HUMAN AND NATURAL ENVIRONMENT

STRATEGIC OBJECTIVE: Protect and enhance communities and the natural environment affected by transportation.

Strategic Outcomes:

- Improve the sustainability and livability of communities.
- Reduce the adverse effects of transportation on ecosystems and the natural environment.
- Improve the viability of ecosystems.
- Reduce the adverse effects of transportation facilities on the natural environment.
- Improve equity for low income and minority communities concerning the benefits and burdens of transportation facilities and services.
- Reduce the amount of pollution from transportation sources.

Transportation makes our communities more livable, enhancing the quality of our lives and our society. However, transportation generates undesired consequences too, such as pollution, noise, and the use of valuable land and degradation of fishery habitat. No matter how much is done to improve the capacity and efficiency of our transportation system, we cannot consider our programs to be successful unless we also manage the effects on our environment, and ultimately our quality of life.

DOT's objective is to advance the benefits of transportation while minimizing its negative environmental impacts. In FY 2002, DOT environmental programs prevented as much harm as possible from being done to the environment by transportation projects and operations.

PERFORMANCE SUMMARY:

	1996	1997	1998	1999	2000	2001	2002	2002 Target	Met	Not Met
Number of significant domestic fishery violations found	N/A	308	400	392	273(r)	92(r)	113	133	✓	
Acres of wetlands replaced for every acre affected by Federal-aid highway projects	2.3	2.6	2.2	2.3	3.8	2.1	2.7	1.5	✓	
Percent DOT facilities categorized as No Further Remedial Action Planned under Superfund Amendments and Reauthorization Act	75	74	78	90	90	91	91	91	✓	
Monthly average number of area transportation emissions conformity lapses	N/A	N/A	N/A	N/A	6	6	6	6	✓	
Gallons of oil spilled by maritime sources per million gallons shipped	7.2	1.6	3.1	2.6(r)	2.8(r)	3.4	0.4	2.6	✓	
Tons of hazardous liquid materials spilled per pipeline million ton-miles shipped	0.0232	0.0257	0.0119	0.0229	0.0131(r)	0.0201	0.0109*	0.0142	✓	
Number of people in U.S. (in thousands) exposed to significant aircraft noise levels	N/A	N/A	722	585	440	411(r)	379*	440	✓	

FY 2001 FINAL PERFORMANCE REPORT

	1995	1996	1997	1998	1999	2000	2001	2001 Target	Met	Not Met
Percent change in number of species designated as overfished	N/A	N/A	N/A	N/A	N/A	-9	N/A	-1		

N/A Not available
* Preliminary estimate

FISHERY PROTECTION: The U.S. Exclusive Economic Zone covers 3.36 million square miles of ocean, 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. The Sustainable Fisheries Act (SFA) of 1996 mandates a reduction in the number of over-fished stocks. Responsible management and enforcement of ocean resource management regimes is of critical importance as the demand for fish protein grows.

Performance measure:

Number of significant domestic fishery violations found.

	1999	2000	2001	2002
Target:	N/A	N/A	N/A	133
Actual:	392	273(r)	92(r)	113

(r) Revised.

2002 Results: DOT met the performance target.

However, significant violations arose from FY 2001, reversing a significant downtrend. Coast Guard enforcement presence on fishing grounds diminished at the start of the fiscal year due to the need for coastal and seaport security in the aftermath of 9/11. The Coast Guard has since restored the fisheries enforcement effort and toward the end of FY 2002, saw a significant decrease in violations of fisheries protection regulations.

FY 2003 Performance Plan Evaluation: DOT cannot characterize Coast Guard performance for FY 2003, since the Coast Guard will be a part of the new Department of Homeland Security.

WETLAND PROTECTION AND RECOVERY: 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 (location, construction, and operation) can be a significant factor affecting these ecosystems.

Performance measure:

On a program-wide basis, acres of wetlands replaced for every acre affected by Federal-aid Highway projects (where impacts are unavoidable).

	1999	2000	2001	2002
Target:	1.5	1.5	1.5	1.5
Actual:	2.3	3.8	2.1	2.7

2002 Results: DOT met the performance target.

Federal-aid projects nationwide impacted approximately 1,896 acres of wetland, and provided 5,118 acres of compensatory mitigation.

With other agencies, FHWA continued to conduct joint research, and develop revised standards for wetlands, highway runoff water quality, and wildlife habitat. In cooperation with AASHTO, FHWA conducted a technology scanning tour of five countries in Europe to examine ways to reduce wildlife mortality along highways. Results of the scan were developed into an implementation plan for the U.S. FHWA also developed new training courses on highway runoff water quality and stream ecosystem restoration with the National Highway Institute.

FY 2003 Performance Plan Evaluation: DOT will meet the targets in FY 2003.

DOT FACILITY CLEANUP: DOT has a special responsibility to ensure that its own facilities are compliant with environmental laws and regulations. Restoration activities involve identifying, investigating, and cleaning up contaminated sites. Compliance activities include the operation of facilities,

equipment, and vessels in accordance with environmental requirements. Pollution prevention activities involve preventing future cleanup activities by avoiding the generation of pollutants in our operations or facilities. MARAD is the U.S. Government's disposal agent for merchant type vessels weighing 1,500 gross tons or more, and is required by law to dispose of obsolete ships in the National Defense Reserve Fleet (NDRF) by the end of FY 2006. Due to the presence of hazardous substances such as asbestos and solid and liquid polychlorinated biphenyls (PCBs) and concerns raised by the EPA about the export of PCBs, sales for overseas disposal were halted in 1995. Additional ships will be added to the inventory as other merchant type Federal Government vessels become obsolete. Leaks from some of the ships in the NDRF have already occurred and the risk of environmental damage associated with the deteriorating ships continues to increase.

Performance measure:

Percentage of DOT facilities categorized as No Further Remedial Action Planned (NFRAP) under the Superfund Amendments and Reauthorization Act (SARA).

	1999	2000	2001	2002
Target:	80	82	91	91
Actual:	90	90	91	91

2002 Results: DOT met the performance target.

Facility cleanup complies with the SARA process and with the National Oil and Hazardous Substances Pollution Contingency Plan. Working with States, local governments, and the EPA, DOT used a "worst first" prioritization system to attack the overall problem presented by DOT facilities where significant pollution problems present themselves.

The Coast Guard continued cleanup activities at its Kodiak, Alaska and Elizabeth City, North Carolina industrial facilities. In September 2002, EPA added the Coast Guard Yard in Baltimore, Maryland to its National Priority List, and the Coast Guard will conduct cleanup activities at the Yard for the next several years.

FAA continued cleanup activities in several Alaskan locations, at the Mike Monroney Aeronautical Center in Oklahoma City, and at the William J. Hughes Technical Center in Atlantic City, New Jersey. FAA is also continuing to replace outdated underground storage tanks with newer, regulatory-compliant tanks, as well as cleaning or removing unused tanks at decommissioned facilities.

EPA removed FRA's formerly-owned and contaminated site in Anchorage, Alaska from the National Priority List in September 2002, thus concluding all FRA's SARA cleanup efforts.

FHWA continued work at one facility to meet State requirements.

FY 2003 Performance Plan Evaluation: DOT will meet the target in FY 2003.

Management Challenge – Ship Disposal (IG/GAO)

Ship disposal is a management challenge separate from DOT's goal to clean up its shore facilities. MARAD is the U.S. Government's disposal agent for merchant-type vessels of 1,500 gross tons or more. As of March 2002, 133 ships await disposal.

Since 1994, environmental concerns and hazardous material regulatory obstacles have prevented exporting ships, which had been a disposal option that maximized financial returns to the Government. Legislation in 2001 allowed MARAD to purchase scrapping services as an expedient means to remove the most deteriorated ships and provided $10 million for this purpose. Eleven obsolete vessels have been removed from the fleets for disposal through a combination of payment for scrapping services, prior year vessel sales and artificial reefing. In addition to scrapping obsolete ships, MARAD will dispose of them by any or all of the following means:

- artificial reefing (including the establishment of national remediation standards through a joint effort with the EPA and the Navy);

- soliciting for the sale of recyclable obsolete vessels having a material value to recycling companies; and
- pursuing legislative changes to expedite ship disposal or create new opportunities.

MARAD is also pursuing the following alternatives:

- export of ships for recycling (teaming with the EPA and the State Department to resolve environmental and worker health/safety issues);
- soliciting innovative proposals from industry for ship disposal solutions; and
- seeking additional funding sources and partnerships (domestic and international) for ship disposal based upon the environmental, safety and training aspects of the program.

Each of the above alternatives has the potential to realize cost savings (compared to paid ship scrapping) and increase the number of vessel disposals. However, potential results for these alternatives cannot yet be accurately quantified. If MARAD is to meet the legislative deadline for eliminating the current inventory of obsolete ships, approximately 43 ships a year must be disposed of during the FY 2004-2006 timeframe.

MOBILE SOURCE EMISSIONS: 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. About two-thirds of transportation-related emissions come from on-road motor vehicles. The quality of our air is a public good, and the cost of these pollutants is not captured in the marketplace. For this reason, the Government works to mitigate this negative impact.

Performance measure:

Monthly average number of area transportation emissions conformity lapses.

	1999	2000	2001	2002
Target:	N/A	N/A	N/A	6
Actual:	N/A	6	6	6

2002 Results: DOT met the performance target.

Of non-attainment and maintenance areas, 98 percent met mobile emissions budgets for ozone, 100 percent met their budget for carbon monoxide and 96.3 percent met their budget for particulate matter (PM-10). Although national mobile source emissions estimates for FY 2001 and FY 2002 are not available, emissions were 61.9 million tons in FY 2000, which was lower than the FY 2002 target of 63.1 million.

A USDOT/EPA public information initiative on transportation and air quality was expanded with the addition of a new web site, information exchange, and community partnership program. FHWA continued to support the Alliance for Clean Air and Transportation, a national alliance of more than 20 organizations supporting public education to reduce traffic congestion and improve air quality. Through the Congestion Mitigation and Air Quality Improvement (CMAQ) program, FHWA funded State and local government initiatives to reduce emissions through the use of alternative fuel vehicles, inspection and maintenance programs, and other transportation control measures.

FHWA eliminated its supplementary performance measure of tons of on-road mobile source emissions. FHWA used data from an EPA emissions trends database, which lags as much as two years behind, making the performance measure of little utility in managing ongoing performance.

FY 2003 Performance Plan Evaluation: DOT will meet the target in FY 2003.

OIL AND PIPELINE SPILLS: A large share of the U.S. economy is fueled by oil. Over half the oil used in the U.S. today is imported, and most of the imported oil is carried in tankships. Furthermore, with offshore drilling occurring further 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. More than 617 billion ton-miles of petroleum and other hazardous liquids move across the country through about 157,000 miles of hazardous liquid pipelines. While this is usually the

least costly way to transport these bulk cargoes, it also entails some risk. Because of the volume of liquid hazardous materials moved by pipelines, any spill into the environment is potentially a significant one.

Performance measures:

Gallons spilled per million gallons shipped by maritime sources.

	1999	2000	2001	2002
Target:	4.3	4.1	4.0	2.6
Actual:	2.6(r)	2.8(r)	3.4	0.4

Tons of hazardous liquid materials spilled per million ton-miles shipped by pipelines.

	1999	2000	2001	2002
Target:	.0171	.0161	.0151	.0142
Actual:	.0229	.0131(r)	.0201	.0109#

(r) Revised; # Preliminary estimate.

2002 Results: DOT met performance targets for both maritime oil spills and pipeline hazmat spills.

A significant portion of all the oil spilled into U.S. waters continues to result from a few large spills. In FY 2002, 45 percent of the total volume of oil spilled from maritime sources resulted from three spills. Spill sources continue to shift toward marine terminal facilities. Oil spill regulations combined with improved international standards and industry efforts have decreased cargo oil spills, but risks of bunker spills will increase over time as vessel size and waterway traffic increases. Barges continue to be a leading source of spills, with most spills resulting from equipment malfunction or human error.

As part of its pipeline safety program, RSPA improved operations, control, and monitoring technologies to enable better corrosion detection; validated direct assessment techniques for unpiggable pipelines; and researched better pipeline coatings. Better corrosion detection technology and direct assessment allows pipeline operators to detect pipeline defects before a release occurs. Improved pipeline coatings reduce corrosion damage and lessen the risk of environmental damage from pipeline failures.

RSPA further improved damage prevention and leak detection by increasing pipeline operators' use of in-line inspection tools and locating technologies to detect pipeline defects especially in unpiggable pipelines; improve remote and real-time monitoring for encroachment, unauthorized excavation, and pipeline damage; and required more use of directional drilling to avoid damage. RSPA also made educational materials available to operators, one-call centers and other interested groups, and supported efforts of the Common Ground Alliance to offer *"Dig Safely"* training sessions around the country for groups interested in implementing this important program.

FY 2003 Performance Plan Evaluation: RSPA will meet its performance target in FY 2003. DOT cannot characterize Coast Guard performance for FY 2003, since the Coast Guard will be a part of the new Department of Homeland Security.

AIRCRAFT NOISE EXPOSURE: Public concern and sensitivity to aircraft noise around airports is high. In recent years, noise complaints have increased even while quieter aircraft technology has been introduced. Aircraft noise is an undesired by-product of our mobility, and the Government acts to reduce the public's exposure to unreasonable noise levels.

Performance measure:

Number of people in the U.S. (in thousands) who are exposed to significant aircraft noise levels (65 decibels or more).

	1999	2000	2001	2002
Target:	N/A	N/A	440	440
Actual:	585	440	411(r)	379#

(r) Revised; # Preliminary estimate.

2002 Results: DOT met the performance target.

DOT pursued a program of aircraft noise control in cooperation with the aviation community through noise reduction at the source (development and adoption of quieter aircraft), soundproofing and buyouts of buildings near airports, operational flight control measures, and land use planning strategies. In 2002, FAA:

- continued to develop noise research and assessment technologies;
- implemented flight control measures to help reduce neighborhood exposure;
- continued to examine and validate methodologies used to assess aircraft noise exposure;
- developed a research plan and program for international certification noise standards for turbojet airplanes that will be more stringent than the current Stage 3 standard; and
- in cooperation with the National Park Service, assessed noise exposure and developed Air Tour Management Plans for an estimated 45 national parks.

FAA also worked with NASA to identify concepts that will reduce the noise impact of future subsonic jet airplanes by half (7 to 10 decibels), relative to 1992 technology.

FY 2003 Performance Plan Evaluation: DOT will meet the target in FY 2003.