which 97% of the 90 stakeholders surveyed responded. The overall average scores for TSI's Survey were in the "Good to Excellent" range, including partnering with other Agencies.

- Participated in Presidential Initiatives for Partnering for Excellence, Buckle Up America, and Safe Communities Intermodal.

- The Pipeline Safety Division shipped the new release of WinDOT. Pipeline Regulation Software Program to all OPS Regional Offices and all state and federal pipeline safety representatives. The software update includes current rulings on operator qualification.

EMERGENCY PREPAREDNESS GRANTS
(EMERGENCY PREPAREDNESS FUND)

For necessary expenses to carry out 49 U.S.C. 5127(c), $200,000, to be derived from the Emergency Preparedness Fund, to remain available until September 30, [2003] *2004: Provided,* That not more than $14,300,000 shall be made available for obligation in fiscal year [2001] *2002* from amounts made available by 49 U.S.C. 5116(i), *5127(c)* and 5127(d): *Provided further,* That none of the funds made available by 49 U.S.C. 5116(i), *5127(c)* and 5127(d) shall be made available for obligation by individuals other than the Secretary of Transportation, or his designee. *(Department of Transportation and Related Agencies Appropriations Act, 2000, as enacted by section 101(a) of P.L. 106-346.)*

EMERGENCY PREPAREDNESS GRANTS
PROGRAM AND PERFORMANCE STATEMENT

The Federal Hazardous Materials Transportation law (Federal hazmat law), 49 U.S.C. 5101 *et seq.*, establishes a national registration program of shippers and carriers of hazardous materials. The registrants finance, through fees, emergency preparedness planning and training grants programs, a training curriculum for emergency responders, and monitoring and technical assistance to States, political subdivisions, and Indian tribes. In the Federal hazmat law, there are permanent appropriations for the planning and training grants, monitoring and technical assistance, and for administrative expenses. In 2002, obligations are proposed to be limited to $14.1 million. In addition, $200 thousand is requested in a direct appropriation for the training curriculum.

In 2000, RSPA adjusted the registration fee structure to fully fund the Emergency Preparedness Grants program at the $14.3 million level. This was accomplished by extending the registration requirements to any company that offers or transports a quantity of hazardous materials requiring placarding. A two-level fee structure was established under which small businesses pay $300 and large businesses pay $2000. This resulted in approximately 40,000 companies registering.

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
EMERGENCY PREPAREDNESS GRANTS

UNAVAILABLE COLLECTIONS (In thousands of dollars)

Identification code 69-5282-0-2-407

		FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request
01.99	Balance, start of year	0	0	0
02.20	Receipts: emergency preparedness	24,999	14,269	14,300
04.00	Total: Balances and collections	24,999	14,269	14,300
05.00	Appropriation (EP Grants)	(24,999)	(14,269)	(14,300)
07.00	Balance, end of year	0	0	0

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

EMERGENCY PREPAREDNESS GRANTS

PROGRAM AND FINANCING (In thousands of dollars)

Identification code 69-5282-0-2-407

		2000 actual	2001 estimate	2002 estimate
	Obligations by program activity			
00.01	Grants	12,832	12,769	12,800
00.02	Technical assistance	0	150	150
00.03	Admin Expenses	268	400	400
00.04	Curriculum development (definite BA)	200	200	200
00.05	ER Guidebook	700	500	500
00.06	Supplemental Training Grants	0	250	250
10.00	Total obligations	14,001	14,269	14,300
	Budgetary resources available for obligation			
21.40	Unobligated balance available, start of year	2,954	14,494	14,494
22.00	New budget authority (gross)	24,999	14,269	14,300
22.10	Resources available from recoveries of prior year obligations	542	0	0
23.90	Total budgetary resources available for obligation	28,495	28,763	28,794
23.95	New obligations	(14,001)	(14,269)	(14,300)
23.98	Unobligated balance expiring	0	0	0
24.40	Unobligated balance carried forward, EOY	14,494	14,494	14,494
	New budget authority (gross), detail			
	Discretionary			
40.20	Appropriation (special fund, definite)	200	200	200
43.00	Appropriation (total discretionary)	200	200	200
	Mandatory			
60.25	Appropriation (special fund, indefinite)	24,799	14,100	14,100
60.77	Reduction pursuant to PL 106-554 (0.22 percent)	0	(31)	0
62.50	Appropriation (total mandatory)	24,799	14,069	14,100
	Discretionary spending authority from offsetting collections:			
70.00	Total new budget authority (gross)	24,999	14,269	14,300
	Change in unpaid obligations			
	Unpaid obligations, start of year:			
72.40	Total unpaid obligations, SOY	13,547	18,957	20,266
73.10	New obligations	14,001	14,269	14,300
73.20	Total outlays (gross)	(8,248)	(12,960)	(14,136)
73.40	Adjustments in expired accounts (net)	200	0	0
73.45	Recoveries of prior year obligations	(542)	0	0
	Unpaid obligations, end of year:			
74.99	Obligated balance, EOY	18,957	20,266	20,430
	Outlays (gross), detail			
86.90	Outlays from new discretionary authority	200	200	200
86.93	Outlays from discretionary balances			
86.97	Outlays from new mandatory authority	500	703	705
86.98	Outlays from mandatory balances	7,548	12,057	13,231
87.00	Total outlays (gross)	8,248	12,960	14,136
	Net budget authority and outlays			
89.00	Budget authority (net)	24,999	14,269	14,300
90.00	Outlays (net)	8,248	12,960	14,136

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

EMERGENCY PREPAREDNESS GRANTS

OBJECT CLASSIFICATION (In thousands of dollars)

Identification code 69-5282-0-2-407

Direct Obligations:	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
41.0 Grants	12,833	13,019	13,050
92.0 Undistributed *	1,168	1,250	1,250
99.9 Total obligations	14,001	14,269	14,300

* Contains administrative obligations expenditure transferred from the RSP appropriation.

EMERGENCY PREPAREDNESS GRANTS (EMERGENCY PREPAREDNESS FUND)

Grants, Monitoring and Technical Assistance,
Administrative Support, and Curriculum Development Programs

FUNDING LEVELS: (dollars in thousands)

PERMANENT BUDGET AUTHORITY

	FY 2000 Enacted	FY 2001 Enacted	FY 2002 Request	Difference
Grants	12,800	12,800	12,800	0
Public Sector Training Grants	250	250	250	0
Monitoring/Technical Assistance	150	150	150	0
Administrative Support	300	400	400	0
North American Emergency Response Guidebook (NAERG)	600	500	500	0
Subtotal	14,100	14,100	14,100	0

APPROPRIATED BUDGET AUTHORITY

	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
Training Curriculum	200	200	200	0
Total Budget Authority	**14,300**	**14,300**	**14,300**	**0**

PUBLIC SECTOR PLANNING AND TRAINING GRANTS

NEEDS FOR 2002:

RSPA is requesting $12.8 million to award grants to states and Local Emergency Planning Committees (LEPCs) in FY 2002 ($5.0 million for planning grants and $7.8 million for training grants).

RSPA is working closely with other Federal agencies to avoid duplication of effort. Grants to States and Indian tribes will significantly enhance hazmat planning and emergency response at all levels of government and in the private sector by providing funds which might not otherwise be available for training and planning to respond to hazmat incidents. The information gained from State planning efforts will enhance the Federal, State and local governments' understanding of the magnitude of the transportation of hazmat and may be used by the States to identify where regional hazmat emergency response teams should be located.

RSPA is also requesting $250,000 for supplemental public sector training grants "to national nonprofit employee organizations engaged solely in fighting fires" to train "instructors to conduct hazardous materials response training programs for individuals with statutory responsibility to respond to hazardous materials accidents and incidents" (49 U.S.C. 5116(j)(1)). The purpose of these programs is to increase the number of hazmat training instructors available to conduct responder training programs at the local level.

ACTIVITIES PRIOR TO 2002:

RSPA awarded $8.4 million in grants in May 1993, $5.9 million in grants in July 1994, $5.2 million in grants in September 1995, $6.4 million in grants in September 1996, 1997, and 1998, $8.6 million in September 1999, and we expect to award $12.8 million in FY 2000 and FY 2001. All States and Territories and 32 Indian tribes have received grants. Over 815,000 emergency responders and others have been trained, in part, using the grant funds. Grantees estimate that approximately 2 million responders need training nationally.

In the first grant budget period, survey results indicate that Hazardous Materials Emergency Preparedness Grants Program (HMEP) grantees completed over 500 commodity flow and hazard analyses of hazardous materials being transported through their communities, created or updated over 1,000 emergency plans, assisted over 1,200 LEPCs and conducted over 600 exercises using grant funds which supplement State and other Federal resources. In the second grant budget period, HMEP grantees completed over 300 commodity flow and hazard analyses, created or updated over 1,200 emergency plans, assisted over 2,000 LEPCs and conducted over 800 exercises. In the third grant period, HMEP grantees completed over 500 commodity flow and hazard analyses, completed or updated over 4,400 emergency plans, assisted over 2,000 LEPCs and conducted over 700 emergency response exercises. In the fourth grant budget period, HMEP grantees completed over 500 commodity flow and hazard analyses, completed or updated over 5,000 emergency plans, assisted over 1,800 LEPCs and conducted over 700 exercises. In the fifth grant budget period, HMEP grantees completed over 400 commodity flow and hazard

analyses, completed or updated over 7,300 emergency plans, assisted over 1,400 LEPCs and conducted over 750 exercises. In the sixth grant budget period, HMEP grantees completed over 468 commodity flow and hazard analyses, completed or updated over 5376 emergency plans, assisted over 1453 LEPCs and conducted over 915 exercises. Similar accomplishments are expected for the seventh and eighth grant budget periods.

During FY 2000, RSPA provided a grant to the International Association of Fire Fighters (IAFF) to conduct 10 "Train the Trainer" training sessions throughout the nation, as authorized by 49 U.S.C. 5116 (j). About 200 State-level hazmat instructors were certified to train local responders in their States at the operations level. IAFF estimates that each trainer trains an average of 47 local responders. Thus, the RSPA training grant to the IAFF resulted in about 9,400 local responders being certified at the operations level. In FY 2001, 10 additional RSPA-funded training sessions are planned.

BACKGROUND/SITUATION:

Over 800,000 shipments of hazardous materials pass through communities across the U.S. every day. The risk of a serious incident, while unlikely, requires that all communities prepare plans to respond to such emergencies, and to implement training to ensure effective response. Grants made to States and Indian tribes are needed for: developing, improving, and implementing emergency plans under the Emergency Planning and Community Right-To-Know Act of 1986, including determination of flow patterns of hazardous materials (hazmat) within a State and between a State and another State; and determining the need for regional hazmat emergency response teams. In addition, grants made to States and Indian tribes are needed for training public sector employees to respond to accidents and incidents involving hazmat.

Federal hazardous materials transportation law requires RSPA to maintain close coordination with the Federal Emergency Management Agency (FEMA), the Nuclear Regulatory Commission (NRC), the Environmental Protection Agency (EPA), and the Departments of Labor (DOL), Energy (DOE), and Health and Human Services (HHS)as part of implementing the HMEP.

MONITORING AND TECHNICAL ASSISTANCE

NEEDS FOR 2002:

In FY 2002, RSPA will monitor and provide technical assistance to States, Indian tribes and local jurisdictions, and sponsor a national session where grantees will present program accomplishments and receive technical assistance from a team of Federal and non-Federal experts. RSPA will conduct program level monitoring by reviewing oral and written progress reports at national sessions to ensure that a level of quality is being met without duplication and overlap. RSPA will suggest program level corrective actions to grantees where necessary. In addition, it will identify those programs that work particularly well and use that information to help States strengthen their planning and training programs. For example, in Arkansas, State education satellite networks are used to train responders. Practical sessions are held at local fire departments during hours when volunteers can attend. Use of the satellite networks enables volunteer firefighters to remain in their communities during training. Monitoring and technical assistance activities continue in each year of the program to ensure quality. The Commonwealth of Virginia has implemented an exemplary hazmat response team organization and has shared its approach with other grantees. A key feature of Virginia's organization entails the use of cost recoveries to fund program expenses. Cost recoveries accrue when incident response and clean-up expenses are borne by the shipper and carrier parties directly involved in an incident. Cost recovery collections cover a large part of Virginia's emergency response expenses, making response team budgets almost self sufficient.

The HMEP curriculum author team has identified potential technical assistance tasks for the period through FY 2005. Accomplishing these tasks will potentially reduce the national hazmat responder training deficit, ensure quality, and provide traceable benefits to communities during hazmat emergencies. Author team members will develop appropriate grantee-specific methods and innovative tools to strengthen emergency response training. For example, annual refresher training is required for emergency responders. When refresher training is completed responders are re-certified. Developing guidelines for Internet-based self-recertification gives responders more flexibility in completing the written parts of training for recertification. Task results will be presented at HMEP workshops, grantee training conferences and author team meetings. Working closely with FEMA, DOT will provide assistance to author team technical assistance activities.

$150 thousand is requested for monitoring and technical assistance in FY 2002 and is planned to be used as follows:

$90 thousand to conduct workshops and participate in grantee training conferences on transportation-related concerns such as commodity flow resource management and hazard analysis. Information sharing through monitoring and technical assistance sessions will allow States to maximize resources by drawing on the experience of others and allow Federal Agencies to fulfill their monitoring and technical assistance responsibilities; and

$60 thousand to develop and disseminate emergency preparedness guidance, including successful practices and case studies, so that States with minimal resources can draw on the experiences of others and incorporate transportation risk factors into their planning processes.

ACTIVITIES PRIOR TO 2002:

Since the beginning of the HMEP grant program, RSPA has planned and held 13 annual national monitoring and technical assistance sessions where grantees, responders and LEPC members presented program accomplishments and received technical assistance from a team of Federal and non-federal experts. These national sessions provided practical tailored assistance, including successful practices and case studies, to grantees and provided DOT with valuable information on the emergency preparedness planning and training activities. Additionally, assistance was given to LEPC efforts by providing expertise and a transportation perspective in the planning process, so that States with minimal resources could draw on the experiences of others and incorporate transportation risk into the planning process.

RSPA continues to work closely with other Federal agencies through the National Response Team (NRT) and its preparedness committee and subcommittees to develop criteria to evaluate the overall benefits and effectiveness of the planning and training programs and to determine what types or methods of Federal technical assistance would be most valuable in support of local hazmat planning and training programs. The information obtained from effective monitoring can be used to provide technical assistance to grantees to strengthen all planning and training programs nationwide.

In FY 2000, we continued to leverage our resources through compiling case studies of successful State and local emergency planning activities. Case studies were prepared describing Wisconsin's Tri-State regional hazmat response planning program, Maine's hazmat program, and North Dakota's response activities. The case studies were presented at the annual workshop in April, 2000.

During FY 2001, RSPA will host our annual workshop, tentatively scheduled for May. In support of the conference, we will work closely with the "HMEP curriculum guidelines" author team in preparing case studies and technical assistance to grantees. We also plan to continue our "successful practices" sessions with the IAFF and the International Association of Fire Chiefs (IAFC), and to continue coordinating with other Federal agencies, including FEMA and EPA.

BACKGROUND/SITUATION:

Federal hazardous materials transportation law requires FEMA, in coordination with DOT, EPA, DOE and the National Institute of Environmental Health Sciences (NIEHS), to monitor and provide technical assistance to States, and their political subdivisions, and Indian tribes for carrying out emergency response training and planning for accidents and incidents involving hazmat. Proposed reauthorization language limits technical assistance to DOT and provides that the existing coordinating mechanisms of the NRT and, for radioactive materials, the Federal Radiological Preparedness Coordinating Committee (FRPCC) are to be used to structure DOT's technical assistance efforts.

ADMINISTRATIVE SUPPORT FOR PLANNING AND TRAINING GRANTS

NEEDS FOR 2002:

RSPA requires $400 thousand for operating expenses to administer the HMEP grant program. This amount will be used for:

- salaries and benefits of two Federal employees and for staff travel and other administrative expenses as necessary to assist States, political subdivisions and Indian tribes to prepare grant applications and to resolve problems during program implementation; and,
- contractor support to enhance and expand the Grants Automated Data and Information Control System. The improvements will include provision for acceptance of grant applications via the Internet and more efficient communications with customers.

BACKGROUND/SITUATION:

Administrative support for the HMEP grant program is essential for an effective and efficient program. Of the amounts made available for the HMEP program in any fiscal year, up to an additional ten percent is available for administrative costs.

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK

BACKGROUND/SITUATION:

Every three years, RSPA publishes an updated version of the North American Emergency Response Guidebook (NAERG). The NAERG was developed by DOT for use by "first responders"–i.e., those public safety personnel first dispatched to the scene of a hazmat spill, such as firefighters, police, and emergency services personnel. It is a guide for initial actions to be taken to protect first responders and the general public during hazmat incidents. The NAERG has been widely hailed as the single most valuable reference for initial response to hazmat emergencies. Its usefulness results in large part from constant efforts to ensure its continuing accuracy. This book is also widely used by the transportation industry.

NEEDS FOR 2002:

Reprinting of the NAERG will be accomplished in FY 2003 using funds from FY 2001 and FY 2002. Thereafter, RSPA will use FY 2002 funding to revise and update the NAERG, and initiate publication of the next edition.

ACTIVITIES PRIOR TO 2002:

Prior to FY 1996, RSPA produced what was then called the Emergency Response Guidebook, which was available only in English. In FY 1996, for the first time, the NAERG was jointly produced by the United States, Canada and Mexico. Publication of the tri-lingual (English, French, and Spanish) NAERG is a further step toward harmonizing hazmat practices in North America. An updated version of NAERG 2000 was developed in late 1999, and is currently being published. We anticipate distributing 1.7 million copies.

TRAINING CURRICULUM DEVELOPMENT

NEEDS FOR 2002:

In FY 2002, RSPA requests an appropriation of $200,000 to be used as follows:

- to update, revise, and publish the 2002 edition of the Guidelines for Public Sector Hazardous Materials Training, to produce the next edition of the national list and catalogue of courses, and to maintain and update the HMEP Internet Distribution Site and the National Course database. Significant changes anticipated in Occupational Safety and Health Administration (OSHA) regulations and National Fire Protection Association (NFPA) standards will mandate changes in the guidelines.

- to support ongoing State/tribal review of training effectiveness and to assist States/tribes in curriculum self-assessment.

- to conduct seminars supporting State exchange/sharing of exemplary hazmat programs and courses and curriculum planning and revision. Support for exchange of programs will include instructor training and materials dissemination. Support for pro-active curriculum planning will include national futures issues workshops and identification of upcoming challenges and solutions for State and local hazmat training.

- to foster development and refinement of model curriculum courses in planning and prevention. These key areas are presently being missed in State and local curricula. Currently, most courses at the local level focus on response training. A major long-term effect of the curriculum will be to raise the level of training in planning and prevention to that of emergency response.

ACTIVITIES PRIOR TO 2002:

RSPA co-chairs the curriculum subcommittee of NRT's preparedness committee with FEMA. The curriculum guidelines and list of grantee-assessed courses are fully coordinated through the subcommittee.

RSPA continues to fund development of the National Curriculum Program to ensure a set of accepted standards for hazmat training. The national curriculum includes a summary of 50 State curricula that recognizes differences in States and the desire of the States to use existing courses as much as possible. The curriculum contains: recommended courses of study for training public sector employees to respond to accidents and incidents involving the transportation of hazmat, and to plan for emergency response activities; recommended basic courses and hours of instruction; and appropriate emergency response training and planning programs developed under other Federal programs. The curriculum provides guidelines for training to enable public sector employees to comply with the regulations issued by OSHA and EPA, and standards issued by NFPA. The program includes curriculum guidelines, State development of a national list of assessed courses, support systems, and model curricula.

The first public edition of the draft curriculum guidelines was released in March 1994, and has been updated annually since then. Over 16,000 updated copies of the guidelines and assessed courses are distributed annually to grantees and local fire departments as requested.

BACKGROUND/SITUATION:

Federal hazardous materials transportation law requires the Secretary of Transportation to develop and periodically update a curriculum necessary to train public sector emergency response and preparedness teams. This effort is coordinated with FEMA, NRC, EPA, DOL, DOE, HHS and NIEHS, using the existing mechanisms of the NRT and, for radioactive materials, the FRPCC. A DOT/FEMA analysis of State and local government emergency response capabilities indicated that only a small percentage of communities are adequately prepared to deal with hazmat transportation incidents. Establishing a national curriculum, based upon performance standards, will greatly assist responders in dealing with hazmat emergencies.

PIPELINE SAFETY
(PIPELINE SAFETY FUND)
(OIL SPILL LIABILITY TRUST FUND)

For expenses necessary to conduct the functions of the pipeline safety program, for grants-in-aid to carry out a pipeline safety program, as authorized by 49 U.S.C. 60107, and to discharge the pipeline program responsibilities of the Oil Pollution Act of 1990, [$47,044,000] *$53,758,000*, of which [$7,488,000] *$7,472,000* shall be derived from the Oil Spill Liability Trust Fund and shall remain available until September 30, [2003]; *2004* of which [$36,556,000] $46,286,000 shall be derived from the Pipeline Safety Fund, of which [$23,837,000] *$20,707,000* shall remain available until September 30, [2003; and of which $3,000,000 shall be derived from amounts previously collected under 49 U.S.C. 60301: *Provided*, That amounts previously collected under 49 U.S.C. 60301 shall be available for damage prevention grants to States] *2004. (Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101(a) of P.L. 106-346.)*

PIPELINE SAFETY
PROGRAM AND PERFORMANCE STATEMENT

The Research and Special Programs Administration(RSPA)is responsible for the Department's pipeline safety program, by taking a risk-based approach to pipeline integrity management. RSPA oversees the safety and environmental protection of pipelines through damage prevention, compliance, research and development, and grants for State pipeline safety programs and one-call activities.

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
PIPELINE SAFETY

UNAVAILABLE COLLECTIONS (In thousands of dollars)

Identification code 69-5172-0-2-407

		FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
01.99	Balance, start of year	16,768	13,039	10,046
02.60	Pipeline safety user fees	30,340	37,120	46,931
02.80	Pipeline safety offsetting collections	9,664	8,840	8,472
04.00	Total: Balances and collections	56,762	58,999	65,449
05.01	Pipeline safety (appropriation)	(31,202)	(39,469)	(46,286)
05.02	Pipeline safety offsetting collections	(9,664)	(8,840)	(8,472)
05.03	Research and Special Programs	(645)	(644)	(645)
05.99	Total appropriations	(41,511)	(48,953)	(55,403)
06.10	Unobligated balance returned to reciepts	(2,212)	0	0
06.50	Other adjustments			
07.99	Balance, end of year	13,039	10,046	10,046

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

PIPELINE SAFETY

PROGRAM AND FINANCING (in thousands of dollars)

Identification code 69-5172-0-2-407

	Obligations by program activity	2000 actual	2001 estimate	2002 estimate
00.01	Operations	18,775	24,093	31,564
00.02	R&D	1,872	2,744	2,744
00.03	Grants	14,691	24,411	19,450
00.91	Total direct program	35,338	51,248	53,758
01.01	Reimbursable program	29	1,000	1,000
10.00	Total obligations	35,367	52,248	54,758
	Budgetary resources available for obligation			
21.40	Unobligated balance available, SOY	2,131	3,939	0
22.00	New budget authority (gross)	37,331	48,309	54,758
22.10	Resources available from recoveries of prior year obligations	14	0	0
23.90	Total budgetary resources available for obligation	39,476	52,248	54,758
23.95	New obligations	(35,367)	(52,248)	(54,758)
23.98	Unobligated balance expiring	(170)	0	0
24.40	Unobligated balance carried forward, EOY	3,939	0	0
	New budget authority (gross), detail			
	Discretionary			
40.20	Appropriation (special fund, definite)	32,045	40,201	46,931
40.75	Reduction pursuant to PL 106-69	(198)	0	0
40.77	Reduction pursuant to PL 106-554	0	(87)	0
41.00	Transferred to other accounts [69-0104]	(645)	(645)	(645)
43.00	Appropriation (total discretionary)	31,202	39,469	46,286
	Discretionary spending authority from offsetting collections:			
68.00	Offsetting collections (cash)	9,644	8,840	8,472
68.10	Change in uncollected customer payments from Federal sources	(1,160)	0	0
68.15	Adjustment to orders on hand from Federal sources	(2,355)	0	0
68.90	Spending authority from offsetting collections (total discretionary)	6,129	8,840	8,472
70.00	Total new budget authority (gross)	37,331	48,309	54,758
	Change in unpaid obligations			
	Unpaid obligations, SOY:			
72.40	Total unpaid obligations, SOY	17,666	18,282	29,062
72.95	Uncollected customer payments from Federal sources, SOY	(2,775)	(1,615)	(1,615)
72.99	Obligated balance, SOY	14,891	16,666	27,467
73.10	New obligations	35,367	52,248	54,758
73.20	Total outlays (gross)	(36,939)	(41,448)	(51,366)
73.40	Adjustments in expired accounts (net)	2,212	0	0
73.45	Recoveries of prior year obligations	(14)	0	0
74.00	Change in uncollected customer payments from federal sources	1,160	0	0
	Unpaid obligations, EOY:			
74.40	Unpaid Obligations, EOY	18,282	29,062	32,474
74.95	Uncollected customer payments from Federal sources, EOY	(1,615)	(1,615)	(1,615)
74.99	Obligated balance, EOY	16,666	27,467	30,859
	Outlays (gross), detail			
86.90	Outlays from new discretionary authority	15,169	28,180	31,152
86.93	Outlays from discretionary balances	21,770	13,268	20,214
87.00	Total outlays (gross)	36,939	41,448	51,366
	Offsets:			
	Against gross budget authority and outlays:			
88.00	Offsetting collections (cash) from: Federal sources	9,644	8,840	8,472
	Against gross budget authority only:			
88.95	Change in uncollected customer payments from Federal sources	(1,160)	0	0
88.96	Adjustment to uncollected customer payments from Fed sources	(2,355)	0	0
	Net budget authority and outlays			
89.00	Budget authority (net)	31,202	39,469	46,286
90.00	Outlays (net)	27,295	32,608	42,894

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

PIPELINE SAFETY

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 69-5172-0-2-407

		FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Direct Obligations:				
Personnel Compensation:				
11.1	Full-time permanent	6,188	7,108	8,608
11.3	Other than full-time permanent	86	289	315
11.5	Other personnel compensation	133	99	108
11.9	Total personnel compensation	6,407	7,496	9,031
12.1	Civilian personnel benefits	1,754	2,367	2,823
21.0	Travel and transportation of persons	1,265	1,088	1,251
23.1	GSA Rent	851	1,062	1,107
23.3	Communications, util, & misc. charges	812	206	236
24.0	Printing and reproduction	65	75	75
25.1	Advisory & Assistant Service	3,998	8,213	14,778
25.2	Other services	4,000	1,628	233
25.3	Purchases of goods & services from government accounts	791	3,113	3,301
25.4	Operation & maintenance of facilities	0	23	20
25.5	Research and development contracts	600	1,203	1,000
25.7	Operation & maintenance of equipment	0	50	51
26.0	Supplies and materials	40	47	60
31.0	Equipment	204	266	342
41.0	Grants, subsidies, and contributions	14,561	24,411	19,450
99.0	Subtotal, direct obligations	35,338	51,248	53,758
99.0	Subtotal, reimbursable obligations	29	1,000	1,000
99.9	Total obligations	35,367	52,248	54,758

PERSONNEL SUMMARY

Direct Civilian:			
Full Time Equivalent Employment	97	107	122
Total FTE	97	107	122

TRUST FUND SHARE OF PIPELINE SAFETY PROGRAM AND PERFORMANCE STATEMENT

The Oil Pollution Act of 1990 requires the preparation of oil spill response plans by pipeline operators to minimize the environmental impact of oil spills and to improve public and private sector response capabilities. The Office of Pipeline Safety is responsible for the review, approval and testing of these plans, and to ensure that the public and environment is provided with an adequate level of protection from such spills through data analysis, spill monitoring, pipeline mapping, environmental indexing, and advancing technologies to detect and prevent leaks.

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

TRUST FUND SHARE OF PIPELINE SAFETY

PROGRAM AND FINANCING (In thousands of dollars)

Identification code 69-8121-0-7-407

	Obligations by program activity	2000 actual	2001 estimate	2002 estimate
10.00	Total obligations	5,728	7,840	7,472
	Budgetary resources available for obligation			
21.40	Unobligated balance available, SOY	617	368	0
22.00	New budget authority (gross)	5,479	7,472	7,472
23.90	Total budgetary resources available for obligation	6,096	7,840	7,472
23.95	New obligations	(5,728)	(7,840)	(7,472)
23.98	Unobligated balance expiring	(1)	0	0
24.40	Unobligated balance carried forward, EOY	368	0	0
	New budget authority (gross), detail			
	Discretionary			
40.26	Appropriation (trust fund, definite)	5,479	7,488	7,472
40.77	Reduction pursuant to PL 106-554	0	(16)	0
43.00	Appropriation (total discretionary)	5,479	7,472	7,472
	Discretionary spending authority from offsetting collections:			
70.00	Total new budget authority (gross)	5,479	7,472	7,472
	Change in unpaid obligations			
	Unpaid obligations, SOY:			
72.40	Total unpaid obligations, SOY	5,088	1,384	4,733
73.10	New obligations	5,728	7,840	7,472
73.20	Total outlays (gross)	(9,432)	(4,490)	(7,069)
	Unpaid obligations, end of year:			
74.40	Unpaid Obligations, EOY	1,384	4,733	5,136
	Outlays (gross), detail			
86.90	Outlays from new discretionary authority	5,173	3,661	3,661
86.93	Outlays from discretionary balances	4,259	829	3,408
87.00	Total outlays (gross)	9,432	4,490	7,069
	Net budget authority and outlays			
89.00	Budget authority (net)	5,479	7,472	7,472
90.00	Outlays (net)	9,432	4,490	7,069

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

TRUST FUND SHARE OF PIPELINE SAFETY

OBJECT CLASSIFICATION (In thousands of dollars)

Identification code 69-8121-0-7-407

Direct Obligations:	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
92.0 Undistributed	5,728	7,840	7,472
99.9 Total obligations *	5,728	7,840	7,472

* These funds are obligated through an expenditure transfer to the Pipeline Safety appropriation.

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

Summary of Budget Authority, Positions and FTE

for the

PIPELINE SAFETY APPROPRIATION

	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Personnel Compensation and Benefits (PC&B)	8,919	9,863	11,855
Derived from Pipeline Safety Fund	8,028	8,963	10,955
Derived from Oil Spill Liability Trust Fund	891	900	900
Administrative Expenses	3,704	4,843	4,728
Derived from Pipeline Safety Fund	3,659	3,614	4,194
Derived from Oil Spill Liability Trust Fund	45	1,329	531
Contract Programs	4,221	4,485	12,641
Information and Analysis	1,200	1,335	1,335
Derived from Pipeline Safety Fund	800	935	935
Derived from Oil Spill Liability Trust Fund	400	400	400
Risk Assessment & Tech Studies	1,250	1,250	1,250
Derived from Pipeline Safety Fund	650	850	850
Derived from Oil Spill Liability Trust Fund	600	400	400
Integrity Management Program	0	0	4,943
Derived from Pipeline Safety Fund	0	0	4,145
Derived from Oil Spill Liability Trust Fund	0	0	798
Compliance	300	300	300
Derived from Pipeline Safety Fund	200	200	200
Derived from Oil Spill Liability Trust Fund	100	100	100
Training & Info. Dissemination	971	1,100	1,200
Derived from Pipeline Safety Fund	771	800	900
Derived from Oil Spill Liability Trust Fund	200	300	300
Emergency Notification	100	100	100
Derived from Pipeline Safety Fund	100	100	100
Derived from Oil Spill Liability Trust Fund	0	0	0
Damage Prevention/Public Education Campaign	400	500	3,413
Derived from Pipeline Safety Fund		300	3,213
Derived from Oil Spill Liability Trust Fund		200	200

–over–

Summary of Budget Authority, Positions and FTE (continued)

for the

PIPELINE SAFETY APPROPRIATION

	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Implementing the Oil Pollution Act	**2,443**	**2,443**	**2,443**
Derived from Pipeline Safety Fund			
Derived from Oil Spill Liability Trust Fund	2,443	2,443	2,443
Research and Development (Pipeline Safety Fund)	**1,894**	**2,744**	**2,744**
Information Systems	400	400	400
Risk Assessment	300	300	300
Mapping	800	800	800
Pipe Locating and Monitoring Technology	175	0	0
Non-Destructive Evaluation	219	0	0
Outside Force Damage (Includes non-destructive eval.)	0	644	644
Leak Detection	0	600	600
Grants	**15,500**	**22,363**	**19,450**
State Pipeline Safety Grants(PS Fund)	12,200	15,000	15,000
State Pipeline Safety Grants (Trust Fund)	800	1,400	1,400
Risk Mangement Grants (PS Fund)	500	50	50
State One-Call Grants (PS Fund)	1,000	1,000	1,000
Damage Prevention (PS Fund)	1,000	4,913	0
Interstate Oversight Grants, formerly Damage Prevention Grants in previous years (PS Fund)	0	0	2,000
TOTAL, PIPELINE SAFETY	**38,681**	**46,941**	**53,758**
Subtotal, Pipeline Safety Fund	*31,202*	*39,469*	*46,286*
Subtotal, Oil Spill Liability Trust Fund	*5,479*	*7,472*	*7,472*
Personnel Summary			
FTP (Positions)	105	109	135
FTE (Workyears)	97	107	122

APPROPRIATION SUMMARY
PIPELINE SAFETY
(Includes Amounts For Trust Fund Share of Pipeline Safety)

EXPLANATION OF ADMINISTRATIVE EXPENSE CHANGES
(In thousands of dollars)

Total Personnel Compensation $11,855 +1,992
Our base request includes $900,000 for FTE derived from the Oil Spill Liability Trust Fund (OSLTF)

FY 2001 COLA and Locality Pay Annualization +91
Our request funds the annualization of the FY 2001 cost of living and locality pay increase at 3.7% (with the remaining increase absorbed) for the first quarter of FY 2002.

FY 2002 COLA and Locality Pay Adjustment +276
Our request funds a 3.7 percent cost of living increase and locality pay increase estimated to begin in January 2002.

Merit Increases +212
Our request provides mandatory increases for employees who have met the required criteria.

Annualization of FY 2001 FTE +200
Our request funds the 2 new FTE (work years) for the 4 new positions and 2 FTE granted by Congress in FY 2001.

Increase for 261 Paid Days in FY 2001 +38
This increase is the cost of one paid day. We increased the FY 2002 request by the amount of 1/260 of the FY 2001 Enacted Budget level for pay. This was necessary because FY 2002 contains 261 paid days and FY 2001 only contains 260 paid days.

New FTE Requested +1,175
We request funding for 13 new FTE (work years) for 26 new positions FY 2002.

Administrative Expenses $4,725 -218

Travel and Transportation $1,251 +233

Our request includes an increase for new employees. The amount is based on half year funding of $25K for each of the 8.5 field FTE and $5K for each of the headquarters FTE to cover travel and transportation expenses. Our request does not include any increases for inflation.

Our base request also includes $231 thousand for travel directly related to preventing and mitigating the effects of oil spills into water and environmentally sensitive areas. Funds will be derived OSLTF.

TASC (WCF) $1,168 +17

Our request reflects a proration of RSPA's share ($2,949K) of DOT's TASC budget estimate for FY 2002. The +17K are the service costs for security, library services and miscellaneous administrative support for the requested increase of 13 FTE. All other TASC increases are being absorbed.

GSA Rent $1,108 +46

Our request for GSA Rent represents funding for space requirements in Headquarters and in the field. The increase is for the requested 13 new FTE.

Communications, Utilities & Miscellaneous $548 +78

Our request is needed to cover costs associated with communications, utilities, and miscellaneous charges not covered under the working capital fund. These charges include: local phone charges; long-distance phone calls made under C&P or AT&T; etc. Our request does not include inflation in an effort to limit administrative costs. However, +$78K is needed to fund telecommunications costs for the 13 new FTE.

Printing $65 +0

Our request maintains the FY 2001 level. It does not include inflation in an effort to limit administrative costs.

Training $162 +132

Our request includes an increase for accident investigation and corrosion training for 25 of OPS' senior inspectors. The estimated cost for this training is about $1,500 /person/week for 3 weeks of training. Our request also includes a minimal amount for other training needs for staff.

Accounting $88 0

Our request represents the FY 2001 prorated cost estimate for accounting services provided by the FAA (Pipeline Safety's portion of RSPA's service contract). The total RSPA estimate for accounting services is $221 thousand.

Supplies & Materials $41 +3

Our request maintains the FY 2001 enacted level but includes an $3 thousand increase to provide office supplies for the new employees.

Equipment & Furniture $296 +72

Our request maintains the FY 2001 enacted level but includes a $72 thousand increase to provide modular office furniture and computer equipment for the new employees.

State of Washington 0 - 798

Our request decreases the FY 2001 earmark for funds to supplement The State of Washington's appropriation for pipeline safety activities. Funds were derived from the OSLTF.

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PIPELINE SAFETY

FY 2002 BUDGET REQUEST

MISSION

"To ensure the safe, reliable, and environmentally sound operation of the Nation's pipeline transportation system."

RSPA's Office of Pipeline Safety (OPS) oversees the safe design, construction, operation, and maintenance of the nation's natural gas and hazardous liquids pipeline system under 49 U.S.C. 60101 et seq. OPS also conducts environmental protection and emergency response readiness programs under the Oil Pollution Act of 1990 (OPA). OPS regulates more than 2,000 operators with 1.9 million miles of natural gas pipelines that transport energy to about 60 million residential and commercial customers. Virtually all natural gas is moved by pipeline and provides 25 percent of all energy consumed in this country. OPS also regulates more than 200 operators with 165,000 miles of hazardous liquids pipelines. These pipelines transport two-thirds of all crude oil and refined products consumed in the U.S.

In addition to our base program, this budget is focused primarily on two new initiatives: 1) protecting people and environment by improving, enforcing and communicating standards for managing pipeline integrity, and 2) enhancing efforts to prevent the leading cause of pipeline incidents, construction-related damage to pipelines.

Integrity Management Program

With growing energy demand, increased population living near pipeline right-of-ways, an aging pipeline infrastructure, increasing competitive pressures for companies, and concern about recent significant pipeline accidents, pipeline operators must take additional measures to ensure safety, environmental protection, service reliability, and public confidence. OPS's integrity management initiative addresses these concerns by assessing all risks, requiring controls for the full range of pipeline specific risks, including mandatory testing and timely repairs, and measuring effectiveness of those controls. Through the integrity management initiative, OPS is applying more stringent requirements in densely populated and environmentally sensitive areas.

OPS has issued integrity management rules applying to hazardous liquid pipelines and now needs to ensure industry compliance. Findings about operators performance should be communicated to the public. At the same time, OPS will be finalizing integrity management rules that apply to natural gas transmission operators, building detailed protocols to review company integrity management plans, and supporting development of more detailed implementing standards through participation in national consensus organizations. The new rules must acknowledge such differences between gas and liquid operations as system configurations, operating characteristics, risks specific to the commodity transported, the impact of past regulations and test practices, and the impact of disruption to gas supply caused by potential down time during certain integrity testing. The review protocols being developed must establish methods of evaluating operators' management systems and how human error is controlled in addition to OPS's traditional focus on pipe material integrity.

Damage Prevention Community Assistance Program

Every time a pipeline ruptures, most often because of excavation damage, fuel supplies are disrupted. The extent of the disruption may vary from a few residences to regions of the country. Excavation damage is the single greatest cause of pipeline failure; all other underground utilities (telecommunications, electricity, water, sewer and cable) are equally vulnerable. This damage is almost entirely preventable. However, no single entity has jurisdiction over the numerous parties contributing to excavation damage, which include excavators, contractors, locators, and state, county and municipal public works departments. While the newly established Common Ground Alliance is taking the first steps to bring together efforts of all these entities at the national level, additional attention is needed to coordinate efforts at the state and local level to reduce construction- related damage. Otherwise, periodic energy disruptions will continue across the country wherever excavation is occurring in high growth areas. RSPA proposes aggressive action through a new Damage Prevention Community Assistance program to promote the message that damage prevention is a shared responsibility. In addition, we will continue efforts to increase the efficiency of state one-call systems, improve participation by facility operators and excavators, and enhance public awareness of the need to call for pipeline locations prior to excavation. All of these initiatives will reduce the number of incidents caused by construction related damage.

State Programs

The cornerstone of the pipeline safety program remains the relationship we have with our state agency partners. As we enhance efforts to improve pipeline integrity and prevent damage, we have expanded the role of state agencies in overseeing interstate pipelines. Our goal is to address individual state concerns within a strongly coordinated national program and provide increased resources to address pipeline safety needs. State pipeline safety programs need to be funded up to the 50 percent level allowed by statute to address what is clearly the highest risk area -- pipelines in proximity to people-- the intrastate distribution pipelines. Maintaining support for our state programs is critical to pipeline safety since state agencies inspect more than 90 percent of the national pipeline system. State programs cover basic safety compliance program costs; state activities related to education and enforcement of one-call system laws; and participation in integrity management plan reviews, risk management and other risk-based pilot programs. Maintaining state-of-the-art information systems to link states and OPS is essential to this process.

Research and Development

Research and development is a vital component of our program activities. We have increased coordination of needs and program planning with other Federal and state agencies, industries and technology institutions. By playing a coordination role, OPS hopes to improve the effectiveness and cost sharing of research efforts and provide greater accessibility to research findings. OPS must have a better understanding of the range of risks that can threaten pipeline integrity, the likelihood of these threats, the consequences of breaches in integrity, and the best tools for addressing these threats. We will continue to investigate new technological advancements, improvements to our National Pipeline Mapping System, application of safety principles in pipeline operation and maintenance.

Most OPS programs are funded by offsetting collections from Pipeline Safety Fund (PSF) supported by the pipeline industry, and the Oil Spill Liability Trust Fund (OSLTF). Gas transmission and hazardous liquid pipeline operators pay a pro rata share of program costs based on total pipeline mileage. Operators of liquefied natural gas (LNG) facilities are assessed based on total storage capacity. The assessment is determined by the amount of the annual appropriation.

Our request for Pipeline Safety continues use of the OSLTF. This ensures that certain activities directly related to preventing and mitigating the effects of oil spills into water and environmentally sensitive areas are funded by the appropriate source (the OSLTF). To prevent and mitigate effects of oil spills, OPS is improving our site-specific knowledge of water sources and other environmental areas. We continue our efforts to define, identify, and prioritize unusually environmentally sensitive areas (USA's) so operators will know where to increase protection. We review oil pipeline company operations so we can achieve environmental vigilance on a system-wide basis. We investigate spill causes and consequences and evaluate and act on environmental impacts.

POSITIONS

New: 26

Twenty-six new positions (and 13 FTE) are requested. Twenty of these positions will provide OPS the resources needed to assure compliance with the integrity management plans pipeline operators are preparing in accordance with our new regulatory requirements. Six of these positions will work with Federal, state, public interest, and industry representatives to promote adoption of best practices in preventing damage to pipelines, as well as other underground utilities; these positions will also enable OPS to address growing demands from communities for more information and assistance in living safely with the pipelines that lie within their bounds.

The specific staff expertise to be added are:

- 12 senior integrity verification inspectors to ensure that new required pipeline testing and risk analyses and repairs are both adequately performed and completed on time;
- 8 integrity management program compliance and regulatory support staff to meet the significant enforcement workload increase associated with these integrity rules, the associated increase in inspection activity, and the anticipated increase in the need to address interpretations and regulatory policy questions;
- 6 damage prevention and community technical assistance specialists to work with States and localities to promote adoption of leading edge best practices in damage prevention, and to provide information and assistance to States and communities;

PROGRAM: INFORMATION AND ANALYSIS

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
1,200*	1,335*	1,335*	0

**$400K derived from the Oil Spill Liability Trust Fund*

NEEDS FOR FY 2002:

Improved information systems are needed to assist Federal, state and local officials in targeting areas of pipeline systems that may be vulnerable to excavation damage, corrosion, material and design problems, as well as human error. As we increase the quantity and quality of data we receive on these systems and on accidents, better information management tools are needed to assure that weaknesses in the pipeline infrastructure indicated by this data are identified and repaired as early as possible. Improved information storage capacity and system connectivity are needed to enhance regulators' and industry's abilities to diagnose, target and address safety problems.
We expect the outputs from funding information systems improvements to be:

- significantly improved quality of data on the make-up and condition of existing hazardous liquid and natural gas pipeline systems, as well as on the causes of pipeline accidents;
- improved quality and timeliness of electronic data availability to Federal and state regulators to expedite critical assessments of unsafe operating conditions on pipelines and support more rapid response to pipeline accidents and more effective remediation;
- more thorough assessments of pipeline system vulnerabilities;
- information on underground damage prevention best practices to provide insight into what works best on a state by state basis, helping provide safer, more livable communities;
- better information to the public on the performance of pipelines and pipeline operators; and
- information tailored to increase community awareness of pipeline risks and increase community response ability in the event of pipeline failures.

ACTIVITIES PRIOR TO FY 2002:

In FY 2001, the OPS took several important steps to improve both the quantity and quality of data it obtains on pipeline operators and accidents on their pipeline systems. In particular, we finalized new incident reporting and annual report requirements for natural gas transmission

pipeline operators, proposed new accident reporting and annual report requirements for hazardous liquid pipeline operators

In 2001, OPS completed the first phase (scoping and needs assessment) of the new Simultaneous Methods Analytical Risk Tool (SMART). We are creating this tool to integrate spatial analytical capabilities from our National Pipeline Mapping System (NPMS) with inspection and compliance information. SMART will link to the Integrated Operator Compliance System (IOCS) and the Pipeline Incident Processing and Enforcement system (PIPES), leak history information, normalizing information from operator annual reports, and information in our Pipeline Risk Management Information System (PRIMIS). Better use of existing and improved data will allow OPS and our state pipeline partners to more effectively and efficiently allocate resources based on risks to people and the environment.

We have integrated new information into PIPES from new improved operator accident and annual report forms. We proposed lowering the threshold for hazardous liquid spill reporting from 50 barrels down to 5 gallons, to provide earliest information of safety problems. We improved data quality, timeliness, and usefulness by enabling electronic reporting of accidents and annual reports via the Internet.

BACKGROUND/SITUATION:

This initiative supports the day-to-day information management needs of regional and headquarters personnel such as: life-cycle replacement and upgrade needs for hardware and software; data entry (from accidents and annual reports) and system maintenance for our key information systems; database and information system design and redesign; data analyses in support of OPS (e.g., user fee calculations) and customer requests.

OPS needs to improve our ability to collect and record more detailed information during inspections, sharpen our focus on pipeline risks by further developing executive information and decision support systems, and by linking existing data with our mapping system for regulatory and community right to know purposes.

We need continued support to help integrate information about pipeline inspections (state and Federal), pipeline incident data, and pipeline system material composition with spatial data. In addition to serving regulatory needs, this system can be used to deliver improved information to communities about the risks that pipelines pose and to ensure that communities are prepared to respond in the event of a pipeline failure. We will develop this tool over a three-year period, building the first test model in 2002 based on the results of our operational needs assessment done in 2001.
We have provided linkage with the state pipeline safety programs, enabling participation in Internet-based systems such as the National Pipeline Mapping System and the Pipeline Risk Management Information System, and providing access to other decision-making tools. We will use the Internet and World Wide Web to obtain, validate, and distribute information. Intranet data sharing with OPS field staff and state program staff, piloted during FY 2001, will be tested and partially implemented in FY 2002 and will be completed in 2003.

PROGRAM: RISK ASSESSMENT AND TECHNICAL STUDIES

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
1,250*	1,250**	1,250**	0

**$950K derived from the Oil Spill Liability Trust Fund*
***$400K derived from the Oil Spill Liability Trust Fund*

NEEDS FOR FY 2002:

OPS's integrity management initiative is the culmination of experience gained from pipeline investigations and pilot programs OPS has conducted for the past several years. With growing energy demand, increased population near pipeline rights-of-way, infrastructure, and concern expressed by the General Accounting Office (GAO), National Transportation Safety Board (NTSB), and others about recent significant pipeline accidents, pipeline operators must take measures to ensure continued public safety, environmental protection, reliability of service, and public confidence. Through the integrity management initiative, OPS is applying more stringent requirements in populated areas and promoting the pipeline industry's use of the best available practices for controlling pipeline risks. OPS needs technical support for developmental efforts directed toward finalizing an integrity management rule for natural gas transmission operators, and building detailed protocols to review company integrity management plans. Analysis to support the rules must acknowledge such differences in gas and liquid operations as system configurations, operating characteristics, risks specific to the commodity transported, the impact of past regulations and test practices, and the impact of disruption to gas supply caused by potential down time during certain integrity testing. The review protocols being developed must establish methods of evaluating management systems in addition to OPS's traditional focus on pipe material integrity.

FY 2002 funding will support the gas pipeline integrity rulemakings by providing for the following:

- analysis of factors to be considered in defining High Consequence Areas (HCA) affected by gas pipelines;
- evaluation of design factors currently used for gas transmission pipelines;
- evaluation of performance history and experience with the impact zone in gas transmission failures;
- identification of integrity management best practices and analysis of the potential relationship between incident causes and industry practices;
- evaluation of options for various forms of assessment of the integrity of gas pipelines, their costs, and effectiveness;
- establishment of appropriate baseline testing and a basis for establishing retest intervals;
- appropriateness of distinguishing between pipelines on basis of pressure;

- analyze the effectiveness of research activities; and
- analyze the effectiveness of draft national consensus standards addressing accident prevention, testing and repair of pipelines, and accident mitigation.

ACTIVITIES PRIOR TO FY 2002:

In late 2000 and early 2001, OPS promulgated regulations entitled, "Pipeline Integrity Management in High Consequence Areas" for companies operating hazardous liquid pipelines. In addition to developing the regulation, OPS has been instrumental in developing the information and guidance operators need for compliance, including an ANSI standard, a regulatory definition of environmental areas unusually sensitive (i.e., USA's) to a hazardous liquid pipeline spill, and our National Pipeline Mapping System (NPMS) that portrays all high consequence areas in relation to pipeline locations. The new rules require operators to develop an integrity management plan that includes 1) each operators' plan for baseline assessment of all pipelines that could affect a high consequence area; and 2) a framework for addressing each of the required program elements.

During 2000, OPS met with representatives of the gas pipeline industry, research institutions, and State pipeline safety agencies to gather the information needed for rulemakings pertaining to gas operators. At a February 12, 2001 public meeting in Crystal City, VA, the gas industry presented its findings on how integrity management concepts could most effectively be applied to gas transmission pipelines. OPS has made significant progress gathering information needed to develop an integrity management rule targeting the natural gas industry, and conducting an assessment of additional information that local communities and the public need to enhance their protection from potential pipeline accidents and preparations should one occur.

OPS continues to draw on its Pipeline Risk Management Demonstration Program and System Integrity Inspection (SII) projects to test the means it will use to examine the integrity assessment plans required by the new rules, and to cultivate new inspection capabilities among its field staff. These projects continue to offer insights into a number of important areas: management systems and means of evaluating their effectiveness; means of engaging states and local officials in discussions about a effective community role in mitigating pipeline risks; means of discovering and addressing risks that otherwise would not have been found; new technology to improve safety, environmental protection, and service reliability; and the development and application of new risk management processes, models, and tools. OPS will continue the several risk management and SII projects underway, which represent both interstate liquid pipelines and gas transmission pipelines.

BACKGROUND/SITUATION:

The development and implementation of the new integrity management rules draw on lessons we are learning from two programs that have been underway for several years; the Pipeline Risk Management Demonstration Program and the System Integrity Inspections(SII) pilot program. Both programs emphasize the importance of operators' management systems in maintaining pipeline integrity, require comprehensive, systematic risk assessments of participants' pipelines, and encourage consideration of regional and site-specific concerns in setting safety priorities.

The approaches and methodologies we continue to explore under these two programs – including more sophisticated risk assessment methodologies and means of assessing operator management systems – provide the foundation for how we implement the new integrity rules.

The OPS has also drawn lessons from these initiatives on how to expand communications with local communities and the public and on how to provide them information they need to ensure their protection from potential pipeline accidents and to ensure their preparedness to respond.

PROGRAM: INTEGRITY MANAGEMENT

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
0	0	4,943*	+4,943

**$798K derived from the Oil Spill Liability Trust Fund*

NEEDS FOR FY 2002:

This new program provides for technical support OPS will need to ensure that pipeline operators across the country are complying with new integrity management requirements. The new rules require operators to establish comprehensive programs to assess pipe condition and to use all available information, including the results of the assessments, to manage their pipelines' integrity. Ultimately, OPS expects to apply some form of integrity management requirements to all transmission pipeline operators. In 2002, OPS will expend significant resources conducting field reviews of operators' integrity management plans, beginning with the 66 large liquid operators from whom compliance is required in 2001. OPS will need technical support reviewing the adequacy of operators' plans for the identification of High Consequence Areas (HCA), operator time lines for mandatory testing, operators' selections of appropriate test methods, risk factors considered, processes for integrating information, test results, and adequacy of leak detection systems, valve placement, and other prevention and mitigation measures. OPS will also evaluate measures of operator program effectiveness. OPS plans to propose similar rules to cover operators of natural gas transmission pipelines.

The OPS has funded development of these rules under the Risk Assessment and Technical Studies program element.

FY 2002 funding will provide for field review of these plans, enforcement activities, development and delivery of appropriate training, creation of needed information systems, and support for third party analyses, including:

- development of standard protocols to review integrity management processes, inspection guidance documentation;
- training of Federal and State inspectors in use of the review protocols, and in the application of advanced inspection, monitoring, and repair technology and other system control advances;
- technical support for integrity management compliance reviews;
- advanced training for Federal and state inspectors on internal inspection and monitoring technologies, corrosion protection technologies, and accident investigation;
- development of information systems to manage integrity management compliance reviews, results of testing, repairs and other prevention and mitigation measures;

- field engineering support (including third-party experts in interpretation of assessment and monitoring technologies) for accident investigation and oversight of new construction projects;
- grants to state and local organizations representing governmental interests; and
- technical support for participation in national consensus standards organizations.

ACTIVITIES PRIOR TO FY 2002:

In late 2000 and early 2001, OPS promulgated regulations entitled, "Pipeline Integrity Management in High Consequence Areas" for companies operating hazardous liquid pipelines. OPS has been instrumental in developing the information and guidance operators need to comply with the rule, including an ANSI standard and our National Pipeline Mapping System (NPMS) that identified those High Consequence Areas affecting the environment. The new rules require operators to develop an integrity management plan that includes 1) each operators' plan for baseline assessment of all pipelines that could affect a high consequence area; and 2) a framework for addressing the required program elements. In FY 2002, OPS will begin field review of these plans.

OPS also made significant progress collecting information to support an integrity management rule applicable to the natural gas industry, and assessing the need for a communications rule that will provide the public and local communities with access to the information they need to enhance their protection from potential pipeline accidents and preparations should one occur.

OPS continues to draw on its risk management and SII projects to test the means it will use to examine the integrity assessment plans required by the new rules, and to cultivate new inspection capabilities among its field staff. These projects continue to offer insights into a number of important areas: management systems and means of evaluating their effectiveness; means of engaging states and local officials in discussions about a effective community role in mitigating pipeline risks; means of discovering and addressing risks that otherwise would not have been found; new technology to improve safety, environmental protection, and service reliability; and the development and application of new risk management processes, models, and tools. OPS now has several risk management and SII projects underway, representing interstate liquid and gas transmission pipelines. OPS has completed a report assessing the feasibility of applying risk management to local distribution companies (LDCs), and is considering future LDC demonstration projects.

BACKGROUND/SITUATION:

The most resource intensive portion of the new OPS integrity management program effort will be the field reviews of liquid operators' integrity management plans. These reviews will require evaluation of operator time lines for internal inspections, pressure tests, or equivalent alternative technology to determine the integrity of the pipeline in high consequence areas. They will also require OPS to evaluate operator risk assessment methods, explanations of risk factors considered, and priority given, to pipeline material composition and coating, manufacturing information, local environmental factors, pipeline repair history, activities in the area, previous integrity test data, and corrosion and leak history.

In reviewing the program framework, OPS will review the process the operator established for continuous evaluation; the process for integrating information, including potential for excavation damage, data from past integrity assessment, results of other inspections and tests, including corrosion control monitoring and cathodic protection surveys on the pipeline, and the consequences of a failure; repair criteria and prioritization; identified preventive and mitigative measures to protect high consequence areas; methods used to ensure the effectiveness of the program (e.g., performance measures); and a process to ensure that qualified personnel will review and interpret assessment results and data. More importantly, we will begin to observe how operators implement their plans. In examining integrity assessment plans, field inspections will include review of documents that support the analyses and decisions made and actions taken to implement the plan. In reviewing this documentation, we will verify how well an operator's program addresses the main elements of the integrity assessment rules. We will follow these reviews with subsequent field inspection of the testing, repair, prevention, and mitigation actions an operator makes. OPS inspectors and contractors will verify that assessments have been conducted according to an operator's plan, that identified weaknesses that could affect the integrity of the pipeline have been repaired, and that the operator has taken the planned mitigative and preventive measures.

PROGRAM: COMPLIANCE

ACTIVITY: FIELD ENGINEERING SUPPORT

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
300*	300*	300*	0

**$100K derived from the Oil Spill Liability Trust Fund*

NEEDS FOR FY 2002:

Efficient and effective assessment of the safety of a damaged pipeline is vital to safely restore the line to service without major disruption to commercial and residential customers, and to OPS efforts to regain state and local officials' confidence in the safety of pipelines within their borders. When pipeline accidents occur, the OPS must quickly assess the problem, identify diagnostic tests operators should use, approve repair and rehabilitative measures, and verify that appropriate measures have been properly taken. OPS must continue to depend on contractor field engineering and laboratory support to: 1) ensure that pipeline construction projects meet Federal pipeline safety regulations for welding, coating, testing, and backfilling; 2) assist with accident investigations and to help OPS determine the adequacy of operator proposed response and remedial actions; and 3) to witness remedial repairs to help OPS ensure pipeline soundness and satisfy public concern that the operator fully complies with safety and environmental requirements before restoring service. New long-haul natural gas transmission pipeline construction projects in the Eastern and Central regions are anticipated to continue in response to growing energy demands. Additional work may develop in Alaska as demand grows for North Slope reserves. Each of these projects draws upon all aspects of field engineering support, including on-site reviews. In addition to construction activities, OPS anticipates using field engineering support for smaller pipeline remediation projects. At the requested funding level, OPS expects to have technical support for field engineering of two long-term construction projects and four short-term remediation projects.

ACTIVITIES PRIOR TO FY 2002:

In FY 2000, OPS used contract and laboratory support to oversee three pipeline construction projects, three accident investigations, one post accident review, and one smart pig capability update for OPS inspectors. In FY 2001, to date, contractors continue long-term pipeline construction reviews, engineering reviews, and accident investigations.

Field review support to Eastern and Central regions has been critical to oversight of several recent construction projects. Recent construction reviews have identified pipeline welding defects through non-destructive examination, as well as compliance problems that could have been the precursors of future pipeline accidents if not corrected. The Maritime and Northeast

Pipeline construction project in Maine, and Alliance Pipeline construction project in Illinois are but two long term natural gas projects we continue to oversee to ensure timely delivery of needed energy supplies. New pipeline construction projects in the Central region have begun for the Vector pipeline and should soon commence on the Independence and supply link pipelines. In addition, OPS Eastern Region required extensive support to oversee Colonial Pipeline Company's pipeline remediation efforts in Virginia and North Carolina.

BACKGROUND/SITUATION:

Demands on OPS for oversight of new construction projects (particularly major new natural gas projects), conduct of accident investigations and oversight of follow-up repair and remediation work, as well as for detailed engineering reviews are growing. OPS is increasing accident investigation activities to determine the effectiveness of regulations and standards currently in place, as suggested by the NTSB. These activities include: witnessing hydrostatic testing, radiography, and internal inspections; investigating reported failure causes; reviewing fracture mechanics analyses and witnessing pipeline remediation activities. OPS must continue to use contractual help to meet specialized field engineering requirements for data gathering and test observation needed before a Federal inspection.

Additionally, OPS examines about 20 new construction sites each year to ensure compliance with our design and construction standards and to identify any weaknesses that could lead to a pipeline failure over time. Witnessing new construction and remedial work after an accident occurs, reduces the likelihood of pipeline failure.

Familiarity with the latest diagnostic technology and repair methods is essential for investigating accidents and observing new construction. Investigating accidents and witnessing remedial testing can be extremely labor intensive and highly technical. OPS needs contractor support to assure adequate oversight. Since May 1995, the OPS has relied on contractor support to meet its oversight responsibilities.

PROGRAM: TRAINING AND INFORMATION DISSEMINATION

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
971*	1,100**	1,200**	+100

** $200K derived from the Oil Spill Liability Trust Fund*
*** $300K derived from the Oil Spill Liability Trust Fund*

NEEDS FOR FY 2002:

In FY 2002, funding is needed to continue training by the Transportation Safety Institute (TSI) of the more than 300 state and 55 Federal inspectors who monitor 3,000 pipeline operators on a routine basis. TSI also will continue to provide compliance training to pipeline companies on a reimbursable basis. Federal and state training programs need to be updated and developed while we continue to deliver routine compliance-based training. The TSI curriculum is being refined to impart advanced risk assessment and integrity management technology and damage prevention capabilities. Federal and state inspectors need better preparation to find risks that are going unnoticed and to address integrity of pipelines in a system-wide manner. These inspectors must also learn and apply the latest technologies to detect problems early, evaluate their seriousness and correct weaknesses. We are incorporating techniques to help inspectors conduct multi-region, system wide inspections designed to audit operators' capability to manage integrity, rather than to simply manage to compliance requirements. This knowledge enables Federal and state inspectors to ensure operators improve the safety of their pipelines.

In FY 2001 TSI plans on :

- plan and deliver about 65 courses and seminars, an increase of 40 over the base program to support new inspectors;
- plan for updates to its current training curriculum to include the conduct of multi-region, system-wide inspections and system integrity management audits;
- conduct risk management training;
- enhance computer-based training and expanding application to broader use in prerequisite and refresher training;
- print and distribute approximately 25,000 documents;
- develop videos, and other materials; and,
- support participants involved in the standards setting organizations and the PEPG effort to continue developing recommendations for guidelines on pigging, tanks, SCADA systems, and welding practices and procedures/testing.

ACTIVITIES PRIOR TO FY 2002:

The pipeline safety training program has earned national and international recognition. Since 1985, more than 45,000 students have been trained in classes and seminars. The Transportation Safety Institute (TSI) responds to about 7,000 requests annually for copies of the pipeline safety regulations, guidance documents, manuals, diskettes, videos, and other materials.

In recent years the TSI has adapted its course materials and instruction to: expand training material to include addressing risks unique to the gas pipeline industry; revise computer-based training (CBT) pipeline corrosion control courses (80 modules) and develop gas pressure regulation and over pressure protection modules; train the Minerals Management Agency's (MMS) inspectors to conduct inspection on the Department of Transportation regulated pipelines on the Outer Continental Shelf (OCS); and to add Hazardous Waste Operations and Emergency Response Training.

The TSI staff members represent OPS interests on a number of standards setting organizations such as the International Standards Organization (ISO), the National Association of Corrosion Engineers (NACE), the National Fire Protection Association (NFPA), and the American Society for Testing and Materials (ASTM). This support helps OPS knowledgeably adopt more industry standards by reference and align government regulations with these industry standards.

TSI continued to work with the Pipeline Employee Performance Group (PEPG), a working group consisting of trainers from government and industry that was established to exchange ideas on pipeline training. The PEPG worked on operator qualification curriculum and delivery, as well as provided training for both pipeline operators and inspectors on how to conduct operator qualification training.

BACKGROUND/SITUATION:

TSI serves as a clearinghouse for pipeline-related documents to both the states and industry and must have the latest pipeline safety codes and other reference documents. TSI staff provides support to a number of standards setting organizations such as the International Standards Organization (ISO), National Association of Corrosion Engineers (NACE), National Fire Protection Association (NFPA), and the American Society for Testing and Materials (ASTM) to help guide the development of industry standards. Participation and support in this area are needed as OPS moves to incorporate and adopt more industry standards by reference into the pipeline safety regulations.

PROGRAM: EMERGENCY NOTIFICATION

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
100	100	100	0

NEEDS FOR FY 2002:

The OPS requires immediate notification from operators after a major pipeline incident or when other unsafe conditions occur to ensure that corrective measures are taken to prevent further damage or loss of life. Knowing the location, damage, conditions on site, and contributing factors is critical to start a prompt response. We must also have accurate information about which regulatory agency has jurisdiction to expedite rapid response to the scene and can also be used to respond to calls from Congress, NTSB, and the media.

The U.S. Coast Guard's National Response Center (NRC) is the single Federal reporting facility for oil, hazardous chemical, radiological, and pipeline incidents. Calling the NRC meets all initial Federal reporting requirements and starts the response. OPS has used the NRC for over 13 years. If OPS and other responders receive complete information concerning spills quickly, we can respond rapidly and effectively, assuring that we can take the steps needed to prevent recurrence and to guide remedial action.

The expected outputs from funding telephonic notification information via the NRC are:

- better information about subcauses and precursors of accidents to increase our ability to identify and target safety problems; and
- improved quality and timeliness of electronic data availability to states to expedite critical assessments of and response to unsafe operating conditions on pipelines and support more effective remediation.

ACTIVITIES PRIOR TO FY 2002:

RSPA has continued using the National Response Center (NRC) to receive emergency notification calls. The services NRC provides are fundamental to administering an effective safety program. Other Federal agencies, such as RSPA's Office of Hazardous Materials, NTSB, Federal Energy Regulatory Commission, the Environmental Protection Agency, the Occupational Safety and Health Administration, and many state pipeline safety offices also rely on the NRC's services.

In FY 2000, a new link directly from NRC to OPS' new Integrated Operator Compliance System (IOCS) was put in place to increase reliability and timeliness of data exchange. The data collection process will be revisited with emphasis on capturing more environmental data.

Increased reliance will be placed on automating operations, including operators notifying the NRC electronically and that information being quickly forwarded to affected regions. RSPA will pilot test newly proposed data collection via the NRC in 2001.

BACKGROUND/SITUATION:

The NRC operates 24 hours a day and immediately notifies RSPA and the NTSB of pipeline incidents that meet certain severity criteria. Using the NRC service reduces the number of calls the operator must make and ensures prompt response to emergencies. Increasing efforts to inform the public and industry of reporting requirements continues to generate large numbers of reports received annually. The table below depicts trends in reporting by calendar year..

1994	1995	1996	1997	1998	1999	2000	2001
1,940	1,351	1,812	1,672	1,613	1,344	1,762	1,445*

* Telephoned Notices Reported to OPS - Estimated from 1990-2000 trends.

PROGRAM: DAMAGE PREVENTION COMMUNITY ASSISTANCE

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
400 *	500 **	3,413 ***	+2,913

** entire amount derived from the pre-existing balance (reserve) in the Pipeline Safety Fund*

*** $200 derived from the Oil Spill Liability Trust Fund*

*** The entire increase here is done through a downward adjustment of Damage Prevention Grants

NEEDS FOR FY 2002:

RSPA is requesting a realignment within base funds for damage prevention programs to enhance efforts to address the leading cause of pipeline failure, damage associated with construction. In FY 2001, RSPA advertised and awarded grants to state agencies and associated stakeholder organizations to promote adoption of the best damage prevention practices in the Common Ground report. These program initiatives should be reinforced by Federal and state pipeline agencies promoting participation in damage prevention among a broader set of state and community organizations and the private sector. To live safely with pipelines, communities, state and local agencies need information and orientation about pipeline risks, best practices to control those risks, and ways to meaningfully engage in prevention and response planning.

Further, every time a pipeline ruptures because of excavation damage, fuel supplies are disrupted. The extent of the disruption may vary from a few residences to regions of the country. Excavation damage is the single greatest cause of pipeline failure; all other underground utilities (telecommunications, electricity, water, sewer and cable) are equally vulnerable. This damage is almost entirely preventable. However, no single entity has jurisdiction over the numerous parties contributing to excavation damage, which include excavators, contractors, locators, and state, county and municipal public works departments. The Common Ground Alliance is the first nationally coordinated effort to bring together all these entities and promote the message that damage prevention is a shared responsibility. Additional national attention to coordinate efforts at the state and local level to reduce construction related damage is needed. Otherwise, periodic energy disruptions will continue across the country wherever excavation is occurring in high growth areas.

This realignment would shift partial funding of $3,000,000 from the Damage Prevention Grants program to a Damage Prevention Community Assistance Program to help localities ensure their own safety and that of their neighbors by knowing where pipelines are located, how to avoid damaging them, and how to recognize and report emergencies that may arise.

In FY 2002, OPS will :

- Work with state agencies, in addition to our traditional state pipeline agencies, and communities to promote damage prevention best practices. Provide communities with information needed to encourage plat designation of existing underground facility easements, gather information prior to construction to avoid impact to underground facilities; encourage communication among all underground facility owners on current and future projects from prebid through construction phases, encourage marking and mapping of facilities, follow applicable codes, statutes and facility operating standards for other underground facilities that encroach on pipelines, and identify qualified excavation contractors.
- Gather information on current land use practices and zoning ordinances to determine how best to prevent hazards on pipeline right-of-ways, to raise awareness of the risks of development on pipeline rights of way, and effective methods of smart growth adjacent to pipeline rights of way;
- Acquire and incorporate into our National Pipeline Mapping System (NPMS) improvements to information about assets that should be protected, including hospitals, nursing homes, schools, prison, parks, and public facilities;
- Assess and incorporate into the NPMS information on hazardous liquid gathering lines not currently regulated;
- Develop a community right-to-know program which may include the conduct of community outreach in damage prevention and spill response techniques, and the development of databases to support citizen education;
- Participate in and fund the Common Ground Alliance to continue activities associated with *Dig Safely* and *Common Ground Best Practices*, including making educational materials available for use by operators, one-call centers and other interested groups and evaluating effectiveness of programs underway; and
- Expand emergency planning in communities, providing an emphasis on field deployment to sharpen local officials techniques for protecting community assets from pipeline risks.

ACTIVITIES PRIOR TO FY 2002:

The RSPA Common Ground team completed a study of one-call system best practices. The study assessed the methods used by one-call systems to encourage participation in one-call systems by excavators and facility operators; public awareness programs; the relationship between use of one-call systems and prevention of damage to underground facilities; and effectiveness of penalties and enforcement activities in obtaining compliance with state one-call laws.

The Dig Safely Team launched its national Dig Safely campaign and conducted over 35 training sessions nationwide. The campaign received the official endorsement of numerous significant national groups including, American Petroleum Institute, American Gas Association, National Association of Regulatory Utility Commissioners, National Telecommunications Damage Prevention Council, National Utility Contractors Association, One Call Systems International as well as those of individual entities.

These efforts led to establishment of the Common Ground Alliance to carry on the excellent work done by its Common Ground and Dig Safely teams. In FY 2001 ownership of the Dig Safely initiative was transferred to the Common Ground Alliance's Public Education team, though OPS continued to provide important personnel and financial support for that team's new implementation effectiveness survey and for the broader efforts of the Public Education team.

RSPA also conducted important public meetings in FY 2001 focused on the issue of pipeline risk communications to local communities. These meetings provided new insights into what information States and communities require, and in what format this information is most effective. The lessons learned from these efforts will serve as the base for OPS technical assistance to States and communities and for development of community right-to-know programs.

Finally, most recently, RSPA advertised and awarded grants to state organizations to promote adoption of Common Ground best practices.

BACKGROUND/SITUATION:

Pipeline failures caused by excavation damage have focused public attention on encroachment dangers to pipeline rights-of-way posed by population growth and commercial development. Excavation activity in the vicinity of pipelines is the leading cause of pipeline failure. Potential effects of such activity to gas and hazardous liquid pipelines include property loss, environmental damage, injury, and fatalities. Such damage may disrupt other underground facilities, such as telecommunications, electric, water and sewer lines. The Department has a goal to reduce "hits" to pipelines by 25 percent by 2002.

The survey of best practices, authorized by TEA-21 and undertaken by the Common Ground team, identified areas that require further investigation and highlighted the need for sustained efforts to encourage appropriate damage prevention. The Dig Safely Team developed a comprehensive damage prevention public education campaign. Having completed development of a national public education campaign and the best practices study, we are now concerned with educating communities to adopt both of these programs. Implementing these efforts will greatly enhance national damage prevention efforts.

These efforts are beyond the scope of the Damage Prevention Grants authorized by TEA-21 which authorized funding for states to improve their one-call programs. Common Ground identified the need to maintain the open communication and the sense of shared responsibility that developed among these stakeholders who worked together to address their common need – preventing damage to underground facilities. While the Common Ground Alliance can serve as the private sector focal point for public education about this important issue, it is critical to reinforce these efforts at the Federal and state level to help get this far reaching effort off the ground.

PROGRAM: IMPLEMENTING THE OIL POLLUTION ACT

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
2,443*	2,443*	2,443*	0

**entire amount derived from the Oil Spill Liability Trust Fund*

NEEDS FOR FY 2002:

RSPA will continue to review and approve pipeline operators' spill response plans with contract assistance, conduct spill response readiness drills, negotiate agreements with Federal and state agencies and environmental groups to get locational data on sensitive natural resources, and to identify and map unusually sensitive areas. Specific outputs for this program include:

- 1,200 spill response plan reviews and approvals for onshore pipeline operators;
- digital maps that identify unusually sensitive drinking water and ecological resource areas, information about the resources within those areas to be protected, and contact information; and
- up to 20 table top and 2 field exercises.

ACTIVITIES PRIOR TO FY 2002:

The Oil Pollution Act of 1990 (OPA '90) directs OPS to ensure that pipeline operators can respond to catastrophic spills. We accomplish this by reviewing the adequacy of operator response plans and by exercising these plans, in either table-top or field exercises, to test and strengthen operator prevention and readiness.

Exercises test pipeline operators' ability to respond to spills along hundreds of miles of pipeline. They also demonstrate whether the response plans work or need to be changed. The drills build and strengthen relationships among operators and emergency responders. Response to incidents has been more effective with better communications, notification, and more efficient deployment of response equipment. A February, 1999 fuel oil spill in Knoxville, Tennessee illustrated the benefits of our OPA program as the pipeline operator who we had drilled earlier brought immense resources to bear on the clean up while working closely with Federal, state, and local officials in a unified command structure. A rigorous exercise program is vital to reaching the goal of continually improving the government and pipeline industry's ability to respond rapidly and effectively to oil spills. The member companies that comprise the American Petroleum Institute indicated that the OPA program is one of the most effective OPS programs.

In recent discussions with people who had participated in OPS tabletop exercises, OPS found positive results. Three quarters of the operators report communication and interaction between industry and government responders are stronger since the drills. Operators are learning more

about where environmentally sensitive areas are and how to more effectively protect them. Nearly 9 of 10 operators considered the drills valuable.

Our team of technical experts recently finalized a model that identifies unusually sensitive drinking water and ecological resource areas. Major categories in the definition include public drinking water systems, wellhead protection areas, sole source aquifers, threatened and endangered species, imperiled and critically imperiled species, depleted marine mammal habitats, and areas where a large percentage of the world's population of a species concentrates. Work to collect and process data needed to create USA maps for all 50 states is scheduled for completion in FY 20001.

We finalized a Drinking Water Data Catalog as part of an environmental index initiative and have added the catalog to our web site, http:\\ops.dot.gov. The catalog covers all 50 states and includes data on groundwater wells, surface water intakes, aquifers, sole source aquifers, wellhead protection areas, and geology. For each category, the catalog names the government agency that created the data, a description of the data, noted problems with the data, and provided a ranking of the quality and completeness of the data for creating an electronic data layer of unusually sensitive drinking water resources. The catalog also includes the draft model for identifying unusually sensitive drinking water resources, a flowchart for gathering the data and creating the drinking water resources data layer, and maps showing the quality of the different data layers for all the states. Finally, the catalog ranks each of the 50 states for drinking water data quality and completeness. EPA reviewed the catalog and has provided it to headquarters and region staff and to other state agencies they interact with. We have begun work on an Ecological Resource Data Catalog and will add this to our web site once it is finished.

BACKGROUND/SITUATION:

Spill response planning is essential to building a strong National Response System and to reducing the environmental consequences of oil spills from pipelines. RSPA works closely with the Coast Guard (USCG), the Environmental Protection Agency (EPA), and other Regional Response Team members and state and local emergency responders on table top and area exercises to strengthen pipeline operators' and government agencies' ability to prevent and respond to oil spills.

RSPA worked with EPA, Department of Interior (DOI), other natural resource trustees, environmental organizations, and the public to determine what drinking water and ecological resources are most unusually sensitive to environmental damage from spills. These areas require particular attention in spill response planning and additional prevention measures. We need to locate the sensitive resources on digital maps to better protect them through increased prevention and response measures, enhanced emergency response planning, and an increased awareness of the location and character of these sensitive resources. Further, by targeting the most important areas for additional protection, we reduce the most adverse environmental consequences.

PROGRAM: RESEARCH AND DEVELOPMENT

ACTIVITY: INFORMATION SYSTEMS

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
400	400	400	0

NEEDS FOR FY 2002:

Gaps in pipeline system information availability and other data inadequacies need to be addressed to provide adequately for determining safety trends and for evaluating applied safety and environmental solutions. The Department's Office of the Inspector General (OIG), NTSB, GAO and others have recommended that RSPA improve its safety and environmental data collection and usage. This particularly applies to data collected during inspection activities, the cornerstone of RSPA's approach to assuring adequate pipeline safety. Data collected during inspections from both Federal and state inspectors needs to be made more useful to measure performance for both government and industry. Correlating this data with other sources of information on pipeline integrity, incident history, environmental risk factors, population density, and information on underground damage prevention best practices on a state-by-state basis will help identify the most effective pipeline safety and environmental protection solutions.

Further work is needed to develop an electronic reporting process to receive data directly from industry computer systems or alternative reporting systems. Additionally, new community right-to- know needs requires that OPS redesign our information to be more assessable to the public. OPS will hold public meetings and work with industry groups to develop this process.

Online training and computer-based videos that can demonstrate correct reporting procedures to operators will be developed in 2002. Data from risk management demonstration projects, Oil Pollution Act response plans, inspection information in our Integrated Operator Compliance System (IOCS), and information in the National Pipeline Mapping System will be integrated as we continue to improve our ability to make informed decisions on the appropriateness of individual operator safety actions and national initiatives.

ACTIVITIES PRIOR TO FY 2002:

IOCS was designed to improve regulator access to essential pipeline safety information from notebook computers while in the field. In 2001, we completed development of an information technology architecture plan to help links IOCS to geospatial pipeline information in our National Pipeline Mapping System. This connection will improve our inspectors' ability to evaluate pipeline systems during inspections by helping them to identify areas that need improvement through the use of onsite access to operator safety history and performance data,

regulations, industry standards, and a variety of support information. This connection will also enable the OPS and inspectors to visualize and prioritize areas at higher risk from potential pipeline failures.

In 2001, we provided Internet-based access to industry codes and standards to both Federal and state inspectors. We also provided operators with electronic data entry for entering information directly into the RSPA pipeline accident and operator annual report forms via the Internet. In addition, we began modifications of our databases to handle the dramatic increases in accident reporting that will occur in FY 2002 when OPS reporting requirements for spills are adjusted down to 5 gallons from 50 barrels. This additional data will greatly increase government and industry's ability to diagnose smaller accidents that could portend larger events and to better target repeat operational problems that could impact safety and the environment.

Also, during FY 2001, we added an initiative to standardize state communications platforms, worked with the states to better assess their needs, made recommendations for an electronic communication strategy, and proceeded with procurement and system deployment.

BACKGROUND/SITUATION:

Funding for contractual support is critical to support OPS efforts to improve our ability to collect, integrate and analyze new pipeline safety data. OPS is in the process of revising all pipeline accident and annual reports, including lowering the reporting threshold, greatly increasing the amount of reports received. Consequently, improvements to our information databases are needed. We will continue using the Internet as a tool to better communicate with OPS' stakeholders.

OPS needs assistance in assessing how new technology may enable OPS to meet our business needs more efficiently. In addition to making recommendations for use of new technology, assistance is needed to develop proposed solutions. We maintain our regional communication platform by contract support, especially for our Wide-Area Network (WAN) requirements.

PROGRAM: RESEARCH AND DEVELOPMENT

ACTIVITY: RISK ASSESSMENT

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
300	300	300	0

NEEDS FOR FY 2002:

We are working to improve information on and further develop technological solutions that will strengthen the Nation's pipeline system. In FY 2002, we will collaborate with other government agencies, our industry partners, and research organizations to: pursue recommendations from our Advisory Committees to assess the need for, and possible extent of, performance standards covering leak detection technology; further investigate approaches to detecting stress corrosion cracking (SSC) in gas transmission pipelines; assess the safety risk of proposed pipeline design strategies, such as operating pipelines in class zero locations at 80 percent of pipe yield strength; help validate the methodology and tools used for corrosion detection through direct assessment of natural gas pipeline systems; assess the application of safety principals in pipeline operation and maintenance areas, such as outside force damage, material integrity, pipeline controller fatigue, and corrosion; and, investigate and characterize potential effects of residual magnetism that remains in pipelines following in-line inspections using magnetic flux technologies.

The use of plastic piping has grown rapidly in recent years. RSPA will continue a collaborative research project with industry, started in FY 2000, to develop and refine a database on plastic pipe failures involving slow crack growth and to analyze related failures. The results of this project will enable RSPA and industry to identify systemic safety issues involving the formulation, manufacture, installation, and operation of plastic pipe.

ACTIVITIES PRIOR TO FY 2002:

OPS prioritizes pipeline safety problems and solutions to maximize use of its resources. This prioritization has helped OPS to more effectively allocate Federal pipeline safety resources to the area of greatest safety risk. This data can be instrumental in developing a risk management program system-wide. Results were compared to incident failure cause and frequency data in the DOT incident database and other available incident rate analysis.

OPS reviewed how and what factors contribute to pipeline aging and operating cycles' effects on pipeline fatigue or crack growth, and established criteria for pipeline fatigue life calculation and trench-less rehabilitation methods. We used engineering calculations to reconsider when pressure should be reduced and determine types of defects where this criteria should be applied. We sought alternatives to pressure reduction. We studied and reported on the technical merits of methods to replace metal pipe with plastic. We investigated the extent of stress corrosion

cracking (SCC) as a pipeline failure mode and developed strategies to manage SCC. We determined the structural condition of older plastic pipe installed in gas distribution systems. We collected and evaluated data on performance measures being used be state agencies. We co-funded research with the Department of the Interior's Minerals Management Service (MMS) on validating assessment models for predicting pipeline failure through field testing and conducting smart pig surveys. We supported research into developing sensors for excavation equipment to prevent damage to buried pipelines. OPS uses risk assessment on a daily basis to address mandates so that resources can be assigned according to risk. This methodology ensures that resources are directed to areas where risk-reduction will be maximized.

BACKGROUND/SITUATION:

The risk to public safety and the environment is not equally distributed over the Nation's pipeline system. The cost of actions to address all risks far exceeds any organization's resources. Where and how to best use resources must be based on assessing and prioritizing risks and on the expected impacts of the appropriate solution. RSPA needs to work with pipeline stakeholders, both onshore and offshore, to prioritize risk, use modern analytical tools, and institutional expertise to carefully guide the program.

Better information will help OPS to develop better regulatory standards and to answer questions about the adequacy of pipeline standards to protect environmentally sensitive and densely populated areas.

PROGRAM: RESEARCH AND DEVELOPMENT

ACTIVITY: MAPPING

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
800	800	800	0

NEEDS FOR FY 2002:

RSPA and state pipeline agencies must be able to depict pipelines in relation to people, environmentally sensitive areas, water, and other vital resources to improve our ability to protect communities and the environment from potential pipeline failure and to assess the risks posed by and on a pipeline system. This information is also needed to help enable communities to make informed judgements on the risks pipelines pose and the ways communities can contribute to the safety of pipelines within their borders.

In FY 2002, RSPA will continue working with state and Federal partners in collecting, processing, and disseminating pipeline data from the pipeline operators. The majority of the pipeline data will be collected for the country during FY 2001, so we will be targeting the few remaining interstate and intrastate pipeline operators who have not provided data to the NPMS.

The NPMS will maintain and improve the quality of previously collected data. Given the rapidly changing nature of the pipeline industry, a rigorous quality control and maintenance program has been developed to keep track of pipeline operator ownership, geospatial, attribute, and metadata changes. All repositories will maintain the data in accordance with the NPMS standards.

RSPA will continue refining the Internet-based community education aspects of the NPMS and will solicit input from community representatives, pipeline operators, government agencies on actions required to improve the usefulness of the tools. RSPA will simultaneously continue refining its Intranet decision-support version of the NPMS that will enhance pipeline risk analytical capabilities of RSPA and state inspectors. RSPA will also link, for the first time, the NPMS pipeline location data with our inspection databases. Pipeline inspectors will soon be able to perform spatial queries on a wide variety of risk factors including location relative to high consequence areas, past pipeline inspection, and accident history.

ACTIVITIES PRIOR TO FY 2002:

The NPMS is comprised of a national data repository and multiple state repositories. State repositories are responsible for maintaining pipeline data within their boundaries. The state and national repositories work together in processing, editing, and disseminating the data. By the end of FY 2000, the NPMS had established 16 state repositories.

A team including representatives from OPS, other Federal and state agencies, and the natural gas and hazardous liquid pipeline industry helped OPS develop consensus pipeline mapping standards that govern the NPMS. These standards cover digital and paper data submittals, metadata (data about the data), and processing and storage instructions.

The OPS established a goal of collecting 70% of the pipeline data by the end of calendar year 2000. While we reached this goal for larger hazardous liquid pipelines, much work remains to be done to obtain similar data for the natural gas industry's pipelines. To date, the majority of submissions to the NPMS have from large interstate natural gas transmission and hazardous liquid pipelines. OPS began outreach and education programs in FY 2001 targeting intrastate natural gas transmission operators, many of whom are small companies with limited mapping resources. Because the smaller operators are primarily working only with hard copy maps, a significant effort was made to collect their data and to provide them with additional assistance to comply with the NPMS submission standards requirements. RSPA assisted these operators by conducting additional educational workshops and working one-on-one to incorporate their data into the NPMS.

Other data layers in the NPMS were created to depict pipelines in relation to vital resources, and to determine the potential hazards affecting pipelines and the possible consequences of a pipeline release. The other layers include drinking water resources, population densities, environmentally sensitive areas, unusually sensitive areas, commercially navigable waterways, natural disaster probability and consequences, national cultural resources, and other infrastructures.

In FY 2001, RSPA began delivery of NPMS pipeline data in an Internet-based application that allowed communities and the public to view pipelines in relation to other important resources and risks. This application was developed as a community education tool about pipelines as well as to allow pipeline operators to identify their pipelines that pass through high consequence areas including unusually sensitive areas, high population areas, and navigable waterways. The application also allows the download of pipeline and other data layers that can be used if the end-user has a geographic information system.

In FY 2001, RSPA debuted its Intranet-based application for use by Federal regulators. The application serves as a decision support tool to assist OPS staff in inspection planning prioritization by, among other things, locating pipelines that pose the greatest risks in high consequence areas.

BACKGROUND/SITUATION:

The OPS, states, other Federal agencies, and the pipeline industry set out to establish requirements for a National Pipeline Mapping System (NPMS) in 1994. The system the mapping team proposed would include location and attribute information on natural gas transmission and hazardous liquid pipelines, and liquefied natural gas facilities. The development team recommended that the NPMS be built through partnerships with state and other Federal agencies, and through voluntary participation by the pipeline industry. Partnerships would allow OPS and other Federal and state agencies to leverage resources, minimize duplication, and improve communication and data sharing. The resulting NPMS was intended to enable OPS and the

states to make more informed decisions about when and where to require new safety measures. Voluntary participation would allow industry to meet the needs of government agencies while meeting their own business needs.

PROGRAM: RESEARCH AND DEVELOPMENT

ACTIVITY: OUTSIDE FORCE DAMAGE

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
219	644	644	0

NEEDS FOR FY 2002:

Outside force damage, particularly when done during excavation, is a leading cause of reportable pipeline failures. We need to improve our ability to detect and evaluate dents, gouges and other mechanical damage as well as monitoring activity on the pipeline right of way so excavation damage can be discovered "real time" or near "real time" to preclude accidents. In addition, we need to improve our ability to locate buried pipe, particularly buried plastic pipelines in gas distribution systems, and other underground utilities.

There are a range of emerging technologies for "real time" monitoring for the prevention or detection of damage which deserve more research attention to advance their applications to prevent underground utility failures and disruptions. OPS is partnering with Gas Research Institute (GRI), and other research organizations interested in advancing the technologies of monitoring and pipe location for broader use in underground facility protection. OPS is co-funding a research initiative on "real time" detection of pipeline encroachment with GRI under a Memorandum of Understanding (MOU). Once the research results are incorporated on a smart pig, the output of the electromagnetic research will result in:

- Measurable (30 to 50 percent) increase in our capability to evaluate dents on pipelines caused by outside force; and
- Better identification and characterization of mechanical damage and the development of an assessment criteria to rank the severity of the mechanical damage for remedial action.

Beginning in FY 2002, OPS will also partner with GRI, pipeline industries, and other research organizations to advance the technologies available for detecting and monitoring buried pipelines, particularly plastic pipe. For the first aspect of the research we will identify and evaluate location equipment for buried plastic gas mains and services, develop performance criteria for new, improved generations of equipment with the desired locating capabilities and investigate alternative ways to design plastic pipe so that it can be more easily located.

ACTIVITIES PRIOR TO FY 2002:

OPS and GRI developed a MOU in 1996 to guide cooperative research. Under this MOU, OPS awarded a contract to a consortium comprised of Battelle Memorial Institute, Southwest Research Institute and Iowa State University to identify and evaluate electromagnetic technology to detect and characterize outside force damage (dents, gouges, and flaws) and stress corrosion cracking.

Analysis techniques for identifying mechanical damage detected by smart pigs were developed and tested. This research, completed in FY 2000, focused on identifying mechanical damage by magnetizing the pipe wall in the traditional longitudinal direction used on corrosion pigs.

During FY 2000 and 2001, OPS co-funded with GRI a two year project to evaluate electromagnetic technology with the magnetic field produced in the circumferential direction. The pipe wall must be investigated with the magnetic field in the circumferential direction of the pipe to completely identify and characterize mechanical damage. Research involves producing additional defect sets, gathering inspection data of these defects in the 300 foot test section and pressurized flow loop, and analyzing the data to establish detection protocols. The Cooperative Agreement to co-fund this project at a 50 percent level was signed in April 2000.

Completion of this research will greatly improve the defect depth characterization of metal-loss mechanical damage defects, particularly long thin defects oriented along the pipe's longitudinal axis. A critical assessment criteria to determine remedial action for mechanical damage is also being developed.

BACKGROUND/SITUATION:

Technology to detect and determine the severity of mechanical damage in pipelines without digging up the pipelines is critically needed. Early detection of dents and gouges from outside force enables operators to make repairs that will prevent a possible failure. Detection of dents and gouges associated with outside force is particularly critical because these incidents primarily occur in high consequence areas, such as populated areas, commercially navigable areas, and areas unusually sensitive to environmental damage. If these defects grow to failure, they can rupture, leading to a gas explosion or a large magnitude hazardous liquid spill that could potentially pollute a community drinking water supply or permanently damage fragile environmental resources.

In 1996, OPS and GRI co-funded a research project to adapt existing "smart pig" technology used to detect corrosion to detect axially oriented mechanical damage. The results of this research project will be performance criteria for assembling smart pigs capable of detecting and characterizing mechanical damage. This technology will then be added to existing pigs used to detect corrosion and result in significant cost savings by allowing pipeline operators to simultaneously conduct pigging surveys to detect both corrosion and mechanical damage.

The area of greatest need for improved underground pipeline locating capability is the distribution portion of pipeline systems, of which approximately 351,000 miles are buried plastic

mains and 317,000 miles are buried plastic service lines. These systems are located primarily in densely populated areas. These buried plastic pipelines can not accurately be located using methods traditionally used for buried metallic pipelines. Reliable, portable methods to locate plastic pipelines must be developed to reduce the excavation risks that cause pipe failures.

PROGRAM: RESEARCH AND DEVELOPMENT

ACTIVITY: LEAK DETECTION

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
0	600	600	0

NEEDS FOR FY 2002:

Research into various technologies to detect pipeline leaks is needed to reduce the risk to the public and to the environment from release of commodities from both gas and hazardous liquid pipelines. In FY 2002, additional research, including prototype testing, is required for environmental laser mapping (ELM) technology to increase the effectiveness of the system. In FY 2002 we also plan to identify research needs in other technologies for leak detection, particularly as they relate to distribution facilities. The OPS will also be assessing the need for additional performance standards governing leak detection technologies in accordance with recommendations from the National Transportation Safety Board and our own Advisory Committees.

ACTIVITIES PRIOR TO FY 2002:

The Congressional appropriation for research and development in FY 2001 was increased by $600,000 for a new activity addressing research into airborne leak detection. Specifically, the research supported focused on airborne mapping research, technology and engineering in support of improved leak detection and analysis.

The United States Air Force (Air Force) has been conducting related research on environmental laser mapping (ELM) system used in leak surveys. The ELM system is an airborne chemical mapping system for multi-hydrocarbon detection, and infrared and visual imagery presented on a GIS map with an interactive database. It uses a multi-wavelength laser system to measure levels of chemicals in the atmosphere just above the earth's surface in the atmospheric boundary layer. This technology is applicable to both hazardous liquid and natural gas pipeline systems.

The OPS is working with the Air Force to further develop the ELM technology and is benefitting from their research efforts. OPS, in partnership with the Air Force, performed a technical oversight role in the project.

BACKGROUND/SITUATION:

RSPA has been concerned for sometime about leak detection systems on pipelines. The Pipeline Safety Act of 1992, required RSPA to survey and assess the effectiveness of emergency flow restricting devices (EFRDs) and equipment used to detect and locate hazardous liquid pipeline

ruptures and minimize product releases from hazardous liquid pipeline facilities. We were further mandated by Congress to issue regulations prescribing the circumstances under which operators of hazardous liquid pipelines would use EFRDs and equipment to detect and locate pipeline ruptures and minimize product release from pipeline facilities. New requirements governing these mandated mitigation measures were recently implemented for hazardous liquid pipelines in OPS' new integrity management rules. These rules govern leak detection systems built into the pipeline to reduce the risk from commodity release. With these rules in place, we can now turn our attention to the development of remote leak detection systems such as the ELM system.

PROGRAM: GRANTS

ACTIVITY: STATE PIPELINE SAFETY GRANTS

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
13,000*	16,400**	16,400**	0

** $800K derived from the Oil Spill Liability Trust Fund*
*** $1,400K derived from the Oil Spill Liability Trust Fund*

NEEDS FOR FY 2002:

State pipeline safety programs need to be funded up to the 50 percent level allowed by statute to address what is clearly the highest risk area -- pipelines in proximity to people -- the intrastate transmission and distribution pipelines. These pipelines represent nearly 90% of total pipeline mileage, though they typically move much smaller volumes than interstate systems. States also provide nearly 90% of the national pipeline inspection workforce. RSPA has these primary objectives in funding state pipeline safety programs in FY 2002:

- improving state program performance by adoption of uniform Federal regulations;

o encouraging States to take safety jurisdiction for all intrastate pipelines; and

o helping States focus their compliance programs on their highest risks.

Performance criteria used in making grants will include an assessment on whether the state fully uses risk factors to plan and carry out inspections. OPS will encourage states to work with operators to develop solutions to safety concerns. Emphasis on strengthening damage prevention measures at the state level continues. Special emphasis is on one-call initiatives with earmarked funding to address enhanced compliance, communications, public and legislative education, and excavator and operator training in pipe-marking and notification.

ACTIVITIES PRIOR TO FY 2002:

Working with its state partners, OPS restructured the grant allocation formula to increase the focus on state program performance. For the last three years, all grants have been allocated to states based on program performance.

Each year, state pipeline safety programs inspect over 5,800 natural gas and 240 hazardous liquid pipeline operators. On average, this amounts to about 7,700 natural gas inspections and 321 hazardous liquid inspections. The states also investigate and monitor an estimated one-third of the safety-related condition reports received by OPS. This activity helps to ensure that pipeline

operators are responding to safety and environmental concerns in a timely and risk appropriate manner. In addition to scheduled inspections, state programs participate in several joint activities with their Federal counterparts. In FY 1998, state inspectors worked alongside OPS inspectors in 15 comprehensive inspections of pipeline facilities and helped to investigate eight public complaints against pipeline operators. The proximity of the state programs to the public occasionally impacted by pipeline operations, is proving a valuable asset to OPS in addressing public complaints.

Specific outputs of state pipeline safety programs are approximately 8,000 inspections resulting in finding over 14,000 non-compliances annually. Inspectors identify potential causes for failures before they occur, thereby preventing death, injury and environmental damage. With OPS grant funding, states focus on non-compliances that could lead to failure, and then work with operators to anticipate and prevent other concerns that are not required by regulation but which could lead to a pipeline's failure.

The states have agreed to report these additional outputs:

- o increased voluntary actions by operators to address identified non-compliances;
- o reduced reportable incidents directly caused by non-compliance with regulations;
- o increased number of agreements with operators to proactively address safety concerns to enhance pipeline integrity (pilot);
- o increased use of, and communication about, pipeline integrity management (pilot); and
- o reduced pipeline incidents and damages to pipelines caused by third-party damage, the leading cause of incidents resulting in deaths, injuries and environmental pollution.

States are active participants in many ongoing OPS initiatives such as the Risk Management Demonstration programs, the National Pipeline Mapping System, the System Integrity Inspection Pilot Program, and the Data Improvement and Damage Prevention efforts.

BACKGROUND/SITUATION:

State agencies need to increase oversight of new construction, and to step up their efforts to improve damage prevention practices. As a result of the prosperous economy, construction of gas pipelines has increased 15-20 percent in the past few years. State personnel should be available to witness installation and require corrections as needed, particularly addressing inadequate training of personnel. State personnel who have witnessed construction have reported numerous instances of improper procedures used by contractors and inability to provide adequate monitoring of construction. Without correcting these errors at the time of construction, it is only a matter of time until corrosion occurs at welds and joints, or other breaches of integrity occur. States report being able to cover only about half of their inspection units. (7,035 of 13,398 units in natural gas distribution and 343 of 580 units in hazardous liquid pipelines). States need to

substantially improve inspection coverage to be able to monitor the majority of their units, and particularly new construction.

Additionally, state inspectors are our first line of defense at the community level to educate local officials, excavators, utilities and others on the importance of improvement in damage prevention practices. In 1999, a report entitled "Common Ground, One Call Systems and Damage Prevention Best Practices", presented a comprehensive compilation of techniques communities can use to improve safety and help meet his goal of reducing hits to pipelines by 25% over the next three years. State inspectors are a primary means of encouraging the adoption of these practices at the local level, where construction occurs. Extensive construction of telecommunications, electric, water, sewer and gas distribution lines in the same rights of way increases the urgency of getting these best practices adopted.

PROGRAM: GRANTS

ACTIVITY: RISK MANAGEMENT GRANTS

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
500	50	50	0

In Fiscal Year 2002, we will be evaluating large liquid operators' written integrity management plans while winding down the risk management demonstration and system integrity inspection pilot projects. We include States in all of these efforts.

NEEDS FOR FY 2002:

Grant funds continue to enable state officials to interact with OPS and participating operators in activities in their state (including evaluating operator integrity management plans, and monitoring risk management projects and system integrity pilots). We will continue to discuss performance issues regarding changes to operations and maintenance on pipelines passing through their states. The need for States' participation in standards development, performance measurement system review, curriculum design, and identifying new techniques needing further research is increasing.

States will continue sharing invaluable geographic and socio-economic information about the areas through which pipelines run. States can help monitor the validity of approaches operators propose. Travel funding is included in this request to allow state representatives to participate meaningfully and share information relevant to integrity management, risk management, system integrity, performance, and mapping issues.

ACTIVITIES PRIOR TO FY 2002:

States participated in development of the integrity management rule for large liquid operators, in the approval of risk management and system integrity pilot programs, in the development of mapping standards and in the identification of best damage prevention practices. They worked with OPS and the industry to identify the conditions and criteria necessary to evaluate operator integrity programs. They participated in training to prepare for evaluations of these programs, contributed knowledge and local information during the evaluations and monitoring of companies' demonstration projects, responded to issues raised by local government officials, and now help document lessons learned from the process.

BACKGROUND/SITUATION:

As OPS adopts risk-based approaches in all aspects of its program, states must be kept fully informed to effectively perform their roles partners in safety. OPS presently involves states in demonstration and pilot projects involving interstate pipelines. Besides providing the geographic based insights needed for addressing site-specific risks, States gain experience applying new approaches that may ultimately be adopted for the intrastate pipelines they inspect. In FY 2002, States will assist OPS in evaluation of large liquid operators' written integrity management programs, and in development of integrity management rules for other pipeline operators.

OPS is involving states in the development, implementation, and/or monitoring of a number of risk-based initiatives. Some, such as the integrity management rules, the Pipeline Risk Management Demonstration Program and the System Integrity Inspection Pilot Program, emphasize the importance of internal operator processes and procedures for identifying and controlling risks. Others, such as mapping or damage prevention initiatives, help provide the information necessary for informed risk assessment. States need to attend the same training provided to other government and industry participants in these programs. States are active on planning teams, at public meetings, and in evaluations of candidate companies. Since these activities exceed States' compliance activities, OPS must provide States additional funding to ensure their participation.

PROGRAM: GRANTS

ACTIVITY: STATE ONE-CALL GRANTS

FUNDING LEVELS: (dollars in thousands)

FY2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
1,000	1,000	1,000	0

NEEDS FOR FY 2002:

OPS will continue to give states grants to establish and improve one-call programs within their respective states or regions with emphasis on enhanced compliance, communications, public and legislative education, and excavator and operator training in pipeline-marking and notification. States will continue to be involved in implementing our national public education campaign, "Dig Safely". States will help collect data on the total volume of calls to one-call centers, the number of known hits, and determine the cause of the hit (e.g., failure to call, failure to observe the marks, etc.) We will review the data to determine the effectiveness of the damage prevention grants.

State agencies need funding, separate from their pipeline safety compliance programs, to enhance one-call public education, excavator training, and enforcement programs.

ACTIVITIES PRIOR TO FY 2002:

In FY 1998, OPS awarded funding to thirty-three states for one-call programs to increase public awareness and education through seminars, literature, and electronic bulletins on the Internet. Funding also resulted in better state pipeline maps to help excavators locate pipelines. States also improved use of Global Position System (GPS) and Geographic Information System (GIS), digitizing pipeline information for use with GIS, state-wide excavator manuals, and one-call violation processing.

BACKGROUND/SITUATION:

Outside force is the leading cause of pipeline accidents. One-call centers are designed to prevent accidents by having people call before they dig, find out where pipelines are, and avoid hitting pipelines. Unfortunately, one-call systems are not being used as effectively as possible to limit both the number and severity of accidents. The challenges to improve one-call system use are to teach people to call before they dig, to better educate excavators to follow markings when they dig, and to connect one-call centers that operate independently.

PROGRAM: GRANTS

ACTIVITY: INTERSTATE OVERSIGHT GRANTS (formerly Damage Prevention Grants in previous Fiscal Years)

FUNDING LEVELS: (dollars in thousands)

FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	Difference
1,000	4,913	2,000	(2,913)

NEEDS FOR FY 2002:
The Department will provide grants to states to enlist their help in ensuring that the damage prevention best practices identified in the Common Ground report are implemented fully. This grant program will enable states to play a more meaningful role in the oversight of interstate pipelines, but will draw upon their strengths and knowledge of local conditions to ensure that the best damage prevention practices are fully assessed by all interstate pipelines crossing through their states. This grant program would also support related activities such as oversight of new construction, so that without which new pipelines can be installed with undetected defects that can later create significant problems. This grant program will complement the Damage Prevention Community Assistance activity also proposed by OPS for FY 2002; that program will focus mostly on intrastate pipelines and on community assistance.

ACTIVITIES PRIOR TO FY 2002:
During FY 1998-1999, OPS convened a study team of government, industry, underground facility operators, excavators, and public representatives to report on best practices for one-call notification systems. The team quickly recognized that damage prevention was a shared responsibility among all of their constituencies. They therefore determined that the study needed to include a much wider range of damage prevention practices. Their report, "Common Ground," is an unprecedented national study of Best Practices for excavation, planning and design, notification, mapping, locating and marking, as well as careful construction practices. The interstate damage prevention grants will enhance states ability to oversee damage prevention practices identified by the study. Preventing damage to facilities is a complex issue. Solutions to these challenges need to consider a wide-range of stakeholder viewpoints and often the states are best position to understand these views.

BACKGROUND/SITUATION:
The single greatest cause of failure of natural gas and hazardous liquid pipelines, telecommunications, water and sewer supply, electric and public service is largely preventable. It occurs during excavation around underground facilities. These damages and their consequences affect the safety and quality of life for all Americans. There are safety and environmental concerns with pipelines, as well as the loss of heating and fuel supplies. This type of damage

also results in disruption of air traffic control and other commercial operations dependent on electronic communications. Improving practices associated with all phases of planning, design and construction would prevent most of the fatalities associated with pipeline accidents.

We will continue to challenge facility owners, excavators, state regulators, contract locators and markers, highway departments and one-call center operators to share the collective responsibility for improving safety. We must provide leadership and incentives to enlist participation of diverse organizations to improve their excavation practices in order to realize the Department's goal of reducing excavation-related damages by 25 percent by 2003. Reducing excavation-caused damage to pipelines is on the National Transportation Board's Most Wanted List. Our state partners can play a meaningful and important role in assisting prevent excavation-related damage.

VOLPE NATIONAL TRANSPORTATION SYSTEM CENTER
PROGRAM AND PERFORMANCE

The Working Capital Fund finances multidisciplinary research, evaluation, analytical and related activities undertaken at the Volpe National Transportation Systems Center(VNTSC) in Cambridge, MA. The fund is financed through negotiated agreements with the Office of the Secretary, Departmental operating administrations, and other governmental elements requiring the Center's capabilities. These agreements also define the activities undertaken at VNTSC.

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

WORKING CAPITAL FUND,
VOLPE NATIONAL TRANSPORTATION SYSTEMS CENTER

PROGRAM AND FINANCING (In thousands of dollars)

Identification code 69-4522-0-4-407

		FY 2000 Actual	FY 2001 Enacted	FY 2002 Request
	Obligations by Program Activity			
10.00	Total Obligations	199,285	205,000	208,000
	Budgetary resources available for obligation			
21.40	Unobligated balance - start of year	134,379	153,952	153,952
22.00	New budget authority (gross)	211,878	205,000	208,000
22.10	Resources available from recoveries of prior year obligations	6,980		
23.90	Total budgetary resources available for obligation	353,237	358,952	361,952
23.95	Total new obligations	(199,285)	(205,000)	(208,000)
24.40	Unobligated Balance - End of year	153,952	153,952	153,952
	Permanent authority: Spending authority from offsetting collections:			
68.00	Offsetting collections: cash	177,068	205,000	208,000
68.10	Change in orders on hand from federal sources	34,618	-	-
68.90	Spending auth from offsetting collections (total)	211,686	205,000	208,000
	Changes in unpaid obligations			
	Unpaid obligations, start of year			
72.40	Obligated balance: Fund Balance	90,000	104,781	105,000
72.95	Orders on hand from federal sources - SOY	(163,452)	(198,000)	(198,000)
72.99	Total unpaid obligations, start of year	(73,452)	(93,219)	(93,000)
73.10	Total Obligations	199,285	205,000	208,000
73.20	Total Outlays (Gross)	(177,259)	(205,000)	(205,000)
73.45	Adjustment in Unexpired Accnts	(6,980)		
	Unpaid obligations, end of year			
74.40	Obligated balance, end of year	104,781	105,000	105,000
74.95	From Federal sources: Receivables and unpaid, unfilled orders	(198,000)	(198,000)	(198,000)
74.99	Total upaid obligations, end of year	(93,219)	(93,000)	(93,000)
	Outlays (gross), detail			
86.97	Outlays from new permanent authority	73,228	190,000	192,500
86.98	Outlays from permanent balances	103,840	15,000	15,500
87.00	Outlays (Gross)	177,068	205,000	208,000
	Offsets			
88.00	Federal funds	176,500	203,000	206,500
88.40	Non-federal funds	568	2,000	1,500
88.90	Total offsetting collections	177,068	205,000	208,000
88.95	Change in orders on hand from federal sources	34,618	-	-
89.00	Budget Authority (net)	-	-	-
90.00	Outlays (net)	-	-	-

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

WORKING CAPITAL FUND
VOLPE NATIONAL TRANSPORTATION SYSTEMS CENTER

OBJECT CLASSIFICATION (In thousands of dollars)

Identification code 69-4522-0-4-407

Reimbursable Obligations:	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
11.1 Full-time permanent	34,256	37,407	40,460
11.3 Other than full-time permanent	2,250	2,528	2,734
11.5 Other personnel compensation	689	791	791
11.9 Total personnel compensation	37,195	40,726	43,985
12.1 Civilian personnel benefits	8,750	9,050	9,275
21.0 Travel and transportation of persons	2,750	3,100	3,100
22.0 Transportation of things	140	160	170
23.3 Communications, util, & misc. charges	2,053	3,050	3,050
24.0 Printing and reproduction	250	350	350
25.2 Other services	43,015	46,600	46,550
25.3 Purchases of goods & services from government accounts	3,730	3,900	3,895
25.4 Operations & maintenance of facilities	3,270	3,300	3,300
25.5 Research & development contracts	64,450	82,035	82,550
25.7 Operation & maintenance of equipment	175	200	225
26.0 Supplies and materials	1,850	1,879	1,900
31.0 Equipment	31,007	10,100	9,000
32.0 Lands and Structures	650	650	650
99.9 Total obligations	199,285	205,000	208,000

PERSONNEL SUMMARY

Reimbursable Civilian:			
Full Time Equivalent Employment	526	550	550
Total FTE	526	550	550

VOLPE NATIONAL TRANSPORTATION SYSTEMS CENTER

The Volpe Center was established in 1970 to provide the Department of Transportation (DOT) with an understanding of transportation technologies and operations, as well as analytical, scientific and engineering skills. Staffed by a diverse mix of engineers, physical and social scientists, and administrative and clerical support people, the Center applies its effective resources quickly and successfully to a wide range of transportation research, development and analysis projects and to the direction and management of major technical programs. The central purpose of the Center is the application of technical expertise and knowledge in ways that advance the performance and health of the Nation's transportation system, particularly by fostering innovation in transportation technology, operations and management. A closely related objective is to enhance the effectiveness and efficiency of Federal client agencies responsible for transportation operations and those that are major purchasers or users of transportation services and equipment. The Center differs from almost all Federal organizations in that it is entrepreneurial and self sufficient, a budget neutral, fee-for-service operation.

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

FY 2002 PERFORMANCE PLAN

INTRODUCTION

Under the Government Performance and Results Act of 1993 (GPRA), annual performance plans are required by Federal agencies, including the U.S. Department of Transportation (DOT). The Department's first annual performance plan was prepared for FY 1999 to link DOT's Strategic Plan 1997-2002, through performance goals, to the President's FY 1999 Budget. To contribute to DOT's overall performance, RSPA has developed its own strategic plan to include long-term strategic and outcome goals which directly support DOT's Strategic Plan and Annual Performance Plan. These collective goals form the basis by which we will measure our achievements, given RSPA's level of budgeted resources. Our success, or failure, in each of these areas will be our gauge--and a scorecard for the American public--to communicate RSPA's and, ultimately, DOT's near-term progress toward meeting the intended strategic goals.

While our strategic plan sets out our general goals and objectives and describes the means we will use to achieve them, this performance plan provides, in greater detail, RSPA's: major program needs; specific, measurable target levels for our performance goals; special challenges that we need to overcome; significant strategies and approaches we have identified to achieve our individual goals; major activities, including new initiatives; and complementary programs and shared outcomes with other agencies.

RSPA'S STRATEGIC PLAN--VISION, MISSION AND GOALS

RSPA's Strategic Plan is aligned with the Department's to help us implement the Secretary's strategic goals through FY 2002, shape our resources and direct our day-to-day activities. It identifies our vision, mission and strategic goals to reflect our distinct charge in hazardous materials and pipeline safety, research, education and emergency preparedness and response.

We are committed to implementing our strategic plan by infusing it into the budget process, supporting it through day-to-day activities within the operating offices, and reinforcing the strategic goals and outcomes through the actions of our political and senior career officials.

Our strategic plan is RSPA's promise to the American people as we head into the next century. Through leadership, sound management practices, and RSPA's distinct system-wide perspective we will: advance safety in the transportation of hazardous materials; protect our environment; foster innovation by supporting scientific and technological research; meet the Nation's need to have a highly-skilled transportation workforce; and minimize the consequences of natural and man-made disasters affecting transportation in American communities.

RSPA's Vision

A leader in innovative, collaborative solutions in transportation safety, research, education and emergency management.

RSPA's Mission

To protect people and the environment from risks of hazardous materials transportation; foster transportation innovations through research, technology, education and training; and promote transportation emergency management.

RSPA's Strategic Goals

Safety: *Protect the public by reducing transportation related deaths, injuries, and property damage.*

Environment: *Protect our natural environment and national heritage from harmful transportation related consequences.*

Research and Technology: *Foster innovation through science and technology to support the achievement of national transportation goals including safety, mobility, economic growth, human and natural environment and national security.*

Education and Training: *Build and continuously develop a highly-skilled transportation workforce.*

Emergency Management: *Minimize the impact on people, property, and the environment following emergencies affecting transportation and ensure transportation readiness during civilian and national security crises.*

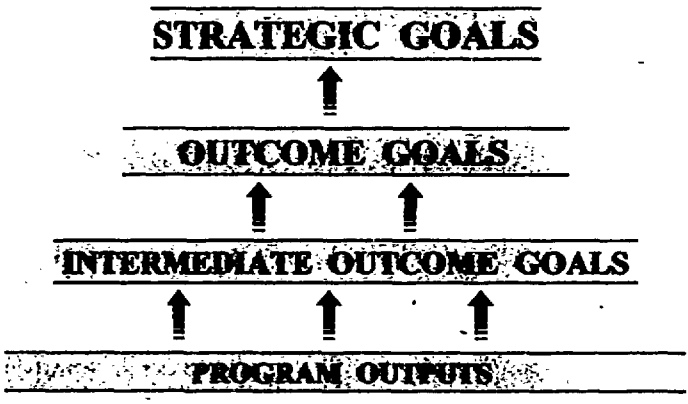
Because RSPA's strategic and outcome goals are cross-cutting within the Department, they often support more than one DOT strategic goal as illustrated below:

RSPA's Strategic Goals	DOT's Strategic Goals
Safety ➞	➞ Safety ➞ Economic Growth ➞ Mobility ➞ Human and Natural Environment
Environment ➞	➞ Human and Natural Environment ➞ Safety
Research and Technology ➞	➞ Organizational Excellence-- (Strategies for Innovation, Research and Development) ➞ Safety ➞ Mobility ➞ Economic Growth ➞ Human and Natural Environment ➞ National Security
Education and Training ➞	➞ Economic Growth ➞ Organizational Excellence ➞ Safety
Emergency Management ➞	➞ Mobility ➞ National Security

RSPA'S PERFORMANCE INFORMATION

RSPA uses performance information to measure how well we are meeting the Department's strategic goals and outcomes. To gauge our performance, RSPA has identified a number of outcome goals, intermediate outcome goals, and program outputs that support the Department's Strategic Plan. Outcome goals relate to RSPA programs and performance measures that make a direct contribution to one or more of RSPA's strategic goals. Intermediate outcome goals relate to RSPA programs and performance measures that make an indirect contribution to outcome goals, while program outputs relate to RSPA work products, workload indicators, or other activities generated by RSPA programs that influence intermediate outcomes.

RSPA's hierarchy of outcome goals, intermediate goals, and program outputs that support RSPA's strategic goals is provided in the diagram as follows:



RSPA's specific outcome goals, intermediate outcome goals, program outputs and related measures are provided next for each of RSPA's Strategic Goals: Safety, Environment, Research and Technology, Education and Training, and Emergency Management. Together, these goals, outputs, and related measures form the basis by which RSPA strives to meet the Department's strategic goals and outcomes. We continue to explore candidate goals and measures to improve RSPA's overall performance and maximize resource contributions to achieve success.

RSPA STRATEGIC GOAL: SAFETY

Protect the public by reducing transportation related deaths, injuries, and property damage.

Outcome Goals–RSPA has identified the following outcome goals in its strategic plan for which performance measures will be used to gauge our progress in achieving our strategic goal of Safety and DOT's strategic goals of Safety, Economic Growth, Mobility, and Human and Natural Environment:

1. Reduce the number of hazardous materials transportation incidents.
2. Reduce the consequences of hazardous materials transportation incidents.
3. Improve the integrity of transportation systems and packages.

Office of Hazardous Materials Safety's Performance Information

Why We Act: Many of the materials used in manufacturing and many of the retail products people buy include hazardous materials. There are over 800,000 shipments of hazardous materials each day in the United States. These range from flammable materials and explosives to poisons and corrosives. Release of these materials during transportation could result in serious injury or death, or harm to the environment. To ensure the safe transportation of hazardous materials, the Office of Hazardous Materials Safety develops regulations and standards necessary for the safe transportation of hazardous materials (classifying, handling, and packaging); maintains the nation's largest database of hazardous materials information and incidents; conducts compliance inspections; supports training and education; conducts hazardous materials research; provides training, technical and grant assistance for states, territories and Indian tribes to supplement programs in hazardous materials emergency preparedness; and provides technical assistance to industry; provides special exemptions and approvals to support shipper needs.

Performance Goal: Reduce the number of serious reportable hazardous materials transportation incidents from 464 in CY 1996 to 391 or less in CY 2002. This performance goal provides measures for RSPA's outcome goals (1) and (2) above.

Historical Data:

Calendar Year	Number of Serious Incidents	Goal
1990	402	
1991	405	
1992	376	
1993	358	
1994	427	
1995	408	
1996	466	
1997	422	
1998	432	
1999	373	
2000	414	
2001		401
2002		391

Special Challenges: (1) The vast majority of hazardous materials transportation incidents are caused by human error. (2) The Hazardous Materials Regulations have been extended to all intrastate motor carriers. Our special challenge is to reach the hundreds of thousands of hazardous materials shippers and carriers and to devise programs that will ensure compliance with the regulations.

Significant External Factors: The hazmat industry's fleet of 365,000 placarded trucks is only 2% of the nation's commercially registered truck fleet, and hazmat shipments by all modes account for only 5% of total U.S. freight shipments. Yet, the amount of hazmat tonnage transported easily exceeds 10% of all freight tonnage transported, and the absolute number of shipments is more than 800,000 per day. With this enormous flow of commerce comes safety risk.

Traffic growth, trade patterns, and demographic changes will challenge the nation's ability to maintain current safety levels over the long term. Increasing globalization is expected to provide incentives for greater harmonization of hazmat regulations worldwide. In addition to language and cultural issues endemic to global trade, U.S. demographic trends themselves point to various language/communication, training, and other human factor challenges. Aging of the U.S. population, the turnover among employee groups such as drivers in the trucking industry, and the assimilation of immigrants for whom English is a second or third language all suggest intensified pressure will be placed on the hazmat industry and government regulators to maintain existing safety levels.

Technology will be an enormous factor in dealing successfully with hazmat industry changes. Wireless telecommunications and other information technology advances will improve the ability of government and industry to monitor or track hazardous materials shipments and emergency response personnel to manage events at hazardous materials accident sites.

Strategies: We will continue to increase the percentage of shipper inspections conducted, compared to other inspections, particularly inspections of shippers who offer hazardous materials for air transportation. We intend to better align our programs to address the human error problem by implementing an intensive effort to reach the hazmat community through training, technical assistance and customer service. We intend to raise awareness and promote industry involvement in hazmat transportation compliance, especially intrastate carriers. RSPA will provide superior technical assistance to the regulated hazardous materials industry to assure they understand how to comply with Federal safety requirements. We will work with industry, states, local governments and other stakeholders to develop and share information that will improve transportation system safety performance. We will continue to develop performance-based standards to improve the hazmat transportation safety system. We will prioritize compliance initiatives on a risk basis to address the most critical issues. We will improve the quality and utility of program data by modernizing the Hazardous Materials Information System, through enhanced applications, computer hardware and software architecture. We will improve safety through early identification of failure trends in hazardous materials transportation; determining causes through engineering analysis, field investigations and simulation; applying innovative technologies in new materials, package design, and non-destructive testing; and formulating responses through an appropriate mix of outreach, quality assurance requirements, training, and

enforcement. We will participate in meetings of international organizations to promote consistency between national and international hazardous materials requirements to improve the safe and efficient transportation of hazardous materials.

Program Initiatives, Activities, and Associated Resources (See Appendix-II):

Information Systems–Maintains and operates an analytical and information resource to support all program activities including developing regulations; issuing exemptions, approvals, and interpretations; and targeting high risk shippers and packaging manufacturers. ($1.9 million).

Research and Analysis–Analyzes and monitors hazardous materials transportation issues with emphasis on safety elements; develops regulatory actions and analyzes costs, benefits, and other impacts associated with current and planned rulemaking projects; develops countermeasures for safety problems; and evaluates factors impacting current and proposed regulations. Supports United States participation in the development of international safety standards that promote safety while maintaining the competitiveness of United States industry; and conducts programs for providing exemptions and approvals to improve safety and to facilitate implementation of new technologies that result in more cost-effective operations ($0.6 million).

Inspection and Enforcement-Plans and manages a national program of safety inspection and enforcement to determine compliance with the Hazardous Materials Regulations (HMR) ($0.2 million).

Rulemaking Support-Promulgates safety standards to assure they reflect new technologies and new industry practices ($0.3 million).

Hazmat Training-Provides formal training and develops educational materials using various media to enhance compliance ($0.5 million).

Information Dissemination-Disseminates educational materials and descriptive literature concerning specific requirements of the HMR to enhance compliance, and operates the Hazardous Materials Information Center to assist shippers, carriers, and enforcement personnel in their understanding of particular requirements in the HMR. Establishes and maintains cooperative relationships with State and local governments, other modal administrations, and industry concerning inspection and enforcement matters; provides internships and mechanisms to obtain comments or feedback concerning enforceability of proposed or existing regulations ($0.7 million).

Emergency Preparedness-Provides emergency response support and information to mitigate the consequences of hazardous materials incidents ($0.4 million).

International Standards-Represents the United States in the development of international standards for hazardous materials transportation to protect the public, environment, and national interests ($0.1 million).

Registration Program-Registers and maintains a database of certain shippers and carriers of hazardous materials and collects fees to support emergency preparedness programs and activities($1.1 million).

Research and Development-This program provides the technical and analytical foundation necessary to support the DOT's regulatory, enforcement, and emergency response activities in the area of hazardous materials transportation safety ($1.4 million).

Emergency Preparedness Grants -Implements a national grant and technical assistance program to increase public capability to plan for and respond to hazardous materials incidents ($14.3 million).

Workload Indicators:

	1999	2000	2001*	2002*
Incident Reports	19,283	18,135	20,000	25,000
Exemptions Processed	2,771	3,031	2,900	2,900
Approvals Processed	9,064	8,503	8,600	8,600
Competent Authorities	224	177	200	200
Inspector Work years	30.5	33.0	35.0	35.0
Inspections	1,637	1,643	1,700	1,700
Cases Opened	543[a]	571[c]	600+	600+
Cases closed	504[b]	535[d]	450+	500+

* estimated

a Includes 286 tickets
b Includes 290 tickets
c Includes 330 tickets
d Includes 274 tickets

Complementary Programs with Shared Outcomes: In hazardous materials safety, RSPA works extensively with the modes and other agencies in harmonizing hazardous materials regulations and in information sharing. Active coordination involves: Department of State, Organization for Economic Cooperation and Development, Environmental Protection Agency, Department of Labor-Occupational Safety and Health Administration, Consumer Product Safety Commission, Department of Health and Human Services/Food and Drug Administration, the United States Treasury, Nuclear Regulatory Commission, and the Department of Agriculture. RSPA also coordinates shipper/carrier inspections with the United States Treasury, and the Nuclear Regulatory Commission.

In its execution of the Hazardous Materials Emergency Preparedness grants program, RSPA works with the Federal Emergency Management Agency, the Environmental Protection Agency, the Department of Energy, the Department of Defense, and the states, territories, and Indian tribes to strengthen training and planning for emergency response involving hazardous materials.

Office of Pipeline Safety's Performance Information

RSPA's Office of Pipeline Safety (OPS) manages toward the Department's strategic goals of Safety and Human and Natural Environment by striving to keep people and the environment safe from the risks pipelines pose. It also manages toward the Department's strategic goals for Mobility and Economic Growth by taking actions to maintain the integrity and reliability of transportation of energy and products through pipelines to American homes and businesses.

Why We Act: A network of 2.1 million miles of pipelines safely transport natural gas to 55 million residential and commercial customers. While pipelines are among the safest modes of transporting gases, the nature of the cargo is inherently dangerous. Pipeline failures, whether due to material or outside force damage, can pose an immediate threat to people and communities. Our top priority continues to be reducing to zero the number of accidents caused by non-compliance with pipeline regulations and working with operators to reduce threats to pipeline integrity, in particular, damage caused by outside force. OPS, states and industry are more fully using risk-based factors throughout the OPS regulatory program. With government and industry working in partnership, OPS fosters a corporate safety culture that always remains vigilant to risks that could threaten people and our vital resources. New regulatory efforts provide for pipeline integrity management assessment as the means to determine the best and most effective level of compliance options. OPS believes that an effective compliance program is one that encourages industry to maintain and enhance pipeline integrity.

Performance Goal: Reduce the number of reportable natural gas transmission pipeline failures (leaks) from 4,933 in CY 1994 to 4,375 in CY 2002

Historical Data:

Calendar Year	Number of Natural Gas Transmission Failures (Leaks)	Goal
1989	9,128	
1990	7,062	
1991	6,104	
1992	5,705	
1993	5,378	
1994	4,933	
1995	4,767	
1996	4,964	
1997	4,871	
1998	4,160	
1999	4,467	
2000	2,175	
2001		4,375
2002		4,301
2003		4,226

Special Challenges: We are pilot testing non-regulatory approaches to improve pipeline integrity. OPS works with operators to identify and address actions which will achieve the best long term safety and environmental results, going beyond solely what is required. Under this partnership approach, we focus on achieving mutual agreement about the protective approach that is most effective. We believe that this cooperative relationship increases our ability to impact a positive outcome.

Concerns about data quantity and quality are of increasing importance. The National Transportation Safety Board (NTSB) issued a recommendation to develop a comprehensive plan for the collection and use of gas and hazardous liquid pipeline accident data needed to perform methodologically sound accident analysis and evaluation of pipeline operator performance. RSPA is moving in 2001 to address pipeline accident data concerns with revised natural gas and hazardous liquid accident forms (with liquid reporting threshold lowered from 50 barrels to 5 gallons), revised natural gas operator annual report forms, and a new hazardous liquid operator annual report form.

Strategies: Based on lessons learned form RSPA's Risk Management Demonstration Project initiative, RSPA will greatly enhance pipeline safety measures in areas sensitive to damage from hazardous liquid and natural gas transmission pipeline accidents through a new integrity management process that began in 2001 with a final rule for large hazardous liquid pipeline operators. This regulation, which takes effect March 31, 2001, provides additional safeguards for populated areas, environmentally sensitive areas, and commercially navigable waterways. Under the new integrity management program, hazardous liquid pipeline operators that own or operate 500 or more miles of pipeline will conduct a baseline integrity assessment of their pipelines within seven years using internal inspection, pressure testing, or other equivalent technology. The new rule requires periodic assessments at an interval not to exceed five years to assure that the condition of the line is understood, and any new problems that may arise can be addressed. The rule requires operators to integrate information from these assessments with other information about the pipeline to identify and address the integrity threats that could adversely impact the public or the environment.

We are creating an improved integrated information system that will link trending information from reported incident data to inspection data, with a geographical information tool that will further our ability to understand cause-and-effect relationships of our compliance and regulatory activities in improving safety, and our understanding of risks pipelines pose to people and the environment. OPS works with the National Association of Pipeline Safety Representatives (NAPSR), our state partners, to improve data sharing and understanding of safety issues through a new electronic link between states and OPS.

Activities, Initiatives, and Associated Resources (See Appendix-II):

Information and Analysis – Provides data that the Office of Pipeline Safety uses to: collect safety and environmental information and analyse incident, inventory, inspections, and operator data in order to (1) assess risks and prioritize inspections and (2) identify safety measures that need to be

taken to prevent and respond to accidents, (3) interfaces (through LAN/WAN capabilities) data between OPS Headquarters and Region offices, the Department, State Offices other Federal agencies, and operators.($1.3 million)

Risk Assessment & Technical Studies – Pilot risk management and system integrity inspection programs ensures that pipeline companies achieve superior safety and environmental protection by identifying and developing system specific measures to address the risks inherent in transporting natural gas and hazardous liquids. Increasing emphasis is being placed on achieving meaningful community involvement so that local conditions are considered.($1.2 million)

Compliance– Assures pipeline facilities across the Nation operate safely and protect life, property, and the environment through planning and managing a risk-based inspection and investigation program.($0.3 million)

Training and Information Dissemination– Develops curriculum and delivers training to promote compliance with pipeline safety regulations; teaches regulatory requirements to industry personnel, particularly small gas system operators; and teaches Federal and State inspectors compliance requirements, inspection techniques, and enforcement procedures.($1.2 million)

Emergency Notification– Uses the National Response Center as the single reporting facility for emergency notification of incidents involving pipelines transporting natural gas and hazardous liquids. Provides Federal, State, and local emergency responders, and the public information on pipeline location and operation.($0.1 million)

Oil Pollution Act of 1990 Program– Protects people and the environment by ensuring that pipeline operators can respond to catastrophic spills. We accomplish this by 1) review operator spill response plans; 2) oversee field and table-top exercises to strengthen operator readiness to respond to oil spills from pipelines; 3) monitor major spills and remediations; and 4) identify and provide access to information on the location of unusually sensitive areas. ($2.4 million)

Integrity Management Program - Enhances pipeline safety measures in areas sensitive to damage from hazardous liquid and natural gas transmission pipeline accidents through a new integrity management process that provides additional safeguards for populated areas, environmentally sensitive areas, and commercially navigable waterways. ($4.9 million).

Research & Development– Study technologies and processes to more fully incorporate risk-based approaches into the regulatory program and advancing technologies and their applications in various pipeline system configurations. Improve data to help industry and government make better more informed, risk-based decisions. The risk-based approach to pipeline safety oversight requires regulators to play an evolving role in assuring the integrity of the national pipeline mapping system, and to the fullest extent possible, preventing out-side force damage to the pipeline. Advancing the capability of internal inspection tools will enable operators to find and repair threats to pipeline integrity before a potentially catastrophic or severely disruptive event occurs.($2.7 million)

Grants to States– Work with states to more fully use risk-based factors in oversight of intra- and some interstate pipelines. State agencies inspect more than 90 percent of the national pipeline system. State agencies and OPS will be using common measures of performance to monitor operators compliance and reduction of threats to pipeline integrity. OPS supports state programs in three distinct areas: basic safety compliance program costs; state activities related to damage prevention education and enforcement of laws; and participation in integrity management and other risk- based pilot programs. OPS also will issue grants to states who provide oversight on interstate pipelines focused on damage prevention and new construction. ($18.4 Million).

Complementary Programs with Shared Outcomes: The damage prevention initiative is a partnership of transportation and utility industries, Federal Highway Administration, Federal Railroad Administration an State counterparts. We are developing a National Pipeline Mapping System with input and interest from FERC, NOAA, DOE, USGS and others that will help us analyze risks to environmentally sensitive and populated areas. We participate jointly with NAPSR and trade associations such as the American Petroleum Institute, American Gas Association, Interstate Natural Gas Association of America and other industry partners in designing new reporting systems and data improvements. We jointly participate with Coast Guard's Near Miss Incident Reporting System development for lessons on our own voluntary incident reporting system. We participate with Coast Guard also on the ONE DOT initiative to mutually address common data issues.

Performance Goal: RSPA replaces the previous goal for reducing outside force damages to pipelines with a new goal stretch goal in 2001. The old outside force damage measure included all types of outside force hits to pipelines, including natural force and excavation damages. A new baseline for reducing the number of incidents in all types of pipelines (distribution, transmission and hazardous liquid) caused by excavation damage by 25 % in three years with reporting in 2004. The new baseline established in 2001 for 2000 performance is 136 excavation damage hits from all types of pipeline accidents. The new goal for reducing excavation damage improves our assessment of progress made for targeting the causes of excavation damage by removing the natural force damages caused by earthquakes, floods, wind, lightning, and other natural forces that were previously included in the outside force damage reduction measure.

Historical Data:

Year	Natural Gas Transmission	Natural Gas Distribution	Hazardous Liquid	Total
2000	16	66	35	117

Special Challenges: Excavation damage to pipelines has focused public attention on encroachment dangers to pipeline rights-of-way posed by population growth and commercial development. The potential effects of third-party damage to gas and hazardous liquid pipelines include property loss, environmental damage, injury, and fatalities. The leading cause of pipeline failure is third-party damage caused by excavation activity in the vicinity of pipelines. Damage to other underground facilities, such as fiber optic cable, disrupts voice and data transmissions, air and rail traffic control, and even telemedicine procedures.

Having completed the survey of best practices authorized by Transportation Equity Act (TEA-21) and the development of a national public education campaign, we are now concerned with familiarizing communities on how to use both the best practices and the national campaign materials. Getting these in place will greatly advance the effectiveness of national damage prevention efforts. The work of the Common Ground team has not only identified areas that require further investigation but has also highlighted the need for sustained efforts to encourage appropriate damage prevention.

Strategies: The damage prevention initiative is a partnership of transportation and utility industries, Federal Highway Administration, Federal Railroad Administration an State counterparts. Electronic links with states will help expedite needed data improvements by enabling states to participate more fully in data sharing, regulatory and compliance program development, and improve response time to accidents. New outreach efforts to educate the public about damage prevention and the need to call before digging are underway.

Activities, Initiatives, and Associated Resources (See Appendix-II):

Damage Prevention Community Assistance – Provides education targeted at excavators and other citizens about the benefits of underground damage prevention, and implements program improvements to inform regulators, excavators and the public about how and why to avoid pipelines and other buried utilities to reduce accidents to underground utilities, specifically natural gas and hazardous liquid pipelines. Having completed the survey of best practices authorized by Transportation Equity Act (TEA-21) and the development of a national public education campaign, we are now concerned with familiarizing communities on how to use both the best practices and the national campaign materials. RSPA proposes aggressive action through a new Damage Prevention Community Assistance program to promote the message that damage prevention is a shared responsibility. ($3.5 million)

State One-Call Grants– OPS will continue to give states grants to establish and improve one-call programs within their states or regions with emphasis on enhanced compliance, communications, public and legislative education, and excavator and operator training in pipeline-marking and notification. States will continue to be involved in implementing our national public education campaign, "Dig Safely". States will help collect data on the total volume of calls to one-call centers, the number of known hits, and determine the cause of the hit (e.g., failure to call, failure to observe the marks, etc.) We will review the data to determine the effectiveness of the damage prevention grants. ($1.0 million)

Complementary Programs with Shared Outcomes: Having completed the survey of best practices authorized by TEA-21 and the development of a national public education campaign, we are now concerned with familiarizing communities on how to use both the best practices and the national campaign materials. Getting these in place will greatly advance the effectiveness of national damage prevention efforts. The work of the Common Ground team has not only identified areas that require further investigation but has also highlighted the need for sustained efforts to encourage appropriate damage prevention. These efforts are beyond the scope of the grants program established by TEA-21 which provides grants only to states for improvements in their one-call programs. What Common Ground identified as needed, was the combination of

the spirit of shared responsibility and open communication that developed as the Federal and state regulators, operators of underground utilities, and persons involved in excavation and one-call centers worked together to address their common need – to prevent damage to underground structures. Perhaps the most effective way to assure the continuation of this spirit is through an independent, non-profit organization dedicated to underground damage prevention. Such an organization could effectively communicate with the entire damage prevention community, monitor and record the effectiveness of program improvements and serve as the focal point for public education about this important issue.

RSPA STRATEGIC GOAL--ENVIRONMENT

Protect our natural environment and national heritage from harmful transportation related consequences.

Outcome Goals--RSPA has identified the following outcome goals in its strategic plan for which performance measures will be used to gauge our progress in achieving our strategic goal of Environment and DOT's strategic goals of Human and Natural Environment, and Safety:

1. Reduce the number of hazardous materials released in transportation.

2. Reduce the average quantity of hazardous materials released by all modes per serious transportation incident. (Note: Includes the transportation of hazardous materials by air, highway, rail, water and pipeline. Excludes bulk marine transport of hazardous materials because this area is not within our jurisdiction, but it is addressed by DOT through the United States Coast Guard.)

3. Reduce the environmental impact of hazardous materials released in transportation, especially in those areas where the environment is unusually sensitive to environmental damage (e.g., reservoirs for drinking water, national parks, and other fragile areas).

Office of Pipeline Safety's Performance Information

RSPA's Office of Pipeline Safety (OPS) manages toward the Department's strategic goals of Safety and Human and Natural Environment by striving to keep people and the environment safe from the risks pipelines pose. It also manages toward the Department's strategic goals for Mobility and Economic Growth by taking actions to maintain the integrity and reliability of transportation of energy and products through pipelines to American homes and businesses.

Why We Act: Almost 620 billion ton miles of petroleum and other hazardous liquids move across the country by pipeline annually. While this is usually the least costly way to transport these bulk cargoes, it also entails some risk. Because of the large volume moved by pipeline, any spill into the environment is potentially a significant one. Our top priority continues to be reducing to zero the number of accidents caused by non-compliance with pipeline regulations and working with operators to reduce threats to pipeline integrity, in particular, damage caused by outside force. OPS, states and industry are more fully using risk-based factors throughout the OPS regulatory program. With government and industry working in partnership, OPS fosters a corporate environmental culture that always remains vigilant to risks that could threaten people and our vital resources. New regulatory efforts are moving us to an integrity management approach for risk assessment as the means to determine the best and most effective level of increased safety. OPS believes that an effective compliance program is one that encourages industry to maintain and enhance pipeline integrity.

Performance Goal: Reduce the rate of hazardous liquid materials released by pipeline to the environment per million ton-miles shipped by from .0233 tons lost/million ton-miles shipped in CY 1994 to .0142 tons lost/million ton-miles shipped in CY 2002.

Historical Data:

Year	Tons Net Loss	Ton Miles Shipped (Billions)	Tons Net Loss/ Million Ton Miles Shipped	Goal
1989	12,372.24	584.2	.0212	
1990	8,158.66	584.1	.0140	
1991	8,324.48	578.5	.0144	
1992	10,269.25	588.8	.0174	
1993	8,677.61	592.9	.0146	
1994	13,783.43	591.4	.0233	
1995	7,928.06	601.1	.0132	
1996	14,349.40	619.2	.0232	
1997	15,813.73	616.5	.0257	
1998	7,319.10	616.5	.0119	
1999	14,202.84	619.8	.0229	
2000	8,085.13	619.8	.0131	.0161
2001				.0151
2002				.0142
2003				.0134

Special Challenges: Program activities related to preventing and mitigating effects of oil spills require improving our site-specific knowledge of water sources and other environmental areas by improving access to data available. We continue to progress by defining and prioritizing unusually environmentally important areas so operators will know where to increase protection. We have conducted several task force studies of oil pipeline company operations so we can better foster environmental vigilance on a system-wide basis within a company. We have increased our efforts to identify spill cause and consequences and to evaluate and act on environmental impacts, particularly relating to protecting drinking water sources. We are revising our accident information to improve our understanding of spill trends, and we are lowering the reporting threshold form 50 barrels down to 5 gallons to gain insight into a broader universe of spill events. We are creating a new hazardous liquid annual report to provide needed information for normalizing accident trends. We now dedicate additional resources to field engineering support for monitoring and remediating the causes of major spills. Experience in actual incidents has demonstrated that the spill response planning under the Oil Pollution program is having very positive results.

Strategies: OPS continues implementation of the Oil Pollution Act of 1990 (OPA) program using a consultative process similar to what we are now using in the risk management demonstration program. OPS has learned valuable lessons from our four years of experience working with hazardous liquid operators on their oil spill response plans and exercises mandated by OPA. Working cooperatively with industry, we continue to improve spill response planning and focus efforts on the most important environmental areas in need of additional spill prevention efforts.

Our top priority continues to be reducing to zero the number of accidents caused by non-compliance with pipeline regulations and working with operators to reduce threats to pipeline integrity. RSPA's Office of Pipeline Safety, states and industry are more fully using risk-based

factors throughout the OPS regulatory program. With government and industry working in partnership, OPS fosters a corporate safety and environmental culture that always remains vigilant to risks that could threaten people and our vital resources. New regulatory efforts provide for integrity management as the means to determine the best and most effective level of compliance options. OPS believes that an effective compliance program is one that encourages industry to maintain and enhance pipeline integrity.

We are moving to electronic reporting of pipeline incidents, providing on-line help for standardizing capture of information and assuring that reporting is complete and accurate. We are obtaining better information on the locations of spills to provide more useful information for geospatial analysis of spill risks as posed to people and te environment.

Activities, Initiatives, and Associated Resources (See Appendix-II):

Information and Analysis – provides data that the Office of Pipeline Safety uses to: collect safety and environmental information and analyse incident, inventory, inspections, and operator data in order to (1) assess risks and prioritize inspections and (2) identify safety measures that need to be taken to prevent and respond to accidents, (3) interfaces (through LAN/WAN capabilities) data between OPS Headquarters and Region offices, the Department, State Offices other Federal agencies, and operators.

Risk Assessment & Technical Studies – Pilot risk management and system integrity inspection programs ensures that pipeline companies achieve superior safety and environmental protection by identifying and developing system specific measures to address the risks inherent in transporting natural gas and hazardous liquids. Increasing emphasis is being placed on achieving meaningful community involvement so that local conditions are considered.

Compliance– Assures pipeline facilities across the Nation operate safely and protect life, property, and the environment through planning and managing a risk-based inspection and investigation program..

Training and Information Dissemination– develops curriculum and delivers training to promote compliance with pipeline safety regulations; teaches regulatory requirements to industry personnel, particularly small gas system operators; and teaches Federal and State inspectors compliance requirements, inspection techniques, and enforcement procedures.

Emergency Notification– uses the National Response Center as the single reporting facility for emergency notification of incidents involving pipelines transporting natural gas and hazardous liquids. Provides Federal, State, and local emergency responders, and the public information on pipeline location and operation..

Oil Pollution Act of 1990 Program– Protects people and the environment by ensuring that pipeline operators can respond to catastrophic spills. We accomplish this by 1) reviewing operator spill response plans; 2) overseeing field and table-top exercises to strengthen operator readiness to respond to oil spills from pipelines; 3) monitoring major spills and remediations; and 4) identifying and providing access to information on the location of unusually sensitive areas.

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Research & Development– Study technologies and processes to more fully incorporate risk-based approaches into the regulatory program and advancing technologies and their applications in various pipeline system configurations. Improve data to help industry and government make better more informed, risk-based decisions. The risk-based approach to pipeline safety oversight requires regulators to play an evolving role in assuring the integrity of the national pipeline mapping system, and to the fullest extent possible, preventing out-side force damage to the pipeline. Advancing the capability of internal inspection tools will enable operators to find and repair threats to pipeline integrity before a potentially catastrophic or severely disruptive event occurs.

Grants to States– Work with states to more fully use risk-based factors in oversight of intra- and some interstate pipelines. State agencies inspect more than 90 percent of the national pipeline system. State agencies and OPS will be using common measures of performance to monitor operators compliance and reduction of threats to pipeline integrity. OPS supports state programs in three distinct areas: basic safety compliance program costs; state activities related to damage prevention education and enforcement of laws; and participation in risk management and other risk- based pilot programs.

Complementary Programs with Shared Outcomes: We are developing a National Pipeline Mapping System with input and interest from FERC, NOAA, DOE, USGS and others that will help us analyze risks to environmentally sensitive and populated areas. We participate jointly with EPA, USDA, DOI and NOAA to collect data on the location of environmentally sensitive areas and are co-funding with EPA the Nature Conservancy efforts at the national and state levels to populate digital data banks. We also are working with NAPSR and trade associations such as the American Petroleum Institute, and other industry partners, in designing new reporting systems and data improvements. We jointly participate with Coast Guard's Near Miss Incident Reporting System development for lessons on our own voluntary incident reporting system and on the ONE DOT initiative to mutually address common data issues.

Performance Goal: Reduce the environmental impact of hazardous materials released by pipelines in transportation, especially in those areas where the environment is unusually sensitive to environmental damage (e.g., reservoirs for drinking water, national parks, and other fragile areas).

Ten-year Data: New goal; historical data do not exist.

Special Challenges: In support of our environmental mission, we are working to define and identify areas which are unusually sensitive to environmental damage from a hazardous liquid pipeline release to provide additional pipeline regulatory protection to these areas. We need to locate the sensitive resources on digital maps to better protect them through increased prevention and response measures, enhanced emergency response planning, and an increased awareness of the location and character of these sensitive resources. Further, by targeting the most important areas for additional protection, we reduce the most adverse environmental consequences.

Strategies: Our team of technical experts recently pilot tested a draft model that identifies unusually sensitive drinking water and ecological resource areas. Major categories in the

definition include public drinking water systems, wellhead protection areas, sole source aquifers, threatened and endangered species, imperiled and critically imperiled species, depleted marine mammal habitats, and areas where a large percentage of the world's population of a species concentrates. The purpose of the pilot was to determine if the model can be used to identify and locate unusually sensitive resource areas using available data from government agencies and environmental organizations. The model is being modified based on the pilot and comments received from the resource experts. Work to collect and process data needed to create USA maps for all 50 states has begun.

Activities, Initiatives, and Associated Resources (See Appendix-II):

Information and Analysis – provides data that the Office of Pipeline Safety uses to: collect safety and environmental information and analyse incident, inventory, inspections, and operator data in order to (1) assess risks and prioritize inspections and (2) identify safety measures that need to be taken to prevent and respond to accidents, (3) interfaces (through LAN/WAN capabilities) data between OPS Headquarters and Region offices, the Department, State Offices other Federal agencies, and operators.

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Research & Development– Study technologies and processes to more fully incorporate risk-based approaches into the regulatory program and advancing technologies and their applications in various pipeline system configurations. Improve data to help industry and government make better more informed, risk-based decisions. The risk-based approach to pipeline safety oversight requires regulators to play an evolving role in assuring the integrity of the national pipeline mapping system, and to the fullest extent possible, preventing out-side force damage to the pipeline. Advancing the capability of internal inspection tools will enable operators to find and repair threats to pipeline integrity before a potentially catastrophic or severely disruptive event occurs.

Complimentary Programs with Shared Outcomes: OPS is working with EPA, Department of Interior (DOI), other natural resource trustees, environmental organizations, and the public to determine what drinking water and ecological resources are most unusually sensitive to environmental damage from spills. We have finalized our Drinking Water Data Catalog as part of an environmental index initiative and have added the catalog to our web site, http:\\ops.dot.gov. The catalog covers all 50 states and includes data on groundwater wells, surface water intakes, aquifers, sole source aquifers, wellhead protection areas, and geology. For each category, the catalog names the government agency that created the data, a description of the data, noted problems with the data, and provided a ranking of the quality and completeness of the data for creating an electronic data layer of unusually sensitive drinking water resources. The catalog also includes the draft model for identifying unusually sensitive drinking water resources, a flowchart for gathering the data and creating the drinking water resources data layer, and maps

showing the quality of the different data layers for all the states. Finally, the catalog ranks each of the 50 states for drinking water data quality and completeness.

RSPA'S STRATEGIC GOAL--RESEARCH AND TECHNOLOGY

Foster innovation through science and technology to support the achievement of national transportation goals including safety, mobility, economic growth, human and natural environment and national security.

Outcome Goals--RSPA has identified the following outcome goals in its strategic plan for which performance measures will be used to gauge our progress in achieving our strategic goal of Research and Technology, DOT's strategic goals of Safety, Mobility, Economic Growth, Human and Natural Environment, and National Security, and DOT's Organizational Excellence Goal:

1. Help achieve a departmental and federal consensus on transportation science and technology strategy and plans.
2. Develop and deploy system-level solutions to transportation challenges.
3. Sponsor research to identify and develop multi-disciplinary, cross-cutting transportation solutions, such as human factors research.
4. Develop and demonstrate commercially viable medium and heavy-duty low emission vehicles in partnership with the Department of Energy (DOE)

Office of Research, Technology and Analysis' Performance Information

Why We Act: To advance its strategic goals through research and development (R&D), the Department must provide leadership for national transportation research, development and education. Such leadership can be achieved only in partnership with state and local governments, other federal agencies, industry, academia and the public, who ultimately benefit from the nation's investment. This is true particularly in a time of constrained resources and increasing global competitiveness. At the same time, the combination of an increasingly complex transportation system and a wider variety of users and options to consider require a much higher level of technical, analytical and system-level sophistication.

Performance Goal: To advance transportation R&D to shape a fast, safe, efficient, accessible and convenient transportation system for the 21st Century through strategic planning, world-class research, better exchange of information on useful technological innovations, partnerships, research and education.

Special Challenges: Extensive baseline data does not exist for the indicators listed above. DOT's operating administrations now annually conduct a diverse set of self-assessments of their R&D program effectiveness using the Malcolm Baldrige, ISO 9000 and/or other similar criteria. The results of these assessments of the R&D programs within the Department as well as across the government need to be integrated to establish a benchmark from which needed improvements to the R&D management process can be determined.

Strategies:

Strategic Planning - A strategic planning process is necessary to ensure alignment of Departmental and interagency transportation S&T policies and R&D plans and budgets with national transportation goals. DOT will lead collaborative initiatives with other Federal agencies to ensure integration among and implementation of transportation R&D plans, programs and budgets within DOT and across the government.

World-Class Transportation R&D Capability - To advance its strategic goals through technology, DOT must ensure that its in-house R&D activities are centers of excellence in their areas of technical expertise. To advance the DOT Strategic Goals in FY 2002, RSPA will foster recognized quality programs and promote conduct of program assessments to establish standards of excellence in transportation R&D.

Transportation Science and Technology Information Networks - The rapid and open exchange of research and technology information is essential to enabling transportation advances and in avoiding duplication of R&D efforts both within DOT and between agencies. RSPA will conduct activities to improve our Internet presence and other information networks, thereby providing decision makers throughout the transportation enterprise with accurate information on R&D and its implications for solutions of national problems.

Public-private Partnerships - Strategic partnerships represent an increasingly important corporate management strategy in advancing transportation science and technology. Appendix 2 of the FY-2001 DOT Transportation R&D Plan identifies key areas for partnership initiatives. In FY 2002, through RSPA's leadership, DOT will begin to formulate specific activities to address these areas.

Education and Training - An important element in assuring the future of the transportation enterprise is our continuing investment in the human capital -- the transportation professionals and workers -- who are responsible for the design, construction, operation, and maintenance of the system. Through support of educational programs intended to develop essential transportation skills and knowledge, DOT will build the expertise necessary to address tomorrow's challenges.

Transportation Infrastructure Assurance R&D - A comprehensive approach for assessing transportation vulnerabilities and developing, demonstrating and deploying technologies is critical to assuring the safety and security of the Nation's transportation system. In FY 2002, DOT will continue the transportation infrastructure assurance R&D program funded in FY 2001 to enhance the protection of critical national transportation physical and information infrastructures.

Activities, Initiatives, and Associated Resources (See Appendix-II):

Ongoing:
R&D Planning and Management:
- Strategic Planning and System Assessment ($1.1 million)
- Public-private Partnerships ($0.3 million)
- Information Networks ($0.5 million)
- World Class Transportation R&D Capability ($0.3 million)
- Enabling Research ($0.1 million)

Human Factors ($0.3 million)

Transportation Infrastructure Assurance R&D ($1.0 million)

Complementary Programs with Shared Outcomes:

This program supports the Department's Strategic Plan (Second Edition) and planning activities mandated in Section 5108 of TEA-21. As such, RSPA will coordinate this program and other cross-cutting intermodal research programs with DOT modal administrations through mechanisms such as the Department's Research and Technology Coordinating Council and similar groups. RSPA will work closely with other Federal agencies engaged in research which support achievement of our transportation Strategic Goals to ensure synergies among transportation-related R&D programs across the government.

RSPA STRATEGIC GOAL: EDUCATION AND TRAINING

Build and continuously develop a highly-skilled transportation workforce.

Outcome Goals--RSPA has identified the following outcome goals in its strategic plan for which performance measures will be used to gauge our progress in achieving our strategic goal of Education and Training and DOT's strategic goals of Economic Growth and Trade, and Safety and DOT's Corporate Management Strategy of Research and Technology (Education and Training):

1. Increase student awareness and preparation for transportation careers through the Garrett A. Morgan Technology and Transportation Futures Program.

2. Establish university research and education centers to prepare future transportation professionals.

3. Enhance the skills of current transportation professionals.

DOT-wide Initiative--Garrett A. Morgan Technology and Transportation Futures Program

Why We Act: A visionary DOT initiative is the Garrett A. Morgan Technology and Transportation Futures Program ("the Morgan Program"). RSPA, together with each of DOT's Operating Administrations supports the Department's activities to promote education, research, and opportunities in transportation to guarantee that the nation has the transportation workforce it will need for the 21st Century. Distinct among Federal programs, this initiative applies innovative partnerships with industry, labor and other governmental agencies to leverage minimal Federal support into a powerful community effort.

Performance Goal: Reach at least 5.0 million students by the end of CY 2001 (reach 3.0 million students by the end of CY 2000, instead of 1.0 million, and reach an additional 2.0 million students during CY 2001). This is a DOT-wide performance goal.

Historical Data:

Year	Number of Students Reached Each Year	Total Reached
1996 (actual)	0	0
1997 (actual)	70,931	70,931
1998 (actual)	960,134	1,031,065
1999 (actual)	470,935	1,502,000
2000 (goal)	at least 1,498,000	3,000,000
2001 (goal)	2,000,000	5,000,000
2002 (goal)	3,000,000	8,000,000

Special Challenges: All of the DOT operating administrations are working on the goals of the Morgan Program. Many of our partners in the Morgan Education Roundtable are working with students to interest them in transportation careers and work on their skills. To feature new and interesting transportation facts and a variety of education and transportation career resources to help teachers, students, parents and community leaders throughout the nations is the significant

challenge facing DOT as it develops and deploys its web site. A related challenge will be to have a mechanism in place that promotes timely, complete reporting by all of our partners related to the number of students they have reached together with information about their associated Morgan Program activities. DOT has exceeded the original goal of reaching 1.0 million students by the end of CY 2000; as of the end of CY 1999, we have already reached over 1.5 million students.

Strategies: RSPA will continue to support DOT to reach a wide universe of students through the Morgan Program the DOT education web site (http://education.dot.gov). RSPA will work to increase student awareness and preparation for transportation careers in concert with DOT's efforts to: expand the student base by increasing the number of DOT partnership schools; create a transportation School-to-Career model to be shared with school systems across the country; set up a speakers' bureau to supply speakers across the country for all grade levels, from kindergarten, through graduate school and including trade and community college activities; expand the Morgan Education Roundtable, comprised of education, labor and transportation business partners, so that we have a greater outreach effort across the country; and reinvigorate the celebration of National Transportation Week to include education kits for classroom presentations for all of DOT's partners across the country.

Activities, Initiatives and Associated Resources (See Appendix-II): We will continue to work with segments of DOT's 450 partnership schools. Now that DOT has a comprehensive list of all the schools, RSPA can share materials from our partners with the appropriate students, such as MATHCOUNTS math workbooks for 7th and 8th graders and work with the Society of Automotive Engineers' World In Motion math and science curriculum or others. We will continue to work with the Council of University Transportation Centers, the Transportation Research Board, the U.S. Merchant Marine Academy and the U.S. Coast Guard Academy to increase interest in transportation degree programs and to develop multi disciplinary and intermodal transportation curricula.

Complementary Programs with Shared Outcomes: The Morgan Program is part of DOT's Welfare to Work effort because it can promote careers in transportation for students who might otherwise not have an opportunity in the work force. If DOT can interest students in transportation careers and then ensure that they have the skills for those careers, we will help them get well-paying jobs that can enhance their lives.

Office of Innovation, Research and Education's Performance Information

Why We Act: To achieve its strategic goals for economic growth, the Department must ensure the availability of a future cadre of professionals who are prepared to design, deploy, operate and maintain the complex transportation systems of the future. This future outcome can be achieved only by investing now in the development of the people and the technology that will make up the nation's future transportation systems. By supporting University Transportation Centers (UTCs) at universities across the country, RSPA ensures that those investments yield the desired results.

Performance Goal: Number of students graduating with transportation-related advanced degrees from universities receiving DOT funding. By 2001, increase the number of graduate degrees awarded by universities receiving DOT funding to advance transportation education to 1203. (Performance indicators will track annual progress toward this goal.)

Historical Data:

Number of Students Graduating with Advanced Degrees	
Year	Goal
1999	N/A
2000	1,046
2001	1,203
2002	1,215

Special Challenges: There is a possibility of undercounting, due to difficulty in specifying degree programs that are transportation-related. Additionally, some universities may not fully comply.

Strategies: RSPA will continue the established practice of requiring each UTC to develop a strategic plan geared to the accomplishment of the six program goals. RSPA will hold each Center accountable for accomplishing the objectives in its own plan, rather than for performing a series of individual tasks. Additionally, RSPA will foster partnerships and information sharing between and among the several Centers, to facilitate the transfer of best practices and the dissemination of program results.

Activities, Initiatives, and Associated Resources (See Appendix--II): RSPA's staff of three university program specialists will manage the full life cycle of the UTC grants: solicitation, evaluation, award, program oversight, and close-out.

Complementary Programs with Shared Outcomes: The research to be conducted by the UTCs is to be selected by the Centers, but they are required to consider the priorities set forth in the DOT Strategic Plan and the National Transportation Science and Technology Strategy. RSPA will work closely with the Department's Research and Technology Coordinating Council to ensure a two-way flow of information on transportation research issues and priorities.

RSPA STRATEGIC GOAL--EMERGENCY MANAGEMENT

Minimize the impact on people, property, and the environment following emergencies affecting transportation and ensure transportation readiness during civilian and national security crises.

Outcome Goals--RSPA has identified the following outcome goals in its strategic plan for which performance measures will be used to gauge our progress in achieving our strategic goal of Emergency Management and DOT's strategic goals of Mobility and National Security:

1. Guarantee critical and timely transportation services during natural and man-made disasters and national security crises.

2. Minimize fatalities, injuries, and property and environmental damage that result from hazardous materials and pipeline transportation incidents.

3. Reduce the economic impact of emergencies affecting transportation.

<u>Office of Emergency Transportation's Performance Information--National Security</u>

Why We Act: RSPA's Office of Emergency Transportation supports the Secretary's strategic goals of Mobility and National Security by providing operational oversight and staff capability to execute Departmental responsibilities in civil emergency preparedness, and response and recovery for transportation services across the continuum of crises. The program fulfills the Secretary's statutory and administrative responsibilities for providing transportation services during national and regional emergencies to protect the public safety and national security.

To execute its responsibilities, RSPA must prepare before a crisis occurs, to ensure the Department is ready to respond immediately and decisively during disasters and national security emergencies. Critical national security program elements include plans and procedures developed and in place to assure that the response will be organized and consistent with interagency directives, such as the Federal Response Plan (FRP) and Presidential Decision Directives, and National Security Presidential Directives, calling for increased preparedness among Federal agencies in the areas of weapons of mass destruction and threats to information technology; and, the Department's Continuity of Operations (COOP) and Continuity of Government (COG) plans directed toward ensuring that the Department can maintain its essential functions throughout any National Security emergency.

Other critical national security program elements include RSPA's responsibilities to improve and refine its emergency preparedness training and exercise role with regards to terrorism events in conjunction with the Department's Office of Intelligence and Security. OET is leading a government-wide effort to coordinate the deployment of teams from various federal agencies that could be used to respond to a terrorist event.

Crisis response management teams at Headquarters and in the field are staffed and trained from existing DOT personnel.

A reliable response infrastructure (Crisis Management Center, communications, ADP, data bases, operations facilities), is required to ensure coordination with affected jurisdictions, and for the collection and dissemination of information to the Secretary and senior officials within DOT, other Federal disaster agencies, and the White House.

Performance Goal: Position DOT for rapid response to national security emergencies at home or in an area of the world where transportation resources are needed to bolster the security of the United States through interagency planning, coordination, training, and exercises.

Historical Data: Historical data collection began in FY-2000.

Special Challenges: National Security emergencies are high consequence, rare events and may result from an act of foreign aggression, attack involving weapons of mass destruction, and/or declared war. Ensuring all DOT Operating Administrations remain fully committed and involved to provide appropriate emergency response, mitigation and recovery actions.

Strategies: National Security emergency response can range from complex one-time events to protracted defense mobilization. DOT will accomplish its Performance Goal in conjunction with other Federal departments and agencies that will contribute to the response. OET will leverage existing resources to provide for the management and direction of these efforts, in conjunction with contractor support to provide research assistance and improve processes for consolidating Departmental inputs into reports and presentations. RSPA has developed a readiness rating to be determined by a multi-factor matrix to calculate an overall readiness value based on three components: (1) training and exercises; (2) continuity of operations and continuity of government; and (3) networking and partnership.

Activities, Initiatives, and Associated Resources (See Appendix--II): Major crisis response management initiatives proposed for CY 2002 in the area of National Security are:

OET is requesting $0.348 million in Contract Program funds to:

- Continue work on plans, exercises and training for Continuity of Operations (COOP), Continuity of Government (COG) and related efforts dealing with Weapons of Mass Destruction (WMD) and cyber warfare at headquarters and regional offices.
- Continue plans for technology review and upgrades for in-house systems, at headquarters, the regions, and the DOT alternate site.

OET is requesting $0.110 million in R&D funds to:

- Continue development of departmental level Continuity of Operations Plans (COOP) and integrating and harmonizing these plans with the individual modal plans and procedures.

Complementing direct training efforts will be an ongoing program of exercises, intended both to evaluate the effectiveness and practicality of plans and provide realistic experience for response teams. In addition, DOT will be called upon to support a major military deployment exercise, by examining transportation demands in the evolving national security strategy.

Continuity of Operations (COOP), Continuity of Government (COG) and related efforts dealing with Weapons of Mass Destruction (WMD) are continuing initiatives. We must develop adequate plans for managing these program areas and develop effective implementation.

Additional major crisis response management initiatives proposed for CY 2002 in the area of Mobility are:

OET is requesting $0.226 million in Program funds to perform the following activities:

Enhance Headquarters and regional response teams training programs to improve the delivery of relief and recovery resources to the victims. These training sessions involve other Federal agencies, States, and industry representatives and include customized risk area driven scenarios.

The RETCOs and the Regional Emergency Transportation Representatives (RETREPs) program support will continue in their role as the Department's first responders as well as being responsible for maintaining and training their regional teams.

Continue plans for technology maintenance and upgrades for in-house systems, at headquarters, the regions, and the DOT alternate site.

Enhance the RETCO's role by providing funding for additional regional team training, computer and communications equipment and supplies, professional development training for the RETCO/RETREP, and travel to applicable exercises and meetings sponsored by other State and Federal agencies.

OET is requesting $0.125 million in R&D funds to:

Improve our capability to respond to the Secretary's need for information, and strong preparedness and response activities, before, during and after a crisis;

Improve our crisis management systems and source data for transportation resources and mapping with special emphasis on tracking the flow of critical relief resources.

Improve the means for tracking classified documents, enhancing our database for the retrieval of policy documents and research software upgrades for existing database systems and audio visual usage.

Outreach efforts to the Federal, State and local emergency management and transportation authorities and the transportation industry will continue. Further

Department-wide planning efforts as part of the Federal efforts to provide disaster mitigation support and assistance to State and local entities.

The ongoing program of training for Headquarters and regional response teams will be continued. Emphasis is being placed on improving the delivery of relief and recovery resources to the victims. Such training is critical to maintaining the readiness of team members. Seminars will be conducted for each regional disaster risk area in the United States. In addition to DOT team members, these sessions will involve other Federal agencies, States, and industry to ensure that the entire transportation response community is familiar with their role in disasters.

Complementing direct training efforts will be an ongoing program of exercises, intended both to evaluate the effectiveness and practicality of plans and provide realistic experience for response teams. In addition, DOT will support major military deployment exercises, by examining transportation demands in the evolving national security strategy.

The Regional Emergency Transportation Coordinators (RETCOs) are facing new challenges. The increasing emphasis on terrorism and the consequence management issues involved in a Federal response places added responsibilities on both headquarters and regional response personnel to develop cohesive plans to meet this ever-changing danger. In preparing the RETCOs for these new threats, as well as their regular disaster response duties, RSPA provides them some funding support to carry out these responsibilities. Support for the RETCO program will continue at an expanded level to meet the demands of field disaster response and planning.

OET must continue critical technology maintenance and upgrades for all in-house systems. This program ensures that the ET resources remain functional in meeting office demands in support of the Secretary. In addition, continued refinement of the Activation Information Management System (AIM).

Complementary Programs with Shared Outcomes: In performing its mission, the Office of Emergency Transportation works in close coordination with the Federal Emergency Management Agency at headquarters and in the regions, and other emergency response Federal government agencies in the conduct of our role in emergency preparedness and response under the Federal Response Plan. This is done in conjunction with the Regional Emergency Transportation Coordinators who manage the Departments response efforts in the regions through a network of DOT, other Federal and State and local individuals who work together for a common cause in disasters. In our NATO efforts we work closely with the Department of State, FEMA and other DOT Operating Administrations. We also work closely with the Department of Defense, most often the U.S. Transportation Command and the Air Mobility Command in establishing plans for meeting military and civil transportation requirements in a crisis. In addition, this office is active in industry outreach efforts as indicated by our work with the Central U.S. Earthquake Consortium (CUSEC), the Western States Seismic Policy Council (WSSPC), the National Defense Transportation Association, and the Transport Canada.

APPENDIX-I

RSPA'S PERFORMANCE MEASURES (Detail)

RSPA Strategic Goal #1: Safety

Hazardous Materials Incidents

Measure: Number of serious reportable hazardous materials transportation incidents.
Baseline: 466* in CY 1996 (*Revised from 464 reported earlier)
Target Level: 391 in CY 2002
Data Source: RSPA's Hazardous Materials Information System (HMIS).
Scope of Measure: Data represent the total number of serious incidents reported to RSPA. It does not capture all incidents reported because the vast majority of incidents reported are for small spills and are frequently under-reported and do not result in a significant consequence. The measure for serious incidents is an intermediate performance goal and provides a sensitive indicator for fatalities and injuries. RSPA defines a serious hazardous materials incident as one that involves a fatality or major injury due to a hazardous material, closure of a major transportation artery or facility or evacuation of six or more persons due to the presence of a hazardous material, or a vehicle accident or derailment resulting in the release of a hazardous material.
Comment: The Office of Hazardous Materials Safety collects the data which is submitted by carriers of hazardous materials and reports such data on behalf of DOT.

Pipeline Failures

Measure: Number of natural gas transmission failures (leaks).
Baseline: 4,933 in CY 1994
Target Level: 4,301 in CY 2002
Data Source: RSPA Form 7000--Transmission Natural Gas Operator Annual Reports.
Scope of Measure: Required by 49 CFR 191.9 Onshore leaks reported by natural gas operators transmission pipeline. Data entry available by June 1 of the following year. Data can change when an operator files supplemental reports.
Comment: This intermediate performance goal tracks with human and economic losses from pipeline incidents. It provides a leading indicator of overall system integrity and thus safety, where pipeline related fatalities, injuries and economic consequences may result. We manage this performance goal by trying to reduce the number of failures (leaks) by five percent over a period of three calendar years.

Pipeline Outside Force Damage

Measure: Number of incidents in all types of pipelines (distribution, transmission and hazardous liquid) caused by excavation damage.
Baseline: 136 in CY 2000
Target Level: 101 in CY 2003
Data Source: RSPA 7000-1 Form, Hazardous Liquid Accident Report; RSPA 7100.2 Form, Natural Gas Transmission Incident Report; and RSPA 7100.1 Form, Natural Gas Distribution Incident Report.
Scope of Measure: This measure is based on reported hazardous liquid pipeline leaks and natural gas leaks that meet federal reporting criteria as defined in 49 CFR 191.9 and 191.15 for natural gas incidents and 195.50 for liquid accidents. These reports are filed within 30 days of the occurrence of reportable incidents. Complete calendar year data are available by March 1 of the following year. Data changes as operators file supplemental reports.
Comment: This intermediate performance measure tracks with economic losses for the most common cause of pipeline damage-- damage by excavation hits to pipelines. The measure is also a leading indicator of injuries and fatalities by tracking a more common incident that can precede personal injury or death. We move to a stretch goal with 2000 as baseline of reducing excavation damage by 25% over a three year period.

RSPA Strategic Goal #2: Environment

Pipeline Spills

Measure: The ratio of hazardous liquid materials released (tons net loss) by pipeline to the environment per total volume shipped (ton-miles)
Baseline: Ratio is .0233 (x 1,000,000): (13,783 tons net loss in CY 1994; quantity shipped is 591.4 billion ton-miles)
Target Level: .0142 in CY 2002
Data Source: RSPA 7000-1 Form, Hazardous Liquid Accident Report (tons net loss); Association of Oil Pipelines (ton-miles shipped).
Scope of Measure: This measure is based, in part, on reported hazardous liquid pipeline leaks that meet federal reporting criteria as defined in 49 CFR 195.50. These reports are filed within 30 days. Complete calendar year data are available by March 1 of the following year. Data changes as supplemental reports are filed by operators. Data for ton-miles shipped may be incomplete and is subject to revision. *This performance measure replaces the measure previously reported in DOT's FY 1999 Performance Plan (average quantity spilled) because this measure more accurately reflects risk.
Comments: This measure is an intermediate output goal that provides an indicator of consequence outcome. Pipeline incidents involving liquid hazardous materials are those that result in a fatality or injury (for most purposes, an injury resulting in medical treatment or hospitalization), property damage equal to or greater than $50,000 or product loss greater than 50 barrels. Because of the magnitude and frequency of fluctuations in the historical data for this measure, a long-term goal is preferential to a short-term goal in tracking performance.

Pipeline Spills–Unusually Sensitive Areas

Measure: The average quantity (gallons) of liquid hazardous materials released by pipeline in unusually sensitive areas.
Baseline: To be determined
Target Level: To be determined
Data Source: RSPA 7000-1 Form, Hazardous Liquid Accident Report (tons net loss); Association of Oil Pipelines (ton-miles shipped).
Scope of Measure: To be determined.
Comments: Baseline data will begin in FY 2001.

RSPA Strategic Goal #3: Research and Technology

Transportation R&D

Measure(s):
Amount of Federal resources being focused on implementation of the Strategy
Number of "right" partners involved in strategic partnerships
Number of transportation R&D programs and initiatives that support strategic goals
Size of customer base
Number of students graduating with advanced degrees in transportation-related fields
Reduced R&D data collection and analysis costs
Reduced R&D data collection time

Scope of Measure: RSPA will further the Department's goals through R&D by providing strategic direction, thereby enabling policy makers and implementers at all levels to allocate scarce resources to support national transportation goals. RSPA will also provide world-class products and services to our customers which will lead to enhanced quality of transportation systems. Providing a better exchange of R&D information will enable transportation advances while minimizing duplication of R&D efforts both within and outside of the Federal Government. Collaboration with the public and private sector will expedite the research process and speed the introduction of new technologies into transportation systems and operations. In addition, RSPA will further the Department's strategic goals through its support of educational and training programs by investing in the human capital and building the expertise needed to address tomorrow's transportation challenges.

RSPA Strategic Goal #4: Education and Training

Transportation and Education (Garrett A. Morgan)

Measure: Number of students reached
Baseline: 0 in 1996
Target Level: 8.0 million students in total by the end of CY 2002 or 3.0 million additional students in CY 2002
Data Source: DOT maintained database to aggregate responses from partners engaged in the program.
Scope of Measure: Includes students reached through DOT's web site of all ages through specific activities, such as internships, job shadowing, career days, video conferences, classroom visits, teacher externships and web site visits, that inform them of the opportunities available in the transportation field and ensure they have the skills and knowledge required for transportation jobs.
Comment: DOT will develop and maintain a new web site database to count the number of students participating in the program, based on a measure still to be determined.

Transportation and Education (University Transportation Centers)

Measure: Number of students graduating with transportation-related advanced degrees from universities funded under the UTC Program.

Baseline: Each university which receives a UTC grant in FY 1999 will provide as part of its grant application:

(1) a list of the advanced degrees that it considers to be transportation-related and which are awarded by the institution(s) comprising that UTC;

(2) the number of students enrolled in those degree programs in the 1997-1998 academic year (i.e. the last academic year completed before award of the grant); and,

(3) the number of students who received advanced degrees from those programs in the 1997-98 academic year.

Target Level: 1,215 in 2002.
Data Source: Information will be derived from current university records and provided to RSPA by participating universities as a part of their grant applications and through annual performance measures required by the UTC grant program.
Scope of Measure: The measure includes recipients of Masters and Ph.D. degrees in any program considered to be transportation-related by the participating UTCs.
Comment: The UTCs are all required to pursue the same research, education and technology transfer goals. RSPA will track their effectiveness with a variety of performance indicators relating to the size of the education program, the diversity of the participants, the subject matter and quality of the research program, and the frequency and scope of technology transfer efforts. All of these are intended to indicate progress toward the achievement of the ultimate outcome: a diverse cadre of Americans who are prepared to design, deploy, and operate the technologically advanced transportation systems of the 21st century.

RSPA Strategic Goal #5: Emergency Transportation
Continuity of Operations--National Security

Measure:	Ability to foster a disaster readiness program at a 100% response and efficiency level.
Baseline:	(1) Provide 12 training sessions each year for the DOT crisis response teams; (2) arrange for a DOT COOP relocation site and initial DOT COOP plan; and (3) provide outreach efforts to assist the transportation community.
Target Level:	Provide a minimum of 12 training sessions each year, and reflecting response actions for special events or identified threats to the transportation system. While this number may not increase annually, the sophistication, content and quality of the training sessions to meet changing disaster needs and incorporating new PDD requirements will improve annually. All systems, equipment and plans necessary to operate a DOT COOP site should be in place. A cadre of senior DOT officials able to mobilize to the COOP site within 12 hours of notification in a major a crisis affecting the DOT HQ building must be maintained and the individuals trained and exercised.
Data Source:	RSPA/OET performance based on FY 2000 data.
Scope of Measure:	RSPA has developed a readiness rating determined by a multi-factor matrix to calculate an overall readiness value based on three components: (1) training and exercises; (2) continuity of operations and continuity of government; and (3) networking and partnership. Required training sessions are completed and the quality of each session is enhanced to meet current risk and national security requirements. COOP lease is being renewed annually and work is ongoing at the site to enhance its operability for meeting the needs for foreign or domestic defense or civilian requirements during a National Security emergency. Current COOP plans are being reviewed and will be revised every two years as needed. The COOP site receives an annual validation of operability. At least 80% of the senior leadership positions on the cadre must respond to the COOP site activation telephone call to report to the relocation site within 12 hours (as validated through real events or related exercises and training activities conducted with FEMA and the National Security Council)
Comment(s):	DOT performance will require RSPA to coordinate closely with other DOT Operating Administrations, S-60, the Department of Defense and the Federal Emergency Management Agency, and the White House.

APPENDIX - II

Research and Special Programs Administration
FY 2002 Performance Plan

Proposed Budget Authority by DOT'S Five Strategic Goal
(dollars in millions)

Department of Transportation's Five Strategic Goals

APPROPRIATION	1. Safety	2. Mobility	3. Environment	4. National Security	5. Organizational Excellence	TOTAL
Research and Special Programs (RSP)						
Hazardous Materials Safety	21.2					21.2
Emergency Transportation		1.5		.4		1.9
Research & Technology	.3			1.0	3.5	4.8
Program Support	8.5	.6		.5	4.4	14.0
Subtotal, RSP	30.0	2.1		1.9	7.9	41.9
Emergency Preparedness Grants	14.3					14.3
Pipeline Safety						
Trust Fund Share			7.5			7.5
Grants (except TF Share)	15.7		2.3			18.0
PC&B, Administrative and Program costs, and R&D	15.5		12.7			28.2
Subtotal, Pipeline Safety	31.2		22.5			53.7
TOTAL FY 2002 PROPOSED BA	75.5	2.1	22.5	1.9	7.9	109.9

U.S. Department of Transportation

BUDGET ESTIMATES

FISCAL YEAR 2002

SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

SUBMITTED FOR USE OF
THE COMMITTEES ON APPROPRIATIONS

(1877)

DEPARTMENT OF TRANSPORTATION

SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

FY 2002 Budget Estimates

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U.S. DEPARTMENT OF TRANSPORTATION

SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

GENERAL STATEMENT

The U.S. Saint Lawrence Seaway Development Corporation (SLSDC), an operating administration of the U.S. Department of Transportation, is responsible for the operations and maintenance of the U.S. portion of the St. Lawrence Seaway between Montreal and Lake Erie. This responsibility includes maintaining and operating the two U.S. Seaway locks located in Massena, N.Y., and vessel traffic control in areas of the St. Lawrence River and Lake Ontario. In addition, the Corporation performs trade development functions designed to enhance Great Lakes St. Lawrence Seaway System utilization. Maritime commerce on the Great Lakes Seaway System annually generates almost 50,000 U.S. jobs and $2 billion in personal income.

The SLSDC coordinates its activities with its Canadian counterpart, The St. Lawrence Seaway Management Corporation (SLSMC), particularly with respect to rules and regulations, overall day-to-day operations, traffic management, navigation aids, safety, environmental programs, operating dates, and trade development programs. The unique binational nature of the Seaway System requires 24-hour, year-round coordination between the two Seaway entities.

Notable SLSDC programs and activities include:

AIS/GPS Project – Since 1992, the SLSDC has worked with the U.S. Department of Transportation's Volpe National Transportation System Center and Canadian partners to design and implement state-of-the-art Automatic Identification System (AIS) / Global Positioning System (GPS) navigation technology. The AIS/GPS project represents a major step forward in marine navigation technology. In fact, the Seaway is the world leader in developing shoreside applications for AIS/GPS. When testing and implementation of the AIS system is completed during the 2001 navigation season, Seaway vessel traffic controllers will be provided with highly accurate, real-time access to the position of commercial vessels in their vicinity, which will enhance safety and improve the efficient transit of vessels through the System. During the 2002 season, the SLSDC, in cooperation with the Canadian SLSMC and the U.S. and Canadian Coast Guards, will work to have the program fully operational throughout the Great Lakes. In addition, all commercial vessels transiting the Seaway traffic sector from Montreal to mid Lake Erie will be required to have the AIS equipment on-board by April 1, 2002. In 2000, industry partners agreed to contribute 50 percent of the final cost of this program over the 2000 and 2001 navigation seasons.

Foreign-Flag Vessel Inspections – The SLSDC and the U.S. Coast Guard, in conjunction with Transport Canada and the SLSMC, signed a memorandum of understanding in March 1997, to develop a program of coordinated vessel inspection and enforcement activities to expedite the safe transit of shipping through the Great Lakes Seaway System. The principal goal of the program is to inspect all ocean vessels related to safety and environmental protection issues in Montreal, Quebec, before they enter U.S. waters. In 2000, the SLSDC continued this program by inspecting 100 percent of all ocean vessels in Montreal. This improved inspection regime has saved vessels four hours, on average, per transit and ensured that any safety or environmental issues associated with these vessels are addressed prior to entering U.S. waters.

St. Lawrence Seaway Lock Availability – During the 2000 navigation season, the availability of the two U.S. locks maintained and operated by the SLSDC was 98.7 percent. During the season, only 2.6 hours of the 84.1 total hours of downtime were due to malfunctioning lock equipment. This performance measure is included in the U.S. Department of Transportation's annual performance plan. In addition to the high lock availability rate, 2000 was the eighth consecutive shipping season with no vessel incidents in excess of $50,000 in damages.

Trade Development Initiatives – During 2000, the SLSDC continued to promote commercial navigation to and from North America via the Great Lakes Seaway System to current and prospective customers both domestically and abroad. In 2000, the SLSDC led delegations of U.S. and Canadian Great Lakes Seaway System trade and maritime executives on Seaway Trade Missions to Greece, Turkey, England, and The Netherlands. In 2001, the SLSDC will lead Seaway Trade Missions to Norway, Poland, Brazil, Argentina, and Venezuela.

In addition to Seaway Trade Missions, the SLSDC is working with various Great Lakes/Seaway port authorities, the Great Lakes Cruising Coalition, state and local governments, and tourism associations, to attract cruise vessels into the Great Lakes. Since 1997, the number of cruise passengers on the Great Lakes has increased from 1,500 to 14,000 expected this year.

U.S. Seaway Lock Improvements – In 1999, the U.S. Army Corps of Engineers completed a comprehensive study of the two U.S. Seaway locks operated by the SLSDC in Massena, N.Y. The study recommended that the SLSDC make structural, electrical, and mechanical maintenance improvements to its lock infrastructure. Following the completion of the 2000 navigation season, the SLSDC focused its annual lock winter work program on several of the recommendations made by the Corps. Major recommendations made by the Corps have been incorporated into the Corporation's five-year capital and special project plans as appropriate. Some of the projects may be accomplished in-house, provided they have minimal impact on normal maintenance functions, while larger ones will likely be accomplished by contract.

SLSDC STRATEGIC PLAN

Introduction

The Saint Lawrence Seaway Development Corporation (SLSDC or Corporation) is a wholly owned government corporation created by statute May 13, 1954, to construct, operate and maintain that part of the St. Lawrence Seaway between Montreal and Lake Erie, within the territorial limits of the United States. Trade development functions aim to enhance Great Lakes St. Lawrence Seaway System utilization without respect to territorial or geographic limits.

The SLSDC coordinates its activities with its Canadian counterpart, The St. Lawrence Seaway Management Corporation, particularly with respect to rules and regulations, the Tariff of Tolls, overall day-to-day operations, traffic management, navigation aids, safety, environmental programs, operating dates, and trade development programs. The unique binational nature of the System requires 24-hour, year-round coordination between the two Seaway entities.

The mission of the Corporation is to serve the U.S. intermodal and international transportation system by improving the operation and maintenance of a safe, reliable, efficient, and environmentally responsible deep-draft waterway, in cooperation with its Canadian counterpart. The SLSDC also encourages the development of trade through the Great Lakes Seaway System, which contributes to the comprehensive economic and environmental development of the entire Great Lakes region.

The SLSDC headquarters staff offices are located in Washington, D.C. Operations and operations personnel are located at the two U.S. locks (Eisenhower and Snell) in Massena, N.Y.

External Factors/Basis for Data Reported

External factors affecting SLSDC performance and all strategic goals include: vessel incidents due to mechanical failure and human error; weather conditions; global economic factors affecting demand, production, and pricing of commodities and vessel services; and federal policy decisions by the United States and Canada.

The Seaway System and related operations are on a calendar year (CY) basis from late March to late December. In accordance with calendar year operations, both CY and fiscal year (October 1 - September 30) (FY) data are reported as appropriate.

SLSDC Performance Areas Compared to DOT Goals and Strategies

SLSDC Performance Areas	Perf. Area No. 1 Safety Environment	Perf. Area No. 2 Reliability Availability	Perf. Area No. 3 Trade Development	Perf. Area No. 4 Management Accountability
DOT Goals and Strategies:				
Safety	✓	✓	✓	✓
Mobility	✓	✓	✓	✓
Economic Growth			✓	✓
Human and Natural Environment	✓			✓
National Security	✓	✓		✓
Organizational Excellence	✓	✓	✓	✓

Vision Statement

Ensure the structural viability of the U.S. Seaway navigation facilities and promote the Great Lakes St. Lawrence Seaway System.

Mission Statement

Serve the U.S. transportation system by improving the operations and maintenance of a safe, reliable, and efficient deep draft international waterway, in cooperation with the Canadian St. Lawrence Seaway Management Corporation.

STRATEGIC GOALS

SAFETY: Promote navigation and workplace safety and environmental protection by reducing vessel incidents and employee injuries, and preventing environmental incidents.

Outcome Goals:

- Increase the application of technologies and programs to ensure navigation safety and protection of the river environment.
- Reduce the risk of commercial vessel incidents.
- Improve compliance with navigation and workplace safety and environmental standards.

How We Will Achieve This Strategic Goal:

- Insist on excellence in occupational safety by providing the education, equipment and commitment needed to make the Seaway an accident-free employer.
- Effectively utilize emerging technologies, such as Automatic Identification System (AIS) / Global Positioning System (GPS) technologies and related systems, to enhance system safety.
- Maintain the enhanced vessel inspection program at Montreal to inspect every ocean vessel on the first transit inbound each navigation season, in coordination with the SLSDC's Canadian counterpart and the Canadian and U.S. Coast Guards. The program includes Seaway regulations and fittings, legislated port-state inspection, and the International Safety Management Code (ISM).
- Promote System safety through traffic control procedures; rules and regulations for Seaway transit; vessel speed surveillance; deployment of fixed and floating navigation aids; operation of weather and visibility meters; vessel inspections, routine and for cause; water level and rate of flow monitoring; and vessel customer exit survey recommendations.
- Maintain and improve our capability to react to a hazardous materials spill by conducting simulated Emergency Response Exercises, and updating our spill response plan and equipment accordingly. Continuously improve teamwork of regional government agencies to respond to an incident through training, simulations and actual incident critiques.
- Hire an Industrial Hygienist to review and analyze environmental and industrial hygiene issues at the SLSDC, and plan a program to ensure a clean and healthful environment for SLSDC employees and customers.

Candidate Performance Measures: CY data sourced from the SLSDC offices of Lock Operations, Engineering and Strategic Planning, and Maintenance and Marine Services. Annual historical data for baseline measurement is included in annual performance agreements, performance plans, and budget justifications. Selected historical data are shown below.

✓ Increase utilization of available technologies to advance system safety.

✓ Reduce the number of commercial vessel incidents in excess of $50,000 in damages each navigation season. Five-year rolling average, vessel incidents:

CY 1989 — 1993	1.2
1990 — 1994	0.4
1991 — 1995	0.4
1992 — 1996	0.2
1993 — 1997	0.0
1994 — 1998	0.0
1995 — 1999	0.0
1996 — 2000	0.0

✓ Increase the percentage of ocean vessel first-transit-inbound inspections at Montreal, outside of U.S. waters, each navigation season:

CY 1996	38%
1997	100
1998	100
1999	100
2000	100

✓ Increase Emergency Response Plan training and simulated activations.

RELIABILITY: Maintain user confidence in the continued viability of the Seaway System by ensuring that plans and decisions sustain the long-term reliability and availability of U. S. navigation facilities.

Outcome Goals:

- Increase the availability and reliability of navigation facilities each shipping season.
- Reduce the risk of vessel delays due to lock equipment failure.
- Improve maintenance and inspection systems to ensure an accessible, safe, and efficient System for users.

How We Will Achieve This Strategic Goal:

- Ensure the structural integrity and mechanical reliability of our locks through a comprehensive program of maintenance, inspection and modernization.
- Implement AIS/GPS technologies to more efficiently manage vessel traffic control and vessel lockages at the two U.S. Seaway locks.
- Strictly maintain weekly/monthly inspections for electrical systems and lock machinery and conduct major maintenance and rehabilitation programs during the winter shutdown period.
- Continuously evaluate and improve our operating procedures, regulations and policies to better serve our customers. Actively seek customer feedback.
- Supplement SLSDC preventive maintenance measures in coordination with periodic, comprehensive surveys and evaluations by independent engineering consultants such as the U.S. Army Corps of Engineers.
- Maintain five-year "rolling" capital improvement plan for machinery, lock and hydraulic steel structure replacement/rehabilitation programs.
- Periodic channel maintenance and improvements, including sweeping and maintenance dredging.
- System operating date negotiations with Canadian counterparts; and related Safety goal activities critical to availability: maintenance and repair of fixed and floating navigation aids; weather and visibility meters; Emergency Response Plan and periodic simulations; water level and rate of flow monitoring.

Candidate Performance Measures: CY data sourced from the SLSDC offices of Lock Operations, Engineering and Strategic Planning, and Maintenance and Marine Services. Annual historical data for baseline measurement is included in annual performance agreements, performance plans, and budget justifications. Selected historical data are shown below.

✓ Increase the percentage ratio of Seaway System navigation days open, versus downtime in the U.S. Sectors of the Seaway, for any incident, cause, problem, or occurrence, including weather. Five-year rolling average of navigation day availability:

CY 1987 — 1991	97.4%
1988 — 1992	97.0
1989 — 1993	96.4
1990 — 1994	96.2
1991 — 1995	96.4
1992 — 1996	96.4
1993 — 1997	96.6
1994 — 1998	97.5
1995 — 1999	98.1
1996 — 2000	98.1

✓ Reduce delays to navigation, per total commercial vessel transit, due to lock equipment maintenance failure. Five-year rolling average of per-transit delay hours:

CY 1987 — 1991	0.001361 hours
1988 — 1992	0.001963
1989 — 1993	0.002860
1990 — 1994	0.005628
1991 — 1995	0.006801
1992 — 1996	0.007134
1993 — 1997	0.006256
1994 — 1998	0.005155
1995 — 1999	0.002105
1996 — 2000	0.001106

✓ Increase the effectiveness and extent of periodic evaluations and inspections, by SLSDC personnel. Obtain outside views and expertise, by arranging for periodic inspections by the U.S. Army Corps of Engineers or other consultants.

TRADE DEVELOPMENT: Encourage increased System utilization that benefits both the Great Lakes regional economy and the national economy, while promoting cost effective competition for all System users.

Outcome Goals:

- Increase the volume of United States international tonnage through the Seaway System, to and from U.S. ports.
- Increase ocean vessel fleet System utilization in terms of laden vessel transits and tonnage per transit.
- Increase domestic and international trade development programs to improve the Seaway's competitive position in serving the nation.
- Increase cruise vessel fleet System utilization in terms of cruise vessel transits and annual passenger levels.

How We Will Achieve This Strategic Goal:

- Serve as a catalyst to unite the Great Lakes/Seaway community to improve communications and cooperation on system-wide initiatives directed toward improving customer service.
- Target overseas trade development programs to high potential markets and regions. Focus trade activities on specific commodity groups and vessel service, including refitting existing ships and construction of new vessels for Seaway operation.
- Develop and implement a binational Internet web site to provide current and prospective users with a single resource for Seaway-related information on rules and regulations, real-time vessel locations, water level and weather conditions, trade development and promotional activities, regulatory cost information, and cargo matching services.
- Advocate policies to reduce System operating costs to the industry, such as rebates, new business incentives, and targeted cargo discounts. Support negotiations with our Canadian counterparts to freeze, reduce or eliminate all Seaway tolls.
- Work with carriers, ports, pilots, agents, cargo handlers, and other interests in the Great Lakes/Seaway community to contain costs and participate in trade development programs.
- Develop operating initiatives to improve current capacity and future utilization of the system, such as vessel draft, beam and length modifications.
- Expand our capability to analyze and disseminate traffic information and publications and develop trade leads. Continue successful information outreach programs like Seaway Nightcast.

Candidate Performance Measures: CY data sourced from the SLSDC monthly and annual navigation statistics, and Office of Lock Operations data on vessel pre clearance, and vessel owner/agent records. Annual historical data for baseline measurement is included in annual performance agreements, performance plans, and budget justifications. Selected historical data are shown below.

✓ Increase tonnage volume for total System tonnage, and United States international tonnage through the Seaway System, to and from U.S. ports. Five-year rolling average, international tonnage:

CY 1986 — 1990	10.2 million tons
1987 — 1991	9.5
1988 — 1992	9.1
1989 — 1993	8.8
1990 — 1994	8.8
1991 — 1995	9.5
1992 — 1996	10.4
1993 — 1997	10.6
1994 — 1998	11.2
1995 — 1999	11.2
1996 — 2000	10.9

MANAGEMENT ACCOUNTABILITY: Improve Seaway customer service, increase employee proficiency, and be accountable for sound financial management.

Outcome Goals:

- Increase customer/stakeholder satisfaction with SLSDC services.
- Increase workforce performance measurements to improve morale, and to achieve progress toward meeting all SLSDC performance goals.
- Increase management planning focus on meeting long-term critical capital outlay programs, operations and maintenance needs, and replenishment of emergency reserves.

How We Will Achieve This Strategic Goal:

- Conduct outreach with all customers, employees, industry, federal and state agencies to involve the customer in the development of policies, programs and operating decisions.
- The SLSDC will pursue ISO 9002 certification for all organizational functions.
- Supplement outreach activities with customer surveys to obtain direct feedback concerning operations and regulations in practice and recommendations for program modifications.
- Foster an employee "customer" environment to strengthen and develop the organization internally, reach out to the employee local community and participate in local/national education initiatives.
- Continue support for administration initiatives and worklife policies, empower employees in the decision process, utilize partnerships, and encourage teambuilding and worklife policies.
- Establish binational partnerships with Canadian counterparts to drive service improvements and share resources.
- Conduct and participate in maritime industry oriented public meetings with a broad array of U.S., Canadian and overseas interests representing all segments of the Great Lakes St. Lawrence Seaway System.
- Ensure that commitments are maintained to monitor costs, to build emergency reserves, and to conduct periodic risk assessments. Corporation assets will be safeguarded and transactions performed in accordance with accepted accounting principles.

Candidate Performance Measures: CY and FY data sourced from the SLSDC annual financial audits and management reports. Annual historical data for baseline measurement is included in annual performance agreements, performance plans, and budget justifications. Selected historical data are shown below.

- ✓ Improve the customer survey ratings of SLSDC performance and service quality, measured over time against baseline survey results. Baseline: CY 1995 customer service rating of 4.5 on a scale of 1 to 5.

- ✓ Employee cultural audits measured over time against baseline audits.

- ✓ Reduce the ratio of administrative overhead expenses versus operating expenses, excluding depreciation. Five-year rolling average, administrative expenses as a percent of operating expenses:

FY 1991 — 1995	25.6%
1992 — 1996	26.2
1993 — 1997	26.3
1994 — 1998	26.3
1995 — 1999	26.1
1996 — 2000	26.0

- ✓ Ensure that a "clean" annual financial audit rating is maintained. Baseline: under the auspices of the Government Corporation Control Act, the SLSDC has had a "clean" audit since the first FY audit of June 30, 1955.

- ✓ Ensure that the SLSDC's reserve account year-end balance is maintained at a level sufficient to achieve the SLSDC financial plan goal. Five-year rolling average reserve account balances:

FY 1988 — 1992	$11.4
1989 — 1993	11.7
1990 — 1994	11.8
1991 — 1995	12.0
1992 — 1996	11.9
1993 — 1997	11.4
1994 — 1998	11.0
1995 — 1999	10.7
1996 — 2000	10.4

SLSDC FY 2002 PERFORMANCE PLAN

SAFETY **Program: AUTOMATIC VESSEL IDENTIFICATION SYSTEM (AIS)**

Program Need: Enhancement of vessel traffic control procedures and operating safety for vessels, crews, property, and environmental protection. The project required a coordinator to bring together the many interested parties. The SLSDC and its Canadian counterpart accepted that role.

Performance Goal: Evaluate, recommend, and implement application of Global Positioning System (GPS) technologies to a vessel tracking system that will enhance navigation safety and protection of the river environment. **The Goal for CY 2000 was to reach agreement among government and industry partners on cost sharing, and to conduct pre-operational testing and evaluation; this was achieved.**

The Goal for CY 2001 is implementation of the program in the St. Lawrence Seaway.

The Goal for CY 2002 is to make AIS carriage requirements mandatory within the Seaway traffic sector from Montreal to mid Lake Erie by April 2002. In addition, the SLSDC, in cooperation with the Canadian St. Lawrence Seaway Management Corporation and the U.S. and Canadian Coast Guards, will work to have the program fully operational throughout the Great Lakes.

Performance Measure Detail

Indicator: Fully operational AIS based traffic services system in the St. Lawrence Seaway.

Scope: Includes agreement by the Laker (Canadian) and Ocean fleet operators to proceed with cost sharing and testing of vessel tracking units in cooperation with the Seaway entities.

Source: Proceedings of the GPS/AIS binational steering committee established in 1996. The SLSDC representative is the Director, Office of Engineering and Strategic Planning.

Baseline: The program was formally initiated in 1996 by the SLSDC Administrator and the President of the former Canadian Seaway Authority now the St. Lawrence Seaway Management Corporation (SLSMC).

Limitations

Data: This is not a data-driven program, but rather involves negotiation among federal and private industry partners.

Indicator: The indicator relates to the other SLSDC performance areas of Reliability, Trade Development, and Management Accountability, including Customer Service, Fiscal Performance and Cost Effectiveness.

Verification and Validation: SLSDC Director of Engineering and Strategic Planning periodic progress reports, and close coordination with the Seaway AIS Steering Committee, and the Advanced Technology for Navigation and Safety Subcommittee under the U.S. Coast Guard's Great Lakes Waterways Management Forum.

Comment: Retaining the government/industry partnership is key to the success of this program. Canadian Seaway entity commercialization during 1998/1999 resulted in delaying the program decision process. CY 2000 was a significant decision period for the future of the program and activities extending into CY 2001 and beyond.

Special Challenges: Obtaining shipping industry partners commitment to cost sharing. During March 2000 the Seaway entities reached a cost-sharing agreement with the Canadian Laker and Ocean Vessel fleets. The carrier industry will contribute approximately $600,000 to the estimated $1.2 million project cost over the remaining two years of the project's development and implementation. The cost-sharing program (effective May 1, 2000 through the 2001 navigation season) is in the form of a surcharge of CAN$0.006 per vessel gross registered ton. Other special challenges include working closely with the shipmasters, pilots and electronic chart manufacturers for the design and installation of the AIS transponders on board the vessels.

Strategies: When the project is fully operational, during the 2001 navigation season, it will provide vessels and vessel traffic controllers with highly accurate, real-time access to the position of all commercial vessels in their vicinity. This new technology will greatly enhance safety and improve the efficient transit of vessels through the System.

SLSDC and SLSMC will continue to work closely with the U.S. and Canadian Coast Guards to extend the AIS coverage to the upper Great Lakes. The Volpe Center continues the refinement of AIS interface with the Seaway Vessel Traffic Services System and the design and installation of shore side AIS communication stations along the Seaway.

Benefits Include: More efficient traffic management and consequently reduced overall transit time for users. It is estimated that for all users there will be annual transit time savings of $300K, based on total annual transits; real-time position information of other vessels for safe meeting/overtaking in critical reaches of the Seaway; accurate vessel positions along the entire Seaway system resulting in better fleet management for vessel operators; shore-to-ship communications on lock availability, water levels, atmospheric conditions, etc. to enhance safe vessel transits; timely dispatching of pilots and thereby minimized transit delays; and similar benefits to all users in the upper Lakes as a result of a Seaway Entity mandate that all vessels carry an AIS unit onboard.

Complementary Programs with Shared Outcomes: The primary Safety benefits of a vessel tracking system extend from the Seaway entities to pilotage, carriers, and system safety and environmental protection concerns by the U.S. and Canadian Coast Guards.

Activities and Initiatives in FY 2001/2002: Procure hardware for shore-side communication stations, install AIS shore-side stations and declare the Seaway AIS system operational during the 2001 season. Continue periodic meetings, with decision points, consideration of many alternatives, group decisions on various steps and continue program work contracted with Volpe Center throughout the process. The Seaway entities will implement required vessel carriage of AIS equipment in 2002.

SAFETY **Program: COMMERCIAL VESSEL INCIDENTS**

Program Need: Critical to the Safety mission of Seaway Lock operations, vessels and crews.

Performance Goal: Reduce the risk of commercial vessel incidents in excess of $50,000 in damages. **The CY 2002 Goal is zero.**

Performance Measure Detail

Indicator: Number of vessel incidents in excess of $50,000 in damages, each navigation season.

CY	Incidents
1990	0
1991	1
1992	1
1993	0
1994	0
1995	0
1996	0
1997	0
1998	0
1999	0
2000	0

(Note: year-to-year variations are detailed in SLSDC annual reports)

Scope: Incident record, and vessel/ facility damage estimates.

Source: Lock operations/vessel traffic control documents all incidents, estimates of Corporation facility damage are performed by the office of Maintenance and Marine Services and/or Engineering and Strategic Planning, and vessel damages are estimated by an independent Vessel Classification surveyor.

Baseline: Current baseline data covers CY 1990 to date. Several more years of historical data are available.

Limitations

Data: SLSDC has strong confidence in the validity of the data.

Indicator: The indicator relates to the other SLSDC performance areas of Reliability, Trade Development, and Management Accountability, including Customer Service, Fiscal Performance and Cost Effectiveness.

Verification and Validation: 24 hour vessel traffic control computer records by SLSDC, SLSMC, vessel operators, and pilots on ocean vessels; radio communication among the two Seaway entities and the vessel operators; and video/audio tapes of vessel incidents.

Comment: SLSDC influences the measure through operating rules and regulations for safe transit, and vessel traffic control procedures.

Special Challenges: Vessel and navigation incidents resulting from electrical, mechanical failure and/or human error. Weather conditions that include wind, fog, snow, ice, and rain.

Strategies: Periodic review, and revision of safe transit initiatives including the vessel operator customer input; incident report critiques; vessel customer surveys; GPS/AIS program.

Complementary Programs with Shared Outcomes: 100% coordination with SLSMC, each operating in designated traffic control sectors; coordination with the two Coast Guards on inspections; with NOAA on weather stations; and work with Volpe to obtain their technical expertise.

Activities and Initiatives in FY 2001/2002: Traffic control procedures; vessel speed surveillance; operation of weather and visibility meters; positioning and maintenance of navigation aids; exploration of GPS/DGPS technology applications; enhanced vessel inspections; emergency response plan training and simulations; participation in St. Lawrence River Board of Control for Lake Ontario and the St. Lawrence River water levels and flow rates; vessel customer survey responses.

SAFETY **Program: ENHANCED OCEAN VESSEL INSPECTIONS**

Program Need: Required by Seaway Regulations, and Coast Guard legislated responsibilities. Significant for safety and environmental protection.

Performance Goal: Increase the number of enhanced vessel inspections on the first transit inbound each navigation season, at Montreal, in advance of entering the Seaway and U.S. waters. **The CY 2002 Goal is inspect 100% of ocean vessels on the first transit inbound each navigation season.**

Performance Measure Detail

Indicator: Percentage of first transit inbound inspections. **100% of ocean vessel inspections have been achieved in CY 1997, 1998, 1999 and 2000.**

Scope: All ocean vessel inspections by the two Seaway entities supplemented by priority vessel inspections USCG at Montreal. The inspections include safety checks on vessel construction and equipment, ballast water, radio telecommunications, and documentation, as well as Port State Control inspections. In particular, the Seaway program supports the Oil Pollution Act of 1990, the Non-Indigenous Aquatic Nuisance Prevention and Control Act of 1990, and the International Safety Management Code (ISM) effective July 1, 1998.

Source: SLSDC, SLSMC, and USCG, vessel inspection records.

Baseline: In CY 1996, prior to the enhanced program, an estimated 38% of vessels were inspected on the first transit inbound, in CY 1997, 100% was achieved through a pilot program agreement with USCG and thereafter the pilot program became policy and a 100% level has been achieved every year.

Limitations

Data: SLSDC has strong confidence in the validity of the data.

Indicator: The indicator relates to the other SLSDC performance areas of Reliability, Trade Development, and Management Accountability, including Customer Service, Fiscal Performance and Cost Effectiveness.

Verification and Validations: SLSDC/SLSMC computer records; USCG vessel inspection records and Vessel Operator documentation.

Comment: On July 16, 1998, the Corporation and the Canadian Seaway Authority were awarded ISO 9002 certification for the high quality vessel inspection services program on the St. Lawrence Seaway. The international certification is only conferred on firms that meet the highest quality management standards established by the Geneva-based International Organization for Standardization. The London-based Lloyds Register of Quality Assurance was the independent accrediting agency that performed the actual evaluations of the inspection program.

Special Challenges: The inspection program was initiated by the Seaway entities as a major safety and customer service initiative. The program saves operating time and cost without compromising safety and the environment. The program depends on a USCG policy decision to continue the current working agreement, year-to-year.

Strategies: Vessel customers surveyed have voiced a strong positive reaction to the program. The Seaway entities incorporated the ISM Code in the inspection regime in April 1998 as a heads-up to vessel operators for the July 1,1998 effective legal date. SLSDC has a long-term goal to rationalize all U.S. and Canadian requirements with a single inspection regime carried out by the Seaway entities.

Complementary Programs with Shared Outcomes: Customer Service and Environmental protection due to vessel customer time savings from consolidated inspections, time and cost savings by resolving problem areas immediately in the Montreal area, and having corrections made before entering U.S. waters. Demonstration of personnel resource FTE and cost-efficiency, resulting from a federal partnership among the Seaway entities and the two Coast Guards to eliminate duplicative inspections.

Activities and Initiatives in FY 2001/2002: Negotiate continuation of the present enhanced inspection program with the USCG; program review and improvements based on vessel customer surveys.

RELIABILITY **Program: U.S. LOCKS AVAILABILITY**

Program Need: The Corporation is responsible for maintaining the U.S. portion of the St. Lawrence Seaway System for safe and efficient transit of vessels and cargo. SLSDC is legislated to construct, operate and maintain federal navigation facilities in the U.S. waters of the St. Lawrence River.

Performance Goal: Improve the reliability and availability of the Locks and related navigation facilities during the navigation season. **The CY 2002 Goal is 99% availability.**

Performance Measure Detail

Indicator: Ratio of navigation days open versus downtime.

CY	Percentage Available
1990	98.0
1991	97.0
1992	96.0
1993	94.0
1994	96.0
1995	99.0
1996	97.0
1997	97.0
1998	98.5
1999	99.2
2000	98.7

(Note: year-to-year variations are detailed in SLSDC annual reports)

Scope: Includes "downtime" (delay or prohibition of transiting) for transit of the U.S. sectors of the St. Lawrence River throughout the navigation season (late March to late December). Downtime is measured in minutes/hours of delay for weather (visibility, fog, snow, ice); vessel incidents (human error, electrical and/or mechanical failure); water level and rate of flow regulation; and lock equipment malfunction.

Source: SLSDC gathers the data from Lock Operations Records.

Baseline: Current baseline data covers CY 1990 to date. Several more years of historical data are available.

Limitations

Data: SLSDC has strong confidence in the validity of the data.

Indicator: The indicator relates to the other SLSDC performance areas of Safety, Trade Development, and Management Accountability, including Customer Service, Fiscal Performance and Cost Effectiveness.

Verification and Validation: 24-hour vessel traffic control computer records; Radio communication among the two Seaway entities and the vessel operators; and video/audio tapes of vessel incidents.

Comment: SLSDC influences the measure through long-term capital planning and investment, consistent facility maintenance, a trained and competent work force and operating procedures.

Special Challenges: Vessel incidents due to human error, electrical or mechanical failure; weather conditions (visibility, wind, fog, ice); aging infrastructure.

Strategies: SLSDC strategies for FY 2002 focus on long-term preventive maintenance and periodic inspections; winter maintenance program; five year capital outlay plan; emergency response and other contingency plans kept current; replenishment of reserves for critical maintenance needs; and implementation of lock structure and maintenance improvement programs as recommended by the U.S. Army Corps of Engineers.

Complementary Programs with Shared Outcomes: SLSMC and the U.S. Army Corps of Engineers maintain identical programs and strategies; includes information exchange with the Panama Canal and the International Canals and Waterways group started by SLSDC in 1993.

Activities and Initiatives in FY 2001/2002: Emphasis for lock operations, maintenance, marine services and engineering functions will include enhanced periodic inspections and surveys; channel sweeping; maintenance dredging; culvert valve and miter gate machinery and structural rehabilitation at both locks with emphasis at the Snell Lock; gatelifter overhaul; preventive maintenance and operating coordination with Canadian counterpart on navigation operating dates, water levels and flows regime, application of GPS technology to vessel tracking systems; maintenance, positioning and retrieval of navigation aids.

RELIABILITY **Program: LOCK EQUIPMENT MAINTENANCE**

Program Need: Ongoing maintenance of the U.S. Locks and navigation related equipment and facilities to ensure maximum operating performance.

Performance Goal: Reduce the risk of vessel delays due to lock and equipment maintenance failure. **The CY 2002 Goal is zero hours of delay.**

Performance Measure Detail

Indicator: Hours of delay per total commercial vessel transits.

CY	Hours Delay Per Total Vessel Transits
1990	0.0000
1991	0.0000
1992	0.0064
1993	0.0061
1994	0.0156
1995	0.0058
1996	0.0016
1997	0.0020
1998	0.0005
1999	0.0004
2000	0.0009

(Note: year-to-year variations are detailed in SLSDC annual reports)

Scope: Includes "downtime" (delay or prohibition of transiting) for transit of the U.S. sectors of the St. Lawrence River throughout the navigation season (late March to late December). Downtime is measured in minutes/hours of delay for electrical and/or mechanical equipment failure due to maintenance.

Source: SLSDC office of Maintenance and Marine Services.

Baseline: Current baseline data covers CY 1990 to date. Several more years of historical data are available.

Limitations

Data: SLSDC has strong confidence in the validity of the data.

Indicator: The indicator relates to the other SLSDC performance areas of Safety, Trade Development, and Management Accountability, including Customer Service, Fiscal Performance and Cost Effectiveness. This indicator is also included in the "Availability" performance measure.

Verification and Validation: SLSDC five-year and one-year maintenance programs, including preventative maintenance computer software. On a daily basis, work orders cover all maintenance activities initiated and completed. Vessel delays, and cause for same are also documented in 24-hour vessel traffic control computer records; and through radio communication among the two Seaway entities and the vessel operators.

Comment: SLSDC influences the measure through long-term capital planning and consistent facility maintenance and investment. Critical programs of the Office of Maintenance and Marine Services have achieved ISO 9002 certification.

Special Challenges: Vessel incidents due to human error, electrical or mechanical failure, resulting in lock facility damage; weather conditions (visibility, wind, fog, ice); limited winter downtime for major maintenance in difficult weather conditions; staffing limitations; and an aging infrastructure.

Strategies: SLSDC strategies for FY 2002 focus on long-term preventive maintenance and periodic inspections; winter maintenance program; five-year capital outlay plan; emergency response and other contingency plans kept current; and replenishment of reserves for critical maintenance needs.

Complementary Programs with Shared Outcomes: Canadian counterpart agency and Corps of Engineers maintain identical programs and strategies; includes information exchange with the Panama Canal and the International Canals and Waterways group started by SLSDC in 1993.

Activities and Initiatives in FY 2001/2002: Emphasis for lock operations, maintenance, marine services and engineering functions will include enhanced periodic inspections and surveys; channel sweeping; maintenance dredging; culvert valve and miter gate machinery and structural rehabilitation at both locks; gatelifter overhaul; preventive maintenance and operating coordination with Canadian counterpart on navigation operating dates, water levels and flows regime, application of GPS technology to vessel tracking systems; maintenance, positioning and retrieval of fixed and floating navigation aids.

In December 1999, the U.S. Army Corps of Engineers provided the SLSDC with its lock survey and evaluation report for the two U.S. Seaway locks. The Corps concluded that the lock structures and equipment were generally well maintained and in good operating condition. However, recommendations were made for maintenance and capital improvements and for modifications to maintenance and operating procedures. SLSDC completed a review and evaluation of the Corps report and completed preliminary project prioritization and cost estimates for the next 10-12 years. At this time, with limited test, design and cost data available, it is estimated that SLSDC could spend over $5.5 million in fiscal years 2001-2009 to implement the recommendations, with an additional estimated $2.0 million to be spent in fiscal years 2010-2015. After receipt and review of the Corps' interim report, the Corporation budgeted $150,000 in fiscal year 2000 to accomplish some of the recommendations. In addition, $720,000 was included in the President's fiscal year 2001 budget request to complete some of the more critical items included in the final report. On May 11, Administrator Jacquez briefed staff from the Senate and House Transportation Appropriations Subcommittees on the Corps' findings.

TRADE DEVELOPMENT **Program: U.S. INTERNATIONAL TONNAGE**

Program Need: This is a traditional trade development initiative encouraged by the Congress as a significant benefit to the Great Lakes region.

Performance Goal: Increase the volume of United States international tonnage through the Seaway System, to and from U.S. ports. **The CY 2002 Goal is an increase over the previous navigation season.**

Performance Measure Detail

Indicator: Annual tonnage volume for U.S. international tonnage.

CY	Metric Tons
1990	8,408,306
1991	6,911,696
1992	7,941,741
1993	9,131,444
1994	11,490,533
1995	12,043,603
1996	11,409,435
1997	8,959,923
1998	11,868,125
1999	11,689,212
2000	10,406,648

(Note: year-to-year variations are detailed in SLSDC annual reports)

Scope: Tonnage transiting the Montreal Lake Ontario Section of the Seaway, to and from overseas and the U.S., by commodity type, plus U.S. movements of grains, coal and coke transshipped through Canada for export from the lower St. Lawrence River.

Source: Seaway statistical data are maintained by the SLSMC Tolls and Statistics Office located in Cornwall, Ontario. The data are obtained from vessel operator/agent documentation required for transit of the Seaway System.

Baseline: Current baseline data covers CY 1990 to date. Several more years of historical data are available. Annual System traffic reports have been published in the same format each year, beginning with the 1959 through the 1998 navigation season. Beginning with 1999 selected traditional format changes have been implemented with no significant loss of comparability with previous years.

Limitations

Data: SLSDC has strong confidence in the validity of the data.

Indicator: The indicator relates to the other SLSDC performance areas of Safety, Reliability, and Management Accountability, including Customer Service, Fiscal Performance and Cost Effectiveness.

Verification and Validation: The SLSMC Tolls and Statistics office is audited annually by the Canadian federal Auditor General's office. In addition to the federal audit internal and external audits are conducted annually on documentation submitted by vessel operators/agents. Joint U.S. and Canadian Seaway regulations require the following: "Documentary evidence, comprising evidence of cargo declared...shall be kept by the agent, owner or operator for a period of five years, or until an audit has been performed...whichever occurs first, and such documents shall be made available to an officer requiring production of such evidence."

Comment: An economic impact assessment published in 1995 estimated the following Seaway System impacts throughout the U.S. Lake port communities: Direct and induced jobs - 50,000; Personal income - $2.1 billion; Business revenue - $1.9 billion; Federal taxes - $155 million; State and local taxes - $101 million. A Canadian assessment states annual generation of $2.1 billion (Canadian $) for the national economy and 17,500 jobs.

Special Challenges: Vessel incidents due to human error, electrical or mechanical failure, resulting in lock facility damage; weather conditions (visibility, wind, fog, ice); global economic factors affecting the demand, production and pricing of commodities (primarily export grains, coal, iron ore and iron and steel) and vessel services; and U.S. and Canadian federal transportation policy decisions.

Strategies: Focus on the ocean vessel fleet in terms of vessel numbers, world fleet supply, ability to use or be fitted for Seaway operation, including newbuildings. Vessel fleet operators are the primary partners in trade development more than any other segment of the industry.

Complementary Programs with Shared Outcomes: Coordination with Canadian counterpart and all segments of the Lakes/Seaway maritime industry including State and port city communities, all of whom benefit from the success of trade development efforts.

Activities and Initiatives in FY 2001/2002: Vessel increased capacity initiatives such as increased beam, draft, and length regulations; toll-free telephone line for customer inquiries; International Canals and Waterways meetings to exchange operating, safety, and long-term planning information; state of the Seaway Fleet analyses; overseas and domestic trade development missions with port, carrier and cargo interests and cruise vessel operators; customer service port pacesetter awards; revision and publication of regional economic impact studies; formation of industry task groups that focus on the problems and potential for selected commodities and or services; Seaway "Nightcast" daily ocean vessel transit information service; Seaway and U.S. trade statistics services; promotional films and brochures; participation in trade exhibitions; publication of Seaway marketing advisories and international calendar of events; implementation of an upgraded binational System website.

TRADE DEVELOPMENT — Program: CRUISE VESSEL ITINERARIES/PASSENGERS

Program Need: The SLSDC has been promoting the Great Lakes St. Lawrence Seaway System to the international cruise vessel community to attract the industry to the region. The introduction and increase in cruise itineraries and passengers correlates to an economic and tourism benefit to the Great Lakes region.

Performance Goal: Increase the number of cruise vessel itineraries and passengers traveling through the Great Lakes Seaway System, to and from U.S. ports, through promotional efforts. **The CY 2002 Goal is an increase in the number of Great Lakes Seaway System cruise vessel itineraries and passengers over the previous navigation season.**

Performance Measure Detail

Indicator: Annual cruise vessel itinerary and passenger totals.

CY	Cruise Vessel Itineraries	Cruise Vessel Passengers
1996	4	360
1997	8	1,720
1998	9	2,310
1999	16	3,180
2000	40	5,848

Scope: The total number of cruise vessel trip itineraries and passengers within the Great Lakes Seaway System during each navigation season.

Source: Statistical data for CYs 1996-1999 supplied by the Mariport Group Ltd., of Cambridge, Ontario, which served as the marketing contractor for Great Lakes Seaway System ports in attracting cruise vessel transits. CY 2000 statistical data supplied by the Great Lakes Cruising Coalition, a consortium of nearly 40 representatives from U.S. and Canadian ports; federal, provincial, state, and local government agencies; and state trade, tourism, and economic development offices. The SLSDC is an ex officio member of the Coalition.

Baseline: Baseline data cover CY 1996 to date.

Limitations

Data: SLSDC has strong confidence in the validity of the data.

Indicator: The indicator relates to the other SLSDC performance areas of Safety, Reliability, and Management Accountability, including Customer Service.

Verification and Validation: Statistical data are generated through direct contact with cruise vessel companies engaged in sailing the Great Lakes Seaway System. All cruise vessel transits are coordinated with the Mariport Group and/or the Great Lakes Cruising Coalition.

Comment: In 1997, the first foreign-flag cruise vessel in 22 years, the *C. Columbus*, transited the Great Lakes Seaway System. Since that transit, Great Lakes Seaway System interests, including the SLSDC, have worked collaboratively to promote the Seaway System to the cruise vessel industry.

Special Challenges: Vessel incidents due to human error, electrical or mechanical failure, resulting in lock facility damage; weather conditions (visibility, wind, fog, ice); and global economic factors such as consumer disposable income affecting demand for cruise itineraries.

Strategies: SLSDC strategies for FY 2002 focus on promoting the entire Great Lakes Seaway System to current and prospective cruise vessel companies and working in close coordination with the Canadian SLSMC and Great Lakes Cruising Coalition. In addition, the SLSDC will continue to serve as co-chair of the Cruising Subcommittee of the U.S. Coast Guard's Great Lakes Waterways Management Forum. The subcommittee is working to harmonize U.S. and Canadian Great Lakes Seaway System regulations related to the cruise vessel industry, through collaboration with U.S. Customs, Immigration and Naturalization Service, and U.S. Department of Agriculture officials.

Complementary Programs with Shared Outcomes: Coordination with the Canadian SLSMC, the Great Lakes Cruising Coalition and all segments of the Great Lakes Seaway System maritime industry, including state and local port and tourism communities, all of whom economically benefit from cruise vessel transits.

Activities and Initiatives in FY 2001/2002: Trade Development programs targeting the cruise vessel industry, including participation on the Great Lakes Cruising Coalition; meeting with potential and current cruise operators in the Great Lakes; development of a Great Lakes Seaway System cruise display; participation and exhibition in the annual Seatrade Cruise Convention in Miami, Florida; development of a Great Lakes Seaway System cruise vessel technical guide; and production of a marketing brochure highlighting the advantages of cruising the Great Lakes Seaway System. In addition, the SLSDC will continue to co-chair the Cruising Subcommittee of the Great Lakes Waterways Management Forum.

MANAGEMENT ACCOUNTABILITY **Program: CUSTOMER SERVICE**

Program Need: High priority traditional program (vessel customer in particular).

Performance Goal: Achieve a high level of vessel customer satisfaction through survey and rating of SLSDC services and performance. **The Goal for CY 2002 and beyond is to follow-through with a planned biennial vessel customer survey program plan established in CY 1998.**

Performance Measure Detail

Indicator: Customer survey numeric scale service rating.

Scope: The surveys are jointly designed by the two Seaway entities, with two separate surveys in recognition of the different operations of Ocean fleet and the Canadian (Laker) fleet. Narrative responses and comments solicited from both fleets include: floating and fixed aids to navigation; radio communications in general, and with vessel traffic control sites in particular; lock transit procedures; port services; traffic information, dispatching; tug services; and general System information. In addition, the ocean fleet is asked to respond on Port State Control inspections; Seaway vessel requirements for transit; and pilotage services. Both surveys include a table of numerical service-satisfaction ratings on a scale of 1 to 5.

Source: The Laker and Ocean fleet vessel Masters are requested to participate in the survey, that is furnished to them on their first upbound transit for the navigation season and returned on their exit downbound. Individual vessels are surveyed only once.

Baseline: The first formal Customer Exit Survey was operational throughout the CY 1995 navigation season. The Seaway entities achieved an overall service satisfaction rating of 4.5 on the scale of 1 to 5. The survey response rate was 61% of total surveys issued. A second survey conducted during 1998 virtually repeated the 1995 results.

A third joint SLSDC/SLSMC customer survey for CY 2000 shifts the customer base focus from the vessel masters to the vessel agents, owners and operators of the ocean and laker fleets. This most recent effort will be completed during FY 2001.

Limitations

Data: SLSDC has strong confidence in the validity of the data.

Indicator: The indicator relates to the other SLSDC performance areas of Safety, Reliability, and Trade Development.

Verification and Validation: A joint Seaway entity committee is responsible for evaluation and implementation of survey program results. When proposed respondent suggestions are feasible for immediate implementation the action is taken during the course of the shipping season. Other feasible improvements requiring interagency longer-term planning and coordination, or off-season work are implemented accordingly.

Special Challenges: Overcoming the unfamiliar potential customer misconceptions about the System, such as vessel size and shipping season limitations; weather conditions (visibility, wind, fog, ice); global economic factors affecting the demand, production and pricing of commodities (primarily export grains, coal, iron ore and iron and steel) and vessel services; and U.S. and Canadian federal transportation policy decisions.

Strategies: ISO 9002 certification. On June 13, 2000, SLSDC's Lock Operations and Maintenance programs together with two additional Office of Administration programs, i.e., Software Development and Maintenance and the SLSDC Suggestion Program, were reviewed and assessed by London-based Lloyd's Register of Quality Assurance for compliance with ISO 9002 certification requirements. In 1998, SLSDC's vessel inspection program was certified, followed in 1999 by vessel traffic management, aids to navigation, personnel, administrative support and management information services. The new certification ties together those SLSDC programs and areas already certified with the programs recently reviewed by issuing compliance for "all operations, maintenance and administration of the U.S. locks and contingent U.S. waters of the St. Lawrence Seaway". The Corporation will continue outreach and response with all customers, namely, employees, the Great Lakes St Lawrence Seaway System maritime industry, federal, state and local government agencies.

Complementary Programs with Shared Outcomes: Partnering with carriers, port and other maritime industry customers; other federal (Corps, Coast Guard, SLSMC); community and education programs with other significant employers in the Massena area; includes employee customer outreach.

Activities and Initiatives in FY 2001/2002: Relates directly to all Trade Development activities; customer surveys; ISO 9002 certification throughout the Corporation and encourage same among Seaway service industries; Seaway Summits and related work group meetings jointly sponsored with Canadian counterpart; annual Industry Day meetings with vessel operators; participation in maritime industry and association meetings, seminars, and workshops throughout the year and throughout the Midwest region; selected issue public outreach meetings; reduction and simplification of internal and external regulations; Ice breaking and tug assistance with Seaway vessels; development and publication of customer service standards; grounds landscaping, beautification programs including enhancement of the visitors center facilities for tourists, the local community and employee customers; local community adopt-a-school and related education programs; employee customer partnerships, communication, worklife programs and cultural audit surveys.

MANAGEMENT ACCOUNTABILITY — Program: EMERGENCY RESERVE

Program Need: The emergency reserve serves primarily as a financial contingency fund for swift recovery from a catastrophic emergency to the lock facilities and/or critical capital outlay needs (not budgeted).

Performance Goal: Maintain the emergency reserve account at a level sufficient to ensure contingency funding for catastrophic emergencies and funding of critical capital outlay needs. **The FY 2002 Goal is to maintain a minimum year-end annual reserve balance of $10 million.**

Performance Measure Detail

Indicator: Historical record of reserve account fiscal year-end balances. The FY 2000 balance was $10.2 million.

FY	$ (Millions)
1990	11.1
1991	11.6
1992	12.6
1993	11.9
1994	11.8
1995	11.9
1996	11.2
1997	10.3
1998	10.0
1999	10.2
2000	10.2

(Note: year-to-year variations are detailed in SLSDC annual reports)

Scope: The level of certificates of deposit plus interest, held in the Minority Bank Program (120 banks) throughout the United States. The goal is to maintain a base level of $10 million in the reserve.

Source: Office of Finance records, and annual external audit reports.

Baseline: Current baseline data covers FY 1990 to date. Several more years of historical data are available.

Limitations

Data: SLSDC has strong confidence in the validity of the data.

Indicator: The indicator relates to the other SLSDC performance areas of Safety, Reliability, and Trade Development.

Verification and Validation: Office of Finance records, and annual external audit reports. Annual financial/management reports have been published since the Corporation was established in 1954.

Comment: The reserve funds represent funds earned by SLSDC from toll collections and miscellaneous revenue in excess of costs prior to April 1, 1987, and miscellaneous income, since that date, when the Corporation became appropriated by the Water Resources Development Act of 1986. The Corporation must be in a position to immediately react to emergencies that could affect Seaway navigation facilities, in particular lock walls, lock gates, tunnel failure or any similar catastrophic impact to either of the U.S. locks. Estimates of double lock gate failure and replacement to maintain operations range up to $12 million depending upon the cause and extent of damage, repair, or replacement to become operational. A 1985 incident at the Welland Canal trapped 53 vessels above the Canal for 24 days at a cost to the carriers of $24 million; the Seaway Authority expended $7.8 million for emergency repairs and another $5 million for permanent repair during the winter shutdown. A similar incident in 1984 (bridge failure) trapped 61 vessels for 19 days at an estimated cost of $22 million to the carriers. Daily vessel operating costs can

range $15,000 to $25,000; these are costs incurred whether sailing, in port, or awaiting resolution of an emergency. System integrity is seriously impacted by shutdowns. The main interest of overseas contacts, through correspondence and trade development activities is what were we doing to prevent future shutdown incidents such as in 1984 and 1985.

Strategies: Strive to maintain the base level on the reserve account, in accordance with long-range contingency needs.

Complementary Programs with Shared Outcomes: SLSDC benefits the Department of the Treasury Minority Banks Program throughout the country; bank interest income is also reinvested in the reserve or programmed for use as needed to reduce appropriations. Our Canadian counterpart also has a reserve invested in Canadian federal securities.

Activities and Initiatives in FY 2001/2002: Perform preventative maintenance programs at the U.S. locks during the winter months in order to lessen the chance of critical capital outlay needs that would require reserve funds. Build the reserves to extent possible based on annual budget justifications and miscellaneous income levels.

MANAGEMENT ACCOUNTABILITY — Program: ADMINISTRATIVE EXPENSES

Program Need: A long-term management goal.

Performance Goal: Reduce administrative overhead expense ratio of total operating expenses, excluding depreciation. **The FY 2002 Goal is a ratio of 25% or lower.**

Performance Measure Detail

Indicator: Historical record of administrative and operating expenses at fiscal year end. The FY 2000 ratio was 26.2%.

FY	Percentage of Administrative Expenses
1991	24.3
1992	26.2
1993	25.2
1994	25.5
1995	26.8
1996	27.1
1997	26.7
1998	25.6
1999	24.5
2000	26.2

Scope: Administrative expenses include: executive management and administration of the Corporation includes legal, civil rights, accounting, procurement, human resources, and related administrative support services.

Source: SLSDC Office of Finance records.

Baseline: Current baseline data covers FY 1991 to date. Several more years of historical data are available.

Limitations

Data: SLSDC has strong confidence in the validity of the data.

Indicator: The indicator relates to the other SLSDC performance areas of Safety, Reliability, and Trade Development.

Verification and Validation: Office of Finance records, and annual external audit reports.

Special Challenges: Monitoring expenses to insure proper ratio of administrative to operating expenses.

Strategies: Not backfilling vacancies, reduce supplies and materials, contractual services and working capital services.

Complementary Programs with Shared Outcomes: Accountability, streamlining.

Activities and Initiatives in FY 2001/2002: Management oversight.

MANAGEMENT ACCOUNTABILITY — Program: CLEAN AUDIT

Program Need: Annual financial audit required by Chief Financial Officers Act of 1990 and Comptroller General's Government Auditing Standards.

Performance Goal: Achieve a high annual external financial audit rating for financial statements, accounting systems and internal controls. The FY 2002 Goal is a "clean" unqualified audit rating.

Performance Measure Detail

Indicator: Historical record of audit marks.

Scope: Includes SLSDC financial records that are audited, and an annual management report that is not audited. The report is issued March 31 each year covering the previous fiscal year.

Source: Auditor report on review of financial records included in the SLSDC annual financial report.

Baseline: Most recent year FY 2000 "clean" unqualified audit mark. Several more years of historical data are available.

Limitations

Data: SLSDC has strong confidence in the validity of the data.

Indicator: The indicator relates to the other SLSDC performance areas of Safety, Reliability, and Trade Development.

Verification and Validation: Office of Finance records, and annual external audit reports. SLSDC has had a "clean" audit since the first Fiscal Year audit of June 30, 1955.

Special Challenges: Ensuring that assets are safeguarded and transactions performed in accordance with accepted accounting principles.

Strategies: Internal controls, staffing competency, periodic risk assessments.

Complementary Programs with Shared Outcomes: SLSDC long-term management accountability in all performance areas.

Activities and Initiatives in FY 2001/2002: Continued oversight by Office of Finance.

DEPARTMENT OF TRANSPORATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

FEDERAL FUNDS

Public enterprise funds:

Saint Lawrence Seaway Development Corporation

The Saint Lawrence Seaway Development Corporation is hereby authorized to make such expenditures, within the limits of funds and borrowing authority available to the Corporation, and in accord with law, and to make such contracts and commitments without regard to fiscal year limitations as provided by section 104 of the Government Corporation Control Act, as amended, as may be necessary in carrying out the programs set forth in the Corporation's budget for the current fiscal year. *(Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101 (a) of Public Law 106-346.)*

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Program and Financing (In thousands of dollars)

Identification code 69-4089-0-3-403	2000 actual	2001 estimate	2002 estimate
Obligations by program activity:			
00.01 Operations and maintenance (HMTF)	11,858	12,797	13,245
00.02 Replacements and improvements	1,285	1,078	1,000
10.00 Total new obligations	13,143	13,875	14,245
Budgetary resources available for obligation:			
Unobligated balance available, start of year:			
21.47 Authority to borrow	3,200	3,200	3,200
21.90 Fund balance	10,201	10,221	10,221
21.99 Total unobligated balance available, start of year	13,401	13,421	13,421
22.00 New budget authority (gross)	13,064	13,875	14,245
22.10 Resources available from recoveries of prior year obligations	99	...	...
23.90 Total budgetary resources available for obligation	26,564	27,296	27,666
23.95 Total new obligations	(13,143)	(13,875)	(14,245)
Unobligated balance available, end of year:			
24.47 Authority to borrow	3,200	3,200	3,200
24.90 Fund balance	10,221	10,221	10,221
24.99 Total unobligated balance available, end of year	13,421	13,421	13,421
New budget authority (gross), detail:			
Discretionary spending authority from offsetting collections:			
68.00 Offsetting collections (cash)	13,163	13,875	14,245
68.10 Change in receivables and unpaid unfilled orders	111	...	...
68.15 Adjustment to receivables and unpaid unfilled orders	(210)	...	...
68.90 Spending authority from offsetting collections (total discretionary)	13,064	13,875	14,245
70.00 Total new budget authority (gross)	13,064	13,875	14,245
Change in unpaid obligations:			
Unpaid obligations, start of year:			
72.90 Fund balance	2,687	3,072	2,172
72.95 from federal sources: Receivables and unpaid unfilled orders	231	343	343
72.99 Total unpaid obligations, start of year	2,918	3,415	2,515
73.10 Total new obligations	13,143	13,875	14,245
73.20 Total outlays (gross)	(12,757)	(13,875)	(14,245)
73.40 Adjustments in expired accounts (net)	210	...	...
73.45 Adjustments in unexpired accounts	(99)	...	...
Unpaid obligations, end of year			
74.90 Fund balance	3,072	2,172	2,172
74.95 from Federal sources: Receivables and unpaid unfilled orders	343	343	343
74.99 Total unpaid obligations, end of year	3,415	2,515	2,515
Outlays (gross), detail:			
86.90 Outlays from new discretionary authority	13,064	13,875	14,245
86.93 Outlays from discretionary balances	(307)	0	0
87.00 Total outlays (gross)	12,757	13,875	14,245
Offsets:			
Against gross budget authority and outlays:			
Offsetting collections (cash) from:			
88.00 Federal sources	11,971	12,975	13,345
88.40 Non-Federal sources	1,192	900	900
88.90 Total offsetting collections (cash)	13,163	13,875	14,245
Against gross budget authority only:			
88.95 Change in receivables and unpaid unfilled orders	111	...	...
88.96 Adjustment to receivables and unpaid unfilled orders	(210)	...	...
Net budget authority and outlays:			
90.00 Outlays (net)	(406)	...	...

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

PROGRAM AND PERFORMANCE

The Saint Lawrence Seaway Development Corporation (SLSDC) is a wholly owned Government Corporation responsible for the operation, maintenance and development of the United States portion of the St. Lawrence Seaway between Montreal and Lake Erie. Major priorities are to control Seaway Corporation costs and to encourage increased use of the Seaway system.

Appropriations from the Harbor Maintenance Trust Fund and revenues from non-federal sources are intended to finance the operation and maintenance of the portion of the Seaway for which the Corporation is responsible.

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Statement of Operations (In thousands of dollars)

Identification code 69-4089-0-3-403	2000 actual	2001 estimate	2002 estimate
0191 Revenue	12,234	12,797	13,245
0192 Expense	(11,372)	(12,797)	(13,245)
0199 Net income or loss (-)	862	...	...

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Balance Sheet (in thousands of dollars)

Identification code 69-4089-0-3-403	1999 actual	2000 actual	2001 estimate	2002 estimate
Assets:				
Federal assets:				
1101 Fund balance with Treasury	1,006	1,421	1,016	996
1106 Receivables, net	...	...	...	...
1107 Advances and prepayments	...	...	...	...
Non-Federal assets:				
1201 Investments in non-Federal securities	7	7	7	7
1206 Receivables, net	151	141	168	173
1207 Advances and prepayments	80	202	...	...
Other Federal assets:				
1801 Cash and other monetary assets	12,588	12,631	12,759	13,078
1803 Property, plant and equipment, net	85,455	83,840	86,909	86,766
1901 Other assets	1,624	1,563	1,661	1,674
1999 Total assets	100,911	99,805	102,520	102,684
Liabilities:				
Federal liabilities:				
2101 Accounts payable	...	...	...	...
Non-Federal liabilities:				
2201 Accounts payable	1,993	1,718	2,119	2,135
2206 Pension and other actuarial liabilities	1,624	1,562	1,661	1,674
2207 Other	...	...	...	...
2999 Total liabilities	3,617	3,280	3,780	3,809
Net Position:				
3200 Invested capital	100,262	98,630	101,737	101,978
3300 Cumulative results of operations	(2,968)	(2,105)	(2,997)	(3,103)
3999 Total net position	97,294	96,525	98,740	98,875
4999 Total liabilities and net position	100,911	99,805	102,520	102,684

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Object Classification (In thousands of dollars)

Identification code 69-4089-0-3-403	2000 actual	2001 estimate	2002 estimate
Personnel Compensation:			
11.1 Full-time permanent	6,962	7,421	7,844
11.3 Other than full-time permanent	227	322	353
11.5 Other personnel compensation	440	513	557
11.9 Total personnel compensation	7,629	8,256	8,554
12.1 Civilian personnel benefits	1,854	2,008	2,080
21.0 Travel and transportation of persons	182	184	190
22.0 Transportation of things	6	11	10
23.1 Rental payments to GSA	185	191	198
23.2 Rental payments to others	14	14	14
23.3 Communications, utilities, and miscellaneous charges	224	235	246
24.0 Printing and reproduction	19	22	15
25.2 Other services	825	468	446
25.3 Purchases of goods and services from Government accounts	449	162	169
25.4 Operation and maintenance of facilities	133	301	431
25.6 Medical care	22	10	10
25.7 Operation and maintenance of equipment	108	130	167
26.0 Supplies and materials	697	729	715
31.0 Equipment	659	76	160
32.0 Land and structures	137	1,076	840
99.9 Total new obligations	13,143	13,875	14,245

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Personnel Summary

Identification code 69-4089-0-3-403	2000 actual	2001 estimate	2002 estimate
Total compensable work years:			
5001 Full-time equivalent employment	148	157	157
5005 Full-time equivalent of overtime and holiday hours	5	6	6

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

TRUST FUNDS

OPERATIONS AND MAINTENANCE

(Harbor Maintenance Trust Fund)

For necessary expenses for operations and maintenance of those portions of the Saint Lawrence Seaway operated and maintained by the Saint Lawrence Seaway Development Corporation, [$13,004,000], $13,345,000 to be derived from the Harbor Maintenance Trust Fund, pursuant to Public Law 99-662. (Department of Transportation and Related Agencies Appropriations Act, 2001, as enacted by section 101 (a) of Public Law 106-346.)

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
OPERATIONS AND MAINTENANCE
Program and Financing (in thousands of dollars)

Identification code 69-8003-0-7-403	2000 actual	2001 estimate	2002 estimate
Obligations by program activity:			
10.00 Total new obligations (object class 25.2)	11,971	12,975	13,345
Budgetary resources available for obligation:			
22.00 New budget authority (gross)	11,971	12,975	13,345
23.95 Total new obligations	(11,971)	(12,975)	(13,345)
New budget authority (gross), detail:			
Discretionary			
40.26 Appropriation (trust fund, definite)	12,042	13,004	13,345
40.75 Reduction pursuant to PL 106-69	(25)	...	
40.75 Reduction pursuant to PL 106-113	(46)	...	
40.75 Reduction pursuant to PL 106-554	...	(29)	...
43.00 Appropriation (total discretionary)	11,971	12,975	13,345
Change in unpaid obligations:			
73.10 Total new obligations	11,971	12,975	13,345
73.20 Total outlays (gross) (-)	(11,971)	(12,975)	(13,345)
Outlays (gross), detail:			
86.90 Outlays from new discretionary authority	11,971	12,975	13,345
New budget authority and outlays:			
89.00 Budget authority	11,971	12,975	13,345
90.00 Outlays	11,971	12,975	13,345

The Water Resources Development Act of 1986 authorizes use of the Harbor Maintenance Trust Fund as the major source of funding for the Corporation's operations and maintenance activities.

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Summary of Expenses by Activity (in thousands of dollars)

	2000 actual	2001 estimated	2002 estimated
Operation and maintenance:			
1. Locks and marine	2,601	2,699	2,794
2. Maintenance and engineering	3,363	3,629	3,756
3. General and development	2,936	3,169	3,279
4. Administrative	3,058	3,300	3,416
Total operation and maintenance	**11,858**	**12,797**	**13,245**
Replacements and improvements:			
1. Equipment	221	0	160
2. Capital projects	1,064	1,078	840
Total replacements and improvements	**1,285**	**1,078**	**1,000**
Total obligations	**13,143**	**13,875**	**14,245**

	2,000	2,001	2,002
Authorized Positions by Activity:			
1. Locks and marine	55	56	56
2. Maintenance and engineering	51	56	56
3. General and development	10	12	12
4. Administrative	32	33	33
Total positions	**148**	**157**	**157**

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Summary of Travel and Transportation of Persons
(In thousands of dollars)

	2000 actual	2001 estimated	2002 estimated
Field Offices:			
1. Operations	43	50	50
2. Customer service/government meetings/conferences	18	23	23
3. To and from DC	9	9	9
Subtotal	**70**	**82**	**82**
DC Office:			
1. Operations	15	17	16
2. Customer service/government meetings/conferences	39	41	39
3. To and from Massena	16	19	18
4. Trade Development Program	42	25	35
Subtotal	**112**	**102**	**108**
Grand Total	**182**	**184**	**190**

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Estimated Other Services (In thousands of dollars)
(Includes Object Class 25.1, 25.2, 25.3, 25.4, 25.6, 25.7, and 25.8)

	FY 2001	FY 2002
Trade development	12	35
Transportation Administrative Service Center (TASC)	162	169
Trade studies (vessel fleet/environmental shift)	22	20
Binational website	109	107
Consulting services	18	18
Congressional trips	10	5
Network contract	13	13
St. Lawrence Seaway Management Corporation services	55	55
Financial audit	32	32
Payments in-lieu-of taxes	25	26
Hazardous waste removal	15	18
Administration building services	20	22
Crack grouting	...	97
Building masonry repairs	...	18
Energy related repairs at Administration Building	...	28
Miter gates finite element analysis	112	...
Crossunder stairways repair	60	...
Vertical lift gate structural evaluation	...	28
Miter gate rehabilitation	...	115
Navigational aids, mooring cells, and docks	22	22
Tunnel wingwalls (drainage improvements/tile and liner)	33	50
Lock monumentation	...	28
Buoy barge maintenance	...	60
Asbestos abatement	54	10
Telephone service	18	20
Trash removal	15	18
Weather system maintenance (NOAA)	45	45
Maintenance of high voltage lines (New York Power Authority)	13	15
Radio - Sodus, NY	18	20
Medical care	10	10
Uniforms (2-year agreement)	3	24
Training	68	65
Operation and maintenance of facilities	10	10
Operation and maintenance of equipment	45	20
Miscellaneous	52	...
Total	1,071	1,223

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
OPERATIONS AND MAINTENANCE

GENERAL JUSTIFICATION

Activities financed by this program include functions described below. Corporation objectives are to continue to operate the system in a safe, reliable, and efficient manner while interfacing with a multitude of diverse interests that share the common goal of expanding commerce on the Great Lakes/Seaway System.

Locks and Marine Operations - Lock Operations and vessel traffic control on the St. Lawrence Seaway are conducted on a 24-hour day, 7-day week basis throughout the shipping season. Marine operations consist of commissioning and decommissioning aids to navigation, channel dredging and maintenance, tugboat and other floating equipment services.

Maintenance and Engineering - The Corporation facilities must be maintained in efficient operating condition. Facilities include locks and guidewalls; roads and bridges; channels; public use facilities; navigation aids; buildings, grounds, and utilities; and permanent operating equipment. Major maintenance on existing facilities will continue to be performed during the non-navigation season.

General and Development - The Corporation engages in activities designed to increase public awareness of the Seaway. This includes costs associated with strategies aimed at identifying new markets for, and increasing use of, the system.

Administrative - Executive management and administration of the Corporation includes legal, civil rights, accounting, procurement, computer, personnel administration, and other related administrative support services.

Replacements and Improvements - Capital expenditures provide for the continuation and improvement of the navigation system and lock operations, and the replacement of equipment, machinery, and tools.

	2001 Budget	2002 Estimated	Difference
Full-time Equivalent Employment	157	157	0
Program Level (in thousands):			
Operating Expenses	12,797	13,245	448
Replacements and Improvements	1,078	1,000	-78
Total	13,875	14,245	370
Funding (in thousands):			
Trust/Special Fund	12,975	13,345	370
Non-Federal Revenues	900	900	0
Total	13,875	14,245	370

Changes in resources: The Corporation's FY 2002 budget projects expenditures of $14,245,000. This amount includes $13,245,000 to fund operations and maintenance and $1,000,000 for replacements and improvements. The Corporation proposes to fund the program level from new budget authority of $13,345,000 and non-federal revenues of $900,000

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

PROGRAM CHANGES
(In thousands of dollars)

Personnel compensation and benefits:	
FY 2001 annualization and FY 2002 pay increases	335
Other mandatory pay increases	35
Sub-total, personnel compensation and benefits	370
Other costs:	
Replacements and improvements	-78
Contract increases	18
Maintenance projects	60
Sub-total, other costs	0
Total program changes	370

The FY 2002 program yields a net increase of $370,000 compared to FY 2001. Net personnel compensation and benefits increase $370,000 for pay increases. Replacement and improvement projects decrease $78,000 offset by contract increases of $18,000 and increased maintenance projects of $60,000.

DEPARTMENT OF TRANSPORTATION

SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

FY2002 CAPITAL PLAN SUMMARY

CAPITAL EQUIPMENT		
1. Office and Computer Equipment		20,000
2. Light Trucks and Electric Carts		95,000
3. Miscellaneous Equipment, Tools and Parts		25,000
4. Emergency Response Equipment		20,000
	Sub-total	160,000
CAPITAL PROJECTS		
1. Wastewater Treatment Facility Replacement at Eisenhower Visitors' Center		120,000
2. Water Quality Improvements at Eisenhower		250,000
3. Electronic Equipment Replacement		35,000
4. Electrical Equipment Upgrade		30,000
5. Mechanical Equipment Upgrade		30,000
6. Approach Wall Fendering Improvements		30,000
7. Safety and Environmental Improvements		25,000
8. AIS/GPS Project		200,000
9. Culvert Valve Redesign (Corps)		30,000
10. Vertical Lift Gate Cable Modifications (Corps)		40,000
11. Load Indicating Devices for Stiffleg Derricks (Corps)		50,000
	Sub-total	840,000
	Total	1,000,000

DEPARTMENT OF TRANSPORTATION

SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

FY2002 CAPITAL PLAN PROJECT DESCRIPTIONS

CAPITAL EQUIPMENT

1. Office and Computer Equipment - $ 20,000
   Replace copier in Management Support which is utilized to make approximately 250,000 copies annually and is requiring frequent service.

2. Light Trucks and Electric Carts - $ 95,000
   Three (3) light trucks utilized to perform lock and facility maintenance, as well as service aids to navigation along the River, will be replaced in accordance with GSA criteria. Four (4) electric carts used by Linehandlers at Eisenhower and Snell Locks will also be replaced this year.

3. Miscellaneous Equipment, Tools and Parts - $ 25,000
   Replace an existing lathe in the Mechanical Shop which is over 50 years old.

4. Emergency Response Equipment - $ 20,000
   Replace unserviceable oil boom and upgrade the emergency response equipment as required.

CAPITAL PROJECTS

1. Wastewater Treatment Facility Replacement at Eisenhower Visitors' Center - $ 120,000
   Replace the deteriorated package sewage treatment plant at the Eisenhower Visitors' Center with a septic/leach field system. The existing plant was installed in 1962 and major maintenance is required to replace deteriorating components. Replacing this package unit with a septic/leach field system will eliminate the need for certified operators and will reduce testing requirements.

2. Water Quality Improvements at Eisenhower - $ 250,000
   The facilities at Eisenhower Lock are serviced by an on-site well which produces water with high Sulfate levels. These high levels cause plugging of pipes and fixtures and cause problems with the taste of the water. Plans are to discontinue use of the well and to get potable water from the town/village of Massena through their distribution system. This will reduce maintenance costs and testing requirements.

3. Electronic Equipment Replacement - $ 35,000
   This is a multi-year program to upgrade the CCTV systems by replacing cameras, receiver boards, modems, demodulators, etc.

4. Electrical Equipment Upgrade- $ 30,000
   This is an ongoing project to replace aging/unserviceable electrical equipment to reduce maintenance costs and assure continued reliability of the equipment. Upgrading electrical equipment also improves the safety for employees operating and maintaining the equipment.

5. **Mechanical Equipment Upgrade - $ 30,000**
This is an ongoing project to replace worn/unserviceable mechanical components of lock operating machinery (i.e., miter gates, culvert valves, vertical lift gate, wire rope fenders, etc.) with new components made from more wear and corrosion resistant materials to improve the reliability of the equipment. Where corrosion of hydraulic components is involved, these improvements also provide additional environmental protection.

6. **Approach Wall Fendering Improvements - $ 30,000**
Replace worn/unserviceable fendering on lock approach walls with improved rubber/composite fenders.

7. **Safety and Environmental Improvements - $ 25,000**
This is an ongoing project to provide a safer and healthier workplace for employees and to make improvements to the environmental program to insure compliance with the changing regulations. In the area of safety, improvements would be made to address respiratory and fall and hearing protection. Environmental improvements would be targeted at pollution prevention, recycling and energy efficiency.

8. **AIS/GPS Project - $ 200,000**
This is the last year of the multi-year Automatic Identification System/Global Positioning System (AIS/GPS) Project for applying cutting-edge AIS technology to enhance marine navigation and Vessel Traffic Services (VTS) in the St. Lawrence Seaway and Great Lakes System. This year's program will ensure the completion of the installation and testing of the AIS shore-side communication stations prior to April 1, 2002, when all commercial vessels transiting the Seaway will be required to have the AIS equipment on-board. This also includes providing technical support and the required coordination for implementation of AIS-based Vessel Traffic Services System not only for the Seaway but also for U.S. and Canadian Coast Guard VTS regions.

9. **Culvert Valve Redesign - $ 30,000**
Design a new single skin culvert valve to replace the existing original valves which are corroded and beginning to display an increased frequency of fatigue cracking. The existing culvert valves are double skin and there is no way to prevent corrosion of the interior surfaces, as they are not accessible. (Recommended by the Corps of Engineers.)

10. **Vertical Lift Gate Cable Modifications - $ 40,000**
This project is to shorten the cables that are used to raise and lower the vertical lift gate. These cables were installed in 1930 and have stretched and been adjusted such that there is no further adjustment in some of the turnbuckles. The sections of cable being removed will be analyzed to determine when these cables will require replacement again. (Recommended by the Corps of Engineers.)

11. **Load Indicating Devices for Stiffleg Derricks - $ 50,000**
Install load-indicating devices on the four (4) stiffleg derricks to improve the safety and efficiency of operations for placing and removing sloplogs. (Recommended by the Corps of Engineers.)

DEPARTMENT OF TRANSPORTATION

SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

FY2002 Capital Plan
Project Priority

Priority	Project	Amount
1	AIS/GPS Project	200,000
2	Safety and Environmental Improvements	25,000
3	Emergency Response Equipment	20,000
4	Electronic Equipment Replacement	35,000
5	Mechanical Equipment Upgrade	30,000
6	Electrical Equipment Upgrade	30,000
7	Culvert Valve Redesign (Corps)	30,000
8	Vertical Lift Gate Cable Modifications (Corps)	40,000
9	Water Quality Improvements at Eisenhower	250,000
10	Approach Wall Fendering Improvements	30,000
11	Load Indicating Devices for Stiffleg Derricks (Corps)	50,000
12	Light Trucks and Electric Carts	95,000
13	Wastewater Treatment Facility Replacement	120,000
14	Miscellaneous Equipment, Tools and Parts	25,000
15	Office and Computer Equipment	20,000
	Total	1,000,000

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Ten-Year History of Appropriations

Fiscal Year	Appropriation
2001	13,004,000
2000	12,042,000
1999	11,496,000
1998	11,200,000
1997	10,337,000
1996	10,150,000
1995	10,251,000
1994	10,765,000
1993	10,625,000
1992	10,550,000

OPERATIONS AND MAINTENANCE

(HARBOR MAINTENANCE TRUST FUND)

	ESTIMATES		APPROPRIATIONS
1992	$10,800,000	1992	$10,550,000
1993	12,080,000	1993	10,825,000
1993 (Supp.) Rescission	0	1993 (Supp.) Rescission	-91,000
1994	10,915,000	1994	10,765,000
1995	10,271,000	1995 1	10,229,000
1995 (Supp.) Rescission	0	1995 (Supp.) Rescission	-36,000
1996	10,243,000	1996 2	9,564,000
1996 (Supp.) Rescission	0	1996 (Supp.) Rescission	-15,000
1997	10,065,000	1997 3	10,322,296
1998	(5)	1998 4	11,193,000
1999	(5)	1999 6	11,460,000
2000	(5)	2000 7	11,971,000
2001	(5)	2001 8	12,975,391
2002	13,345,000		

1. Reflects reductions of $12,000 for working capital fund (Sec. 330) and bonuses and awards (Sec. 331) (P.L. 108-331). Also a reduction of $10,000 from SLSDC fund for procurement reform (Sec. 323/P.L. 103-331).

2. Reflects reduction of $586,000 for working capital fund, bonuses and awards and field office consolidation.

3. Reflects reduction of $12,704 for TASC (Sec. 321) and $2,000 for awards (Sec. 346).

4. Reflects reduction of $7,000 for TASC (Sec. 320).

5. Proposed as a performance-based organization using mandatory (permanent) budget authority.

6. Reflects reduction of $1,150,000 for decreased tonnage in 1997 and return of pilotage act functions to Coast Guard. Also a reduction of $20,00 for TASC (Sec. 320, P.L. 105-277) and $16,000 rescission pursuant to P.L. 106-51.

7. Reflects reduction of $25,000 pursuant to P.L. 106-69 for TASC (Sec. 319) and $46,000 (.38%) government-wide reduction pursuant to P.L. 106-113.

8. Reflects reduction of $28,609 (.22%) pursuant to P.L. 106-554 (Sec. 1403).

Surface Transportation Board
Washington, D.C. 20423-0001

Office of the Chairman

April 9, 2001

The Honorable C.W. Bill Young
Chairman
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Young:

The fiscal year (FY) 2002 budget request and justification for the Surface Transportation Board are enclosed. In accordance with the ICC Termination Act of 1995, P.L. 104-88, I am transmitting this appropriation request to Congress and the Administration concurrently.

Specifically, the Board is requesting a funding level of $18.457 million, which mirrors the Board's enacted FY 2001 appropriation, adjusted for the 3.6 percent civilian pay raise for FY 2002. The Board is also requesting an appropriation of $18.457 million and the provision that $.950 million from fees established by the Board, pursuant to 31 U.S.C. 9701, shall be credited to this appropriation as offsetting collections, which is the same appropriation language enacted for FY 2001. This budget request and funding level are identical to the President's budget request.

The Board is sending an identical package to the Senate Appropriations Committee.

Sincerely

Linda J. Morgan

Linda J. Morgan

Enclosures

cc: Chairman Harold Rogers

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Surface Transportation Board

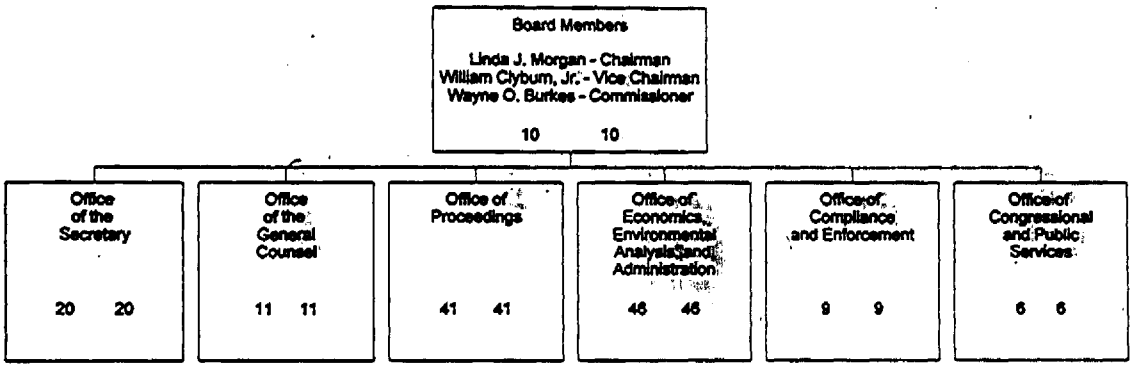
Budget Request

FY 2002

April 2001

Surface Transportation Board

FTEs for FY 2002 Budget Request



Numbers to the left represent FY 2001 FTEs, numbers to the right represent FY 2002 FTEs. The number of Full-Time Permanent Positions and FTEs are the same. The total number of FTEs for the Surface Transportation Board is 143 for FY 2001 and 143 for FY 2002.

SURFACE TRANSPORTATION BOARD

OVERVIEW OF BOARD AND BUDGET REQUEST

The Surface Transportation Board (Board) is a three-member, bipartisan, decisionally independent adjudicatory body organizationally housed within the Department of Transportation (DOT) with jurisdiction over certain surface transportation economic regulatory matters. The Board was established pursuant to P.L. 104-88, the ICC Termination Act of 1995 (ICCTA). Consistent with the trend toward less economic regulation of the surface transportation industry, the ICCTA eliminated the ICC and, with it, several regulatory functions that the ICC had administered. The ICCTA transferred to the Board core rail functions and certain non-rail adjudicative functions previously performed by the ICC. Motor carrier licensing and certain other motor functions were transferred to the Department of Transportation and are administered by the Federal Motor Carrier Safety Administration.

The rail oversight of the Board encompasses rate reasonableness, car service and interchange, mergers and line acquisitions, and line constructions and abandonments. The jurisdiction of the Board also includes certain oversight of the intercity bus industry and pipeline carriers; rate regulation involving non-contiguous domestic water transportation, household goods carriers, and collectively determined motor carrier rates; and the disposition of motor carrier undercharge claims. The ICCTA empowers the Board, through its exemption authority, to promote deregulation administratively. With the exception of the now-completed undercharge docket, the number of cases pending at the Board has remained relatively constant because, even as cases are resolved, new cases are filed.

In the performance of its public interest responsibilities, the Board is charged with promoting, where appropriate, substantive and procedural regulatory reform in the economic regulation of surface transportation, and with providing an efficient and effective forum for the resolution of disputes. In this regard, during fiscal year (FY) 2000, the Board processed rulemakings streamlining or otherwise improving applicable regulations and the regulatory process, including a proceeding directing the suspension by Class I railroads of filings related to major merger transactions pending the development of new merger rules; handled several pending rail and pipeline rate reasonableness complaints; took action related to the 5-year general oversight of the Union Pacific/Southern Pacific (UP/SP) merger, the Conrail acquisition by CSX and Norfolk Southern (NS), and the acquisition of the Illinois Central (IC) by the Canadian National (CN); continued activity related to various rail access and competition issues; completed action on several labor arbitration appeals; processed other rail restructuring

cases; and completed action on a significant number of non-rail matters. The Board has processed various matters brought before it in a way that has promoted private-sector negotiations and resolutions, where appropriate, and has facilitated market-based activities that are found to be in the public interest.

In FY 2002, the Board requests budget resources totaling $18,457,000.[1] Consistent with past fiscal years' appropriation acts, the Board is requesting a provision allowing user fee collections to be credited to the appropriation as offsetting collections and used for necessary and authorized expenses, to the extent that they are collected. This request reflects the workload that is expected and the statutory and regulatory deadlines associated with the resolution of the cases filed.

[1] This budget level mirrors the Board FY 2001 budgetary authority granted to date, adjusted for the 3.6 percent pay raise. The Board requests authority to operate at a FY 2002 full time equivalent (FTE) level of 143. The requested authorization for 143 FTEs will provide the Board with the discretion to hire staff to replace tenured, retirement-eligible staff prior to their anticipated retirement date. This would ensure a smoother transition from current staff, who are becoming retirement-eligible, to new staff, who would gain the working knowledge and the analytical and legal expertise necessary to process the Board's workload and prepare decisions for the Board's adjudication.

PERFORMANCE GOALS

In the performance of its functions, the objective of the Board is to ensure that, where regulatory oversight is necessary, it is exercised efficiently and effectively, integrating market forces and private-sector resolution, where possible, into the overall regulatory framework.

In particular, the Board seeks to resolve matters brought before it fairly and expeditiously. Through use of its regulatory exemption authority, streamlining of its decisional process and the regulations applicable thereto, and consistent application of legal and equitable principles, the Board seeks to facilitate commerce by providing an effective forum for efficient dispute resolution and facilitation of appropriate business transactions. The Board continues to strive to develop, through rulemakings and case disposition, new and better ways to analyze unique and complex problems, to reach fully justified decisions more quickly, and to reduce the costs associated with regulatory oversight.

ACHIEVEMENT OF THE BOARD'S GOALS

To be more responsive to the surface transportation community by fostering governmental efficiency, innovation in dispute resolution, private-sector solutions to problems, and competition in the provision of transportation services, the Board will:

- Continue to strive for a more streamlined process for the expeditious handling of rail rate reasonableness and other complaint cases, in an effort to provide additional regulatory predictability to shippers and carriers;

- Continue to be expeditious in the processing of all cases before the Board and to ensure that appropriate market-based activities in the public interest are facilitated;

- Continue to develop new opportunities for the various sectors of the transportation community to work cooperatively with the Board and with one another to find creative solutions to industry and/or regulatory problems involving carriers, shippers, employees, and local communities; and

- Continue to work to ensure the provision of rail service that is responsive to the needs of customers.

ACCOMPLISHMENTS AND WORKLOAD

Attached is a table that shows workload trends and accomplishments, which provides the basis for the Board's request for FY 2002. As the table indicates, the Board believes that the number of decisions and court-related work is the best measure of workload and performance. In accordance with its continued commitment to resolving matters before it expeditiously, the Board anticipates a relatively constant overall output in each year through the end of FY 2002. In this regard, however, Congress this year, as in the past, may have proposals to make changes in the statute that the Board administers. It is unclear at this time what the ultimate resolution of that effort will be and what impact any legislation might have on the Board's resources.

Fiscal Year 2000

During FY 2000, the Board's workload included 903 decisions and court-related work, involving adjudications and rulemakings, dealing with rail and non-rail transportation issues. These decisions pertained to rail carrier consolidations, review of rail labor arbitral decisions, rail rates and service, rail line sales, rail line constructions, terms and conditions for continued rail service, and abandonments. They also related to truck rate undercharge cases, intercity bus merger and pooling matters, motor carrier collective ratemaking oversight, and other non-rail matters such as pipeline rate cases.

With respect to rulemaking activity, the Board issued decisions exempting various activities from regulation where regulation is not necessary, engaged in other rulemaking-related activities intended to improve existing processes, and has underway a comprehensive reexamination of its rail merger policies and rules. In particular, the Board initiated a proceeding in STB Ex Parte No. 582 (Sub-No. 1), *Public Views on Major Rail Consolidations*, to obtain public views on the general subject of major rail consolidations and the present and future structure of the North American rail industry. After receiving over 400 written comments and oral presentations by 125 parties at 4 days of public hearings in March 2000, the Board issued a decision, which was upheld by the D.C. Circuit Court of Appeals, suspending all major rail merger activity before the Board until new merger rules are in place and a number of concerns and issues are addressed. Pursuant to a commitment made by the Board in this decision, proposed rules were issued on October 3, 2000, and final rules are to be issued by June 11, 2001, at which time the moratorium on the filing of major rail mergers is scheduled to expire. The Board is examining such matters as "downstream" effects, maintaining safe operations, safeguarding rail service to shippers and in connection with shortline railroads, promoting and enhancing competition, cross-border issues, merger-related

public interest benefits, and employee issues. The Board also adopted final rules in STB Ex Parte No. 385 (Sub-No. 4), *Modification of the Carload Waybill Sample and Public Use File Regulations*, intended to more accurately collect data on rail freight traffic pertaining to rail contract movements. In Ex Parte No. 574, *Safe Implementation of Board-Approved Transactions*, the Board and the Federal Railroad Administration (FRA) have proposed that joint rules be established setting forth procedures for developing and implementing safety integration plans concerning financial transactions presented for consideration to the Board. The Board defended in court the revision of market dominance guidelines in STB Ex Parte No. 627, *Market Dominance Determinations--Product and Geographic Competition*, in which the Board eliminated product and geographic competition as considerations in determining market dominance in rail rate cases, to expedite rail rate cases and further level the playing field between railroads and shippers regarding rate disputes. (The D.C. Circuit recently issued a decision reaffirming the Board's decision in part and remanding it in part. The Board recently issued a further decision in response.)

Regarding specific cases, the Board made significant progress in resolving pending rail and pipeline rate complaints, including STB Docket No. 42022, *FMC Wyoming Corporation and FMC Corporation v. Union Pacific Railroad Company* (final decision issued, after which the parties reached an agreement); STB Docket No. 42038, *Minnesota Power, Inc. v. Duluth, Missabe, and Iron Range Railway Company* (case settled after a series of interim decisions); STB Docket No. 41687, *Grain Land Coop. v. Canadian Pacific Limited and Soo Railroad Company d/b/a CP Rail System*; STB Docket No. 42051, *Wisconsin Power and Light v. Union Pacific Railroad Company*; a clarification of STB Docket No. 41191, *West Texas Utilities Company v. Burlington Northern Railway Company*; and STB Docket No. 41685, *CF Industries, Inc. v. Koch Pipeline Company, L.P.* The Board is in the process of defending in the D.C. Circuit its rate reasonableness decision in the *Koch Pipeline* case.

With respect to specific rail restructuring activities, the Board has continued its annual 5-year general oversight of the UP/SP merger and has begun general oversight of the Conrail acquisition and the acquisition of IC by CN. In addition, during FY 2000 the Board instituted two separate oversight proceedings involving the State of New York's Buffalo area in connection with the Conrail acquisition proceeding. One proceeding involved a 3-year study (Buffalo Rate Study) to examine linehaul and switching rates for rail movements into and out of the Buffalo area. The other proceeding directed CSX and NS to assess the existing railroad infrastructure in the Buffalo area and, in consultation with shippers, railroads, governmental and local interests, to develop proposals for infrastructure improvements in the area. The Board also issued various follow-up

decisions relating to the conditions imposed in the UP/SP merger and Conrail acquisition proceedings. An appeal from the Board's decision in the Conrail acquisition case is pending in the 2nd Circuit.

Regarding other rail matters, the Board issued 353 rail abandonment decisions, 25 rail line construction decisions, and 137 short-line and non-carrier acquisition decisions. Most significantly, the Board has done substantial work on the transportation and environmental issues associated with the construction and operation of a 281-mile segment of the Dakota, Minnesota & Eastern Railroad (DM&E) in Wyoming (STB Finance Docket No. 33407, *Dakota, Minnesota, & Eastern Railroad Corporation Construction into the Powder River Basin*). This project would allow DM&E to extend its existing system westward to access coal mines in the Powder River Basin. The Board has continued to work on an application filed by Tongue River Railroad for the proposed construction of an alternative route for a line already approved for construction (STB Finance Docket No. 30186 (Sub-No. 3), *Tongue River Railroad Company--Construction and Operation--Western Alignment*). In addition, the Board continued to handle labor arbitration appeals connected with previously approved major rail mergers. And the Board continued its work on a joint task force with the Department of Agriculture to address shipper and railroad informational needs related to recurring seasonal problems affecting grain transportation.

Non-rail decisions included 27 motor carrier undercharge decisions and 21 decisions dealing with intercity bus merger cases and pooling agreements, as well as actions related to motor carrier rate bureaus.[2] The Board also expended time on water carrier cases involving rates in the non-contiguous domestic water trade, including STB Docket WCC-101, *Government of the Territory of Guam v. Sea-Land Service, Inc., American President Lines, Ltd., and Matson Navigation Company, Inc.*; and STB Docket No. WCC-104, *Trailer Bridge, Inc. v. Sea Star Lines, LLC.*

Fiscal Years 2001 and 2002

During FY 2001 and 2002, the Board will continue to look for ways to streamline or otherwise improve applicable regulations and the regulatory process. The Board will entertain any proposed exemptions from regulation that might be appropriate and resolve as expeditiously as possible petitions for rulemaking filed by parties.

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[2] These numbers are subsets of the decisions included in the workload summary table that follows.

With respect to rail carrier consolidations, the workload is expected to remain constant for FY 2001 and 2002. In particular, the Board will continue to monitor the UP/SP merger, the Conrail acquisition, and the CN/IC merger pursuant to the five-year general oversight conditions that the Board imposed as part of its approval of those mergers, and will continue to handle any proceedings dealing with the interpretation of other conditions imposed as part of the Board's approval. While no new major rail merger filings could be made until after June 11, 2001, under the Board's judicially affirmed moratorium, significant staff resources will be devoted to making necessary changes to the Board's rules governing these mergers and issuing final rules by June 11, 2001. Also, the Board has been advised that CN plans to file an application in April 2001 to acquire the Wisconsin Central, which applicants will argue should be considered a minor transaction and thus unaffected by the moratorium and eligible for handling on an expedited basis.

Concerning other rail restructuring matters, rail abandonment decisions are expected to increase somewhat in FY 2001 and remain stable through FY 2002, because the increased complexity of abandonment filings continues to require more than one decision in certain cases. The Board continues to experience a high volume of "post abandonment" activity relating to trail use, as trail proponents and property owners dispute the application of the National Trails System Act. The Board also continues to handle several rail line construction applications and petitions for exemption, which involve significant environmental review issues. In STB Finance Docket No. 33824, *Great Salt Lake and Southern Railroad, LLC--Construction and Operation--in Tooele County, UT*, the Board issued a decision early in FY 2001 allowing the applicant to construct and operate a 32-mile rail line connected with the interim storage of spent nuclear fuel, subject to consideration of the anticipated environmental impacts of the proposal. In STB Finance Docket No. 33862, *Public Service Company of Colorado-Construction Exemption-Pueblo County, CO*, the Board granted final approval in FY 2001 for a proposal by the Public Service Company of Colorado (PSCO) to construct a line to connect its Comanche Power Station with a line of the UP to permit service by UP in addition to the existing service available from the Burlington Northern and Santa Fe Railway Company (BNSF). Subsequently in FY 2001, in a related proceeding, the Board granted PSCO's request to cross BNSF's line to reach UP's line. We project that line construction decisions will increase slightly through FY 2002, including the processing of the *Tongue River* and *DM&E* construction applications likely to produce decisions once the necessary environmental reviews have been completed. Other line transaction activity is expected to increase in FY 2001 and 2002 as more carriers continue to sell unprofitable or marginally profitable lines as an alternative to service abandonment.

As to rail rates and services, the workload is expected to increase in FY 2001 and remain stable through FY 2002, due to the continuing expiration of long-term coal transportation contracts, the potential filing of complaints under the Board's non-coal rate guidelines, and the application of the contract exception to the Board's bottleneck decision. During the first half of FY 2001, four new maximum coal rate cases were filed with the Board. These new proceedings will require significant staff attention given the complex nature of the cases and the tight statutory timeframes for completion. In addition, the Board will continue to work on the various pending rate matters already mentioned.

Regarding non-rail matters, the truck rate undercharge workload has decreased significantly over the last few years from pre-FY 1998 levels, and the Board resolved the last case in the undercharge docket during the first half of FY 2001. The reduction in undercharge decisions reflects the Board's commitment to resolving its undercharge docket, and specifically handling the docket in a more efficient way by consolidating those cases with common issues. In addition, the intercity bus merger and pooling workload is projected to increase in FY 2002, and non-contiguous domestic water trade rate case activity is expected to increase slightly through FY 2002. The Board expects to do substantial work on cases involving motor carrier ratemaking antitrust immunity into FY 2002.

FY 2002 OMB Budget Justification
Workload Summary[3]

Workload Category	Actual FY 2000 Board Decisions and Court-related Work	Estimated[4] FY 2001 Board Decisions and Court-related Work	Estimated[4] FY 2002 Board Decisions and Court-related Work
Rail Carrier Consolidations	134	145	145
Rail Rates and Service	58	88	88
Rail Abandonments and Constructions	378	433	433
Other Line Transactions	137	184	185
Other Rail Activities	78	107	109
Motor Carrier Undercharges	27	6	0[5]
Non-Rail Activities	91	100	92
Total	**903**	**1,063**	**1,052**

[3] At this time, the Board believes that the number of Board decisions and court-related work is the best measure of workload at the Board. Certain activities performed at the Board that provide direct and indirect support for rulemakings and decisions in specific cases are not reflected in these workload numbers. Such activities not reflected include: enforcement actions; rail audits and rail carrier reporting oversight; administration of the rail waybill sample and development of the Uniform Rail Costing System; and case-related correspondence and informal public assistance.

[4] Estimated workloads for FY 2001 and 2002 are based on historical information regarding actual filings and best estimates of probable future filings by parties. Because the Board is principally an adjudicatory body, it does not directly control the level or timing of actual case filings.

[5] The motor carrier undercharge decisions projected for FY 2002 have decreased from previous estimates. This decrease reflects the Board's consolidation of several undercharge case dockets into a single decision. The undercharge number in the outyears reflects the final closing out of the undercharge docket.

SALARIES AND EXPENSES
(Dollars in thousands)

	FY 2000 Actual	FY2001 Enacted	FY 2002 Request	Difference from Enacted
Permanent Positions	134	143	143	0
Full-time Equivalents	134	143	143	0
Personnel Compensation and Benefits	$13,232	$14,111	$14,802	$691
Travel	43	51	58	7
Other Costs	3,652	3,754	3,597	(157)
TOTAL BUDGET RESOURCES	$16,927	$17,916	$18,457	$541

Changes in Resources:

For personnel compensation and benefits, $14,802,000 is requested to support the Board's permanent positions. Included in this request is $124,000 to fund the annual cost of the January 2001 pay raise and $380,000 for the January 2002 pay raise estimated at 3.6 percent. The request also includes $100,000 for lump-sum leave payments to retiring employees.

A travel budget of $58,000 is requested primarily for on-site visits to railroads to finalize audits and review public accountants' workpapers, for physical inspection of proposed rail abandonment and construction sites and verification of environmental data provided by parties to proceedings, to conduct operational reviews, to meet with shippers regarding rail service issues and compliance, for defense of the Board's decisions in courts across the country, and for the general presentation upon request of issues within the Board's jurisdiction.

Funding to cover other costs is requested at $3,597,000. Included in this number are rental payments to the General Services Administration (GSA) and payments for employee training, telephone service, postage, information technology systems support and equipment, miscellaneous services and supplies, and reimbursable services acquired from other Federal agencies.

SURFACE TRANSPORTATION BOARD

SALARIES AND EXPENSES

OBJECT CLASSIFICATIONS
(in thousands of dollars)

OBJECT CLASS	FY 2000 ACTUAL	FY 2001 ENACTED	FY 2002 REQUEST
PERSONNEL COMPENSATION			
11.10 FULL TIME PERMANENT APPT.	9,679	10,484	11,291
11.30 OTHER THAN FULL-TIME PERMANENT	489	300	0
11.50 OTHER PERSONNEL COMPENSATION	377	365	369
11.90 TOTAL PERSONNEL COMPENSATION	10,545	11,149	11,660
12.10 CIVILIAN PERSONNEL BENEFITS	1,840	2,062	2,192
13.00 BENEFITS FOR FORMER PERSONNEL	0	0	0
21.00 TRAVEL AND TRANSPORTATION OF PERSONS	43	51	58
22.00 TRANSPORTATION OF THINGS	13	20	20
23.10 RENTAL PAYMENTS TO GSA	1,697	1,785	1,795
23.30 COMMUNICATIONS, UTILITIES, MISCELLANEOUS CHARGES	220	216	216
24.00 PRINTING AND PRODUCTION	20	40	40
25.20 OTHER SERVICES	287	304	304
25.30 PURCHASES OF GOODS FROM GOVERNMENT ACCOUNTS	875	984	866
26.00 SUPPLIES AND MATERIALS	256	288	290
31.00 EQUIPMENT	284	71	66
42.00 INDEMNITIES-OTHER PAYMENTS	0	48	0
99.00 SUBTOTAL, DIRECT OBLIGATIONS:	16,080	17,016	17,507
REIMBURSABLE OBLIGATIONS:			
11.10 REIMBURSABLE FULL TIME PERMANENT APPT.	703	767	810
12.10 REIMBURSABLE PERSONNEL BENEFITS	144	133	140
99.00 SUBTOTAL, REIMBURSABLE OBLIGATIONS	847	900	950
99.90 TOTAL OBLIGATIONS	16,927	17,916	18,457

SURFACE TRANSPORTATION BOARD

SALARIES AND EXPENSES

PERSONNEL SUMMARY

	FY 2000 ACTUAL	FY 2001 ENACTED	FY 2002 REQUEST
1001 FULL-TIME EQUIVALENT-DIRECT	125	134	134
2001 FULL-TIME EQUIVALENT-REIMBURSABLE	9	9	9
FULL-TIME EQUIVALENT (FTE) TOTAL	134	143	143

SURFACE TRANSPORTATION BOARD

SALARIES AND EXPENSES

10-YEAR TABLE

ESTIMATES			APPROPRIATIONS		
1997	[2,3]	($15,344,000)	1996	[1]	$8,421,000
1998	[2,5]	(14,300,000)	1997	[4]	12,244,000
1999	[2]	(16,000,000)	1998	[6]	13,850,000
2000	[2]	(17,000,000)	1999	[7]	15,959,000
2001	[2]	(17,953,000)	2000	[8]	16,930,000
2002	[10]	18,457,000	2001	[9]	17,916,481

[1] Reflects reduction of $7,000 for administrative expenses, P.L. 104-134. Excludes $707,000 from offsetting collections. Funding for 1/1/96-9/30/96.

[2] To be derived from offsetting collections.

[3] The estimate provided for $15,344,000 in user fees of which a maximum of $3,000,000 would become available as an appropriation and subsequently reduced as offsetting collections are received.

[4] Reflects reduction of $100,000 for awards (P.L. 104-205, sec. 346). Excludes $3,000,000 from offsetting collection.

[5] Estimate reduced the Board's request by $1,553,000.

[6] Reflects reduction of $3,000 for TASC (P.L. 105-66, sec. 320). Excludes $2,000,000 from offsetting collections.

[7] Reflects reduction of $10,000 for TASC (P.L. 105-277, sec. 320). Reflects reduction of $31,000 for administrative and travel expenses, P.L. 106-51 (sec. 202). Excludes $2,600,000 from offsetting collections as a credit to the appropriation.

[8] Reflects reduction of $12,000 for TASC (P.L. 106-69, sec. 319). Reflects reduction of $58,000 (0.38 percent) (Sec. 301, title III, Appendix E-HR 3425, P.L. 106-113). Excludes $1,600,000 from offsetting collections as a credit to the appropriation.

[9] Reflects reduction of $37,519 (0.22 percent) (Sec. 1403 of Chapter 14, Division A, Appendix D of P.L. 106-554). Excludes $900,000 from offsetting collections as a credit to the appropriation.

[10] Includes $950,000 from offsetting collections as a credit to the appropriation.

INTERSTATE COMMERCE COMMISSION [1]

SALARIES AND EXPENSES

ESTIMATES		APPROPRIATIONS	
1993.....	[2] $45,030,000	1993.....	[3] $43,930,000
1993 (Supp) Rescission	0	1993 (Supp) Rescission	[4] -360,000
1994.....	[5] 45,466,000	1994.....	[5] 44,960,000
1995.....	[5] 43,627,000	1995.....	[5,6] 30,302,000
1996.....	[5] 33,202,000	1996.....	[1,7] 13,379,000

[1] Interstate Commerce Commission terminated on December 31, 1995 (P.L. 104-88).
[2] Excludes $6,200,000 from offsetting user fee collections.
[3] Excludes $7,300,000 from offsetting user fee collections.
[4] Reduction pursuant to P.L. 103-50.
[5] Excludes $8,300,000 from offsetting user fee collections.
[6] Reflects reduction of $119,000, P.L. 104-19.
[7] Excludes $3,400,000 from offsetting user fee collections. Funding provided through 12/31/1995.

Office of the Chairman

Surface Transportation Board
Washington, D.C. 20423-0001

July 31, 2000

The Honorable C. W. Bill Young
Chairman
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Young:

The fiscal year (FY) 2002 budget estimates for the Surface Transportation Board are enclosed. In accordance with the ICC Termination Act of 1995, P.L. 104-88, I am transmitting this budget estimate and appropriation request to Congress at the same time they are sent to the Secretary of Transportation.

Specifically, the Board is requesting $18.889 million, which mirrors the Board's FY 2001 budgetary authority recently approved by the House and Senate, adjusted for inflation and pay raises. The funding level requested is necessary for continued expeditious processing of the Board's caseload.

The Board is sending an identical letter to the Senate Appropriations Committee.

Sincerely

Linda J. Morgan

Enclosure

cc: Chairman Frank R. Wolf

1949

Surface Transportation Board

Budget Request

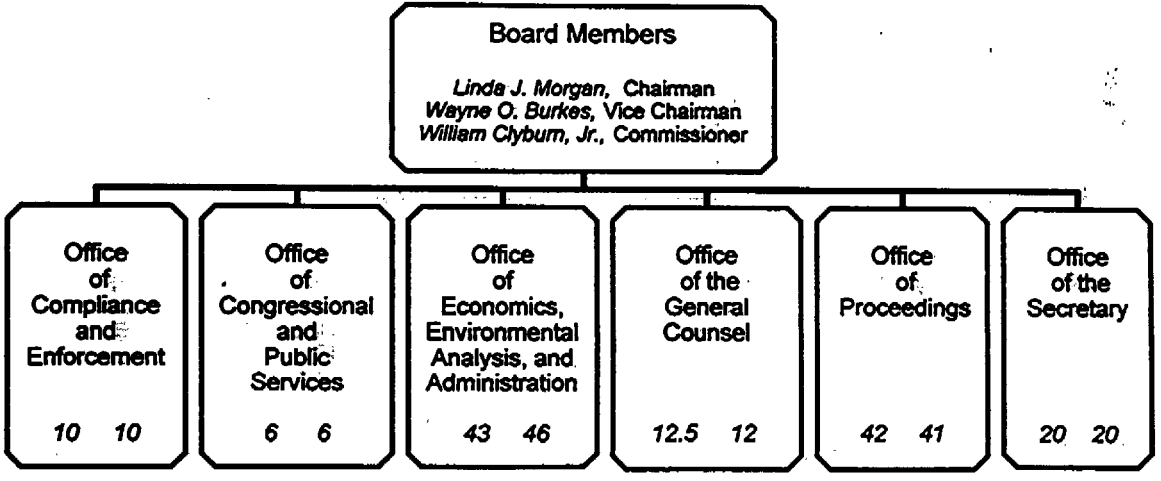
FY 2002

July 2000

72-314 2001 - 62

Surface Transportation Board

FTEs for FY 2002 Budget Request



The above numbers to the left represent FY 2001 FTEs; numbers to the right represent FY 2002 FTEs. The number of Full-Time Permanent positions and FTEs is the same. The total number of FTEs for the Surface Transportation Board is 143 for FY 2001 and 145 for FY 2002.

SURFACE TRANSPORTATION BOARD

OVERVIEW OF BOARD AND BUDGET REQUEST

The Surface Transportation Board (Board) is a three-member, bipartisan, decisionally independent adjudicatory body organizationally housed within the Department of Transportation (DOT) with jurisdiction over certain surface transportation economic regulatory matters. The Board was established pursuant to P.L. 104-88, the ICC Termination Act of 1995 (ICCTA). Consistent with the trend toward less economic regulation of the surface transportation industry, the ICCTA eliminated the ICC and, with it, several regulatory functions that the ICC had administered. The ICCTA transferred to the Board core rail functions and certain non-rail adjudicative functions previously performed by the ICC. Motor carrier licensing and certain other motor functions were transferred to the Secretary of Transportation and in particular the Federal Highway Administration within DOT.

The rail oversight of the Board encompasses rate reasonableness, car service and interchange, mergers and line acquisitions, and line constructions and abandonments. The jurisdiction of the Board also includes certain oversight of the intercity bus industry and pipeline carriers; rate regulation involving non-contiguous domestic water transportation, household goods carriers, and collectively determined motor carrier rates; and the disposition of motor carrier undercharge claims. The ICCTA empowers the Board, through its exemption authority, to promote deregulation administratively. With the exception of the reduction in the undercharge docket, the number of cases pending at the Board has remained relatively constant because, even as cases are resolved, new cases are filed.

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[1] This budget level mirrors the Board FY 2001 budgetary authority granted to date, adjusted for inflation and the 3.7 percent pay raise. The Board requests authority to operate at a FY 2002 full time equivalent (FTE) level of 145, which is above the current 143 FTEs provided for FY 2001. The requested authorization for 145 FTEs will provide the Board with the discretion to hire staff to replace tenured, retirement-eligible staff prior to their anticipated retirement date. This would ensure a smoother transition from current staff, who are becoming retirement-eligible, to new staff, who would gain the working knowledge and the analytical and legal expertise necessary to process the Board's workload and prepare decisions for the Board's adjudication.

PERFORMANCE GOALS

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In particular, the Board seeks to resolve matters brought before it fairly and expeditiously. Through use of its regulatory exemption authority, streamlining of its decisional process and the regulations applicable thereto, and consistent application of legal and equitable principles, the Board seeks to facilitate commerce by providing an effective forum for efficient dispute resolution and facilitation of appropriate business transactions. The Board continues to strive to develop, through rulemakings and case disposition, new and better ways to analyze unique and complex problems, to reach fully justified decisions more quickly, and to reduce the costs associated with regulatory oversight.

ACHIEVEMENT OF THE BOARD'S GOALS

To be more responsive to the surface transportation community by fostering governmental efficiency, innovation in dispute resolution, private-sector solutions to problems, and competition in the provision of transportation services, the Board will:

- Continue to strive for a more streamlined process for the expeditious handling of rail rate reasonableness and other complaint cases, in an effort to provide additional regulatory predictability to shippers and carriers;

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ACCOMPLISHMENTS AND WORKLOAD

Attached is a table that shows workload trends and accomplishments, which provides the basis for the Board's request for FY 2002. As the table indicates, the Board believes that the number of decisions and court-related work is the best measure of workload and performance. In accordance with the Board's continued commitment to resolving matters before it expeditiously, it anticipates a relatively constant overall output in each year through the end of FY 2002. In this regard, however, Congress this year, as in the past, has before it proposals to make changes in the statute that the Board administers. It is unclear at this time what the ultimate resolution of that effort will be and what impact any legislation might have on the Board's resources.

Fiscal Year 2000

During FY 2000, the Board's projected workload includes 1,049 decisions and court-related work, involving adjudications and rulemakings, dealing with rail and non-rail transportation issues. These decisions pertain to rail carrier consolidations, review of rail labor arbitral decisions, rail rates and service, rail line sales, rail line constructions, terms and conditions for continued rail service, and abandonments. They also relate to truck rate undercharge cases, intercity bus merger and pooling matters, motor carrier collective ratemaking oversight, and other non-rail matters such as pipeline rate cases.

With respect to rulemaking activity, the Board issued decisions exempting commodities, services, and other classes of transactions from regulation where regulation is not necessary and has underway a comprehensive reexamination of its rail merger policies and rules. In particular, the Board initiated a proceeding in STB Ex Parte No. 582 (Sub-No. 1), *Public Views on Major Rail Consolidations*, to obtain public views on the general subject of major rail consolidations and the present and future structure of the North American rail industry. After receiving over 400 written comments and oral presentations by 125 parties at 4 days of public hearings in March 2000, the Board issued a decision, which was recently upheld by the D.C. Circuit Court of Appeals, suspending all major rail merger activity before the Board until new merger rules are in place and a number of concerns and issues are addressed. Pursuant to a commitment made by the Board in this decision, proposed rules will be issued by October 3, 2000, and final rules by June 11, 2001. The Board is examining such matters as "downstream" effects, maintaining safe operations, safeguarding rail service to shippers and in connection with shortline railroads, promoting and enhancing competition, cross-border issues, merger-related public interest benefits, and employee issues. The Board also adopted final rules in STB Ex Parte No. 385 (Sub-No. 4), *Modification of the Carload Waybill Sample and*

Public Use File Regulations, intended to more accurately collect data on rail freight traffic pertaining to rail contract movements. In Ex Parte No. 574, *Safe Implementation of Board-Approved Transactions*, the Board and the Federal Railroad Administration (FRA) have proposed that joint rules be established setting forth procedures for developing and implementing safety integration plans concerning financial transactions presented for consideration to the Board. The Board will be defending in court the revision of market dominance guidelines in STB Ex Parte No. 627, *Market Dominance Determinations--Product and Geographic Competition*, in which the Board eliminated product and geographic competition as considerations in determining market dominance in rail rate cases, to expedite rail rate cases and further level the playing field between railroads and shippers regarding rate disputes.

Regarding specific cases, the Board made significant progress in resolving pending rail and pipeline rate complaints, including STB Docket No. 42022, *FMC Wyoming Corporation and FMC Corporation v. Union Pacific Railroad Company*; STB Docket No. 42038, *Minnesota Power, Inc. v. Duluth, Missabe, and Iron Range Railway Company*; STB Docket No. 41687, *Grain Land Coop. v. Canadian Pacific Limited and Soo Railroad Company d/b/a CP Rail System*; STB Docket No. 41685, *CF Industries, Inc. v. Koch Pipeline Company, L.P.*; STB Docket No. 42051, *Wisconsin Power and Light v. Union Pacific Railroad Company*; and a clarification of STB Docket No. 41191, *West Texas Utilities Company v. Burlington Northern Railway Company*. The Board will be defending in court its rate reasonableness decisions in the *Koch Pipeline* case and the *FMC* case (which also has been appealed administratively), and its decision in Docket No. 32479, *Caddo Antoine and Little Missouri Railroad Company - Feeder Line Acquisition - Arkansas Midland Railroad Company Line Between Gurdon and Birds Mill, AR.*, a proceeding setting the purchase price for a 52-mile rail line under the Board's feeder line provisions. And depending on how the Board rules on a petition for reconsideration that recently was filed, the agency may be called on to defend its rate-related cost accounting decision in Docket No. 33726, *Western Coal Traffic League v. Union Pacific Railroad Company.*

With respect to rail restructuring, the Board is continuing its annual 5-year general oversight of the UP/SP merger and has begun general oversight of the Conrail acquisition and the acquisition of IC by CN. In addition, the Board instituted two separate oversight proceedings involving the State of New York's Buffalo area in connection with the Conrail acquisition proceeding. One proceeding involves a 3-year study (Buffalo Rate Study) to examine linehaul and switching rates for rail movements into and out of the Buffalo area. The other proceeding directs CSX and NS to assess the existing railroad infrastructure in the Buffalo area and, in consultation with shippers, railroads,

governmental and local interests, to develop proposals for infrastructure improvements in the area. The Board also issued various follow-up decisions relating to the conditions imposed in the UP/SP merger and Conrail acquisition proceedings and will be defending the Board's decision in the Conrail acquisition case in the 2nd Circuit.

Regarding other rail matters, the Board expects to issue 413 rail abandonment decisions, 27 rail line construction decisions, and 135 short-line and non-carrier acquisition decisions. Most significantly, the Board has done substantial work on the transportation and environmental issues associated with the construction and operation of a 281-mile segment of the Dakota, Minnesota & Eastern Railroad (DM&E) in Wyoming (STB Finance Docket No. 33407, *Dakota, Minnesota, & Eastern Railroad Corporation Construction into the Powder River Basin*). This project would allow DM&E to extend its existing system westward to access coal mines in the Powder River Basin. The Board continues to work on an application filed by Tongue River Railroad for the proposed construction of an alternative route for a line already approved for construction (STB Finance Docket No. 30186 (Sub-No. 3), *Tongue River Railroad Company--Construction and Operation--Western Alignment*). In Finance Docket No. 33824, *Great Salt Lake and Southern Railroad, LLC--Construction and Operation--in Tooele County, UT*, the applicant has recently filed for permission to construct and operate a 32-mile rail line connected with the interim storage of spent nuclear fuel. In addition, the Board will continue to handle the increase in labor arbitration appeals, which are connected with previously approved major rail mergers. And the Board continues its work on a joint task force with the Department of Agriculture to address shipper and railroad informational needs related to recurring seasonal problems affecting grain transportation.

Projected non-rail decisions include 34 motor carrier undercharge decisions and 20 decisions dealing with intercity bus merger cases and pooling agreements, as well as actions related to motor carrier rate bureaus.[2] The Board also is expending time on water carrier cases involving rates in the non-contiguous domestic water trade, including STB Docket WCC101, *Government of the Territory of Guam v. Sea-Land Service, Inc., American President Lines, Ltd., and Matson Navigation Company, Inc.*; STB Docket No. WCC-104, *Trailer Bridge, Inc. v. Sea Star Lines, LLC*; and STB Docket No. WCC-105, *DHX, Inc. v. Matson Navigation Company and Sea-Land Service, Inc.*

Fiscal Years 2001 and 2002

During FY 2001 and 2002, the Board will continue to look for ways to streamline

[2] These numbers are subsets of the decisions included in the workload summary table that follows.

or otherwise improve applicable regulations and the regulatory process. The Board will entertain any proposed exemptions from regulation that might be appropriate and resolve as expeditiously as possible petitions for rulemaking filed by parties.

With respect to rail carrier consolidations, the workload is expected to remain constant for FY 2001 and 2002. In particular, the Board will continue to monitor the UP/SP merger, the Conrail acquisition, and the CN/IC merger pursuant to the five-year general oversight conditions that the Board imposed as part of its approval of those mergers, and will continue to handle any proceedings dealing with the interpretation of other conditions imposed as part of the Board's approval. While no new major rail merger filings could be made until after June 11, 2001, under the Board's judicially affirmed moratorium, significant staff resources will be devoted to making necessary changes to the Board's rules governing these mergers and issuing final rules by June 11, 2001.

Regarding rail rates and services, the workload is expected to increase in FY 2001 and remain stable through FY 2002, due to the continuing expiration of long-term coal transportation contracts, the potential filing of complaints under the Board's non-coal rate guidelines, and possible application of the contract exception to the Board's bottleneck decision. These new cases will be complex and require significant staff attention as new standards are tested and tight timeframes for completion of rate proceedings are met. In addition, the Board will continue to work on the various pending rate matters.

Rail abandonment decisions are expected to remain somewhat stable at the FY 2000 level through FY 2002, because the increased complexity of abandonment filings requires more than one decision. The Board continues to experience a high volume of "post abandonment" activity relating to trail use, as trail proponents and property owners dispute the application of the National Trails System Act. The Board will continue to handle several rail line construction applications and petitions for exemption, which involve significant environmental review issues. We project that line construction decisions will increase slightly through FY 2002, including the processing of *Tongue River* and *DM&E* construction applications likely to produce decisions once the necessary environmental reviews have been completed. Other line transaction activity is expected to increase slightly in FY 2001 and 2002 as more carriers continue to sell unprofitable or marginally profitable lines as an alternative to service abandonment.

Regarding non-rail matters, the truck rate undercharge workload has decreased significantly from pre-FY 1998 levels and will continue to decrease through FY 2002 as the Board works to close out its undercharge docket. The reduction in undercharge

decisions reflects the Board's commitment to resolving its undercharge docket, and specifically handling the docket in a more efficient way by consolidating those cases with common issues. In the non-rail activities area, intercity bus merger and pooling workload is projected to increase in FY 2002 and non-contiguous domestic water trade rate cases are expected to continue at the FY 2000 level through FY 2002. The Board expects to do substantial work on cases involving motor-carrier ratemaking antitrust immunity through at least FY 2002.

FY 2002 OMB Budget Justification
Workload Summary[3]

Workload Category	Estimated FY 2000 Board Decisions and Court-related Work	Estimated[4] FY 2001 Board Decisions and Court-related Work	Estimated[4] FY 2002 Board Decisions and Court-related Work
Rail Carrier Consolidations	162	145	145
Rail Rates and Service	62	88	88
Rail Abandonments and Constructions	440	433	433
Other Line Transactions	135	184	185
Other Rail Activities	71	110	112
Motor Carrier Undercharges	34[5]	25	17
Non-Rail Activities	115	100	92
Total	1,049[5]	1,085	1,072

[3] At this time, the Board believes that the number of Board decisions and court-related work is the best measure of workload at the Board. Certain activities performed at the Board that provide direct and indirect support for rulemakings and decisions in specific cases are not reflected in these workload numbers. Such activities not reflected include: enforcement actions; rail audits and rail carrier reporting oversight; administration of the rail waybill sample and development of the Uniform Rail Costing System; and case-related correspondence and informal public assistance.

[4] Estimated workloads for FY 2001 and 2002 are based on historical information regarding actual filings and best estimates of probable future filings by parties. Because the Board is principally an adjudicatory body, it does not directly control the level or timing of actual case filings.

[5] The motor carrier undercharge decisions projected for FY 2000 have decreased from previous estimates. This decrease reflects the Board's consolidation of several undercharge case dockets into a single decision.

SALARIES AND EXPENSES
(Dollars in thousands)

	FY 2000 Actual	FY2001 Enacted	FY 2002 Request	Difference from Enacted
Permanent Positions	140	143	145[6]	2
Full-time Equivalents	140	143	145	2
Personnel Compensation and Benefits	$13,287	$14,132	$15,034	$902
Travel	54	49	58	9
Other Costs	3,599	3,773	3,797	24
TOTAL BUDGET RESOURCES	$16,940	$17,954	$18,889	$935

Changes in Resources:

For personnel compensation and benefits, $15,034,000 is requested to support the Board's permanent positions. Included in this request is $124,000 to fund the annual cost of the January 2001 pay raise, $381,000 for the January 2001 pay raise estimated at 3.7 percent, and $58,000 for mandatory within grade increases for FY 2002. The request also includes $100,000 for lump-sum leave payments to retiring employees.

A travel budget of $58,000 is requested primarily for on-site visits to railroads to finalize audits and review public accountants' workpapers, for physical inspection of proposed rail abandonment and construction sites and verification of environmental data provided by parties to proceedings, to conduct operational reviews, to meet with shippers regarding rail service issues and compliance, for defense of the Board's decisions in courts across the country, and for the general presentation upon request of issues within the Board's jurisdiction.

Funding to cover other costs is requested at $3,797,000. Included in this number

[6] The requested increase in FTEs will allow the Board to hire entry level staff to replace the tenured, retirement-eligible staff prior to their retirement dates. This would ensure the required transition for current staff to new staff, who can gain working knowledge and expertise necessary to process the Board's workload.

is a rental payment increase directed by the General Services Administration (GSA) and regular cost increases in employee training, telephone service, information technology systems support and equipment, and reimbursable services acquired from other Federal agencies.

SURFACE TRANSPORTATION BOARD

SALARIES AND EXPENSES

OBJECT CLASSIFICATIONS
(in thousands of dollars)

OBJECT CLASS		FY 2000 ESTIMATE	FY 2001 ESTIMATE	FY 2002 ESTIMATE
	PERSONNEL COMPENSATION			
11.10	FULL TIME PERMANENT APPT.	9,868	10,883	11,502
11.30	OTHER THAN FULL-TIME PERMANENT	400	0	0
11.50	OTHER PERSONNEL COMPENSATION	367	370	373
11.90	TOTAL PERSONNEL COMPENSATION	10,635	11,253	11,875
12.10	CIVILIAN PERSONNEL BENEFITS	1,802	1,969	2,209
13.00	BENEFITS FOR FORMER PERSONNEL	0	10	0
21.00	TRAVEL AND TRANSPORTATION OF PERSONS	54	49	58
22.00	TRANSPORTATION OF THINGS	20	20	25
23.10	RENTAL PAYMENTS TO GSA	1,700	1,785	1,795
23.30	COMMUNICATIONS, UTILITIES, MISCELLANEOUS CHARGES	217	278	252
24.00	PRINTING AND PRODUCTION	40	50	50
25.20	OTHER SERVICES	304	191	309
25.30	PURCHASES OF GOODS FROM GOVERNMENT ACCOUNTS	894	1,106	999
26.00	SUPPLIES AND MATERIALS	288	287	301
31.00	EQUIPMENT	136	56	66
42.00	INDEMNITIES-OTHER PAYMENTS	0	0	0
99.00	SUBTOTAL, DIRECT OBLIGATIONS:	16,090	17,054	17,939
	REIMBURSABLE OBLIGATIONS:			
11.10	REIMBURSABLE FULL TIME PERMANENT APPT.	724	775	810
12.10	REIMBURSABLE PERSONNEL BENEFITS	126	125	140
99.00	SUBTOTAL, REIMBURSABLE OBLIGATIONS	850	900	950
99.90	TOTAL OBLIGATIONS	16,940	17,954	18,889

SURFACE TRANSPORTATION BOARD

SALARIES AND EXPENSES

PERSONNEL SUMMARY

		FY 2000 ESTIMATE	FY 2001 ESTIMATE	FY 2002 ESTIMATE
1001	FULL-TIME EQUIVALENT-DIRECT	131	134	136
2001	FULL-TIME EQUIVALENT-REIMBURSABLE	9	9	9
	FULL-TIME EQUIVALENT (FTE) TOTAL	140	143	145

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THE US ACCESS BOARD
WASHINGTON, DC

FISCAL YEAR 2002 BUDGET JUSTIFICATION

to

United States House of Representatives
Committe on Appropriations

Subcommittee on Transportation
and Related Agencies

March 2001

ACCESS BOARD

FISCAL YEAR 2002 BUDGET JUSTIFICATION

INTRODUCTION

This document presents the Access Board's budget justification for fiscal year (FY) 2002. We are requesting a total budget authority of $5,015,000. (See Appendix A.) This amount is a 4.83 percent increase over the amount appropriated for FY 2001. The Board is not planning new costly initiatives in FY 2002 but will continue with the programs started in FY 2001, and has followed the directives issued by OMB for the preparation of the fiscal year 2002 budget.

GOVERNMENT PERFORMANCE AND RESULTS ACT ANNUAL PERFORMANCE PLAN

Following the Government Performance and Results Act (GPRA), the Board has established long-range goals and annual objectives that describe the strategies it will implement to achieve the long-range goals. The objectives are described in terms that permit future assessment regarding whether the objectives were achieved. To satisfy the requirements for an annual performance plan and review, this budget justification presents information under each of the Board's program areas regarding the long-range goals, reports on the results of the FY 2000 activities, reviews the planned FY 2001 activities, and presents the FY 2002 objectives.

The Board was established by section 502 of the Rehabilitation Act and is the only Federal agency whose primary mission is accessibility for people with disabilities. The Board is responsible for developing guidelines under the Americans with Disabilities Act, the Architectural Barriers Act, and the Telecommunications Act for ensuring that buildings and facilities, transportation vehicles, and telecommunications equipment covered by these laws are readily accessible to and usable by people with disabilities. In 1998, the Board was given new responsibility under section 508 of the Rehabilitation Act Amendments of 1998 to develop standards for accessible electronic and information technology for use by Federal agencies, and under the Assistive Technology Act of 1998 to provide training for Federal and State employees on obligations related to section 508 of the Rehabilitation Act. The Board also enforces the

Architectural Barriers Act and provides training and technical assistance on each of its guidelines and standards, and on a variety of other accessibility issues. Additionally, the Board maintains a small research program that develops technical assistance materials and provides information needed for rulemaking.

The Board has adopted this mission statement to guide its programs: *The Board is the catalyst for achieving an accessible America.* The statement recognizes that achieving an accessible America requires bringing together public and private sectors. The Board has established three long-range goals for its programs:

- take a leadership role in the development of codes and standards for accessibility;
- work in partnership with agencies and others to make the Federal government a model of compliance with accessibility standards; and
- be known as the leading source of information about accessibility and disseminate that information to customers in effective ways.

In developing objectives and strategies for achieving the long-range goals, the Board seeks to work together with its stakeholders toward common objectives. The Board's plan is simple: work with its stakeholders to establish consensus-based guidelines and standards that are fair, reasonable, and acceptable to all interests; where the Board has enforcement responsibilities over Federal agencies, assist those agencies to achieve full compliance; and involve its stakeholders in developing and disseminating materials and manuals that will help them understand and comply with our guidelines and standards.

The Board's programs will result in accessible buildings and facilities, transportation vehicles, telecommunications equipment, and electronic and information technology across our country and, ultimately, the full economic and social integration of people with disabilities into our society. Achieving these results will depend not only on the Board's activities, but also on the level of commitment and action taken by other Federal agencies, State and local governments, and businesses who are required to comply with or enforce the various laws that guarantee the civil rights of people with disabilities.

ACCESSIBILITY GUIDELINES AND STANDARDS

The Board will continue to develop and update accessibility guidelines and standards and to work cooperatively with organizations which develop codes and standards affecting accessibility through FY 2002 and beyond. A report on the Board's current and completed rulemakings and cooperative efforts in codes and standards development is attached as Appendix B. The status of current guidelines and standards efforts is presented below.

ADA and ABA Accessibility Guidelines

This rule will revise the accessibility guidelines for the Americans with Disabilities Act (ADA) and the Architectural Barriers Act (ABA), and include new guidelines for accessible housing covered by both of these laws. Through this rulemaking, the Board will ensure consistency and coordination in the development of guidelines applicable to the public and private sector, as well as the Federal government. A notice of proposed rulemaking (NPRM) was published for public comment in November 1999. The NPRM consists of separate scoping parts for each law. The ADA scoping part is based on the recommendations of the Board's ADAAG Review Advisory Committee and covers private facilities, such as places of public accommodation and commercial facilities, and State and local government facilities. The ABA scoping part applies to federally financed facilities and is based on the ADA scoping part, with a few changes due to differences in the coverage of the two laws. For example, the ABA scoping part covers facilities leased by Federal agencies. The NPRM contains a single set of updated technical requirements based on the recommendations of the ADAAG Review Advisory Committee. Both the ADA and ABA scoping parts reference these common technical requirements. The comment period for the proposed rule closed in May 2000 and over 2,500 comments were received. The Board held two public hearings on the proposed rule. A final rule will be published in FY 2001.

Recreation Facilities

In July 1999, the Board published an NPRM to amend ADAAG by adding new sections for amusement rides, boating and fishing facilities, golf courses, sports facilities, and swimming pools. The new recreation provisions are based on the recommendations of the Board's Recreation Access Advisory Committee and Board research projects. We held two public hearings to receive feedback during the comment period. Over 200 people attended the hearings, and approximately 54 people provided testimony. We received approximately 300 written comments on the proposed guidelines. In an effort to provide the public with more opportunities for input into the provisions for this rule, the Board placed in the docket, for review and comment, a summary of recommendations made by an ad hoc committee of the Board for the final recreation facilities guidelines. The summary reflects the ad hoc committee's consideration of comments on the proposed rule and information gathered at meetings sponsored by the committee. The Board held two informational meetings in Washington, DC and San Francisco, CA to discuss the summary and received 60 written comments. A final rule will be published in FY 2001.

Outdoor Developed Areas

The Board's Outdoor Developed Areas Regulatory Negotiation Committee presented its report to the Board in September 1999. This committee developed new sections for parks, trails, and camping and picnic areas. An NPRM based on the committee's report will be published for public comment in FY 2001.

Passenger Vessels

In September 1998, the Board convened a Passenger Vessel Access Advisory Committee to develop accessibility guidelines for cruise ships, ferries, excursion boats, and other vessels covered by the Americans with Disabilities Act. The Committee presented its report with its recommendations to the Board in November 2000. The Board will create an ad hoc committee of Board members to begin developing a proposed rule on access to passenger vessels. The proposed rule is expected to be published in FY 2002.

Public Rights-of-Way

When the Board issued final rules for State and local governments in 1998, it decided to reserve provisions for public rights-of-way. This was due in large measure to the concerns of the transportation community expressed in comment to the Board on proposed and interim final rules for entities covered by title II of the ADA. Rather than finalizing the guidelines for public rights-of-way, the Board embarked upon an ambitious outreach plan to the highway industry. We produced a videotape, an accessibility checklist, and a design guide on accessible public rights-of-way. In addition, the Board has been actively involved with transportation industry organizations and has worked closely with the Federal Highway Administration on access issues.

The Board has reviewed its education and outreach program and the impact of State and local government regulatory efforts in this area, and believes that the development of requirements for accessibility in the public right-of-way is appropriate at this time. In October 1999, the Board created a 32-member Public Rights-of-Way Access Advisory Committee to assist it in developing an NPRM for sidewalks, street crossings, and related pedestrian facilities. The Committee presented its report with its recommendations to the Board in January 2001. The Board has extended the Advisory Committee's charter for an additional year, an extension that will enable the Committee to develop a technical assistance manual for agencies and practitioners to support implementation of the future guidelines. During this time, the Board will proceed with rulemaking according to the Committee's report. A proposed rule is expected to be published in FY 2002.

FY 2000 Results — Rulemaking

In FY 2000, we issued two proposed guidelines or standards and a summary of draft final guidelines:

- NPRM on revisions to the ADA and ABA accessibility guidelines
- NPRM on access to electronic and information technology

- Summary of recommendations made by an ad hoc committee of the Board for draft final recreation facilities guidelines

FY 2000 Results — Codes and Standards

Our long-range goal is to take a leadership role in the development of codes and standards for accessibility. The Board works with model code organizations and voluntary consensus standards groups that develop and periodically revise codes and standards affecting accessibility. We have voting membership in eight codes and standards organizations, and monitor or are actively involved in the development or revision of dozens of other codes and standards affecting accessibility.

We believe this goal enhances the Board's credibility as a knowledgeable source of information regarding technical aspects of accessibility. Additionally, by working cooperatively with codes and standards-setting bodies, the Board will be more alert to non-Federal influences affecting its constituencies. Finally, as the Board assumes a leadership role, Federal and private codes and standards will be more similar. Harmonization between Federal and private requirements will make it more likely that buildings and facilities will be accessible, thus reducing the necessity for complaints and litigation. Some highlights of accomplishments in FY 2000 include:

- The Board has actively participated on the International Code Council (ICC)/ANSI A117 Committee in revising its standard, "*Accessible and Usable Buildings and Facilities*". A major objective of the Board and the ANSI A117 Committee is to harmonize the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and the ICC/ANSI A117.1 standard. The ANSI standard will consider revisions based on the recommendations of a Chairman's task group which was formed to review the Board's proposed rule to update and revise the ADA and ABA accessibility guidelines. The task group includes the Access Board.

- The parent of a child with a hearing loss petitioned the Board to include new provisions in ADAAG for acoustical accessibility for individuals who are hard of hearing because the acoustical environments found in many schools today are barriers to communication and therefore to learning for children with hearing impairments. The Board published a notice in the *Federal Register* in June 1998 requesting information on a variety of issues regarding acoustical environments including possible scoping and technical requirements. Rather than initiating rulemaking, the Board is collaborating with an existing Acoustical Society of America (ASA)/ANSI Working Group on Classroom Acoustics to develop private sector technical and scoping standards. A *Federal Register* notice of the Board's action was published in November 1999 and includes technical assistance on

classroom acoustical design. At the Board's request, the existing working group membership was broadened to include other stakeholders, including representatives of school systems, school designers, disability organizations, and the Department of Education. The Board has provided funding from its research budget to support administrative costs of the working group. A final draft of the standards has been submitted to the ANSI Committee S-12 on Noise for review and approval as an industry standard. Final action is expected by Spring 2001. Once the standard has been approved, the Board will pursue its enforceability.

- The Board provided comment on the year 2000 revisions to the Manual on Uniform Traffic Control Devices (MUTCD), which includes coverage of pedestrian signals, intersection design issues, pavement markings, signage, signalization, and other traffic control issues and was a member of a Signals Committee Task Force to develop a draft standard for accessible pedestrian signals. The Committee voted unanimously in June 2000 to include the standard in the 2000 MUTCD, which was published in January 2001.

FY 2001 Plans — Rulemaking

In FY 2001, we will issue four final guidelines or standards and one proposed guideline:

- Final rule on accessibility guidelines for play areas
- Final rule on access to electronic and information technology
- Final rule on revisions to the ADA and ABA accessibility guidelines
- Final rule on recreation facilities guidelines
- NPRM on access to outdoor developed areas

FY 2001 Plans — Codes and Standards

In FY 2000, the Board issued proposed guidelines for the Americans with Disabilities Act and Architectural Barriers Act. Although the Board's new guidelines are very similar to the first publication of the ICC/International Building Code, 2000 and the ICC/ANSI A117.1-1998, participation in the development of the first addenda to these documents will present further opportunities to harmonize the Board's final guidelines with these private consensus standards. Harmonization will reduce the potential for litigation and increase acceptance of the Americans with Disabilities Act and the Architectural Barriers Act in the building industry. As the new model codes and standards present opportunities for amendments in FY 2001, we will focus primarily on harmonization, by sharing public comments to our NPRM.

FY 2002 Objectives — Rulemaking

In FY 2002, we will issue one final guideline and propose two new guidelines:

- Final rule on outdoor developed areas
- NPRM on access to public rights-of-ways
- NPRM on access to passenger vessels

FY 2002 Objectives — Codes and Standards

In FY 2001, the Board plans to issue final guidelines for the Americans with Disabilities Act and the Architectural Barriers Act. The Board will concentrate its efforts on harmonizing its guidelines with model codes and standards. The ICC/International Building Code (IBC) process offers opportunities to propose changes to the IBC for incorporation in the 2003 model code. The Board will actively participate in this process by submitting or supporting proposals to include provisions that are similar to the requirements of the final rule for the ADA and ABA accessibility guidelines. In addition, the Board may propose changes that are not included in its final guidelines where the Board obtains information through the rulemaking process but has not had the opportunity to amend the final rule due to insufficient notice in the proposed rule or has lacked information. The model code process offers the Board the opportunity to consult the building industry prior to rulemaking.

TECHNICAL ASSISTANCE

The Board provides technical assistance to a wide variety of people regarding the accessibility guidelines and standards it issues. The Board's customers include architects, builders, designers, manufacturers, people with disabilities, State and local governments, and Federal agencies. The Board's technical assistance program has four components:

- Responding to customer inquiries. The Board responds to about 13,000 customer inquiries each year. We have four toll-free telephone lines for customers to call with questions. Customers also e-mail and fax us questions. Many literally are sitting at a drawing table with a design problem. They want accurate, reliable, and timely advice. Our customers value being able to discuss their questions directly with our accessibility specialists who developed the guidelines and standards.

- Developing and disseminating bulletins, manuals, and other publications. The Board maintains about 30 publications on accessibility issues. They range from short bulletins responding to frequently asked questions about specific issues such as accessible parking, to

manuals on the Board's guidelines and standards. We send out about 12,000 publications each year in print and alternate formats.

- Providing training. The Board conducts about 80 training sessions each year. Training usually is provided at conferences and seminars sponsored by other organizations. Training sponsors generally reimburse us for travel expenses.

- Maintaining the Board's website. The Board's web site (*http://www.access-board.gov*) has become a very effective way to distribute information to the public. Customers can download many of our publications and view our accessibility guidelines and standards from our web site.

The Board also has established partnerships with other organizations such as the American Institute of Architects, the National Association of ADA Coordinators, and the Disability and Business Technical Assistance Centers to disseminate information about the Board's programs. Many of the Board's guidelines and publications are available through these organizations' on-line networks. The Board also provides training for these organizations. Data on the Board's technical assistance program for FYs 1998 to 2000 are attached as Appendix D.

The Board's long-range goal is to be known as the leading source of information about accessibility and to disseminate information to our customers in effective ways. As we revise the guidelines for the Americans with Disabilities Act and the Architectural Barriers Act and develop guidelines for new areas such as recreation and play areas, and standards for electronic and information technology, there will be increased demands for technical assistance from existing and new customer groups. There also will be opportunities to use existing partnerships and establish new partnerships with customer groups to disseminate information about the Board's guidelines and standards.

FY 2000 Results — Leading Source of Information

As a result of our expertise in accessibility issues, many government agencies ask for our assistance in ensuring access at their facilities. During FY 2000, we conducted accessibility reviews of House and Senate Office buildings for the Congressional Office of Compliance. The Office of Compliance was established to implement and enforce the Congressional Accountability Act of 1995. Also, at the request of the General Accounting Office (GAO) we assisted in the development of a survey of polling place accessibility. Board staff also provided training to GAO surveyors. GAO is conducting a comprehensive nationwide study to determine the extent to which States are providing people with disabilities access to polling places and polling methods since the passage of the Voting Accessibility for the Elderly and Handicapped Act in 1984.

Many foreign government agencies also ask for our assistance in promoting access in their countries. In FY 2000, we met with several delegations from other countries, including: the

assistant director of planning for public building construction from the Shizuoka Prefecture in Japan; Croatian representatives from the State Department's International Visitor Program; Japanese researchers on accessible pedestrian signals and wayfinding technology; European Union Commission representatives to discuss the Access Board's role in developing U.S. disability policies; the Department of Agriculture of Canada regarding the design of a new headquarters building in Ottawa, Ontario; and Sweden's Office of Disability Ombudsman Board.

Each year the Board meets outside of Washington, DC to encourage a more direct and open dialogue with members of the public about accessibility and the work of the Board. These visits outside the Washington beltway substitute for one of the Board's regular meetings, which are held every other month in the Washington, DC area. In November, the Board went to Boston, MA and toured three sites in the Boston area. At the New Chardon Street District Courthouse, the Board visited a very accessible courtroom with an electric adjustable lectern, an accessible jury box, judge's bench, and witness stand, and an accessible courtroom holding cell. At Harvard University, we visited Memorial Church and Memorial Hall. Both of these historic facilities showed creative means of access, as well as accessible wheelchair spaces in their assembly areas. Harvard hosted a luncheon for the Board where we were joined by the University Provost and several staff from the University. At the WGBH National Center for Accessible Media, we visited areas of WGBH that address captioning, making web sites accessible, making educational multimedia accessible, descriptive video service, digital TV access, and motion picture access.

On July 27, 2000 the Board held a public forum to commemorate the 10th anniversary of the signing of the Americans with Disabilities Act (ADA). The forum, *The Access Board and the ADA: The Next 10 Years*, celebrated the achievements of the Board over the past decade and looked ahead at the work that remains to be done. It provided an opportunity for the public to make recommendations on the work the Board should take into consideration in mapping out an agenda in further fulfilling its ADA mission. The forum included a 15-minute, narrated slide presentation on the Board's activities over the past 10 years and our current rulemaking efforts. About 100 people attended the forum. A quarter of the attendees provided comments to the Board covering a range of topics. Major topics and common themes included: multiple chemical sensitivities, electronic and information technology, coordination with the building and codes industries, and voting accessibility.

In FY 2000, the Board responded to 12,579 customer inquiries; distributed 6,389 information packets; and conducted 83 training sessions which were attended by 8,921 people. An information packet usually contains several publications. Since we do not collect data on publications disseminated through partner organizations, the actual number of publications disseminated to our customers is greater than our current data indicate.

The Board teamed up with the American Institute of Architects (AIA) to develop a web-based education course on the Board's ADA guidelines. The course focuses on supplements to

ADAAG that cover public sector facilities, including courthouses and prisons, and building elements designed for children's use. The AIA is making this course available on its web site to train architects and provide continuing education credits to its members and others. It is also available through the Board's web site. The interactive course includes case studies, discussion of key issues, and multiple choice questions and allows users to download a course workbook and copies of the guidelines. Since the end of September 2000, 198 individuals have taken the on-line course.

The Board added to its collection of materials by publishing a new resource, *Accessible Rights-of-Way: A Design Guide*. The Board developed this guide in cooperation with the Federal Highway Administration in order to provide advisory information until guidelines for public rights-of-way are developed. The 148-page guide shows how existing ADA standards for pedestrian routes on sites can be adapted for application to sidewalks and street crossings. It provides best practices recommendations, along with the rationale behind them, for the design, construction, alteration, and retrofit of public pedestrian facilities.

Other technical assistance and training projects funded in FY 2000 include:

- an assessment of the problems visually impaired pedestrians have in current roundabout design and the development of technical assistance materials on accessible roundabout designs
- a project with the Construction Specifications Institute to develop technical assistance materials on construction tolerances and measurement protocols for surface flatness, slope, vibration, and rollability
- a project with the Forest Products Laboratory of the Department of Agriculture to test coatings for use on fibrous playground surfacing materials to improve maintainability and usability for people with disabilities
- a project with the Rehabilitation Engineering and Research Center on Universal Design to conduct a workshop on innovative approaches to gathering anthropometrics data needed for the development of accessibility guidelines for buildings, facilities, and communications
- a project to assist the Board with its technical assistance program required by section 508 of the Rehabilitation Act Amendments and the training program required by the Assistive Technology Act for access to electronic and information technology. The project will develop technical assistance and training materials and place these materials on various Federal web sites.

We used existing partnerships with organizations and established new partnerships to develop the training and technical assistance materials.

We have used our web site to provide copies of the Board's guidelines and answers to frequently asked questions about the guidelines so that more customers can get the information they need. The number of user sessions continues to grow. There were approximately 416,693 user sessions in FY 2000, nearly double the amount from the previous year. Due to the increasing use of the Board's web site, we are focusing on web-based dissemination of information since this allows a variety of options for speedy distribution at a low cost for the Board. During FY 2000, we completed a redesign and upgrade of our web site. The new site features a streamlined organization for easier navigation and a host of new material in a variety of file formats (HTML, text, and PDF). This information includes material on various Board guidelines, research reports, and other Board publications. The site also offers new features, such as an on-line form for filing complaints under the ABA. Since the new site was unveiled, the number of users sessions averaged over 51,000 a month, a three-fold increase over the monthly average for FY 1999.

We also prepared articles for publications such as the World Travel and Tourism Development, an international reference periodical published in association with a number of leading travel and tourism organizations, and for the AIA Architect and the BOCA Magazine and Bulletin on the ADA and ABA Accessibility Guidelines proposed rule. We also published and distributed six copies of *Access Currents*, a free newsletter the Board issues every other month by mail and e-mail. In addition, we responded to press inquiries from:

- national and syndicated newspapers and magazines such as: the New York Times, the Wall Street Journal, Kiplinger Washington Newsletter, USA Today; Consumer Reports Magazine, Business Week Online, Wired News, Boston Globe, and the Los Angeles Times

- government related newspapers and journals including: the Federal Times, Federal Computer Week, Government Computer News, and Government Executive Magazine

- disability related newsletters including: Disability Compliance Bulletin, Disability Law Reporter, Report on Disability Programs, Disability Funding News, Disability Resources Monthly, and the Transit Access newsletter

- trade association periodicals such as: Banker and Tradesman Newspaper, Managing Housing Letter, Maintenance Solutions Magazine, ATM Magazine, American Banker Newspaper, Outdoor Hospitality Magazine, School Construction News, Advance for Audiologists Magazine, Meeting News, Today's Facility Magazine, Landscape Architecture and Specifier Magazine, and Indoor Environment Business

- local newspapers, television and radio stations such as: the San Francisco Daily Journal, WTOP News Radio, St. Petersburg Times, Hartford (CT) Courant, Glenn Falls (NY) Post Star Newspaper, Tampa Tribune, Des Moines Register, Naples (FL) Daily News; Silverton (OR) Appeal Tribune, Pennsylvania Township News Magazine, KCRG TV (Cedar Rapids, Iowa ABC affiliate), Pittsburgh Post Gazette, Patriot News (Harrisburg, PA newspaper), Olympian (WA) Newspaper; Paris (TX) News, Tacoma News Tribune, Steward News (Florida newspaper), and the Star-Ledger (New Jersey newspaper).

FY 2001 Plans — Leading Source of Information

In FY 2001, we plan to develop training and technical assistance programs for a variety of accessibility issues. We will also continue to fund the development of necessary regulatory assessments for our rulemakings. In carrying out our training and technical assistance duties, the Board will identify potential partners, including the Disability and Business Technical Assistance Centers, former Access Board advisory committee members, trade and industry groups, and disability groups. The following research, technical assistance, and training projects will be funded in FY 2001:

- ADA and ABA training and technical assistance – develop materials for use in print, audio visual, and on-line training programs for design professional and general audiences

- Classroom acoustics – promote implementation and use of the new ANSI/ASA standard on classroom acoustics by developing an outreach program and producing technical assistance materials

- Historic preservation – develop a technical assistance bulletin on the review and decision process through a collaboration with National Trust, National Park Service, and State Historic Preservation Offices

- Recreation training and technical assistance – develop materials for use in print, audio visual, and on-line training programs for design professional and general audiences

- Indoor Environmental Air Quality – develop a realistic plan of actions that can be taken to reduce the level of toxic chemicals and biological agents in the indoor environment through building design and construction to provide more access for people with a variety of disabilities affected by indoor environmental air quality

- Exterior contrast and illumination for people with vision impairments – determine the current state of knowledge regarding exterior contrast and illumination for people with vision impairments in support of a new ANSI working group

- Implications of scooter and power wheelchair use – conduct a cost-benefit analysis that identifies ADAAG provisions requiring modification to make spaces and elements more accessible to people who use scooters or power wheelchairs and assess the feasibility of potential changes in the guidelines

FY 2002 Objectives — Leading Source of Information

In FY 2002, we will continue to develop training and information materials on our section 508 standards with a focus on the responsibilities of the States. We will produce a simple fact sheet and questions and answers on the application of the section 508 standards that can be handed out at conferences. Workshops for Federal procurement staff and presentations at conferences and other on-location training will be a major part of our FY 2002 section 508 awareness campaign.

ARCHITECTURAL BARRIERS ACT COMPLIANCE AND ENFORCEMENT

The Board enforces the Architectural Barriers Act (ABA), which requires that most buildings designed, constructed, altered, or leased by the Federal government and certain other federally financed facilities be accessible to people with disabilities. Complaints received by the Board concern post offices, national parks, military facilities, veterans hospitals, subway stations, and a variety of other facilities. When the Board has jurisdiction and finds that the applicable accessibility standards were not followed, we request a corrective action plan and monitor the case until the barrier is removed. Even when the Board does not have jurisdiction or no violation is found, we attempt to negotiate voluntary barrier removal.

The Board's long-range goal is to work in partnership with Federal agencies and others to ensure that they achieve 100 percent compliance with accessibility standards in every building covered by the Architectural Barriers Act. The Board's experience with resolving complaints is that most violations are not intentional. When violations are found, it is usually because the people responsible for designing buildings, reviewing plans, and on-site construction did not have a good understanding of the accessibility standards and how to apply them. People responsible for building planning and design at headquarters, regional and field offices, and local sites must have a working knowledge of the accessibility standards if 100 percent compliance is to be achieved. As Federal agencies are reorganized and personnel assignments and responsibilities change, it is important that agencies have effective systems for training new people responsible for applying the accessibility standards and for monitoring compliance with the Architectural Barriers Act. Training will be even more important when the accessibility guidelines and standards for the Architectural Barriers Act are revised.

FY 2000 Results — ABA Compliance

In FY 2000, the Board received 178 written complaints. These included complaints investigated under the Architectural Barriers Act, and also those concerning facilities not covered by that law but potentially covered by other laws, such as the Americans with Disabilities Act and the Rehabilitation Act. Of the 178 complaints, we opened 82 as new Architectural Barriers Act cases. Although the Board did not have authority under the Architectural Barriers Act in the other 96 complaints, we responded to the complaints, usually by referring them to the appropriate enforcement agency. In addition, we referred another 21 complaints to other agencies for action when our investigations revealed there was no violation of the Architectural Barriers Act or we did not have jurisdiction. The Board receives many comments from its customers, indicating they are pleased that we make this extra effort to ensure that their complaints are addressed.

The Board continued its high rate of successful complaint resolution in FY 2000. Of those cases closed where the Board had jurisdiction and a violation of applicable standards was found, 100 percent resulted in the successful removal of barriers. Additionally, in those instances where the Board did not have jurisdiction over the facility or no violation was found, we negotiated voluntary barrier removal in 41 percent of the cases.

The Board responds quickly to all new complaints and contacts complainants more frequently to update them on the status of their complaints. In FY 2000, the Board sent initial letters to complainants acknowledging receipt of their complaint or began an investigation of the issues they raised within an average of 1.4 days. The Board's customers regularly say they are pleased to hear from a Federal agency so promptly. It is Board practice to keep complainants informed on a regular basis throughout the course of our investigations. In FY 2000, we contacted 106 complainants to provide updates on the status of their complaints.

In FY 2000, we also developed comprehensive compliance and enforcement pages on our web site designed to assist users with varying levels of knowledge about accessibility laws. The pages provide specific information about the Architectural Barriers Act, including an electronic complaint form for filing ABA complains as well as general information about various accessibility laws and how to file complaints under these laws.

FY 2000 Results — Working in Partnership with Agencies

During FY 2000 we continued ongoing actions under our long-term goal of working in partnership with agencies and others to make the Federal government a model of compliance with accessibility standards.

Under our partnership with the General Services Administration (GSA), GSA finalized a revised and updated version of its Solicitation for Offers (SFO) used in leasing actions,

incorporated as appropriate Board staff comments on the accessibility provisions of the SFO, and began the process of developing an electronic version of the revised SFO for use via its web site.

Under our partnership with the U.S. Postal Service (USPS), we reviewed a USPS CD-ROM and Handbook for compliance with current accessibility standards. The USPS compiled comprehensive design and construction criteria, including accessibility requirements, and made them available on a CD-ROM, USPS 2000 Building Design Standards and the 1999 USPS Standard Design Criteria Handbook. This CD-ROM, which includes hundreds of detailed computer-assisted design drawings of various postal facilities prototypes, and the Handbook are used by postal staff as references and by USPS contractors as working tools. USPS staff also access these criteria via the USPS intranet. We reviewed this CD-ROM and the Handbook, and in February 2000, we forwarded to the USPS Design and Construction staff the results of our accessibility review of the Handbook and the CD-ROM drawings of Medium and Small Standard Building Designs. We also included information on those drawings that would be affected by the pending revisions to the accessibility guidelines for the Americans with Disabilities Act and Architectural Barriers Act, for future reference. The USPS staff has informed us that our comments and suggestions about the accessibility aspects of the drawings proved useful and will be incorporated, as appropriate, into future versions when these drawings are updated and the revised CD-ROM is issued.

We also met with a USPS Design and Construction staff architect/engineer to describe and offer Board and other resources, such as manuals and videotapes, to assist the USPS in training on the Architectural Barriers Act standards. The USPS subsequently incorporated the recommended videotapes into its required training for Design and Construction architect/engineers.

FY 2001 Plans – ABA Compliance

In FY 2001, the Board will continue to investigate complaints under the Architectural Barriers Act. At the beginning of FY 2001, the Board had 91 active cases. We expect to receive 160 new complaints in FY 2001. Of this total, we estimate that 80 will be opened as new Architectural Barriers Act cases and 80 will be referred to other agencies for enforcement under other laws, such as the Americans with Disabilities Act and the Rehabilitation Act. The Board will continue to respond to complaints in an average of three or fewer business days and provide periodic updates to complainants on the status of their complaints.

FY 2001 Plans – Working in Partnership with Agencies

The optimum end result of these partnerships is the identification of "best practices" to share with other Federal agencies and interested parties. In early FY 2001, we concluded our partnerships with GSA and USPS and identified two such exemplary practices - the leasing policies and procedures of the GSA as executed through its Solicitation for Offers (SFO), and the

USPS 2000 Building Design Standards CD-ROM which provides ready access to accurate and consistent information on accessible features of a wide variety of postal facilities, for use by both USPS staff and its contractors.

GSA completed the electronic version of its revised and updated SFO and made it available on the GSA web site in November 2000. Based upon our analysis of the SFO accessibility provisions and how they are used in practice, we identified the new SFO as a best practice and publicized it on our agency web site in January 2001. We recommended that agencies conducting their own leasing actions review the accessibility provisions in the GSA SFO for incorporation, as appropriate in their leasing processes. We also provided a link to the SFO on the GSA web site so that interested parties can access this leasing information directly.

We also completed our partnership with the USPS, resulting in the identification of a best practice. We selected the USPS 2000 Building Design Standards CD-ROM as a best practice because it is an exemplary method of disseminating comprehensive, accurate and up-to-date information on accessibility requirements in an electronic format. In November 2000, we publicized this dissemination method through our web site as a best practice to share this innovative technique with other Federal agencies and interested parties who use design prototypes in their construction projects. We also provided a link to the e-mail address of the Acting Director, Design and Construction, USPS, so that interested parties can contact her directly for more information. We have been informed that the USPS has received a number of inquiries based upon this link.

We will continue to promote the goal and work in partnership with agencies in improving their compliance with Architectural Barriers Act accessibility standards. One such partnership effort is planned for April 2001. At the request of USPS, the Board will conduct training on the Architectural Barriers Act standards for the Architect/Engineer project managers from each of the ten USPS Field Services Offices.

With the impending issuance of revised and updated Architectural Barriers Act standards, we will begin to focus on the following strategies under this long-term goal:

- Identify plans or actions by the four Architectural Barriers Act standard setting agencies to implement the new Architectural Barriers Act standards
- Identify any best practices for implementation of the new standards and publicize these to other agencies

FY 2002 Objectives – ABA Compliance

In FY 2002, the Board will continue to investigate complaints under the Architectural Barriers Act. We estimate that we will have 90 active cases at the beginning of FY 2002 and will

receive 160 new complaints. We expect to open 80 new Architectural Barriers Act cases and refer 80 complaints to other agencies for enforcement under other laws. We will continue to provide good customer service. We also will evaluate and refine our electronic complaint-filing system and the compliance and enforcement information presented on our web site.

FY 2002 Objectives – Working in Partnership with Agencies

In FY 2002, we will continue our efforts to identify and publicize exemplary methods, procedures, or technologies for implementing the new Architectural Barriers Act standards. In addition, the Board will look into the development of web-based training or other interactive methods for implementation of the new ABA standards in cooperation with GSA or other agencies.

COST DISCUSSION

Object Class 1100 Salary

FY 2000	$2,241,500
FY 2001	$2,361,000
FY 2002	$2,548,000

We anticipate the Board will use 30.56 FTE in FY 2001 and 31.97 FTE in FY 2002. The increases in salary costs reflect the 3.7 percent cost-of-living increase. Public Board members are paid at an Executive Level IV rate, and in FY 2002 we are planning on five days per Board member for each of the six regular Board meetings. We are also planning three meetings each four days long for a small group of Board members to complete the rulemaking agenda. Additionally, we have included a total of 120 hours for additional duties for Board officers.

Object Class 1200 Personnel Benefits

FY 2000	$511,000
FY 2001	$550,000
FY 2002	$583,000

We calculated benefits based on our experience with the benefit packages employees have chosen in the past. Seventy three percent of the staff participate in the Metro Transit Subsidy program. Benefits for public Board members include only the social security allotment from the employer.

Object Class 2100 Travel

FY 2000	$297,420
FY 2001	$202,000
FY 2002	$197,000

Our travel budget is devoted to the cost of travel for 13 public Board members to attend six Board meetings and the three incidental meetings in FY 2002. Most of the funds for staff travel will be used to send two to three staff members to meetings of model codes and standards organizations. We continue to be very successful in being reimbursed for travel to provide training.

Object Class 2319 Rent

FY 2000	$293,000
FY 2001	$300,000
FY 2002	$305,000

We rent 7,000 square feet of commercial office space. Our estimated rent cost is $300,000 for FY 2001, with a 2.0 percent increase in FY 2002. The increase is mandated by GSA.

Object Class 2332 Postage

FY 2000	$51,000
FY 2001	$51,000
FY 2002	$51,000

Our largest expenditure in this category is postage for the 25,000 publications we send out to our customers yearly. This includes postage for distributing copies of newly published rules. We also spend $6,000 for an in-town delivery service and $5,000 for the rental of 2 postage meters.

Object Class 2335 Phones

FY 2000	$34,000
FY 2001	$36,000
FY 2002	$32,000

Our largest expenditure in this category is about $20,000 per year for our FTS lines. We are planning $8,000 for our toll-free lines and $4,000 for our local calls.

Object Class 2400 Printing

Federal Register

FY 2000	$163,215
FY 2001	$121,000
FY 2002	$121,000

Publishing proposed and final rules in the *Federal Register* is a relatively high cost for the Board. Printing in the *Federal Register* costs $450 per page, and the rules can be 150 pages long. We plan to complete one proposed and four final rules in FY 2001 and one final rule and two proposed rules FY 2002. Rules are reviewed by OMB in accordance with Executive Order 12866 before publication in the *Federal Register*. Due to this external review process, it is not always possible to know whether rules completed in the later part of a fiscal year will be published in the same fiscal year.

Code of Federal Regulations

FY 2000	$11,000
FY 2001	$11,000
FY 2002	$11,000

Our final rules are printed in the Code of Federal Regulations, and we are charged for these costs. Based on our past experience, we budgeted $11,000 in FY 2001 and 2002.

Publications and Newsletters		Providing customers copies of our accessibility guidelines, general publications, and newsletters is one of our most important activities. The amount requested in FY 2002 reflects the anticipated cost of printing copies of the proposed and final rules which will be published.
FY 2000	$ 46,760	
FY 2001	$110,000	
FY 2002	$110,000	

Object Class 2500
Contracts

Research and Technical Assistance		Contracting for research to assist in our guideline development and to provide technical assistance materials is crucial to the Board"s mission. In FY 2002 the Board will emphasize the development of technical assistance materials for its new ADA and ABA guidelines.
FY 2000	$400,000	
FY 2001	$400,000	
FY 2002	$400,000	
Facilitator/Contractor		In FYs 2001 and 2002, we will use contractor support to develop training materials to meet the Board's responsibilities under section 508 of the Rehabilitation Act Amendments of 1998 and section 203(d) of the Assistive Technology Act of 1998.
FY 2000	$228,339	
FY 2001	$282,000	
FY 2002	$229,000	
Bureau of Public Debt		The Board contracts with the Bureau of Public Debt (BPD) in the Department of the Treasury to provide procurement, financial, payroll, and personnel services. We anticipate the service will cost $65,000 in FY 2001 and $86,000 in FY 2002. In FY 2002 we anticipate using more services from BPD to process the Board's contracts.
FY 2000	$71,000	
FY 2001	$65,000	
FY 2002	$85,000	
Staff Training		Our staff training budget has been devoted to our employee improvement efforts, such as courses in human resources, management, and alternative dispute resolution.
FY 2000	$10,000	
FY 2001	$10,000	
FY 2002	$10,000	

Mailing Services

We contract with a Javits-Wagner-O'Day Act vendor to mail our publications.

FY 2000	$35,000
FY 2001	$30,000
FY 2002	$30,000

Court Reporter

We contract with a certified court reporter to provide transcripts of all Board and most advisory committee meetings. The cost is approximately $2,000 per meeting. We are planning for 6 Board meetings in FY 2002.

FY 2000	$14,400
FY 2001	$13,000
FY 2002	$13,000

Interpreter Services

We provide sign language interpreters at all Board and most advisory committee meetings. The cost is approximately $750.00 per day, and we plan 28 days of interpreters in FY 2002.

FY 2000	$30,366
FY 2001	$21,000
FY 2002	$21,000

Federal Express

We use Federal Express to send meeting materials to Board members and advisory committee members.

FY 2000	$5,000
FY 2001	$5,000
FY 2002	$5,000

Equipment Maintenance

We purchase maintenance contracts for our office entry and security system, and a copier.

FY 2000	$12,000
FY 2001	$12,000
FY 2002	$12,000

Drug Testing

We contract with the Department of the Interior to provide services for the mandatory drug testing program.

FY 2000	$1,000
FY 2001	$1,000
FY 2002	$1,000

Miscellaneous

FY 2000	$15,000
FY 2001	$12,000
FY 2002	$12,000

We contract with the Department of the Treasury to provide employee health services. We anticipate the same type of expenditures in FYs 2001 and 2002.

Desktop Management

FY 2000	$ 92,000
FY 2001	$143,000
FY 2002	$201,000

This is the yearly cost of the desktop management program. In FY 2002 the Board will pay approximately $285.00 per month for each of 36 seats. All of the Board's desktop computing needs - the desktop computers, local area network server, software, printers, maintenance and support services to our staff, including web site hosting and internet service provider functions are provided under the program by the EER Systems, Inc. As part of the contract, the company also supplies and supports adaptive technology used by several employees. The Board will receive new computers every three years, and our software will be updated on a continuous basis. Beginning in late FY 2001, the Board plans to bring its telephone system under its desktop seat management program. The contractor will supply the Board with desktop phone sets and a telephone system switch. The digital telephone system will be tied closely to the Board's desktop computer system. The phone system will add approximately $58,000 per year, for the first two years of the contract, to the seat management program costs. After the first two years of the contract, the cost for the telephone system will fall to about $23,000 yearly.

Object Class 2600
Supplies

Books

FY 2000	$7,000
FY 2001	$8,000
FY 2002	$8,000

Our library is considered to be one of the best libraries of accessible design materials. Every book, article, and periodical is maintained in a database so the information is easily accessed. It is used extensively by our staff in developing guidelines and by many architects, engineers, and building code officials. We plan $8,000 in periodical subscriptions and new book purchases in FY 2001 and $8,000 in FY 2002.

Office Supplies		We use about $25,000 worth of office supplies each year.
FY 2000	$25,000	
FY 2001	$25,000	
FY 2002	$25,000	

Object Class 3100 Equipment		With the desktop management program, we plan a minimum of equipment purchases.
FY 2000	$10,000	
FY 2001	$ 5,000	
FY 2002	$ 5,000	

Appendix A

ACCESS BOARD APPROPRIATIONS

	FY 2000 Actual Spending	FY2001 Spending Plan	FY2002 Requested	Increase FY 01 to 02
PERSONNEL COMPENSATION				
Full-Time Perm (FTP)	$1,936,000.00	$2,107,000.00	$2,201,000.00	4.46%
Temporary Full Time				
Part Time	46,000.00	49,000.00	51,000.00	4.08%
Board Members	220,500.00	177,000.00	251,000.00	41.80%
Overtime	5,000.00	5,000.00	5,000.00	0.00
Employee Awards	34,000.00	36,000.00	40,000.00	11.11%
Special Personnel Services	0.00			
Total Salary	$2,241,500.00	$2,374,000.00	$2,548,000.00	7.33%
Personnel Benefits	$511,000.00	$540,000.00	$583,000.00	7.96%
TOTAL Personnel Compensation	$2,752,500.00	$2,914,000.00	$3,131,000.00	7.45%
TRAVEL				
Board Members	$213,720.00	$126,000.00	$174,000.00	38.10%
Advisory Committee	50,700.00	61,000.00		-100.00%
Staff	33,000.00	28,000.00	23,000.00	-17.86%
TOTAL TRAVEL	$297,420.00	$215,000.00	$197,000.00	-8.37%
RENT (OFFICE SPACE)	$293,000.00	$300,000.00	$305,000.00	1.67%
POSTAGE				
Courier Service	$6,000.00	$6,000.00	$6,000.00	0.00%
Postage Meters	4,000.00	5,000.00	5,000.00	0.00%
Postage	41,000.00	40,000.00	40,000.00	0.00%
TOTAL POSTAGE	$51,000.00	$51,000.00	$51,000.00	0.00%
PHONES				
FTS	$18,000.00	$20,000.00	$20,000.00	0.00%
GSA - Lines	8,000.00	8,000.00	8,000.00	0.00%
Bell Atlantic	4,000.00	4,000.00	4,000.00	0.00%
Phone Maintenance	4,000.00	4,000.00		-100.00%
TOTAL PHONES	$34,000.00	$36,000.00	$32,000.00	-11.11%
PRINTING				
Federal Register	163,215.00	121,000.00	121,000.00	0.00%

Appendix A

Code of Federal Regs.	11,000.00	11,000.00	11,000.00	0.00%
Newsletter/Press Releases	10,000.00	10,000.00	10,000.00	0.00%
Publications	46,760.00	110,000.00	100,000.00	-9.09
TOTAL PRINTING	**$230,975.00**	**$252,000.00**	**$242,000.00**	**-3.97%**
RESEARCH & TECH. ASSIST.	**$400,000.00**	**$400,000.00**	**$400,000.00**	**0.00%**
ADMINISTRATIVE SERVICES				
Facilitator/Contractors	$228,339.00	$219,000.00	$229,000.00	4.57%
BPD	71,000.00	65,000.00	85,000.00	30.77%
Training	10,000.00	10,000.00	10,000.00	0.00%
Mailing Services	35,000.00	30,000.00	30,000.00	0.00%
Court Reporter	14,400.00	13,000.00	13,000.00	0.00%
Interpreter Services	30,366.00	21,000.00	21,000.00	0.00%
Courier (Federal Express)	5,000.00	5,000.00	5,000.00	0.00%
Equipment Maintenance	12,000.00	12,000.00	12,000.00	0.00%
Drug Testing	1,000.00	1,000.00	1,000.00	0.00%
Miscellaneous	15,000.00	12,000.00	12,000.00	0.00%
Desktop Management	92,000.00	163,000.00	201,000.00	40.56%
TOTAL ADMIN. SERVICES	**$514,105.00**	**$551,000.00**	**$615,000.00**	**11.62%**
SUPPLIES				
Books	$7,000.00	$8,000.00	$8,000.00	0.00%
Office Supplies	25,000.00	35,000.00	25,000.00	-28.57%
TOTAL SUPPLIES	**$32,000.00**	**$43,000.00**	**$33,000.00**	**-23.26%**
EQUIPMENT	**$10,000.00**	**$22,000.00**	**$5,000.00**	**-77.27%**
TOTAL	**$4,615,000.00**	**$4,784,000.00**	**$5,015,000.00**	**4.83%**

Appendix B1

STATUS OF CURRENT ACCESS BOARD RULEMAKING EFFORTS
February 2001

- **ADAAG Revision and Architectural Barriers Act Accessibility Guidelines.** This rulemaking makes revisions to the Americans with Disabilities Act Accessibility Guidelines (ADAAG), updates the Minimum Guidelines and Requirements for Accessible Design (MGRAD) for Federal facilities covered by the Architectural Barriers Act (ABA), and creates new guidelines for accessible housing.

The rulemaking consists of separate scoping and application sections for each law and one set of technical requirements for both the ADA and the ABA. The ADA scoping section is based on recommendations of the Board's ADAAG Review Advisory Committee and covers private facilities (places of public accommodation and commercial facilities) and state and local government facilities. The other scoping section addresses federally funded facilities covered by the ABA. New scoping and technical provisions for accessible housing are included in this rule and are based on requirements for "Type A" dwelling units contained in the 1998 edition of the ICC/ANSI A117.1 standard, "Accessible and Usable Buildings and Facilities".

The Board established a 22-member ADAAG Review Advisory Committee to review and make recommendations for updating ADAAG to ensure that it remains consistent with technological developments and changes in model codes and national standards and continues to meet the needs of people with disabilities. The committee developed a comprehensive set of recommendations for changes to sections 1-10 of ADAAG. The recommendations address the format of the guidelines, its numbering system, and changes to the scoping provisions and technical requirements. Cited as an outstanding example of reinventing government, the committee and the Board received the Vice Presidential Hammer Award in July 1996. The committee's final report, "*Recommendations for a new ADAAG*", is available from the Board.

The Board issued a proposed rule in November 1999. The comment period closed on May 15, 2000. Over 2,500 comments were received on the proposed rule. The Board held two public hearings on the proposed rule. One hearing was held in Los Angeles, CA on January 31, 2000; the second hearing was held in Arlington, VA on March 13, 2000.

- ✓ notice of intent to establish advisory committee - April 6, 1994
- ✓ notice establishing advisory committee - September 14, 1994
- ✓ full committee meetings: October 24-25, 1994; January 26-27, 1995; April 26-29, 1995; February 26 - March 1, 1996; July 7-9, 1996; August 26-28, 1996 (numerous subcommittee meetings were also held)

- ✓ committee presented recommendations to the Board - July 10, 1996
- ✓ notice of proposed rulemaking - November 16, 1999
- ✓ public hearing - January 31, 2000; March 13, 2000
- ✓ information meeting - October 24-25, 2000

● **Recreation Facilities.** This rulemaking will address recreation facilities including sports facilities, places of amusement, golf, and boating and fishing facilities. The Board convened a 27-member advisory committee to make recommendations on issues related to making these areas accessible. The committee met from July 1993-May 1994. After receiving the committee's report, the Board published it as an advance notice of proposed rulemaking (ANPRM). Over 600 comments were received on the report and questions asked in the ANPRM. The Board also sponsored an information meeting on access to miniature golf facilities in September 1996 to obtain additional information on some issues related to access to miniature golf courses.

The Board published an NPRM for sports facilities, places of amusement, golf, and boating and fishing facilities in July 1999 and held two public hearings to receive feedback during the comment period. The NPRM was based on the recommendations of the advisory committee and public comments received in response to the ANPRM and information meeting. The comment period closed on December 8, 1999. Over 300 comments were received on the proposed rule. The Board also sponsored an information meeting on access to amusement rides in December 1999 to clarify concerns raised by the amusement industry during the public comment period. In an effort to provide the public with more opportunities for input into the provisions for a final rule, the Board has placed in the docket for review and comment a summary of recommendations made by an ad hoc committee of the Access Board for the final recreation facilities guidelines. The summary reflects the ad hoc committee's consideration of comments on the proposed rule and information gathered at meetings sponsored by the committee. Comments will be accepted on the summary and the Board will consider those comments before it votes on a final rule. The Board held two informational meetings in Washington, DC and San Francisco, CA to discuss the summary.

- ✓ notice of intent to establish advisory committee - February 3, 1993
- ✓ notice establishing advisory committee - June 10, 1993
- ✓ full committee meetings: July 15-16, 1993; October 23-25, 1993; January 28-30, 1994; March 18-20, 1994; May 20-22, 1994 (numerous subcommittee meetings were also held)
- ✓ committee presented recommendations to the Board - July 13, 1994
- ✓ advance notice of proposed rulemaking - September 21, 1994
- ✓ information meeting on miniature golf facilities - September 16, 1996
- ✓ notice of proposed rulemaking - July 9, 1999
- ✓ information meeting on amusement rides - December 1, 1999
- ✓ public hearing - August 26, 1999, November 17, 1999

- ✓ notice of draft final guidelines summary and informational meetings - July 21, 2000
- ✓ information meetings - August 21-22, 2000; September 6-7, 2000

● **Outdoor Developed Areas.** The Board convened a 27-member advisory committee to make recommendations on issues related to making various recreation areas accessible. The committee met from July 1993-May 1994. The committee did not reach consensus on how access should be provided in outdoor developed areas. Two alternatives were presented. One alternative based the determination of the degree of access on the consideration of five interrelated factors: recreation setting, condition of the natural environment, amount of structural modification, recreation experience, and consultation with people with disabilities. The other approach defined the degree of access at the onset to be the easier degree for all recreation settings and environments unless it would change the fundamental nature of the activity or environment. Exceptions could then be invoked to modify the degree of access on a requirement by requirement basis, because of severe elevations, geologic features, historic character, or the specific purpose of a trail.

The Board created a 26-member Outdoor Developed Areas Regulatory Negotiation Committee to achieve a consensus approach and requirements for making outdoor developed areas accessible. The Committee presented its report to the Board in September 1999.

- ✓ notice of intent to establish regulatory negotiation committee - April 18, 1997
- ✓ notice establishing regulatory negotiation committee - June 4, 1997
- ✓ full committee meetings: June 26-27, 1997; September 24-26, 1997; December 14-16, 1997; January 31-February 2, 1998; May 18-21, 1998; August 11-14, 1998; October 21-24, 1998; January 19-22, 1999; April 27-30, 1999; July 15-16, 1999
- ✓ committee presented report to the Board - September 15, 1999

● **Passenger Vessels.** This rulemaking will address access to ferries, cruise ships, excursion boats, and other vessels. The Board's initial rulemaking on transit vehicles asked questions on issues related to water transportation. Comments confirmed that further study was necessary before access requirements could be developed. In 1994, the Access Board and the Department of Transportation funded a research project to assess the feasibility and impact of providing access to a variety of vessels. This project was completed in July 1996 and provided valuable information for rulemaking. The Board and DOT also held an information meeting with organizations representing people with disabilities and the marine industry to determine the scope and complexity of the rulemaking.

In August 1998, the Board created a 22-member Passenger Vessel Access Advisory Committee to provide recommendations for a proposed rule addressing accessibility guidelines for newly constructed and altered passenger vessels covered by the Americans with Disabilities Act. The Committee presented its report with its recommendations to the Board in November 2000.

- ✓ information meeting - April 15, 1996
- ✓ notice of intent to establish advisory committee - March 30, 1998
- ✓ notice establishing advisory committee - August 12, 1998
- ✓ full committee meetings: September 24-25, 1998; November 18-21, 1998; February 4-6, 1999; April 21-23, 1999; July 21-23, 1999; October 20-22, 1999; February 9-11, 2000; April 26-28, 2000; September 19 - 22, 2000
- ✓ committee presented recommendations to the Board - November 17, 2000

● **Public Rights-of-Way.** The Access Board decided to reinitiate rulemaking on accessible pedestrian facilities by convening a Federal advisory committee to develop recommendations for guidelines for public rights-of-way. When the Board issued final rules for State and local governments in 1998, it decided to reserve provisions for public rights-of-way, due in large measure to the concerns of the transportation community expressed in comment to the Board on proposed and interim final rules for entities covered by title II of the ADA. Rather than finalizing the guidelines for public rights-of-way, the Board embarked upon an ambitious outreach plan to the highway industry. We produced a videotape, an accessibility checklist, and a design guide on accessible public rights-of-way.

In October 1999, the Board created a 31-member Public Rights-of-Way Access Advisory Committee to assist it in developing an NPRM for public rights-of-way access requirements. Representatives of a wide range of stakeholders, including transportation industry organizations and disability and pedestrian advocates will develop recommendations for scoping and technical provisions to address access to sidewalks, street crossings, and related pedestrian facilities. The Committee presented its report with its recommendations to the Board in January 2001. The Board has extended the Advisory Committee's charter for an additional year, an extension that will enable the Committee to develop a technical assistance manual for agencies and practitioners to support implementation of the future guidelines.

- ✓ notice of proposed rulemaking - December 21, 1992
- ✓ interim final rule - June 20, 1994
- ✓ final rule - January 13, 1998 (public rights-of-way not included in the final rule)
- ✓ notice of intent to establish advisory committee - August 12, 1999
- ✓ notice establishing advisory committee - October 20, 1999
- ✓ full committee meetings: December 2-3, 1999; February 9-11, 2000; May 18-19, 2000; August 16-18, 2000; October 18-20, 2000
- ✓ committee presented recommendations to the Board - January 10, 2001

Appendix C

ACTIVE ABA CASES BEGINNING OF FISCAL YEAR				
FY 98	FY 99	FY 00	FY 2001	FY 2002 Estimated
119	98	77	91	90

NEW COMPLAINTS					
	FY 98	FY 99	FY 00	FY 2001 Estimated	FY 2002 Estimated
ABA Cases Opened	85	72	82	80	80
Referrals*/Other Action	80	72	96	80	80
Total Complaints	165	144	178	160	160

* Does not include telephone referrals.

Appendix B2

Access Board Current Rulemakings Next Action	ANPRM	Public Hearing	Information Meeting	Advisory Committee	Regulatory Negotiation	NPRM	Final Rule
ADA Accessibility Guidelines ABA Accessibility Guidelines		01/31/00 03/13/00	10/24/00 10/25/00	10/24/94 08/28/96		11/16/99	✓
Recreation Facilities – Sports, Amusement, Golf, Boating and Fishing Facilities	09/21/94	08/26/99 11/17/99	09/16/96 12/01/99 08/21/00 09/06/00	07/15/93 07/13/94		07/09/99 07/21/00	✓
Outdoor Developed Areas					06/26/97 07/16/99	✓	
Passenger Vessels			04/15/96	09/24/98 09/22/00		✓	
Public Rights-of-Way				12/02/99 10/20/00		✓	

✓ next rulemaking action

(The first date for Advisory Committee meetings and Regulatory Negotiation meetings reflects the first meeting; the second date reflects the last meeting)

Appendix B3

COMPLETED ACCESS BOARD RULEMAKINGS

February 2001

- **ADAAG for Buildings and Facilities (Sections 1-9).** ADAAG initially consisted of nine sections. Sections 1 through 4 contain general sections, scoping provisions, and technical specifications applicable to all types of buildings and facilities. The scoping provisions specify which and how many elements and spaces of a building or facility must be accessible (e.g., parking spaces, entrances, toilet rooms). The technical specifications describe how to design the elements and spaces covered by the scoping provisions so that they are accessible to and usable by individuals with disabilities. Sections 5 through 9 contain additional scoping provisions and technical specifications for the following facilities: restaurants and cafeterias (section 5); medical care facilities (section 6); mercantile establishments (section 7); libraries (section 8); and hotels, motels, and transient lodging (section 9). The Department of Justice adopted ADAAG sections 1 through 9 on July 26, 1991 as the standard for accessible design in its regulations for title III of the ADA.

  - ✓ advance notice of proposed rulemaking - August 31, 1990
  - ✓ public hearings - February 11, 1991 through March 7, 1991
  - ✓ notice of proposed rulemaking - January 22, 1991
  - ✓ final rule - July 26, 1991
  - ✓ Department of Justice adopted guidelines - July 26, 1991
  - ✓ Department of Transportation adopted guidelines - September 6, 1991

- **ADAAG for Transportation Facilities (Section 10).** This rulemaking added section 10 to ADAAG which contains additional scoping provisions and technical specifications for transportation facilities.

  - ✓ supplemental notice of proposed rulemaking - March 20, 1991
  - ✓ final rule - September 6, 1991
  - ✓ Department of Transportation adopted guidelines - September 6, 1991
  - ✓ Department of Justice adopted guidelines - January 18, 1994

- **State and Local Government Facilities (Sections 11-12).** This rulemaking added two special application sections to ADAAG for certain State and local government facilities covered by title II of the ADA. The two sections are 11 -- Judicial, Legislative, and Regulatory Facilities, and 12 -- Detention and Correctional Facilities. The rule also covers miscellaneous provisions that apply to State and local government facilities.

The Board published a notice of proposed rulemaking and conducted five public hearings on the proposed rule. Following an analysis of the comments, the Board published an interim final rule asking for additional comments. Provisions regarding accessible residential housing and

public rights-of-way were proposed as part of the NPRM and the interim final rule. However, no action was taken on either of these subjects in the final rule. Provisions for accessible residential housing will be proposed as part of the Board's ADAAG Revision and ABA Accessibility Guidelines rulemaking. The Board will be convening a Federal advisory committee to develop recommendations on access to public rights-of-way. The Board published the final rule on January 13, 1998.

- ✓ notice of proposed rulemaking - December 21, 1992
- ✓ public hearings - February 22, 1993 (two hearings); March 2, 1993; March 9, 1993; March 15, 1993
- ✓ interim final rule - June 20, 1994
- ✓ final rule - January 13, 1998 (not adopted by the Departments of Justice or Transportation as enforceable standards yet)

- **Automated Teller Machines.** In response to a petition for rulemaking, on July 15, 1993, the Board issued a joint final rule with the Department of Transportation amending the reach range requirements for accessible automated teller machines and fare vending machines. The Department of Justice adopted the amended requirement on January 18, 1994.

- ✓ notice requesting public comment on petition for rulemaking - May 6, 1992
- ✓ public hearing - May 28, 1992
- ✓ notice of proposed rulemaking - September 8, 1992
- ✓ final rule - July 15, 1993
- ✓ Department of Transportation adopted guidelines - July 15, 1993
- ✓ Department of Justice adopted guidelines - January 18, 1994

- **Children's Elements.** This rulemaking added provisions to ADAAG for building elements designed for children's use. The Board published an advance notice of proposed rulemaking in February 1993 seeking comment on general issues, such as the scope of the guidelines and the ages or grades that should be covered. Following an analysis of the comments, the Board published a notice of proposed rulemaking in July 1996. The Board published the final rule on January 13, 1998.

- ✓ advance notice of proposed rulemaking - February 3, 1993
- ✓ notice of proposed rulemaking - July 22, 1996
- ✓ final rule - January 13, 1998 (not adopted by the Departments of Justice or Transportation as enforceable standards yet)

- **Play Areas.** The Board convened a 27-member advisory committee to make recommendations on issues related to making various recreation areas accessible. The committee met from July 1993-May 1994. Some issues remained where consensus was needed for play areas including the extent to which an accessible surface is provided in an exterior play area and what the specific requirements for accessible play equipment should be.

The Board created a 17-member Play Areas Regulatory Negotiation Committee to achieve consensus requirements for access to play areas. The committee presented its consensus report to the Board in July 1997. At the same meeting, the Board approved an NPRM on access to play areas. The Board published the NPRM in April 1998 and held one public hearing in Denver, CO to receive additional feedback during the comment period. The final rule was published on October 18, 2000. On November 20, 2000 the Board published an amended advisory note to the accessibility guidelines for play areas in the Federal Register. The amended advisory note clarifies that play components that are attached to a composite play structure and can be approached from a platform or deck are elevated play components. These play components are not considered ground level play components also, and do not count toward meeting the number of ground level play components that must be located on an accessible route.

- ✓ notice of intent to establish regulatory negotiation committee - December 22, 1995
- ✓ notice establishing regulatory negotiation committee - February 14, 1996
- ✓ full committee meetings: March 5-7, 1996; May 8-10, 1996; August 4-6, 1996; October 26-28; January 6-9, 1997; April 2-4, 1997; July 8-9, 1997
- ✓ committee presented report to the Board - July 9, 1997
- ✓ notice of proposed rulemaking - April 30, 1998
- ✓ public hearing - June 3, 1998
- ✓ final rule - October 18, 2000 (not adopted by the Department of Justice as the enforceable standard yet)
- ✓ amended advisory note - November 20, 2000

- **Detectable Warnings Temporary Suspension.** In response to a petition for rulemaking, in 1994 the Board, DOJ and DOT suspended temporarily until July 26, 1996, the requirements for detectable warnings at curb ramps, hazardous vehicular areas, and reflecting pools so that a research project on this subject could be considered in determining whether any changes in the requirements are warranted. The research showed that intersections are complex environments and that blind and visually impaired travelers use a combination of cues to detect and cross intersections. Although detectable warnings helped these individuals locate and identify curb ramps and provided a useful cue, the research suggested that detectable warnings may be redundant at most intersections. Other technologies may be as effective and less costly.

In March and April 1995, the Board received petitions from two transit agencies and an organization of blind persons to review the requirements for detectable warnings at transit

platform edges. The Board's ADAAG Review Advisory Committee also considered the requirements for detectable warnings within the context of the committee's complete review of ADAAG provisions. The committee recommended that the requirements for detectable warnings at curb ramps, hazardous vehicular areas and reflecting pools that are currently suspended be eliminated. The committee recommended requiring detectable warnings at platform edges in transit stations, and allowing an "equivalent tactile surface," and "equivalent detectability." Since any amendment to the detectable warning requirements will be done as part of the scheduled review and update of ADAAG, in July 1996, the Board, DOJ and DOT published a final rule to extend the temporary suspension until July 26, 1998 to allow the ADAAG revision process to be completed. Because the ADAAG revision rulemaking was not completed by July 1998, the temporary suspension has been continued until July 26, 2001.

- ✓ proposed rule to temporarily suspend the requirements - July 9, 1993
- ✓ final rule to temporarily suspend the requirements - April 12, 1994
- ✓ proposed rule to extend the temporary suspension - April 12, 1996
- ✓ final rule to extend the temporary suspension - July 29, 1996
- ✓ proposed rule to extend the temporary suspension - June 1, 1998
- ✓ final rule to extend the temporary suspension - November 23, 1998

- **ADAAG for Transportation Vehicles.** A separate ADAAG was issued for transportation vehicles which covers the following vehicles and systems: buses and vans, rapid rail vehicles, light rail vehicles, commuter rail cars, intercity rail cars, over-the-road buses, automated guideway transit vehicles, high-speed rail cars, monorails, and trams and similar vehicles. The Department of Transportation adopted ADAAG for transportation vehicles on September 6, 1991 as the standard for accessible design in its ADA regulations.

  - ✓ notice of proposed rulemaking - March 20, 1991
  - ✓ final rule - September 6, 1991
  - ✓ Department of Transportation adopted guidelines - September 6, 1991

- **Over-the-Road Buses.** The ADA requires the Board and the Department of Transportation (DOT) to issue guidelines and regulations for access to over-the-road buses. The Board and DOT co-sponsored an information meeting on over-the-road bus issues and in March 1998, the Board published an NPRM to amend the technical provisions for over-the-road buses to include provisions for wheelchair access and other miscellaneous provisions. The Department of Transportation also published an NPRM on accessible over-the-road bus service. After reviewing the comments received in response to the NPRM, the Board issued final guidelines which include technical provisions for lifts, ramps, wheelchair securement devices, moveable aisle armrests, and revisions to specifications for doors and lighting. The Department of Transportation adopted the Board's guidelines on September 28, 1998 as the standard for accessible design in its ADA regulations.

- ✓ information meeting - October 21, 1993
- ✓ notice of proposed rulemaking - March 25, 1998
- ✓ final rule - September 28, 1998
- ✓ Department of Transportation adopted guidelines - September 28, 1998

● **Telecommunications Equipment.** The Telecommunications Act of 1996 requires the Board to issue accessibility guidelines, in conjunction with the Federal Communications Commission, for telecommunications equipment and customer premises equipment. The Board is also required to review and update the guidelines periodically. The Board convened a 33-member Telecommunications Access Advisory Committee to assist the Board in fulfilling its mandate to issue these guidelines. The committee presented its recommendations to the Board in January 1997. Based on the committee's recommendations, the Board published a notice of proposed rulemaking in April 1997. The Board published a final rule on February 3, 1998.

- ✓ notice of intent to establish advisory committee - March 28, 1996
- ✓ notice establishing advisory committee - May 24, 1996
- ✓ full committee meetings: June 10-12, 1996; August 14-16, 1996; September 25-27, 1996; November 6-8, 1996; December 16-18, 1996; January 13-14, 1997
- ✓ committee presented recommendations to the Board - January 15, 1997
- ✓ notice of proposed rulemaking - April 18, 1997
- ✓ final rule - February 3, 1998
- ✓ Federal Communications Commission adopted guidelines - November 19, 1999

● **Electronic and Information Technology.** On August 7, the President signed into law the Workforce Investment Act of 1998, which includes the Rehabilitation Act Amendments of 1998. Section 508 of the Rehabilitation Act Amendments requires that when Federal departments or agencies develop, procure, maintain, or use electronic and information technology, they shall ensure that the technology is accessible to people with disabilities, unless an undue burden would be imposed on the department or agency.

Section 508 requires the Access Board to publish standards setting forth a definition of electronic and information technology and the technical and functional performance criteria for such technology. The Access Board and the General Services Administration are required to provide technical assistance to individuals and Federal departments and agencies concerning the requirements of section 508.

In developing its standards, the Access Board was required to consult with various Federal agencies, the electronic and information technology industry, and appropriate public or nonprofit agencies or organizations, including organizations representing individuals with

disabilities. The Access Board is also required to periodically review and, as appropriate, amend the standards to reflect technological advances or changes in electronic and information technology. The Board convened a 27-member Electronic and Information Technology Access Advisory Committee to assist it in developing its standards. The Committee presented its report with recommendations to the Board in May 1999. The Board issued a notice of proposed rulemaking on access to electronic and information technology on March 31, 2000. A final rule was published on December 21, 2000.

- ✓ notice of intent to establish advisory committee - August 24, 1998
- ✓ notice establishing advisory committee - September 29, 1998
- ✓ full committee meetings: October 15-16, 1998; December 1-2, 1998; January 5-6, 1999; February 8-9, 1999; March 29-30, 1999; May 11-12, 1999
- ✓ committee presented recommendations to the Board - May 12, 1999
- ✓ notice of proposed rulemaking - March 31, 2000
- ✓ final rule - December 21, 2000

Appendix B4

Access Board Completed Rules	ANPRM	Public Hearing	Information Meeting	Advisory Committee	Regulatory Negotiation	NPRM	SNPRM	Interim Final Rule	Final Rule	Enforceable Standard
ADAAG (Sections 1-9)	08/31/90	02/11/91 03/07/91				01/22/91			07/26/91	07/26/91 09/06/91
ADAAG (Section 10)							03/20/91		09/06/91	09/06/91 01/18/94
State and Local Government Facilities (Sections 11-12)		02/22/93 03/15/93				12/21/92		06/20/94	01/13/98	
ATMs	05/06/92	05/28/92				09/08/92			07/15/93	07/15/93 01/18/94
Children's Elements	02/03/93					07/22/96			01/13/98	
Play Areas		06/03/98			03/05/96 07/09/97	04/30/98			10/18/00 11/20/00	
Detectable Warnings – Temporary Suspension						07/09/93 04/12/96 06/01/98			04/12/94 07/29/96 11/23/98	04/12/94 07/29/96 11/23/98
ADAAG for Vehicles						03/20/91			09/06/91	09/06/91
Over-the-Road Buses			10/21/93			03/25/98			09/28/98	09/28/98
Telecommunications Equipment				06/10/96 01/14/97		04/18/97			02/03/98	11/19/99
Electronic and Information Technology				10/15/98 05/12/99		03/31/00			12/21/00	

Appendix B5

COOPERATIVE EFFORTS IN CODES AND STANDARDS DEVELOPMENT

February 2001

The Board's mission is to be "the catalyst for achieving an accessible America". This statement recognizes that achieving an accessible America requires bringing together the public and private sectors. One of the Board's long-range goals is to take a leadership role in the development of codes and standards for accessibility. The Board works with model code organizations and voluntary consensus standards groups that develop and periodically revise codes and standards affecting accessibility. The following is a list of the codes and standards that the Board actively works with.

- **American National Standards Institute (ANSI) A117 Committee.** The Board has actively participated on the International Code Council (ICC)/ANSI A117 Committee in revising its standard, "Accessible and Usable Buildings and Facilities". A major objective of the Board and the ANSI A117 Committee is to harmonize the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and the ICC/ANSI A117.1 standard. The ANSI standard will entertain revisions based on the recommendations of a Chairman's task group which was formed to review the Board's proposed rule to update and revise the ADA and ABA accessibility guidelines. The task group includes the Access Board.

- **American Society of Mechanical Engineers (ASME) A18 Platform Lift and StairwayChairlift Committee.** Standards for platform lifts which once were included in the ASME A17 Safety Code for Elevators and Escalators are now part of the ASME A 18 standard. This new Committee has already revised its standards to improve the quality and accessibility of platform lift and stairway lift devices. The new standard no longer includes provisions that "require" lifts to be key operated.

- **International Code Council (ICC) International Building Code (IBC).** The International Building Code represents a cooperative effort on the part of national model codes to bring uniformity to building codes. Additionally, the ICC provides interested parties with a single agenda to which they may direct recommended code changes. The IBC includes numerous provisions affecting accessibility such as: scoping provisions for the ICC/ANSI A117.1 standard, provisions for mainstreamed accessible elements, and requirements for accessible means of egress. The IBC Appendix also includes provisions closely paralleling ADAAG requirements for certain elements that may be outside the traditional jurisdiction of a building code authority. Appendix provisions such as those addressing TTYs and signs are readily available to adopting authorities for inclusion in state and local codes. Adoption of the IBC by state and local code authorities provides a unique opportunity for principles of accessibility to be standardized and integrated in building codes. Board staff is monitoring this process. The final document is being prepared for publication.

Recently, the ICC announced its intention to collaborate with the Department of Housing and Urban Development (HUD) and the National Association of Home Builders (NAHB) to develop technical assistance materials that would assist local jurisdictions and homebuilders to identify sections of the International Building Code (IBC) that exceed the requirements of the Fair Housing Act. These documents would provide adopting jurisdictions a road map to more easily revise the consensus model code and ANSI A117 reference standards by removing any provisions including requirements for fully accessible multifamily housing that exceed the federal law. Disability rights advocates, the AIA, and others have requested that ICC reconsider publishing this material under its imprimatur due to their belief that this action is not consistent with ICC's commitment to a consensus process. Board staff is closely monitoring this issue.

- **ANSI/NSPI-1 (Standard for Public Swimming Pools** - Sponsored by the National Spa and Pool Institute). The Access Board has actively participated on the ANSI/NSPI-1 Committee over the past few years to revise and update this standard. Based on our involvement, the standard presently includes scoping and technical provisions for access into the water. The National Spa and Pool Institute is currently seeking approval of this standard under the ANSI accredited canvas method.

- **NSPI/WWA-9 Standard for Aquatic Recreation Facilities** - This new standard wasdeveloped to specifically address water parks and water attractions. Previously, these facilities were considered under the ANSI/NSPI-1 (Standard for Public Swimming Pools). Operators and representatives from this industry promoted and supported the need for a new standard to more effectively address the unique features of these facilities. The Access Board actively participated in the development of this new standard. The NSPI/WWA-9 Committee is awaiting the publication of the Board's final rule on recreation facilities before taking further action on the accessibility section of this proposed standard.

- **Acoustical Society of America (ASA)/ANSI Working Group on Classroom Acoustics,Committee S-12, Noise.** The parent of a child with a hearing loss petitioned the Board to include new provisions in ADAAG for acoustical accessibility for individuals who are hard of hearing because the acoustical environments found in many schools today are barriers to communication and therefore to learning for children with hearing impairments. The Board published a notice in the *Federal Register* in June 1998 requesting information on a variety of issues regarding acoustical environments including possible scoping and technical requirements. Rather than initiating rulemaking, the Board is collaborating with an existing Acoustical Society of America (ASA)/ANSI Working Group on Classroom Acoustics to develop private sector technical and scoping standards. A *Federal Register* notice of the Board's action was published in November and includes

technical assistance on classroom acoustical design. At the Board's request, the existing working group membership was broadened to include other stakeholders, including representatives of school systems, school designers, disability organizations, and the Department of Education. The Board has provided funding from its research budget to support administrative costs of the working group. A draft document developed in May was revised at subsequent meetings in November 1999, March 2000, and June 2000. The final draft has been submitted to ANSI Committee S-12 on Noise for review and approval as an industry standard. Final action is expected by Spring 2001. Once the standard has been approved, the Board will pursue its enforceability.

- **ITE Committee on Accessible Intersections.** The Board is a founding member of this joint industry/consumer group charged with developing a 'toolbox' on accessible design for intersections. The Institute of Traffic Engineers (ITE) has developed a website for technical assistance.

- **FHWA Pedestrian Guidance Committee.** The Transportation Equity Act for the 21st Century (TEA-21) contains new requirements for pedestrian facilities. The Federal Highway Administration was been directed to develop policy guidance on pedestrian and cycling facilities for transportation engineers. The Board participated on the FHWA committee that developed guidance on policy issues addressed by the Secretary of Transportation in July 2000.

- **National Cooperative Highway Research Program (NCHRP).** The Board submitted aproposal to the NCHRP to recommend changes to transportation industry standards and other documents to incorporate pedestrian and accessibility criteria. The proposal was funded by the Transportation Research Board to include the development of Pedestrian Guidelines for the 'Green Book' of the American Association of State Highway and Transportation Officials (AASHTO), the industry standard for the geometric design of roadways. The Board is a member of the advisory panel overseeing this work. The NCHRP contractor has coordinated closely with the Public Rights-of-Way Access Advisory Committee. The guidelines will be submitted for AASHTO approval in 2001. It is likely that FHWA will reference the AASHTO Pedestrian Guidelines for National Highway System and Federal-aid projects.

- **National Committee on Uniform Traffic Control Devices.** The Board provided comment on the year 2000 revisions to the Manual on Uniform Traffic Control Devices (MUTCD), which includes coverage of pedestrian signals, intersection design issues, pavement markings, signage, signalization, and other traffic control issues and was a member of a Signals Committee Task Force to develop a draft standard for accessible pedestrian signals. The Committee voted unanimously in June to include the standard in the 2000 MUTCD, which was published in January 2001.

- **National Fire Protection Administration.** The Board is a sponsoring member of the newly-formed NFPA Research Foundation study of fire-caused incapacitation, the cause of many fire-related deaths. A regulation on fire gas control has been proposed to the International Standards Organization. This research initiative will investigate the scientific basis behind the proposal. A preliminary draft has been produced.

The Board also closely monitors developments in other codes and standards including:

- ANSI C63 subcommittee on medical devices to develop standards to measure hearing aid compatibility and accessibility to digital wireless telecommunications
- ANSI/EIA-504-1989, Magnetic Field Intensity Criteria for Telephone Compatibility with Hearing Aids, including ANSI/TIA/EIA-504-1-1994
- Building Officials and Code Administrators International (BOCA), National Building Code
- Committee on Accessible Transportation Research/TRB
- FCC requirements
- Model codes: International Conference of Building Officials (ICBO),The Uniform Building Code, Southern Building Code Congress International (SBCCI), Standard Building Code
- NFPA 1-1997, Fire Prevention Code
- NFPA 72-1996, Installation, Maintenance, and Use of Protective Signaling Systems
- NFPA 101, 1997 Life Safety Code
- NFPA 130-1997, Fixed Guideway Transit systems

The Board is a member of the following codes and standards organizations:

- American National Standards Institute (ANSI) A117 Committee
- American Society of Mechanical Engineers (ASME) A18 Platform Lift and Stairway Chairlift Lift Committee
- ASTM, Committee F-8 on Sports Equipment and Facilities
- Building Officials & Code Administrators, International, Inc.
- International Conference of Building Officials
- National Conference of States on Building Codes and Standards
- National Fire Protection Association
- Southern Building Code Congress International, Inc.

Appendix D

TECHNICAL ASSISTANCE, PUBLICATIONS, AND TRAINING			
	FY 98	FY 99	FY 00
Technical Assistance Calls and Faxes	14,472	13,350	12,579
Web Site User Sessions[1]	88,172	212,783	416,693
Information Packets[2]	12,189	7,344	6,389
Training Sessions	101	67	83
Training Participants	7,120	10,944	8,921

[1] Data has been collected since March 1998.

[2] An information packet usually contains several publications. We do not collect data on publications disseminated through partner organizations, therefore the actual number of publications disseminated to our customers is greater than our current data indicates.

ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD

SALARIES AND EXPENSES

10-YEAR TABLE

	ESTIMATES		APPROPRIATIONS	
1993	$3,500,000	1993		$3,300,000
1994	3,348,000	1994		3,348,000
1995	3,232,000	1995		3,350,000
1996	3,656,000	1996		3,500,000
1997	3,540,000	1997		3,640,000
1998	3,640,000	1998		3,640,000
1999	3,847,000	1999		3,847,000
2000	4,633,000	2000	[1]	4,615,000
2001	4,795,000	2001	[2]	4,784,000
2002	5,015,000			

[1] Reduction of $18,000 (.38 percent) (Sec. 301 of Title III, Appendix E (HR 3425) of P.L. 106-113).
[2] Reduction of $11,000 (0.22 percent) (Sec. 1403 of Chapter 14, Division A, Appendix D (HR 5666) of P.L. 106-554).