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A VISIONARY AND VIGILANT DEPARTMENT OF TRANSPORTATION LEADING THE WAY TO TRANSPORTATION EXCELLENCE IN THE 21st CENTURY

United States Department of Transportation
Strategic Plan for Fiscal Years 1997-2002

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UNITED STATES DEPARTMENT OF TRANSPORTATION STRATEGIC PLAN
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ACRONYMS

BEA	-	Bureau of Economic Analysis
BTS	-	Bureau of Transportation Statistics
DOD	-	Department of Defense
DOT	-	Department of Transportation
EPA	-	Environmental Protection Agency
FAA	-	Federal Aviation Administration
FHWA	-	Federal Highway Administration
FRA	-	Federal Railroad Administration
FTA	-	Federal Transit Authority
GAO	-	General Accounting Office
GDP	-	Gross Domestic Product
GIS	-	Geographic Information System
GPRA	-	Government Performance and Results Act
GPS	-	Global Positioning System
GT	-	Gross Tons
HMIS	-	Hazardous Materials Information System
HPMS	-	Highway Performance Monitoring System
ISTEA	-	Intermodal Surface Transportation Efficiency Act
IT	-	Information Technology
ITS	-	Intelligent Transportation System
MARAD	-	Maritime Administration
NAFTA	-	North American Free Trade Agreement
NBI	-	National Bridge Inventory
NEXTEA	-	National Economic Crossroads Transportation Efficiency Act
NHS	-	National Highway System
NHTSA	-	National Highway Traffic Safety Administration
NPR	-	National Performance Review
NSC	-	National Security Council
OIG	-	Office of Inspector General
OST	-	Office of the Secretary
RSPA	-	Research and Special Program Administration
SARA	-	Superfund Amendments and Reauthorization Act
SLSDC	-	Saint Lawrence Seaway Development Corporation
STB	-	Surface Transportation Board
TASC	-	Transportation Administrative Service Center
USCG	-	United States Coast Guard

I. INTRODUCTION

In the early 1800s, the famous Prairie Schooner, the icon of our period of western expansion, took eleven months to cross America. It served as fortress, ambulance, boat and home during the trip. On August 31, 1903, a Packard automobile ended a 52 day journey from San Francisco to New York, the first time an automobile crossed the continent under its own power. Today, as we approach a new century, we have a marvelous array of transportation choices...commercial airliners, trains, automobiles, subways, buses, motorcycles, motor homes, ships, boats or even bicycles! The trip can take days or weeks or hours. It's our choice. Philip Guedalla said in his book THE HUNDRED YEARS, "The true history of the United States is the history of transportation." One can only wonder if the strategic planner riding in the Prairie Schooner imagined the trip in the Packard...or if the driver of the Packard fantasized about flying across America in hours or being virtually transported across cyber networks in seconds.

As we cross the bridge from the 20th to the 21st Century, we must be prepared to face global markets, environmental challenges, transnational security threats, and a communications and information revolution. To meet these challenges, the Department of Transportation (DOT) must address with ever greater focus the legislative authorities outlined in its original enabling legislation in 1966. Section 101 of Title 49, United States Code, describes the DOT purpose as follows:

> *The national objectives of general welfare, economic growth and stability, and security of the United States require the development of transportation policies and programs that contribute to providing fast, safe, efficient, and convenient transportation at the lowest cost consistent with those and other national objectives, including the efficient use and conservation of the resources of the United States.*

This guidance serves us very well today as we look forward to the 21st Century. Secretary Rodney E. Slater has stretched our minds to ensure that we all believe transportation to be more than concrete, asphalt and steel. He reminds us that transportation is about providing opportunity for people, giving them mobility and choices. He envisions DOT offering a guiding light to enable safe transport of people and goods. Transportation ties our nation together, ties America to the rest of the globe and even allows us to imagine ties to the stars.

The 1997 DOT Strategic Plan is the product of the contributions of many. Representatives from the Office of the Secretary (OST) and all the operating administrations worked as an integrated team to build the plan. It recognizes President Clinton's priorities outlined in his State of the Union address. It recognizes Vice President Gore's guidance emanating from the Blair House papers and the management strategies integral to performing our missions successfully. It

recognizes Secretary Slater's often stated personal priorities of safety, infrastructure investment and common sense government. It recognizes the requirement to set performance goals and to identify measures to gauge progress. It recognizes the priorities and concerns of DOT partners in State and local government as well as industry. It sets five strategic goals for DOT in Safety, Mobility, Economic Growth and Trade, the Human and Natural Environment, and National Security...and arrays performance goals under each.

This Strategic Plan recognizes the enormous impact transportation has on America. Transportation contributes 11 percent of America's Gross Domestic Product (GDP). That translated in 1995 to $777 billion of a $7.25 trillion GDP. This Strategic Plan demands vision and vigilance from all entrusted to carry out its mandates. The challenge is enormous, yet one which we will meet. We will satisfy our customers and stakeholders. We will be efficient stewards of the taxpayers' dollars. We will enable America to build a better future. This and much more is demanded of us as we embark on this exciting and demanding journey. With safety as our North Star and using the talents of a diverse and skilled workforce, we will complete our travels to a 21st Century transportation system that is the safest and the most accessible, economical, and efficient in the world. All aboard!

Organization of the Strategic Plan

This Strategic Plan is for the years 1997 through 2002. Section II, the Scope of the American Transportation System, provides current data on the size and scope of the transportation enterprise. Section III provides a description of DOT. Section IV discusses the values of the Department of Transportation. Section V sets forth the vision, mission and strategic goals of DOT in summary format. Section VI covers the Department's five strategic goals along with related outcome goals, the rationale that links the outcome goals to the strategic goals, a description of how we will achieve our strategic goals, key external factors that could impact our ability to achieve the goals and tables showing performance measures, and sources of data. Section VII discusses the relationship between the strategic goals in the Strategic Plan and the performance goals that will appear in our Annual Performance Plan. Section VIII discusses the Department's data capacity relative to measuring results. Section IX describes program evaluations that DOT will conduct over the time period covered by the plan. Section X presents key factors that could affect achievement of the strategic goals. Section XI presents overarching corporate management strategies that will enable the Department to manage toward achievement of its strategic goals. Section XII discusses the consultation with stakeholders. Section XIII describes steps we will take to disseminate our strategic goals, and Section XIV describes our coordination of cross cutting functions. The Appendix contains the statutory authorities for DOT; a full set of papers developed in DOT's environmental scan that describe external factors, and an analysis of Strengths, Weaknesses, Opportunities and Threats; a table showing linkages between current programs and strategic goals, and a discussion of management issues raised by the General Accounting Office (GAO).

II. SCOPE OF THE AMERICAN TRANSPORTATION SYSTEM

The U.S. transportation system carries over 4 trillion passenger miles of travel and 3.7 trillion ton miles of domestic freight generated by more than 260 million people, 6 million business establishments, and 87 thousand units of government. The system includes 3.9 million miles of public roads, 1.5 million miles of oil and natural gas pipelines, 123 thousand miles of major railroads, over 25 thousand miles of commercially navigable waterways, over 5 thousand public-use airports, 508 public transit operators in 316 urbanized areas, and 145 major ports on the coasts and inland waterways. In 1994, the system carried 2.3 trillion miles of travel by cars and trucks, 7.4 billion trips on public transit, 500 million passenger boardings on airplanes, and 22.1 million trips on Amtrak, and 28.5 million rail freight car miles. School buses alone carry more than 9 percent of the U. S. population during a typical school day. The transportation sector of the United States' economy has remained near eleven percent of gross domestic product (GDP) for several years at a level of $775 billion annually.

III. THE UNITED STATES DEPARTMENT OF TRANSPORTATION, CURRENT AND FUTURE

The Department of Transportation is the Federal steward of the Nation's transportation system and speaks for transportation in the Federal government. Created in 1967, DOT brought under one umbrella a myriad of transportation missions and programs, some of which have been in existence since the 1700s. The Department employs about 100,000 civilian and military people deployed across the country and the world. It includes the OST as well as the following modal administrations:

Bureau of Transportation Statistics	National Highway Traffic Safety Administration
Federal Aviation Administration	Research and Special Programs Administration
Federal Highway Administration	St. Lawrence Seaway Development Corporation
Federal Railroad Administration	Surface Transportation Board[1]

[1] With passage of the Interstate Commerce Commission Termination Act (P.L. 104-88, December 29, 1995), Congress established the Surface Transportation Board within DOT, effective January 1, 1996. While the Board is formally part of DOT, the Board is decisionally independent of DOT and by law "not responsible to or subject to the supervision or direction... of any other part of the Department of

Federal Transit Administration	Transportation Administrative Service Center
Maritime Administration	United States Coast Guard

These organizations operate under a Departmental mission and a commitment to create the best possible integrated air, land, sea, and space transportation system for America. The Department stands at the crossroads not only of two centuries, but of two ages. Imagination, dedication, flexibility, and perseverance will be essential as we search for paths which will enable us to span successfully the Industrial Age and the Information Age. Meeting tomorrow's transportation challenges by building on the framework of today will be a formidable undertaking.

One Department of Transportation (ONE DOT)

Within the current Department, modal administrations generally lead highly discreet, autonomous lives. Virtually every Secretary, however, has attempted to create some version of a unified surface transportation mode in the face of increasing financial constraints. Most of these attempts were motivated by a desire to reduce costly redundancies, and to address the problem that a major portion of transportation inefficiency is caused by inadequate interface between the modally discreet infrastructure and its concordant rules, regulations and practices. More recently, that notion is even more convincing because the movement of people and goods in this new information age renders modal distinctiveness an obsolete paradigm.

The future Department will become ONE DOT. The concept projects the melding of a unified Department, capable of acting as an integrated, purposeful leader to optimize transportation efficiency and effectiveness. The ultimate purpose of ONE DOT is to build a transportation system that is international in reach, intermodal in form, intelligent in character, and inclusive in nature. Under the leadership of ONE DOT, people and goods will continue to move quickly, safely and at less cost than in any other system. Aligning with the management dictum that form follows function, we will direct our energy to ensuring the organizational structure is redesigned as necessary to support that architecture. The 21st Century organization will be less bureaucratic with fewer rules and fewer employees. It will depend on performance based information systems and will empower employees to perform with fewer management levels. It will take note of statistical trends caused by globalization of the economy, the rise of the knowledge economy and the pervasive nature of the information revolution. It will be externally oriented toward

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Transportation." (49 U.S.C. 703(c).)

customers and stakeholders. It will be nimble and quick to make decisions in an open and candid environment. ONE DOT is the overarching management strategy we will employ to redesign the 21st Century DOT. Below we present the values we will need to be successful in the 21st Century.

IV. VALUES STATEMENT

We in DOT recognize that our values influence the way we serve the American public. We are committed to excellence in transportation, and to that end, we will:

- Ensure that all of our work at DOT focuses on improving safety and the quality of life for all users of our national transportation system.
- Listen to, learn from, and collaborate with our customers on how best to address their needs.
- Align our decision making and policies to further demonstrate that our employees are our most valuable asset in serving the American public.
- Act and speak as one Department, while respecting the diversity of organizations and people within the Department in decision making.
- Create a work environment free of prejudice and discrimination.
- Promote an environment that allows every employee to reach his/her full potential without advantaging or disadvantaging any member of our workforce; and that provides fair access to information and opportunity to provide input in the decision making process.
- Trust, encourage and support our employees to be creative and to find innovative solutions; and encourage responsible risk-taking (criticism, debate, dissent) as fundamental principles in the way we operate.
- Exemplify the highest standards of integrity, ethical behavior, and courtesy in the work environment.
- Foster a renewed sense of pride in DOT where empowerment is a core principle of success.
- Cultivate the art of anticipating the need for and of leading productive change in transportation.
- Commit to guide and oversee America's transportation system today and into the future.

V. SUMMARY OF THE DEPARTMENT OF TRANSPORTATION'S VISION, MISSION AND STRATEGIC GOALS

Vision Statement

A visionary and vigilant Department of Transportation leading the way to transportation excellence in the 21st Century.

Mission Statement

Serve the United States by ensuring a fast, safe, efficient, accessible and convenient transportation system that meets our vital national interests and enhances the quality of life of the American people, today and into the future.

Strategic Goals

- ***Safety: Promote the public health and safety by working toward the elimination of transportation-related deaths, injuries, and property damage.***

- ***Mobility: Shape America's future by ensuring a transportation system that is accessible, integrated and efficient, and offers flexibility of choices.***

- ***Economic Growth and Trade: Advance America's economic growth and competitiveness domestically and internationally through efficient and flexible transportation.***

- ***Human and Natural Environment: Protect and enhance communities and the natural environment affected by transportation.***

- ***National Security: Advance the nation's vital security interests in support of national strategies such as the National Security Strategy and National Drug Control Strategy by ensuring that the transportation system is secure and available for defense mobility and that our borders are safe from illegal intrusion.***

VI. STRATEGIC GOALS

Introduction

The Department has developed five strategic goals that reflect and balance the complexities of the Nation's transportation enterprise, a mixture of public and private entities. In the years covered by this strategic plan, 1997 through 2002, DOT will operate within the context of a system that includes State, local, and regional governments, as well as private companies.

- ***The five strategic goals are consistent with the Department's statutory authority:***

  "The National objectives of general welfare, economic growth and stability, and security of the United States require the development of transportation policies and programs that contributes to providing fast, safe, efficient, and convenient transportation at the lowest cost consistent with those and other national objectives, including the efficient use and conservation of the resources of the United States."

- ***The strategic goals sharpen the focus to the Department's mission:***

  Serve the United States by ensuring a fast, safe, efficient, accessible and convenient transportation system that meets our vital national interests and enhances the quality of life of the American people, today and into the future.

- ***The strategic goals represent the shared interests of the Department's component organizations:***

  The five strategic goals were crafted over several months by a large team of DOT's political and career personnel representing every unit in the Department. These goals reflect the common ground and shared interests of all the components of the Department. As the Department moves toward achievement of these goals, it will realize the synergistic advantage that results from all parts of the organization working together toward a shared purpose.

- ***Legislation needed to support Strategic Plan.***

  Our ability to achieve the goals in our Strategic Plan will rest on enactment of certain laws. Most important of these is the reauthorization of the Intermodal Surface Transportation Efficiency Act (ISTEA). The Administration proposal, the National Economic Crossroads Transportation Efficiency Act (NEXTEA), authorizes most of DOT's surface transportation programs and contains provisions key to our ability to achieve our goals. Other critical

legislation that will impact our ability to achieve our strategic goals also includes future efforts to provide reliable, long-term financing of the FAA and its safety, security, and airport development functions. Other important legislation will include the reform of ocean shipping laws, Amtrak reform legislation and our regular authorization bills that provide funding for hazardous materials transportation, the activities of the Coast Guard, and the Maritime Administration.

STRATEGIC GOAL: SAFETY

Promote the public health and safety by working toward the elimination of transportation-related deaths, injuries, and property damage.

Outcome Goals:

Success in achieving the safety strategic goal will be measured by realizing an improvement in each year of the Plan over the previous year, for the following outcome goals:

- 1) Reduce the number of transportation-related deaths.
- 2) Reduce the number and severity of transportation-related injuries.
- 3) Reduce the rate of transportation-related fatalities per passenger-mile-traveled and per ton-mile of total freight shipped (or vehicle miles traveled).
- 4) Reduce the rate and severity of transportation-related injuries per passenger-mile-traveled and per ton-mile (or vehicle miles traveled).
- 5) Reduce the dollar loss from high-consequence, reportable transportation incidents.
- 6) Reduce the number of reportable transportation incidents and their related economic costs.

Relationship between the Strategic Goal and the Outcome Goals

The relationship between the strategic goal and the first four outcome goals is that the outcome goals are direct measures of the strategic goal and cover all transportation modes. The first two outcome goals capture the progress toward elimination of transportation-related deaths and injuries measured directly in whole numbers. The third and fourth outcome goals use normalized data to account for risk exposure due to noncontrollable changes in use of the transportation system. The fifth outcome goal indicates the magnitude of property damage from a significant portion of transportation incidents. It is limited to high-consequence transportation incidents in recognition of the importance of setting priorities for spending Federal resources. It also reflects incidents of major public interest. The sixth outcome goal (relating to incidents) provides an indirect measure of property loss, health care, and productivity costs and is a leading indicator of potential problems that could lead to deaths and injuries. These outcome goals cover

not only movement of people and goods but safety at terminals, ports and interchange and transfer points, as well as at the intersection of transportation modes such as highway rail grade crossings.

How We Will Achieve the Strategic Goal

In carrying out its highest priority, leadership responsibilities in transportation safety, DOT will undertake coordinated activities intended to reduce or eliminate transportation related incidents and the resulting deaths, injuries, and property damage. These activities follow.

- Emphasize research in human performance and behavior such as biomechanics and lifetime driver learning.

- Promote public-private partnerships to demonstrate cost-effective, safety technologies, such as intelligent vehicles, air traffic management, and enhanced weather services.

- Develop, deploy, and promote cost-effective IT and ensure that DOT's IT systems are Year 2000 compliant to prevent mission/service performance disruptions. For example, the FAA's Display System Replacement (DSR) will modernize control display systems in air traffic control centers in the coterminous United States and Alaska. This project will replace aging and unsupportable display equipment with functionally equivalent, expandable hardware and software. DSR will provide air traffic controllers with a modern digital display system capable of processing and providing information in a fast reliable manner.

- Build both domestic and international partnerships to integrate fully safety as a basic business principle.

- With our partners, reinforce the importance of individual responsibility for achieving improvements in safety, and encourage industry to take the lead in partnering activities.

- Improve the delivery of services through better communications with our customers.

- Use a common sense approach in our focus on the highest safety risks through risk-based management and incentives, and performance-based regulations to optimize use of resources.

- Strengthen enforcement to promote maximum compliance.

- Emphasize child safety.

- Maximize the use of education and advocacy to promote safe behavior and practices. For

example, NEXTEA includes a flexible safety program that would provide over $2 billion for safety projects through 2001. The program would allow projects targeted to safety problems and risks and allow for funding on non-infrastructure highway safety projects.

- Emphasize drug and alcohol-free workplace programs and operating environments, and work with industrial partners to assist them in adopting appropriate testing regimes in non-regulated workplaces.

- Advance transportation research exploring causes of, and countermeasures for, transportation incidents in all modes of transportation.

- Encourage the reporting of near-miss incidents and communicate lessons learned following transportation incidents.

- Promote transportation safety excellence through more effective recognition programs that acknowledge positive safety achievements.

Many of these activities support Presidential Priorities related to improving early learning and pre-school education, improving children's health, mitigating youth violence, fostering reinvention, and promoting corporate citizenship.

External Factors

Many external factors can affect our achievement of our safety goal. Paramount among these factors are demographic trends such as population increase, growth of the elderly population, and changes in work and family life. Population has a direct impact on transportation. As the population increases, the aggregate number of trips and miles also increases leading to additional injury and fatality rates. Moreover, the elderly population is expected to grow 108 percent by 2030 to 70 million or one in five Americans compared with one in ten today. Automobile crash and fatality rates for elderly drivers remain level for drivers up to age 75 and then increase sharply. Changes in family life also suggest increasing use of automobiles with resulting increases in congestion, fatalities and injuries. Economic trends such as just-in-time inventory, increased cross-border trade, and increased leisure travel are additional external factors that work against

our ability to achieve this goal. Unless mitigated by interventions such as education and advocacy, performance-based regulations, and strengthened enforcement programs, these demographic and economic factors could have a direct negative impact on our ability to achieve our safety goal. [2]

Safety Outcome Goals and Annual Performance Measures

Each safety outcome goal will be supported by one or more key performance indicators which will track progress toward the strategic goals. These performance indicators will be fully developed in the Department's Annual Performance Plan. To illustrate the relationship between these measures and the outcome goals they support, Table 1 provides an overview of outcome goals, the candidate indicators that may be used in the Performance Plan, and sources of data. In some cases the Department has identified potential measures but sources of data must still be developed. This is discussed in Section VIII, Data Capacity.

TABLE 1. Safety Outcome Goals/Performance Measures, Candidate Indicators and Sources of Data

STRATEGIC GOAL: SAFETY -- Promote the public health and safety by working toward the elimination of transportation-related deaths, injuries, and property damage.

Outcome Goal/Performance Measure	Candidate Indicator	Source of Data
Reduce the number of transportation-related deaths.	The aggregate number of transportation-related fatalities.	National Transportation Statistics, Bureau of Transportation Statistics.
Reduce the number and severity of transportation-related injuries.	The aggregate number of injuries attributable to transportation.	National Transportation Statistics, Bureau of Transportation Statistics.
Reduce the rate of transportation-related fatalities per passenger-mile-traveled and per ton-mile of freight shipped (or vehicle miles traveled)	The aggregate number of transportation-related fatalities divided by 100 million passenger-miles.	National Transportation Statistics, Bureau of Transportation Statistics.
	The aggregate number of fatalities attributable to transportation divided by 100 million ton-miles.	National Transportation Statistics, Bureau of Transportation Statistics.

[2] For additional information see Section X, External Factors Affecting the Achievement of DOT's Strategic Goals.

TABLE 1. Safety Outcome Goals/Performance Measures, Candidate Indicators and Sources of Data

Outcome Goal/Performance Measure	Candidate Indicator	Source of Data
Reduce the rate and severity of transportation-related injuries per passenger-mile traveled and per ton mile (or vehicle miles traveled).	The aggregate number of transportation-related injuries divided by 100 million passenger-miles. The aggregate number of transportation-related injuries divided by 100 million ton-miles.	National Transportation Statistics, Bureau of Transportation Statistics. National Transportation Statistics, Bureau of Transportation Statistics.
Reduce the dollar loss from high-consequence, reportable transportation incidents.	Property damage from high-consequence, reportable transportation incidents.	To be determined (TBD)
Reduce the number of reportable transportation incidents and their related economic costs	The aggregate number of transportation incidents.	National Transportation Statistics, Bureau of Transportation Statistics.

STRATEGIC GOAL: MOBILITY

Shape America's future by ensuring a transportation system that is accessible, integrated, efficient, and offers flexibility of choices.

Outcome Goals:

Success in achieving mobility will be measured five different ways:

- 1) Improve the structural integrity of the transportation system.
- 2) Balance new physical capacity with the operational efficiency of the nation's transportation infrastructure.
- 3) Increase intermodal physical, information, and service connectivity.
- 4) Increase access to the transportation system for the movement of all people and freight.
- 5) Provide preventive measures and expeditious response to natural and man made disasters in partnership with other agencies to ensure that we provide for the rapid recovery of the transportation system.

Relationship between the Strategic Goal and the Outcome Goals

The first and second outcome goals measure the condition of the physical transportation infrastructure, including the components of the transportation system operated by the Department. Adequate condition is a requisite if transportation is even to take place, especially in a cost-effective manner. The third outcome goal measures the intermodality of the transportation system. All elements of the system must work together if the system is to function effectively and efficiently. The fourth outcome goal measures the system's general accessibility; to have mobility as envisioned in America, all people desiring to move from one location to another should have the opportunity to use the system. The Department recognizes the variety of the changing requirements that must be met by the transportation system including shifting regional populations, increasingly elderly population, needs of people with disabilities and special needs of other populations. Finally, the fifth outcome goal measures accessibility and system recovery in the event of natural and man-made disasters.

How We Will Achieve the Strategic Goal

In carrying out its leadership and advocacy responsibilities in ensuring a transportation system that is accessible, integrated, efficient and offers flexibility of choices, DOT will:

- Leverage investments for the improvement and maintenance of infrastructure through: partnering with other Federal agencies, State and local governments, and the private sector to expand existing funding sources; and developing and promoting new innovative financing techniques and increasing flexible funding.

- Operate key elements of the transportation system in an efficient, cost effective manner that expands mobility.

- Deploy, in partnership with industry, new and emerging IT applications that improve the quality and efficiency of the nation's transportation system (e.g., enhanced navigational guidance systems, automated control systems, smart highways).

- Improve technical assistance.

- Promote policies, programs, and investments in areas that enhance intermodal cooperation and efficiency. For example, the Bay Area Rapid Transit (BART) extension to San Francisco International Airport, partially funded by FTA, will be an integral part of the airport's expansion plan as it allows the airport to increase air service without overwhelming its highway access capacity; it provides access to the airport from the entire BART system; and it opens up the BART system to commuters living south of San Francisco.

- Promote public-private partnerships to demonstrate innovative technologies that improve infrastructure and operational efficiencies, (Intelligent Transportation Systems (ITS), the Global Positioning System (GPS), Internet, and new materials and designs).

- Maximize the benefits of the planning process to improve project selection by techniques such as cost-benefit analysis, increased public participation, greater empowerment of state and local governments and better coordination through new concepts such as livable communities and welfare-to-work. A combination of improved infrastructure and better planning can increase the accessibility to our transportation system through the elimination of physical and socio-economic barriers.

- Form partnerships and promote the concepts of the National Performance Review (NPR) and common sense government in our guidance, regulation, and oversight to provide the transportation industry, State and local government, and other Federal agencies with the

ability to develop and apply new approaches to mobility.

- Promote partnerships with industry and other governmental entities to harmonize standards that will facilitate transportation system interoperability.

- Develop analytic capabilities that can be used to asses and restore transportation infrastructure in response to natural and man-made disasters in partnerships with the Federal Emergency Management Agency (FEMA) and State and local government.

Many of these activities support Presidential Priorities relating to the District of Columbia, welfare-to-work, transportation access to jobs, family friendly policies, reinvention, science and new technologies.

External Factors

We expect both demographic and economic trends to exert influence on our ability to achieve our mobility goal as mobility applies to moving both people and goods. If the United States competes successfully in world trade, demands on the transportation system will increase putting pressure on the entire system and especially on intermodal connections. The application of logistics to production processes also puts pressure on the system as more vehicles enter the system carrying just-in-time inventory. Population has a direct impact on transportation. As the population increases, the aggregate number of trips and miles also increase leading to more congestion. Changes in family life also suggest increasing use of automobiles with resulting increases in congestion. Unless mitigated by interventions such as strategic deployment of resources and technological innovation, these economic and demographic factors could have a direct negative impact on our ability to achieve our mobility goal.

Mobility Outcome Goals and Annual Performance Measures

Each mobility outcome goal will be supported by one or more key performance indicators which will track progress toward the strategic goals. These performance indicators will be fully developed in the Department's Annual Performance Plan. To illustrate the relationship between these measures and the outcome goals they support, Table 2 provides an overview of outcome goals, the candidate indicators that may be used in the Performance Plan, and sources of data. In some cases the Department has identified potential measures but sources of data must still be developed. This is discussed in Section VIII, Data Capacity.

TABLE 2. Mobility Outcome Goals/Performance Measures, Candidate Indicators and Sources of Data

STRATEGIC GOAL: MOBILITY -- Shape America's future by ensuring a transportation system that is accessible, integrated and efficient, and offers flexibility of choices.

Outcome Goal/Performance Measure	Candidate Indicator	Source of Data
Improve the structural integrity of the transportation system.	Percent of NHS miles of pavements with poor ride quality (International Roughness Index more than 170 inches/mile).	Highway Performance Monitoring System (HPMS).
Balance new physical capacity with the operational efficiency of the nation's transportation infrastructure.	Percent of bridges on the NHS and percent of all bridges structurally or functionally deficient.	National Bridge Inventory (NBI)
	Average age of bus and rail fleets in years.	National Transit Database.
	Aviation volume and equipment related delays per 100,000 operations.	FAA
Increase intermodal physical, information, and service connectivity.	Number of land and waterside impediments to flow to commerce through ports and terminals.	DOT Compendium of Intermodal Freight Projects and U.S. Army Corps of Engineers "Dredging Disposal Actions".
	Airport throughput rates at the 50 busiest airports in the U.S., as measured by the number of take-offs and landings per hour.	FAA airports and industry analysis (to be developed)
Increase access to the transportation system for the movement of all people and freight.	Number of people living within 0.5 miles of transit stops.	Geographic Information System (GIS) under development. Comment: The Federal Transit Administration (FTA) is currently working on a prototype GIS system to establish a baseline for this indicator. A subset of data is expected by FY1999 and will be used as an interim measure if possible.

TABLE 2. Mobility Outcome Goals/Performance Measures, Candidate Indicators and Sources of Data

Outcome Goal/Performance Measure	Candidate Indicator	Source of Data
Provide preventative measures and expeditious response to natural and man made disasters in partnership with other agencies to ensure that we provide for the rapid recovery of the transportation system.	Measure of time between system disruption and restoration.	TBD

STRATEGIC GOAL: ECONOMIC GROWTH AND TRADE

Advance America's economic growth and competitiveness domestically and internationally through efficient and flexible transportation.

Outcome Goals:

Success in achieving the economic growth and trade strategic goal will be measured by the following outcome goals:

- 1) Reduce the real economic cost of transportation, taking into account changes in the efficiency and quality of transportation services.

- 2) Ensure that improvements in transportation which advance America's economic growth and trade are done in a cost-effective manner consistent with the President's Executive Order on the cost-effectiveness of infrastructure investment.

- 3) Reduce the average time for delivery of people, goods, and services to their destinations.

- 4) Improve the reliability of the delivery of people, goods, and services to their destinations.

- 5) Reduce trade barriers, support economic deregulation, and promote competition in domestic and international markets in transportation-related services.

- 6) Improve the U.S. international competitive position by facilitating the export of domestic transportation goods and services.

- 7) Accelerate desirable, sustainable, and cost-beneficial regional and local economic development through major transportation investments.

- 8) Increase the education and public awareness of individuals in transportation-related fields.

- 9) Expand opportunities and promote economic growth for all businesses, especially by encouraging and assisting small, women-owned, native American and disadvantaged businesses to participate in DOT and DOT-assisted contracts and grants.

- 10) Increase the nation's economic growth and trade through wise, cost-effective

transportation investments.

Relationship Between the Strategic Goal and the Outcome Goals

The relationship between the strategic goal and the first four outcome goals is that those outcome goals will foster improvements in the existing intermodal transportation system and service qualities that will enable participants in the economy to function more effectively and enhance their market choices by emphasizing an integrated, multi-modal transportation structure. The relationship between the strategic goal and outcome goals 5 and 6 is that those outcome goals are direct measures of U.S. international competitiveness. Outcome goal 5 measures increases in trade opportunities for U.S. transportation providers (and competitiveness of U.S. industry). Outcome goal 6 measures the international trade success of the U.S. transportation-related industry. Outcome goal 7 measures the contribution of transportation investment to sustainable economic growth. Outcome goal 8 ensures that American students and workers have the necessary skills to compete in the global economy and ensures that the American transportation workforce is technologically competitive. Outcome goal 9 promotes economic growth for all businesses and recognizes the presence of America's small, women-owned, and disadvantaged businesses, which generate the majority of new jobs in the economy. DOT has an important role in encouraging business opportunities for small, women-owned, and disadvantaged business in transportation-related industries. Outcome goal 10 captures the relationship between transportation investments and the nation's economy.

How We Will Achieve the Strategic Goal

All the strategic approaches to promote mobility -- such as infrastructure investment, technical assistance to our partners, and promotion of technology -- will also advance our strategic goal of promoting economic growth and competitiveness. We will strive to achieve a balance of promoting economic growth and protecting the environment through common sense, sound science and reason. In addition, to promote trade and domestic and international competitiveness, the Department will:

- Assess the performance of the transportation system as a whole.
- Work with our domestic and international partners to open foreign markets.
- Work with partners in transportation-related industries and other branches of government to facilitate export of U.S. products, such as through implementation of the North American Free Trade Agreement (NAFTA), including supporting technology development and deployment and harmonizing international standards.
- Investigate and foster best IT practices and trends through partnerships with industry and

other Federal, State, and international entities.

- Encourage new entry in airline markets and protect against anti-competitive behavior in all modes.

- Ensure coordinated, participatory, comprehensive transportation planning at the state and local levels and use rigorous cost-benefit analysis of proposed major infrastructure investments.

- Reduce regulatory burden focusing on intended outcomes or benefits not process.

- Work with our partners in the educational community to strengthen learning and education initiatives through program such as the Garrett A. Morgan Technology and Transportation Futures Program.

- Apply advanced industrial design, environmentally-friendly technology and manufacturing techniques in transportation-related industries to cut costs and improve product marketability.

- Encourage businesses, including small and disadvantaged businesses, to enter and remain in the transportation field.

- Improve the quality of economic measures and transportation statistics to determine if the outcome goals are achieved.

- Promote private-public partnerships that demonstrate more efficient movement of people and freight, such as the movement of freight through a major international port.

Many of these activities support Presidential Priorities relating to early learning and pre-school education; technology literacy; development of new technologies; welfare-to-work; empowerment communities; trade development and open economy; maintaining government to government relationships with Indian tribal governments; reinvention; an undivided, peaceful, democratic Europe; connections to the Asia Pacific region; and economic development in Latin America. For example, NEXTEA would provide States and localities with ITS training and technical assistance, and fund a $600 million incentive program to help cities integrate their ITS programs and to help rural areas deploy ITS to improve safety, mobility, and commercial vehicle operations. It also would expand the eligibility of all major program categories to include ITS, so technology could always be considered as a strategy for meeting travel demand. The potential investment in ITS technology with this change in eligibility is well over $1 billion annually.

External Factors

Demographic, economic, and technology trends will all play a part in our ability to achieve our economic growth and trade goal. Our outcome goals that relate to the economic cost of transportation, the time for delivery, and the reliability of delivery will all be affected by trends in world trade. Similarly, to achieve our outcome goals that relate to reductions in trade barriers, deregulation, and facilitating exports, we will need to improve transportation efficiency along our borders and ports of entry; improve intermodal connections; and quickly restore interruptions to the transportation system due to natural disasters, congestion or intentional damage. The increasing application of logistics to production processes also increases congestion as does increasing population. DOT's actions to ensure well coordinated planning at the state and local levels, reductions in regulatory burden and the application of advanced technologies in transportation industries will mitigate against these trends.

Economic Growth and Trade Outcome Goals and Annual Performance Measures

Each economic growth and trade outcome goal will be supported by one or more key performance indicators which will track progress toward the strategic goals. These performance indicators will be fully developed in the Department's Annual Performance Plan. To illustrate the relationship between these measures and the outcome goals they support, Table 3 provides an overview of outcome goals, the candidate indicators that may be used in the Performance Plan, and sources of data. In some cases the Department has identified potential measures but sources of data must still be developed. This is discussed in Section VIII, Data Capacity.

TABLE 3. Economic Growth and Trade Outcome Goals/Performance Measures, Candidate Indicators and Sources of Data

STRATEGIC GOAL: ECONOMIC GROWTH AND TRADE -- Advance America's economic growth and competitiveness domestically and internationally through efficient and flexible transportation.

Outcome Goal/Performance Measure	Candidate Indicator	Source of Data
Reduce the real economic cost of transportation, taking into account changes in the efficiency and quality of transportation services.	Expenditure on passenger transportation per passenger-mile.	National Transportation Statistics, BTS.
	Expenditure on freight transportation per ton-mile.	National Transportation Statistics, BTS.
Ensure that improvements in transportation which advance America's economic growth and trade are done in a cost-effective manner consistent with the President's Executive Order on the cost-effectiveness of	Comparison of actual costs to projected costs in transportation improvement projects.	Post-improvement analysis reports of select projects.

infrastructure investment.		

TABLE 3. Economic Growth and Trade Outcome Goals/Performance Measures, Candidate Indicators and Sources of Data

Outcome Goal/Performance Measure	Candidate Indicator	Source of Data
Reduce the average time for delivery of people, goods, and service to their destinations.	Annual Federal Aid System (highway) delay, as measured by hours of delay per 1000 vehicle miles traveled.	HPMS
Improve the reliability of the delivery of people, goods, and services to their destinations.	Percentage of flight operations arriving on time for the largest U.S. air carriers. Percent (system wide) of Amtrak operations arriving on time.	National Transportation Statistics, BTS.
Reduce trade barriers, support economic deregulation, and promote competition in domestic and international markets in transportation-related services.	Percent of domestic airline passengers (48 states) traveling in markets with low-cost competition.	DOT's Office of Aviation and International Economics.
Improve the U.S. international competitive position by facilitating the export of domestic transportation goods and services.	Value of exported transportation goods and services. Gross tons (GT) of commercial vessels under construction in U.S. shipyards for export.	U.S. Department of Commerce, Bureau of Economic Analysis (BEA). Lloyd's Ship Particular File
Accelerate desirable, sustainable, and cost-beneficial regional and local economic development through major transportation investments.	Comparison of actual, resulting development to projected development in major transportation investments.	Post-investment analysis reports of sample projects.
Increase the education and public awareness of individuals in transportation-related fields.	Number of certificate programs and matriculations into education programs in transportation fields.	TBD
Expand opportunities and promote economic growth for all businesses, especially by encouraging and assisting small, women-owned, native American and disadvantaged businesses to participate in DOT and DOT-assisted contracts and grants.	Percent of the total value of contract and subcontracts and grants awarded to small, women-owned, and disadvantaged businesses.	DOT Contract Information System (CIS) and DOT-assisted state and local transportation agency DBE reports.
Increase the nation's economic growth and trade through wise, cost-effective transportation investments.	Measure of the contribution of DOT actions on change in GDP.	TBD. At present, DOT does not have the ability to measure its contribution to GDP. Consistent with its commitment to report on needed data and information outlined in Section VIII, Data Capacity, DOT will research the linkages between its actions and GDP.

STRATEGIC GOAL: HUMAN AND NATURAL ENVIRONMENT

Protect and enhance communities and the natural environment affected by transportation.

Outcome Goals:

Success in achieving the environmental strategic goal will be measured by the following outcome goals:

- 1) Improve the sustainability and livability of communities through investments in transportation facilities.
- 2) Reduce the amount of transportation-related pollutants and greenhouse gases released into the environment.
- 3) Improve the natural environment and communities affected by DOT-owned facilities and equipment.
- 4) Reduce the adverse effects of siting, construction and operation of transportation facilities on the natural environment and communities, particularly disadvantaged communities.

Relationship Between the Strategic Goal and the Outcome Goals

All of the outcome goals will contribute to protecting the natural environment and communities in the United States. Outcome goals 1 and 3 capture the planning, building and operations of transportation as they affect communities and the natural environment. Community life and health will be improved by a reduction in pollutants. Outcome goal 3 highlights our responsibility to take a more proactive role in protecting and enhancing the environment directly affected by DOT facilities. Outcome goal 2 acknowledges our role in protecting the environment from pollutants released by transportation sources and it highlights our responsibility to take a more proactive role in preventing the exposure of the public to hazardous materials. Outcome goal 4 acknowledges the Department's responsibility to not only mitigate but actually reduce the negative environmental affects of transportation facilities. Outcome goal 4 also recognizes the need to give more attention to disadvantaged communities in the planning process, reflecting the Departmental Order on Environmental Justice.

How We Will Achieve the Strategic Goal

Achieving DOT's strategic goal of protecting and enhancing communities and the natural environment affected by transportation directly and fully supports the Presidential Priority of improving the environment. We have given special emphasis to carrying out the President's Executive Order on Environmental Justice. Our outcome goals recognize that transportation activities represent both a source of environmental degradation as well as an opportunity to reduce negative effects and improve the quality of the environment. Likewise, these goals fit Secretary Slater's goal of a common sense government.

We will:

- Investigate technological and behavioral implications of alternative transportation systems to determine those that minimize impacts on long-term environmental sustainability.

- Promote public-private partnerships to demonstrate new environmental friendly technologies such as, alternate fuels and infrastructure for the next generation of vehicles.

- Develop partnerships with other levels of government, other Federal agencies, Indian tribal governments and the private sector, for example, to develop environmental assessment systems to support analysis of transportation related environmental impacts and alternative strategies.

- Improve DOT-owned or controlled facilities for the benefit of the host communities.

- Promote environmental protection and scenic conservation through planning and program operations.

- Promote environmentally preferable transportation strategies, such as transit use and substitution of telecommunications and telecommuting.

- Use virtual vs. physical transportation mechanisms to mitigate harm to the environment.

Many of these activities support the Presidential Priorities relating to noise, air and water quality, global climate change, brownfields, clean fuel vehicles, family friendly policies, empowerment of communities, reinvention, and science and new technologies.

External Factors

Demographic factors, increasing domestic and international trade, and increased leisure travel

combine to work against our ability to achieve our goals of improving the sustainability and livability of communities and reducing the amount of transportation related pollutants and greenhouse gasses released into the environment. Reduced public funding for transportation could limit our ability to invest in transportation facilities that improve the livability of communities and technologies that reduce air, water and noise pollution.

Human and Natural Environment Outcome Goals and Annual Performance Measures

Each human and natural environment outcome goal will be supported by one or more key performance indicators which will track progress toward the strategic goals. These performance indicators will be fully developed in the Department's Annual Performance Plan. To illustrate the relationship between these measures and the outcome goals they support, Table 4 provides an overview of outcome goals, the candidate indicators that may be used in the Performance Plan, and sources of data. In some cases the Department has identified potential measures but sources of data must still be developed. This is discussed in Section VIII, Data Capacity.

TABLE 4. Human and Natural Environment Outcome Goals/Performance Measures, Candidate Indicators and Sources of Data

STRATEGIC GOAL: HUMAN AND NATURAL ENVIRONMENT – Protect and enhance communities and the natural environment affected by transportation.

Outcome Goal/Performance Measure	Candidate Indicator	Source of Data
Improve the sustainability and livability of communities through investments in transportation facilities.	Total revenue vehicle hours of high quality transit service.	National Transit Database.
Reduce the amount of transportation-related pollutants and greenhouse gases released into the environment.	Gallons of oil and chemicals spilled into the water by marine sources per million gallons shipped.	USCG and U.S. Army Corps of Engineers.
	Average quantity of liquid hazardous materials released by pipeline to the environment per serious pipeline incident.	Hazardous Material Information System (HMIS).
	Average quantity of liquid hazardous materials released by all mode (except pipeline) to the environment per serious transportation incident.	RSPA's HMIS.
	Percent of non-attainment and maintenance areas meeting their mobile source emissions budget goals.	Regional FHWA offices.

TABLE 4. Human and Natural Environment Outcome Goals/Performance Measures, Candidate Indicators and Sources of Data

Outcome Goal/Performance Measure	Candidate Indicator	Source of Data
Improve the natural environment and communities affected by DOT-owned facilities and equipment.	Number of facilities categorized as No Further Remedial Action Planned (NFRAP) under the Superfund Amendments and Reauthorization Act (SARA).	Annual SARA Report to Congress.
Reduce the adverse affects of siting, construction and operation of transportation facilities on the natural environment and communities, particularly disadvantaged communities.	Percentage of people exposed to significant aircraft noise (65 DNL or greater).	TBD.

STRATEGIC GOAL: NATIONAL SECURITY

Advance the nation's vital security interests in support of national strategies such as the National Security Strategy and National Drug Control Strategy by ensuring that the transportation system is secure and available for defense mobility and that our borders are safe from illegal intrusion.

Outcome Goals:

Success in achieving the security strategic goal will be measured by the following outcome goals:

- 1) Reduce the vulnerability and consequences of intentional harm to the transportation system and its users.

- 2) Ensure readiness and capability of all modes of commercial transportation to meet national security needs.

- 3) Ensure transportation physical and information infrastructure and technology are adequate to facilitate military logistics during mobility, training exercises, and mobilization.

- 4) Maintain readiness of resources including operating forces and contingency resources owned, managed, or coordinated by DOT necessary to support the President's National Security Strategy and other security-related plans.

- 5) Reduce flow of illegal drugs and of illegal aliens entering the United States.

Relationship between the Strategic Goal and the Outcome Goals

We are taking actions and assisting other agencies with protecting people in the United States, and US citizens and assets abroad, and preserving the integrity and sovereignty of the United States. Outcome goal 1 addresses personal security of users and the security of the transportation system. We have three outcome goals to support the Department of Defense's (DOD) needs. Outcome goals 2 and 3 address the ability of commercial fleets and non-Federal infrastructure to meet mobility and training needs; Outcome goal 4 addresses defense readiness of assets under our purview. Outcome goal 5 addresses the need to maintain the integrity of the nation's borders.

How We Will Achieve the Strategic Goal

In carrying out its leadership and advocacy responsibilities in national security, DOT will:

- Develop and maintain partnerships with other Federal agencies, state/local governments, law enforcement, transportation industry and foreign governments, working cooperatively to identify the vulnerabilities of our national transportation system and jointly develop and implement countermeasures, harmonize our respective short term and long term goals, and maintain a close daily working relationship.

- Conduct research to better detect and deter threats to the transportation system.

- Ensure that the information systems that support transportation systems are secure from unauthorized access and destruction.

- Implement recommendations of the President's Commission on Critical Infrastructure Protection and the White House Commission on Aviation Safety and Security, such as enhancing information security in and across all modes.

- Increase and support training on security awareness.

- Work cooperatively with DOD to ensure that its physical and informational infrastructure, technology and operational needs are addressed to support the increased transportation requirements of an evolving, more agile force and a leaner, faster DOD logistics system.

- Strategically deploy DOT workforce and assets, especially a USCG with operating forces, with a direct national security mission, such as defending the frontier against the flow of illegal drugs and illegal economic migrants.

- Support other Presidential Priorities, including:
  - -Operations other than war
  - -Passenger Vessel Security/Cruise Ship Security
  - -Coast Guard International Training Detachment
  - -Civil Aviation Security Enhancements

- Promote partnerships to develop transportation infrastructure and other transportation-related projects abroad.

- Develop and share security related information and cooperate to implement strong security

procedures and technology in the U.S. and internationally.

- Develop national transportation analytical capabilities that can be used to assess transportation issues such as mobility planning and operations together with other security stakeholders.

- Work cooperatively with other Federal agencies with international responsibilities, such as the Departments of State and Commerce, and the United States Trade Representative, to provide technical assistance and other resources to other nations for the purpose of assessing, developing, and improving their national transportation infrastructure to create a strong underpinning for a secure and stable economy in a global market.

Many of these actions support Presidential Priorities relating to peace in regions of importance, meeting new security challenges, and modern, ready military resources. For example, the Coast Guard will provide support for the President's Drug Control Strategy through its STEEL WEB tactical campaign and counter drug strategies.

External Factors

An increasing number of terrorist threats, the increasing dependence on high technology transportation systems and communications networks, and increasing illegal immigrant transportation and smuggling are external factors that work against our ability to achieve our national security goal. To counteract these trends we will leverage our resources through partnerships, increased training on security awareness, and taking steps to ensure that the information and communications systems that support transportation are secure from unwanted intrusions.

National Security Outcome Goals and Annual Performance Measures

Each national security outcome goal will be supported by one or more key performance indicators which will track progress toward the strategic goals. These performance indicators will be fully developed in the Department's Annual Performance Plan. To illustrate the relationship between these measures and the outcome goals they support, Table 5 provides an overview of outcome goals, the candidate indicators that may be used in the Performance Plan, and sources of data. In some cases the Department has identified potential measures but sources of data must still be developed. This is discussed in Section VIII, Data Capacity.

TABLE 5. National Security Outcome Goals/Performance Measures, Candidate Indicators and Sources of Data

STRATEGIC GOAL: NATIONAL SECURITY -- Advance the nation's vital security interests by ensuring that the transportation system is secure and available for defense mobility and that our borders are safe from illegal intrusion.

Outcome Goal/Performance Measure	Candidate Indicator	Source of Data
Reduce the vulnerability and consequences of intentional harm to the transportation system and its users.	Number of physical security deficiencies and violation in U.S. airports. Percent U.S. passenger terminals/vessels in compliance with International Maritime Organization security guidelines.	TBD USCG
Ensure readiness and capability of all modes of commercial transportation to meet national security needs.	20 feet equivalent units or square feet of sealift capacity.	Capacity of ships enrolled in the Maritime Security Program and Voluntary Intermodal Sealift Agreement.
Ensure transportation physical and information infrastructure and technology are adequate to facilitate military logistics during mobility, training exercises, and mobilization.	Percentage of DOD designated primary or alternate port facilities that are available when requested by DOD.	MARAD data based on monthly strategic port reports.
Maintain readiness of resources owned, managed, or coordinated by DOT necessary to support the President's National Security Strategy and other defense-related plans.	Achieving and sustaining the standard measure of military readiness for Coast Guard units as required by DOD. Percent of Ready Reserve Force no-notice activations which meet assigned readiness activation and percent of days each ship is mission-capable while under DOD control.	USCG USCG
Reduce the flow of illegal drugs and of illegal aliens entering the United States.	Smuggler success rate in non-commercial maritime channels, expressed as a percentage. Illegal migrant success rate by maritime channels, expressed as percentage.	USCG USCG

VII. RELATIONSHIP BETWEEN THE STRATEGIC GOALS AND THE PERFORMANCE GOALS IN THE ANNUAL PERFORMANCE PLAN

The DOT Strategic Plan sets forth how we intend to advance the nation's transportation system into the 21st Century. The DOT Annual Performance Plan, to accompany each year's budget beginning in FY 1999, defines the performance indicators and goals--the measures and targets--we will use to judge our progress.

Performance measurement is not new to DOT, particularly in safety and infrastructure programs. Looking at the entire transportation system of this country, however, we see a network so woven into our national and economic well-being that to measure the system's outcome is to measure our country's vitality. The Annual Performance Plan must recognize the broad outcomes of our programs while setting objective and measurable targets that stretch us each year as we reach for our strategic goals.

Thus, strategic goals will be supported by appropriate indicators and numeric targets that, taken as a group, will indicate progress. Individual DOT operating administrations and programs will develop their own tier of performance goals, linked to the Department's Annual Performance Plan and Strategic Plan. These performance goals may change over time. For example, if a threshold goal is met and sustained, we may shift our measures to address emerging challenges. Also, we may realize that there are better measures of performance than we first select--a lesson we learned from our four GPRA performance planning pilots. The type, nature, and scope of the DOT performance goals will be defined by the above factors as well as the following considerations:

- ***Annual performance indicators and goals will logically link to the DOT mission and strategic goals***. The mission, strategic goals, and outcome goals laid out in this document provide the foundation for the Annual Performance Plan. Indicators will be selected that clearly track the Department's incremental progress toward strategic goals.

- ***Annual performance plan indicators and goals, over time as they are developed and taken as a group, will cover all of DOT's major functions and operations.***

- ***Annual performance indicators and goals will be outcome oriented and measurable.***

- ***Indicators and goals will reflect a balance of precision and timeliness.*** We will strike a careful balance in this area, choosing rates, numbers, or thresholds to give us the best indicators of our progress.

- ***Annual performance indicators and goals will account for the span of time between***

intervention and results. By the nature of our programs, many outcomes occur beyond the year of our effort. For example, capital investment, grant programs, and many regulations reach into the future. Our measures must balance a near term and long term view, while reflecting to the greatest extent possible resources expended. Infrastructure measures recognize the contribution of earlier investments.

- *Performance goals will be developed with an appreciation for our partners.* DOT does not work alone. Our partnerships with state and local authorities and industry are the essence of many programs. Our performance goals in such programs must be developed within this context.

- *The Annual Performance Plan will serve as a link between the strategic goals, annual goals, and the DOT budget program activity structure.* DOT operates through 10 operating administrations and over 140 budgeted program activities. Annual performance goals are a link between DOT strategic goals and program activities listed in the DOT budget.

In short, annual performance indicators and goals will reflect a high-level, cross-cutting view of the Department. However, in some cases, measures are not yet developed to reflect the desired outcomes directly. In these cases, intermediate outcome measures or modal measures supporting the goal will be included as interim measures. Further development of performance information supporting each of the strategic goals will yield clearly stated, high-level goals with target performance levels and specific measures that will identify the relative balance among our sometimes competing areas of interest. The section below on Data Capacity describes our approach to the collection of data needed to measure our performance against our strategic goals.

VIII. DATA CAPACITY

The Department of Transportation recognizes that the collection and dissemination of data and information, and the creation and sharing of knowledge about the nation's transportation sector are crucial to its success in an age of growth, increasing complexity, and decentralization. DOT has an essential role in improving the quality of decisions affecting the transportation sector through the provision of better information to both the public and private sectors. Broad dissemination of information will become an essential Departmental mission in years to come.

The Bureau of Transportation Statistics, working in conjunction with the operating administrations and the Office of the Chief Information Officer, will convene a DOT Data Initiative Working Group to support the Strategic Plan and compliance with the Government Performance and Results Act by:

- Publishing a report every two years on user needs for information and knowledge, both within the Department and its user community;
- Creating a vision of a comprehensive system of transportation data;
- Developing Department-wide data quality standards, consistent with good statistical practice, that are available for use by transportation agencies outside the Department and for reference by the public;
- Providing the Secretary with a report every two years that identifies improvements achieved in data quality in the Department and in the provision of information about quality to data users; and
- Compiling, analyzing, and providing to the Secretary a Department-wide statistical program budget for use in making decisions during the budget process.

Capacity of DOT Information Systems

The Department of Transportation spends approximately $2 billion annually on information technology (IT), making it one of the largest procuring agencies of information technology in the Federal government. A substantial portion of DOT's IT expenditures support data-related activities -- whether it be for the computer mainframes, minicomputers, and microcomputers needed to store information or for the software applications and Internet webpages used to manipulate and exchange data, such as the Department's Accounting and Financial Information System, the National Driver Register, the Marine Information for Safety and Law Enforcement system, the Aviation Medicine Certification System, the Bureau of Transportation Statistics Management Information System, the National Transit Database, and the Hazardous Materials Information Exchange. These and other data sources will be critical components in measuring progress against the performance goals and outcomes established in the strategic plan.

DOT's system capacity should be more than sufficient to handle GPRA information requirements provided planned new/replacement systems continue to be funded in the budget. The challenge for DOT will be to obtain funds so that: (1) the reliability and accuracy of data can be validated and verified; and (2) Department-wide IT architectures and standards can be established to enable more integrated, efficient information collection, manipulation, and dissemination in light of the numerous disparate IT systems currently in existence in DOT.

Adequacy of Data for Performance Measures

As we have noted, in Tables 1 through 5, existing information sources provide indicators for most of the performance measures in the Strategic Plan. However, in some cases, the data necessary for the Department to measure its performance directly on those goals are lacking and, in a few instances, no data currently exist to measure the Department's performance on certain performance goals. Further, as the Department validates the data used for its performance measures, as required by the Government Performance and Results Act, any deficiencies will require actions to improve data collection and processing procedures. To fill data gaps, remedy data deficiencies, and validate performance-related data on an ongoing basis, the Department will require additional budgetary and staff resources. The Department will use both customer surveys and focus groups to help it define data needed for performance measurement.

IX. PROGRAM EVALUATIONS

This plan sets out the Department's strategic goals and outcome goals. Our progress toward those goals will be tracked by monitoring specific performance measures in annual performance plans and performance reports. Performance measurement determines if intended outcomes are occurring, and assesses any trends. Program evaluation uses analytic techniques to assess the extent to which our programs are contributing to those outcomes.

DOT conducts evaluations of its programs, with analysis traditionally occurring at the modal level. Past program evaluations collectively informed the executive process that crafted this plan's goals, objectives and strategies. For example, in 1990, the Department of Transportation completed a comprehensive program evaluation of the impact and effect of airline deregulation. This evaluation was important because the Department is responsible for promoting the development of our National Air Transportation System and ensuring that competition continues to benefit the traveling public. Competition, as opposed to regulation, is essential to the maintenance of low air fares and high service quality.

The study focused on the results of airline deregulation by examining the structure and service network of the airline industry, airport and air traffic control system impediments to new and existing carriers entering new markets, regional air service, airline passenger fares, airline marketing practices, and international airline service.

This study, coming some 10 years after airline deregulation, showed that air travelers have benefited from the changes brought about under deregulation by receiving more service at a lower cost. Air service networks had expanded, providing more departure frequencies to more airports and travel markets. The wide use of discount fares had made it possible for more people to afford air travel. The study also provided the analytical underpinning for subsequent and ongoing policy decisions regarding, for example, competition, new-entrant airlines, data quality, barriers to entry, and international "open skies". The results of the study informed our thinking as we framed our economic growth and trade strategic goal. Similarly, recent studies of highway infrastructure and transit investment have quantified the links between investment and outcomes in the areas of mobility, economic growth, and safety. Such analyses have improved DOT's understanding of what is broadly achievable through intervention. This understanding, in turn, influenced the manner in which strategic and outcome goals in these areas were framed.

The Department will use a variety of evaluation and assessment strategies to provide valid and reliable information for measuring and improving performance. As described in this plan, the review of systematic collection of outcome data from statistical sources (see Section VIII Data Capacity); the expanded use of customer surveys and evaluation of customer standards (see Section XII Corporate Management Strategies); information resulting from external reviews and

enhanced use of program evaluation will all contribute to better Departmental performance.

Managing for outcomes has placed renewed emphasis on program evaluation within DOT. In early 1997 the Department began a study to assess the current state of its program evaluation practices. Following through on this effort, the Assistant Secretary for Budget and Programs and the Inspector General will work in collaboration with the operating administrations to develop and implement a comprehensive five-year program evaluation plan, to be included in the FY 2000 Performance Plan. To carry out this plan, the Department must build a Department-wide skill base--largely in program offices--sufficient to conduct evaluations of major programs as they relate to strategic goals. The Department's goal is to redouble program evaluation efforts by addressing issues of capacity-building, training, and resources, as well as related issues such as data integrity and reliability.

Even as we begin a comprehensive planning effort to develop a multi-year program evaluation plan, we can identify now a number of significant program evaluations that we already plan to undertake. These are summarized in Table 6 below:

TABLE 6. Program Evaluation, Strategic Goal, Methodology, Scope and Estimated Completion Date

Program Evaluation	S	M	T	E	N	Methodology	Scope	Estimated Completion Date
Highway Cost Allocation (FHWA)			X			Combination: Statistical & Modeling with fiscal data	Evaluation of highway user charges based on equity and economic efficiency principles.	1997 w/ updates
Highway Safety Assessment (NHTSA)	X					Longitudinal & Statistical	Evaluation of grant program's impact in starting and local programs and improving State safety.	1998
Domestic Airline Competition (OST-X)			X			Combination	Evaluation of the impact of DOT initiatives to promote airline competition on fares and service at the market level.	1998
Federal Motor Vehicle Safety Standards (NHTSA)	X					Statistical	Evaluation of the national effect of improving vehicle design on highway safety, as assessed by fatality, injury, and collision reduction.	1998
Evaluation of the Livable Communities Initiative (FTA)		X				Combination	Evaluation of the impact of the Livable Community Initiative on personal mobility, access to services, transportation performance, and quality of life in communities.	1999

TABLE 6. Program Evaluation, Strategic Goal, Methodology, Scope and Estimated Completion Date (Continued)

Program Evaluation	S	M	T	E	N	Methodology	Scope	Estimated Completion Date
Innovative Finance Demonstration Project (FAA)	X	X	X	X		Combination	Evaluation of the impact of the innovative finance techniques in leveraging non-Federal funds for airport development and accelerating project completion.	1999
International Aviation Liberalization (OST-X)			X			Combination	Evaluation of the economic impact of eliminating bilateral restrictions on aviation in international markets.	2000
DOT-wide Hazardous Material Compliance and Enforcement Program (Multi-modal)	X			X		Combination	Evaluation of DOT's approach to compliance and enforcement to determine if it optimizes hazardous materials safety.	2000
State Initiatives to Reduce Fatal Truck Crashes (FHWA)	X					Cross-Sectional	Study of initiatives in ten states with the highest number of truck crashes. Evaluation will look at effectiveness of safety initiatives and compare to non-participating states.	2000
Elimination of Sub-Standard Vessels (USCG)	X			X		Combination	Evaluation of the impact of program to eliminate noncompliant vessels on major and medium oil spills and marine casualty rates.	2000
Essential Air Service (OST)		X	X			Combination	Assessment of relationships between (1) the characteristics of communities served and type and frequency of subsidized air service and (2) the mobility and economic growth and trade benefits of such service.	2000
Maritime Security Program (MSP) & Volunteer Intermodal Sealift Agreement (VISA) (MARAD)					X	Combination	Evaluation of the impact of MSP/VISA in achieving DOT national security goals of 1) ensuring the readiness and capability of commercial transportation to meet national defense needs and 2) ensuring transportation infrastructure and technology is adequate to facilitate military logistics during training exercise and mobilization.	2000
Security for Baggage	X				X	Combination	Evaluation of the impact of selection,	2000

and Passengers (FAA)							training, certification and operational performance of screeners on the detection of security violations.	

TABLE 6. Program Evaluation, Strategic Goal, Methodology, Scope and Estimated Completion Date

Program Evaluation	S	M	T	E	N	Methodology	Scope	Estimated Completion Date
Pipeline Risk Management Project (RSPA)	X			X		Longitudinal	Evaluation of whether pipeline operations based on risk management result in greater safety and service reliability.	2001
Amtrak Trip Time Reduction between Boston and New York (FRA)	X	X		X		Longitudinal	Evaluation of impact of trip-time reduction on Amtrak revenues, the shift of ridership from other modes, and other outcomes. *Study contingent on funding for trip-time reduction elements in FY-98 & FY-99*	2002
Great Lakes Icebreaking (USCG)		X	X			Combination	Evaluation of Impact of Great Lakes icebreaking on mobility of goods and extent that activities are meeting customer requirements.	2002
State Infrastructure Banks (FHWA, FTA, FRA)	X	X	X			Longitudinal & Cross-Sectional	Evaluation of funding leveraged from SIBs and the impact of the program on strategic outcomes.	2002
Grade-Crossing Closure and Warning Device Installation (FRA)	X					Combination	Evaluation of the impact of preventative approaches to the reduction of at-grade railroad crossing crashes.	2002

Strategic Goal Key:
S - Safety
M - Mobility
T - Economic Growth and Trade
E - Environment
N - National Security

Methodology Key:
Longitudinal - Study of datum points or data series before and after intervention
Cross Sectional - Study of different groups or sites at the same point in time
Statistical - Regression analysis, etc.
Combination - Use of two or more complementary analytic techniques

X. EXTERNAL FACTORS AFFECTING THE ACHIEVEMENT OF DOT'S STRATEGIC GOALS

Introduction

Worldwide, a number of forces are converging to shape the direction of transportation in coming years. Understanding these changes was critical in DOT's formulation of its vision and goals for transportation. Key among these global changes are accelerated economic growth and globalization, increasing concerns for safety and security, and changing technological trends especially in communications and information.

Achieving the Department's strategic goals will certainly be influenced by a number of external trends and forces prevailing over the time period covered by the plan, 1997 through 2002. Achieving the strategic goals will also depend upon the collective contributions of our employees, partners, customers and stakeholders. The Department considered both internal and external factors in developing this strategic plan.

To determine the future, internal needs of DOT, we conducted an analysis of our Strengths, Weaknesses, Opportunities, and Threats. We learned that successful collaboration among employees, partners and customers requires that the appropriate organizational infrastructure and processes are in place to provide the knowledge and tools required for success. Corporate management strategies involving development of a highly skilled, diverse workforce; utilization of communications and information technologies; investment in transportation research and technology; and attention to customer service are essential in enabling DOT to achieve its strategic goals. We must invest in training our workforce in 21st Century skills, and acquire and maintain the capital assets, technologies, and services that will be needed to support transportation in the future. We must continue to reengineer and streamline our operational, regulatory, and administrative processes and focus on our customers who will ultimately determine our success. Our specific plans for addressing the internal needs of DOT are spelled out in the Corporate Management Strategies section of this plan.

To determine the most important external trends that will affect transportation and the Department, DOT conducted an environmental scan through a survey of all DOT organizations in December 1996 and January 1997. The scan covered the economic, social, political, environmental, security and technology trends and forces that will impact transportation in the

next five to ten years. A team conducted a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis to pinpoint the most important trends likely to affect the Department. DOT's leadership used the trend papers and the SWOT analysis produced from the survey in developing the goals in the strategic plan. A summary of the results of this scan is presented below and the full set of papers is included in Appendix B.

Economic Trends

Five economic trends are expected to impact transportation and the Department in the next several years. They are globalization of commerce, growing attention to logistics in the production process, greater reliance on private investment in transportation, changes in the structure of the transportation industry and the rise of competing and complementary technologies.

➢ ***Globalization***

With respect to the globalization of commerce, this megatrend will continue to have a significant impact on transportation. Efficient transportation is key to whether U.S. businesses will be competitive in the global marketplace. Investment in transportation facilities and the provision of services will need to be made with greater attention to international trade demands than has historically been true. More attention will be devoted to the efficiency of border and port of entry activities in the course of improving the overall effectiveness of international movements. Further, since international movements frequently involve more than one mode, intermodal connections will play a more important role in transportation. Increased commerce with foreign nations will stimulate demand for efficient, international transport for business, leisure and the shipment of high-value goods. Efficient, cost effective transportation will play a major role in determining whether U.S. businesses can compete in the global market place.

➢ ***Growing Attention to Logistics in the Production Process***

Logistics -- the storage and transport of raw materials, parts and output -- is an increasingly important consideration in decisions on how goods and services will be produced and delivered. The efficient application of logistics in the production process can result in important efficiencies in the production and distribution of goods and ultimately in their cost and competitiveness in the marketplace. The demands which logistics will place on transportation in coming years will have major implications for the system.

Logistical applications often require improvements in the quality of service (e.g., just-in-time delivery) which will increase the pressure to be able to counteract quickly random interruption from congestion, crashes, natural disasters or intentional damage to the transportation system. More direct involvement of transportation considerations in production process decisions will bring a need for a closer relationship between the government and the private sector, which will inevitably raise new issues of fair treatment among competitive private interests.

➢ ***Greater Reliance on Private Investment in Transportation***

Private sector investment in transportation has generally been greater than that of the public sector. However, public infrastructure investment often provides the essential right-of-way that allows the private investment to function effectively. With the emphasis on smaller, less intrusive government comes pressure to reduce government spending in all areas and brings into question the outlook for traditional sources of funds for public programs, including transportation. Superimposed on this picture are broader economic considerations such as low and stable inflation and the potential for change in the tax structure, each of which could make the climate for private investment in transportation more positive. With limited resources to address system congestion, capacity, maintenance and the need for improved intermodal connections, the Department will not only have to manage its resources in an effective way and make cost-effective investments, it will also need to create new opportunities for private investment in transportation.

➢ ***Changes in the Structure of the Transportation Industry***

Although the merging of smaller into larger companies has been prominent throughout the history of transportation in the U.S., the period since deregulation has been characterized by an acceleration of merger activity. Moreover, the underlying economics of the transportation industry appear to encourage service patterns which result in a dominant presence in particular areas, if not industry-wide. This phenomenon is illustrated by airline and maritime hub and spoke service patterns. In addition, horizontal integration across modes, in search of an ability of offer more efficient multi modal service has resulted in another dimension of market concentration. Within this developing industry environment, DOT will exercise policy and regulatory authority that will influence how the merger pressures are played out and the extent to which new entrants are provided with a reasonable chance to compete.

➢ ***Competing/Complementary Technologies***

It is often the case that changes in non-transportation technologies that are closely related to the transportation function can have major economic implications for transportation supply and demand. A clear example is the area of communications technology where major advances have taken place over the past decade and are likely to compound in the coming years. Since a substantial share of travel and some shipping involve the movement of information, communication improvements provide increasingly sophisticated alternatives to the physical movement of persons and goods. Conversely, access to more effective communications may generate new demand for transportation service which will replace or, perhaps, exceed that which communications reduced. Latent demand for local trips may replace the use of facilities and vehicles freed up by telecommuting. The increased contacts brought about by, and broader span of management control made possible through, improved communications may generate new demand for intercity transportation service. It will be necessary to understand more fully the complicated relationship between transportation and closely related technologies to be able to anticipate and use that relationship effectively.

Social Trends

Transportation, demographics, and cultural change are interrelated. Social trends often have a direct impact on transportation. In developing its strategic plan, DOT considered several social trends: population growth; migration and shifts in employment; aging population; disability; work and family; immigration; and race and ethnic diversity.

➢ ***Population***

The population of the U.S. is projected to reach 275 million by the year 2000 and 347 million by the year 2030. The population increase is primarily the result of an increase in immigration and a decrease in death rates, trends that are expected to continue. Population has a direct impact on transportation. As the population increases, the aggregate number of trips and miles also increases, leading to additional injuries and fatalities, more environmental degradation and an increase in demand for transportation infrastructure.

➢ ***Migration and Shifts in Employment***

Since 1970, 86 percent of total U.S. population growth has taken place in suburban areas. The result of this trend has been the rapid suburbanization of both population and employment as well as the concentration of poverty in central cities. Local land-use regulations have interacted with these factors to continue the expansion of low-density communities. These trends have increased suburb-to-suburb commutes, reverse commutes and distances between home and destinations. The trends have also increased traffic congestion, increased dependence on the automobile, and contributed to the decline in air quality.

➢ ***Aging Population***

One of the most important demographic trends for transportation is the growth of the elderly population. This group is projected to grow 108 percent by 2030 to 70 million or one in five Americans compared to one in ten today. Growth in the relative population of the elderly is due to reduced mortality rates, improved survival at the end of the age spectrum, lower birth rates and the aging of the baby boomers. The number of automobile fatalities for those over 75 is predicted to increase at least 45 percent by the year 2020. Pedestrians over age 70 currently represent 9 percent of the population but account for 19 percent of all pedestrian fatalities. With aging there is typically a slow decline of cognitive and sensory skills required for the operation of a motor vehicle. The automobile driver crash and fatality rates per mile remain nearly level for drivers up to age 75 and then increase sharply. The growth of the elderly population will increase demand for accessible transportation alternatives as well as elderly friendly roadway designs and vehicles, paratransit services, and changes in passenger boarding and alighting time for aviation, rail and transit vehicles.

➢ ***Disability***

People with disabilities are the nation's largest minority (49 million people). If a person does not currently have a disability, he or she has about a 20 percent chance of becoming disabled at some point in his or her lifetime. The percentage of people with a disability increases with age; for example, 5 percent of the population less than age 18 but 84.2 percent of those 85 years of age or greater. Therefore, as the baby boom generation advances in age, the number of people with disabilities will also increase. Transportation is a linchpin to independence for people with disabilities. Despite important progress in increased accessibility, transportation remains a major obstacle to employment and participation in the community for people with disabilities.

➢ ***Work and Family***

Changes in family life are increasing the need to balance work and family responsibilities. Women will continue to work outside the home with increasing reliance on child and elder care. Children will need transportation to day care, school, medical appointments and other destinations. These trends suggest increasing use of automobiles with resulting increases in congestion, fatalities and injuries. However trends toward telecommuting, flexible work schedules, home-based businesses and working arrangements may tend to offset increasing automobile usage caused by changes in family life.

➢ ***Immigration***

The number of foreign-born persons in the U.S. is at an all time high, and during the 1990's there will be a net increase in foreign born population accounting for one-third of the nation's annual population growth. The majority of immigrants can be expected to have higher labor force participation rates than the native born. Most immigrants will settle in metropolitan areas and be dependent on public transportation until they are able to afford an automobile. The trend in immigration suggests increased demand for transit service and increased automobile usage. With increased numbers of people who have direct ties to other countries, we can also expect increased air travel to and from the U.S.

➢ ***Racial and Ethnic Diversity***

The U.S. population is becoming more diverse by race and ethnicity. Non-whites will represent close to half the U.S. population by the year 2050. About 6.8 million people use transit each weekday with more than half of these users minorities who use transit for commuting to work.

Political Trends

The environmental scan revealed two trends that could affect transportation: the changing role of the Federal government and the changing regulatory climate. Below is a summary of these trends.

➢ ***Changing Role of the Federal Government***

Within the political context of pressure for a more efficient government and a balanced Federal budget, clear trends emerge. With respect to the Federal role in transportation, there will be a

shift away from direct project oversight, centralized, top-down decision- making and prescriptive regulations. There will also be a shift away from one-size-fits-all grant and program specifications. There will be a shift toward increased state and local control of transportation decision making, consensus building, and facilitating. We expect increased use of performance standards and measurement, more program flexibility and a greater demand for information and technical assistance. We also expect counter-terrorism, security issues and disaster relief to become higher priorities than they have been in the past. There will be privatization of certain transportation functions and more focus on infrastructure projects of national or international significance like the Alameda Corridor project.

The virtually instantaneous public knowledge of current events increases expectation of immediate government intervention and remedial action in response to natural disasters and serious transportation incidents. The Federal government is expected to respond quickly and help solve problems and restore transportation when these crises occur.

➢ ***Changing Regulatory Climate***

Another political trend that we expect to affect our ability to achieve our strategic goals is the changing regulatory climate. Amidst a general climate favoring elimination of excessive Federal regulations, the public will demand increased transportation safety, security and international standards. This conflict highlights the need for sustained and continuing reinvention of regulatory and enforcement processes. In addition, rapid growth in international trade has focused attention on the need for harmonizing international transportation safety standards. For example, growth in international traffic is focusing attention on the fact that foreign carriers are subject to lesser or different safety standards than those applicable to U.S. carriers. Harmonizing these regulations might assist the competitiveness of U.S. carriers but may also result in short term disruptive changes (e.g., forced usage of the metric system). The regulatory process will be more complex but public pressure for quick results will remain.

Environmental Trends

In the next several years, environmental laws and regulations will continue to be a priority with the American public. There is an increasing recognition that multiple sets of regulatory requirements discourage conduct which protects the environment. This awareness is leading to increased coordination and information sharing among government agencies interested in a consistent approach to protection efforts across all pollution sources, including transportation. For example, the nation's water quality issues come from a variety of sources that can only be successfully addressed in a comprehensive integrated and holistic manner. There is an increasing push from the private sector for intergovernmental, public/private partnerships to address ecosystem issues on a watershed level. Trends in air, water and noise pollution will impact DOT's ability to achieve its environmental strategic goal.

➢ ***Air Pollution***

Air pollution causes harm to the health of humans, defoliation of plants, decreased crop yields, acid rain, and decreased visibility. It is also a factor in global warming. Because of their reliance on the burning of fossil fuels, transportation vehicles are a major source of air pollution. Over the past 20 years total national emissions of most air pollutants from transportation sources have decreased due to gains from technology, even with the increases in transportation activity occurring during that time. However, these gains are expected to be overtaken by traffic growth in the next few years.

Revised EPA air quality standards will bring a significantly larger proportion of the population and more jurisdictions under Federal oversight to track and control these emissions. Control measures needed to meet the standards could have significant economic impacts on industry, including previously unregulated businesses, and require a lifestyle change by a significant part of the U.S. population.

A general estimate of non-attainment counties based on the proposed new ozone standard falls at 350, a drastic increase over today's total of about 100 counties. Although methods for estimating the fine particulate matter non-attainment areas are crude, a general analysis projects nearly 175 counties will not be able to meet the new standards. In addition, many of these counties fall in parts of the country that have little track record in dealing with particulate issues.

Mitigation strategies for meeting existing air quality standards require steps that can dramatically affect mobility and access. Increased use of public transportation offers the potential for providing mobility with fewer adverse environmental impacts than automobiles. Automobile manufacturers are already producing electrically powered vehicles with an eye toward assessing the market potential of this product. Promoting research into and use of alternative power and alternative fuel vehicles will be an important factor in reducing transportation's negative air quality impacts. Programs already underway to meet current air quality standards should contribute to meeting the new standards, but there are major uncertainties about sources, current levels, and control strategies for meeting a new fine particle standard. We do not know how easy or difficult it will be to develop implementation strategies.

➢ ***Water Pollution***

It is estimated that over 70 percent of the U.S. population lives within 50 miles of the ocean and Great Lakes shorelines. As a consumer economy, we are absolutely dependent upon industrial processes, including marine transportation, that are disruptive, and even destructive, to the environment of the Coastal zone. The public has grown increasingly intolerant of water pollution, especially from industrial transportation sources. Congress has enacted laws to prevent industrial pollution, to remove it when accidents occur and to punish those whose carelessness jeopardizes the health of the resources that are our common heritage. The Clean Water Act (The Federal Water Pollution Control Act) and OPA 90 (The Oil Pollution Act) are the major statutes

that have been enacted to protect the marine environment from industrial pollution. As public awareness increases, the trend will be toward even greater protection of the environment, including, if necessary, more regulation.

The major sources of water pollution from point sources include petrochemical storage facilities, tank vessels, and pipelines. Continued degradation of environmental quality, together with the rising costs of remediation, will drive increasing concern for active prevention, interest in greater application of technology for cleanup, and increasing restlessness with command and control shortfalls. Interest in spills from maritime sources will remain high as we shift our focus to protecting marine sanctuaries, coral reefs and coastal habitats.

➢ ***Noise Pollution***

The transportation system is a pervasive source of sound in the U.S. Exposure occurs for those living near busy streets, highways, airports or other transportation centers. Intrusive noise is considered a form of pollution that can degrade the quality of life for those exposed. Noise can interrupt sleep patterns, interfere with speech, or cause continual annoyance of those exposed. With expected increases in congestion, highway noise is expected to increase. Traffic volume at airports is expected to increase, and therefore noise pollution around major airports is also expected to increase despite the introduction of standards to regulate aircraft engine noise. Those seeking tranquillity at some of our national parks are increasingly demanding regulations for restricting flights over national parks.

Mitigation of highway noise will need to be pursued though vehicle controls, land-use controls, barrier construction and road planning and design. With the phase-in of Stage 3 aircraft noise standards complete by the end of 1999, additional noise mitigation techniques will be undertaken locally by airports including operating standards restricting take-off and landing of noisier aircraft to specific hours of the day. Demand for regulations restricting flights over national parks is expected to increase to balance the competing goals of the many national park users.

Security Trends

DOT's environmental scan revealed six major trends in the national defense/security area that would likely impact our ability to achieve our security strategic goal. The six trends are summarized below.

➢ ***Military Use of Commercial Transportation***

As DOD continues to downsize, it will increasingly rely on commercial transportation, especially on port facilities in the transport of personnel and equipment to distant regions. There will be a greater demand for in-process, in-storage and in-transit visibility and cargo tracking systems across all modes. There will be greater demand for real time information on shipments from

origin to destination and use of just-in-time logistics.

➢ ***Economic Importance of Maritime Transportation***

World trade is expected to grow steadily and possibly double by the year 2010. There will be considerable growth in seaborne trade involving Pacific rim nations. We can also expect more, larger and faster ships and growth in the number of hazardous materials carriers. Strong production in petrochemical plants will fuel the demand for tank barges. Finally, intermodal transport is expected to grow by 50 percent in the next ten years. As the nation experiences consolidation in its port infrastructure, those ports that can accommodate larger vessels will become more congested.

These trends suggest a growing need for advanced vessel traffic services such as a system integrated with satellite navigation and other technologies for ports experiencing heavy traffic. More and more, regional transportation issues will have far reaching implications as the world's transportation nodes become more integrated. Both safety and security will need to be considered in maritime transportation.

➢ ***Terrorism***

The threat of terrorist attacks against Americans and their property, both abroad and domestically, is both changing and increasing. Historically, DOT has concentrated its efforts on protecting civil aviation. Yet, in 1995, aviation accounted for only five percent of all international and indigenous terrorist attacks on transportation and the transportation infrastructure world wide. In the next few years, the Department will need to develop strategies for coping with the terrorist threat to passengers, facilities, assets and user confidence. Coping with terrorism will impose significant new costs on the Department in terms of resources, time, engineering and information systems resources.

➢ ***Protecting Our Borders***

In the maritime region as well as along all the nation's borders, the U.S. is faced with threats. Transnational criminal organizations are involved in the illegal importation of both legitimate goods and contraband. Illegal immigrant transportation and smuggling are growing concerns. The threat of terrorism and the exploitation of mineral marine resources by foreign and domestic elements is also on the rise. The pressures created by greater access by more people for legal and illegal means to the ocean's resources will challenge the capacity of our nation's enforcement infrastructure as well as those officials responsible for protecting the public's interest. For example, inefficiencies in throughput at our ports caused by more intrusive inspection and enforcement can impact the global competitiveness of our transportation nodes. Failure to deter illegal activity in the maritime region and along our borders will put at risk the operation of the transportation infrastructure in the affected regions.

The Department will be called on to protect the public interest against these non-traditional

threats to our national security. Transnational threats will likely place greater emphasis on DOT's contribution to our nation's security. A likely outcome of this trend is the increased application of U.S. will and resources to issues of national interest.

➢ ***DOT as a National Security and Foreign Policy Tool***

There are fundamental disagreements in the national defense and foreign affairs community about the likely shape of the future security environment. There will be more players with diverse interests and there will be more alliances and coalitions. Within this environment, the Department can expect an increasing number of requests for support and guidance as emerging democracies seek out U.S. expertise and leadership on issues of safety, security, and environmental response. Encouraging other nations to abide by accepted international standards in these areas is not only in their interest but, more importantly, in the U.S. interest.

➢ ***Emergency Preparedness, Disaster Response and Mitigation***

Instant news and more attention on the accountability of the Federal government to the public will lead to increased public expectations of Federal readiness and response to emergencies and natural disasters that disrupt the transportation system. New high-technology transportation systems and communications networks may be more susceptible to disruptions from terrorism and natural disasters. Disaster recovery, contingency planning and systems protection will all take a higher profile in the next several years. In coming years, the Department will be called upon to prepare for emergencies and to respond quickly and compassionately when these emergencies occur.

Technology

Transportation stands at an historic crossroads. Technology enables us to contemplate a fundamental paradigm shift. We can continue to maintain traditional transportation systems that require people to adapt to them or we can harness technology to create a 21st Century system that adapts to people. The trends in five technology areas, information and communications, advanced materials, energy and environment, human factors, and modeling, reveal opportunities for DOT to take the lead in shaping the global transportation system of the 21st Century through technology. Below is a summary of technology trends the Department considered in development of its strategic plan.

➢ ***Information and Communications***

In the past, changing transportation needs have typically been met through innovations in three areas: transportation vehicles; the physical infrastructure that supports their use; and the people who design, build, operate, and maintain the vehicles and infrastructure, and who plan and manage the transportation enterprise. More and more, the burgeoning demands on the transportation system will be met through a fourth means: the development and deployment of an

information infrastructure that underlies transportation's physical infrastructure. These areas of innovation will be key to U.S. success in the global economy.

In the next six years, there will be accelerated application of advanced electronics, information systems, and control systems to transportation. These information-related technologies will enable the collection, management, integration and distribution of more transportation information in less time with better fidelity and for broader applications. The nation's transportation system will enter the information age. For example, integration of a variety of electronic applications will bring the first true ITS into service on a multi-modal basis, speeding travel, reducing congestion, and improving safety . The augmented GPS will enable all sectors of the transportation system to track vehicles, goods and freight worldwide. The transportation system will become dependent on information and information technology making it more susceptible to accidental or deliberate tampering. This will increase the need for new security measures to be an integral part of modal and intermodal systems design and operations.

Within this environment, the Department will be called upon to set standards both in the U.S. and internationally, for information system interfaces and electronic safety, security and communications systems. Sharing information on approaches for integrating and applying security measures on a multi-modal basis and for maintaining closer operational links with law enforcement, fire departments, hospitals and the military will become routine.

➢ ***Advanced Materials***

Stronger, lighter and environmentally friendly advanced composites and materials will revolutionize the construction, maintenance and repair of transportation guide ways, vehicles and systems. For example, the use of improved materials, combined with better vehicle design, will improve the crash-worthiness and fuel efficiency of future vehicles. Aircraft hardening approaches will reduce the vulnerability of passenger aircraft to terrorist incidents. The application of new materials to transportation barriers will reduce noise and reduce the seriousness of crash damage to vehicles.

➢ ***Energy and Environmental Technologies***

New power systems, combined with lighter-weight structures, will improve the energy efficiency and environmental compatibility of transportation vehicles. This platform will allow the first sustainable transportation systems to emerge. With greater attention on global warming, there will be a demand for non-traditional fuels as alternative-fueled cars and trucks proliferate. With this development, there should be a reduced U.S. dependency on fossil fuels. Within the next few years, we will see the first major application of battery technologies to automotive powerplants for electric cars serving primarily short trips.

➢ ***Human Factors***

Increasing knowledge and acceptance of human centered system design and technology

integration concepts will promote safer and more user-friendly transportation services, which are more accessible to all users including those that traditionally are mobility limited. Application of virtual reality and similar technologies to operator training will improve operator skills for all ages and, as a result, safety. This technology could dramatically reduce automobile crash and injury rates especially among our younger and older drivers. Because of these trends, DOT will work to assure continuing application of military and aerospace applications of human factors discoveries, as well as closer sustained research and working relationships among DOT, DOD and the National Aeronautics and Space Administration. As the population of elderly persons increases, DOT will have to give greater emphasis to the entire area of specialized or customized transportation.

➢ ***Modeling, Simulation and Industrial Design***

Advanced three-dimensional models and simulations will foster new vehicle design concepts, container designs, terminal management approaches and traffic management to promote intermodal operations and facilitate transfers among the modal elements of the transportation system. Virtual transportation system design, planning, construction and operations will become a reality, reducing costs while enhancing transportation mobility, safety, security and efficiency. Terminal security will become increasingly important: in many trips the system is at its most vulnerable at the end of trip segments. Increased internodal operations, which create a demand for vehicle and shipment tracking, will be possible. There will be additional requirements for data systems that are interoperable among different modal applications. The Department will need advanced planning and policy formulation, simulation and modeling tools to represent intermodal interactions in and among the civil, commercial and military transportation sectors as well as with regional, state and metropolitan planners and policy makers.

For additional information on external factors and trends that will impact DOT's ability to achieve its strategic goals, please see Appendix B.

XII. CORPORATE MANAGEMENT STRATEGIES

Structuring the organization and decision-making architecture of the Department to achieve effectively and efficiently the strategic goals as identified is a major management challenge. The historic relationship with the modes, our employees, partners and customers and the funding patterns which have changed only slightly over nearly two decades, create an indomitable force for maintaining the status quo. New laws such as the Chief Financial Officer's Act and Government Performance and Results Act, the Vice President's National Performance Review and reinventing government efforts and the mandated downsizing of the Federal government are all geared at improving Federal performance and accountability and rekindling the confidence of the American people in their government. They have proven to be the catalyst for serious deliberations about the role that good management and appropriate organization play in accomplishing the Department's goals.

In addition to specific strategies focused on each of our five strategic goals, the Department has identified six over-arching management strategies designed to build an environment in DOT conducive to accomplishing our strategic agenda. The six management strategies deal with fundamental requirements that must cut across all organizational boundaries. They are: ONE DOT; Human Resources; Customer Service; Research and Technology; Information Technology; and Resource and Business Processes Management. For each, a brief definition is expanded below to include the management objectives and how we will achieve them. Each section concludes with a paragraph relating the proposal to the Department's strategic goals.

ONE DOT Management Strategy

Within the current Department of Transportation, modal administrations lead highly discreet, autonomous lives. Our work on this Strategic Plan has made it clear that the movement of people and goods in this new information age renders modal distinctiveness an obsolete paradigm. ONE DOT is the management strategy we will employ to create a Department of Transportation for the 21st Century.

The future Department will become ONE DOT. The concept projects the melding of a unified Department, capable of acting as an integrated, purposeful leader to optimize transportation efficiency and effectiveness. The ultimate purpose of ONE DOT is to create a transportation system that is international in reach; intermodal in form; intelligent in character; and inclusive in nature. Under the leadership of ONE DOT, people and goods will continue to move quickly, safely and at less cost than in any other system. Aligning with the management dictum that form follows function, we will direct our energy to ensuring that the organizational structure is redesigned as necessary to support that architecture. The 21st Century DOT will be less bureaucratic with fewer rules. It will depend on performance based information systems and will

empower employees to manage with fewer management levels. It will anticipate and respond to changes in the economic and social environment caused by globalization of the economy, the rise of the knowledge economy and the information revolution. It will be externally oriented toward customers and stakeholders. It will be nimble and quick to make decisions in an open and candid environment. To achieve ONE DOT, we will take the following steps.

- ***Policy Council.*** Establish a Policy Council composed of Modal Policy, Strategic Planning, Budget and CIO personnel, and staff from the Office of the Secretary to ensure that any future ONE DOT will be served well by the information-based, decision-making architecture to bring effective transportation leadership into the next century. The Council which will be established in FY1998 will be mission oriented and focused directly on policy and budget decisions that will lead to the accomplishment of our strategic goals.

- ***National Transportation Strategy.*** We will develop a National Transportation Strategy with attendant subordinate strategies on air, surface and maritime elements. It will incorporate all five strategic goals and optimize the aggregate by defining decision-making margins among them. The strategy will note that the Federal sector provides only five percent of the total annual investment in the nation's transportation system and must provide its most significant contribution through leadership, advocacy, leveraging and best practices.

- ***Long Range Planning.*** Produce a long term (20-25 years) vision document for DOT to build beyond this Strategic Plan. The initiative will be chartered and begun in FY1998, and the initial plan will be completed by FY 2000. Such a document will provide a common target for all modes and staffs to plan toward and it will assist us in adjusting our Strategic Plan as we move into the outyears. The initiative will also provide a common process, balancing creativity and analysis, to improve strategic communication and synthesis across modes and staffs. It will require solid trend analysis to understand both the transportation environment of the 2020 time frame ... air, surface, maritime, space and also the global environment within which transportation operates. It will identify enduring characteristics of our past and project their applicability to distant transportation requirements. It will begin to identify resource capabilities of that future so as to provide focus to today's research technology and developmental investments. It will be base lined by the Transportation Survey of America and will define the enduring future critical success factors in global transportation, which when compared to today's current state will identify gaps to be closed by annual performance plans.

- ***Transportation Survey of America.*** By the end of FY1999, the Department will complete design work on a systematic Transportation Survey of America. By the end of fiscal year FY 2000 we will implement the initial phases of the survey. The scope of the survey will include hard data baselines on the availability and cost of collection of all data elements for a database of all performance measurements in the Strategic Plan. These are the data elements needed to

design interventions to close the gaps between current and desired states in our transportation system. If the data elements are all collected, the Department will be able to seek out bottlenecks, unexploited opportunities, and obsolete facilities and practices wherever they occur.

- ***Strategic Communications Plan.*** By the end of FY1998, develop a strategic communications plan to ensure adequate marketing of the Strategic Plan internally and externally ensuring alignment opportunity for modes. It will provide a process for assessing and adjusting the Plan, the goals, and the criteria for evaluating programs.

- ***Technology Investments.*** Identify new technologies to take America to the next level in transportation efficiency and effectiveness. Incentives for such investments must be identified such that we can repeat our historical leaps from one era to another and use technology to achieve our strategic goals. By the end of FY1999, develop a Department-wide research and development strategy and IT architectural blueprint to guide the Department's technology investments.

- ***Organizational Change.*** Design new organizational approaches and common administrative support structures to induce consolidation of like modal functions. An example within a single mode is the USCG's pilots of their Activity model. This model consolidates multiple Coast Guard facilities in a port to a single command. It offers both customers and stakeholders one-stop shopping for all Coast Guard services in the port. There may be applications in other modes or in multi-modal co-locations. Such experiments require buy-in by all participants and mutual acceptance of the criteria set to be used to determine success of failure. We will design and implement pilot programs in FY1999.

- ***Workforce.*** Initiate cross training so our workforce of the future will possess cross discipline skill sets. These will likely be required at future regional or central sites that will be organized along functional or multi-modal lines. We will begin this initiative in FY1998 with assignments of people between modes and elements of OST.

- ***Partnerships with Federal Agencies.*** We will partner with our counterpart Federal agencies as necessary to design DOT opportunities to contribute to new national initiatives and to understand more fully and accurately the environment within which transportation operates. We note current Presidential initiatives in education and racial reconciliation and current phenomena such as market place globalization that demand creativity of thought and offer new opportunities to contribute. We will be aggressive in being a part of those initiatives.

These elements of ONE DOT must all connect directly to and reinforce our five strategic goals of Safety, Mobility, Economic Growth and Trade, Human and National Environment, and National

Security. Each of these goals will have process description, skills, technology and resource

requirements as well as discreet time lines associated with them and annual performance plans that will mark accomplishment. The ONE DOT will reinforce each of those dimensions and focus on optimizing their cost effectiveness and efficiency.

Human Resources Management Strategy

Goal: Foster a diverse, highly skilled workforce capable of meeting or exceeding our strategic goals with efficiency, innovation, and a constant focus on better serving our customers now and into the 21st Century.

The Department will achieve its strategic goals with a workforce that is knowledgeable, flexible, efficient, and resilient; that recognizes diversity as an asset in achieving organizational goals; and whose values are reflected in the way the Department manages its resources, supports the work environment, and accomplishes its mission. To maximize our workforces's contributions to achieving the strategic goals, within the next five years DOT will take the following actions:

- ***Workforce Planning.*** Conduct workforce planning across the Department to align human capital requirements with strategic goals. This planning will include an assessment to determine how the Department's culture should be adapted to support a high performing organization characterized by a high degree of employee empowerment in decision making, risk taking, collaboration, and other related aspects of work.

- ***Workforce Composition.*** Ensure that the Department's workforce composition reflects the national workforce. Eliminate any artificial barriers to the advancement and full contribution of all employees, such as glass ceilings, discrimination, and sexual harassment. Accommodate any special needs of employees to enable those individuals to perform at their highest potential. In FY1998 DOT diversity policy will be revised to include explicit Departmental goals.

- ***Human Resources Redesign.*** Redesign and realign our Human Resources (HR) programs and practices in support of the findings of the workforce planning efforts. The programs and practices will allow DOT to recruit, develop, and deploy a diverse workforce with those 21st Century competencies needed to achieve the DOT's strategic goals. Ensure continuity and institutional knowledge needed to provide strong leadership through better succession planning.

- ***Learning and Development Policy.*** Ensure a continuous learning environment required of all high performing organizations by implementing policies, providing resources and opportunities, which enable all DOT employees to build the job competencies, computer and

technology capabilities, work management skills, flexibility, and organizational knowledge

required to achieve the Department's strategic goals. DOT will complete a revised learning and development policy which will support high performance during FY 1998 and begin implementation and evaluation of the policy in FY 1999.

- ***Performance Management.*** Ensure that the Department's Performance Management framework is implemented with: a requirement for standards linked to DOT strategic goals and objectives; continuous feedback on performance at all levels; accountability for managers, supervisors, and employees in using the system to improve organization, unit, and individual performance. By FY 1999 all employee performance evaluations will be linked to DOT's strategic goals.

- ***Awards and Recognition.*** Link DOT awards and recognition programs to program outcomes, encouraging employees to work toward strategic goals and objectives, including innovation, cost-cutting, and enhanced customer service.

- ***Worklife Policies.*** Implement worklife policies that support both employees in balancing work and personal priorities and the Department in meeting its goals. During FY 1998 implement a process for collecting employee input in worklife issues and integrate those outputs into decision making on priorities, policies, and programs that will create a high performing workplace culture in DOT.

- ***Labor Management Partnerships.*** Support Labor-Management partnerships throughout the Department; strengthen the Department wide Labor-Management Partnership Council through good communication and cooperation with unions.

These strategies for human resources development will provide a diverse and high performing workforce ready, willing and able to support each of DOT's five goals. We will include the appropriate performance measures to quantify the value-added impacts of the human resource strategies listed above in the annual performance agreements. This will ensure that not only is the policy adopted but also it is recognized and implemented throughout the Department by all managers. Only through the competence and commitment of our workforce will we be successful in accomplishing DOT's mission and strategic goals.

Customer Service Management Strategy

Goal: Deliver the results customers want through a government that works better, is more practical and costs less.

The Department of Transportation will become a customer-driven organization. We will make customer needs the basis for the Department's long term planning and day-to-day management. DOT will sustain this customer-focused environment by creating a workplace where communications are open, and front-line employees are encouraged and rewarded for meeting customer needs. To implement our customer service management strategy, DOT will take the following actions:

- ***Customer Feedback.*** Ensure Department programs meet or exceed customer expectations. Use customer information and performance results data to drive our service and program improvements. Obtain continual feedback from customers on their satisfaction with service through surveys, focus groups, complaints links and direct inquiry. This feedback will build a data base on customer expectations and experiences. It will provide information to help revise performance goals. Agency-wide systems will track the quality of customer service in the areas that matter most to customers. Measures to consider include: improved reliability, access, responsiveness, and sound technical programs. We will report annually to our customers on service performance results, indicating how our services compare with similar service providers. We will take action to correct problems.

- ***Customer Service.*** Integrate customer service into DOT planning processes. Use customer information and performance results data to: drive service and program improvements; identify focus areas for mission statements, performance agreements and business plans; organize program delivery to support customer service; design programs and systems to focus on the users; and write and enforce regulations that focus on results.

- ***Service Delivery.*** Organize DOT and use technology to support initiatives, such as one-stop shopping that improves customer service delivery and accessibility and provides customer friendly information. Create an operational framework for delivering technical assistance and services which focus on more effectively meeting customers' needs. Consolidate field program offices to ensure more efficient and better coordinated services to our customers. Create significant on-line and electronic technology enhancements that cross organizational lines regardless of location to integrate program information thereby forming a virtual DOT with improved communications and fewer repeated requests for information.

- ***Communications.*** Ensure DOT safety hotlines and consumer lines provide accurate, timely and courteous service. Ensure that information is both readily available and presented in a clear and understandable manner. DOT will make use of various media available including Blue Pages listings, expanded TTY system capacity, Internet and on-line information and fax-on-demand. The quality of information the Department provides including its World-wide web site will be constantly reviewed to make sure it is easy to read and useful to the customer.
- ***Partnerships.*** Create partnerships with other Federal agencies, state and local government, and industry to help drive service improvements and provide integrated transportation

services. Provide the authority, resources, tools, and flexibility to State and local officials to enable them to best meet the needs of their communities and to make intelligent decisions in the best interest of all without diminishing accountability for results. Develop win-win regulations wherever possible.

- ***Customer Service Standards.*** Meet and exceed customer service standards by providing employees the necessary support (authority, training, equipment, access to information) to be accountable for improved customer service and to provide best in the business service. Delegate authority to the lowest operating level and front-line employees so they will both have access to information which is useful to them. Hold all employees accountable for improved customer service by linking results to rewards, recognition and promotions.

Meeting customers' needs is a continuous improvement process which will be on-going for the entire six years of this Strategic Plan. DOT has customer service standards in place for all of its major program areas. During FY 1998 and FY 1999 we will complete the first cycle of evaluating our performance in meeting these service standards. We will also review whether we have identified the most relevant goals to best meet the public's transportation needs. One measure of success will be whether we have met and exceeded the standards. A second measure will be the use and follow up on "hotline" calls.

Research and Technology Management Strategy

Goal: Advance transportation research and technology 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.

To achieve this goal, over the next five years DOT will take the following actions:

- ***Strategic Planning.*** DOT will implement a strategic planning and management process for transportation research and development (R&D) that aligns departmental and government-wide transportation science and technology (S&T) policies and strategies and R&D priorities, plans and programs with the DOT strategic goals.

  - ***National Transportation Science and Technology Strategy.*** We will develop a National Strategy with implementing Technology and Strategic Research Plans in FY1998 that supports transportation goals and shapes and advances the United States transportation R&D agenda to ensure that the Nation has the technology and expertise to sustain a transportation system which meets its vital national interests and enhances the quality of life of its people.

- ***Department of Transportation R&D Plan.*** The Department will develop an integrated transportation R&D Plan in FY1998 that defines: long-range performance measures for R&D, applied research and technology-based private-public partnerships to improve the effectiveness of the nation's transportation system, a long-term advanced research program for next generation systems, and an education and training agenda that builds on the research and education capabilities in the nation's institutes of higher learning.

- ***Measuring the Benefit of Transportation R&D.*** We will measure the impact of transportation R&D on the performance of the Nation's transportation system by initiating bench marking efforts in FY1998 for major national private-public partnerships, such as the next generation global air transportation system, the national intelligent infrastructure initiative, and the intelligent vehicle initiative.

➢ ***World-class Transportation R&D Capability.*** We will strengthen the Department's R&D capability to address the transportation challenges of the 21st Century and to respond and adapt quickly to changing transportation needs. To accomplish this, we will ensure that DOT's laboratories are centers of excellence in their areas of technical expertise, capable of delivering high-quality products and services that meet or exceed our customers' requirements. We will also improve the efficiency and effectiveness of the Department's R&D programs, delivering better program results to our customers faster and cheaper to achieve the Department's strategic goals.

➢ ***Transportation Science and Technology Information Networks.*** We will promote the exchange of information on transportation R&D needs, trends, opportunities and capabilities through a national transportation science and technology homepage starting in FY1998. The homepage will provide a forum for forecasting trends in national and international transportation research and development and for exchanging information on transportation-related science and technology issues. A DOT tracking system for transportation R&D will be completed by the end of FY1998 and will provide decision makers with complete, accurate information on the Department's R&D activities and plans.

➢ ***Private-public Partnerships.*** The Department will forge technology-based partnerships among government, industry and academia in areas that support the Strategic Plan. The partnerships will help facilitate the transfer of transportation technologies into the marketplace, build upon the collective talents and resources of the private and public sectors, and demonstrate the benefits of R&D in improving the performance of the Nation's transportation system. The Department, the private and public sectors and academia will jointly fund and demonstrate the necessary technologies and concepts to achieve the

objectives of the partnerships defined in the Transportation Science and Technology Strategy starting in FY1998.

- ***Enabling Research.*** We will foster innovation and cutting-edge research that supports the Strategic Plan. The research will build upon that conducted by other Federal agencies, institutes of higher learning and the private sector. A Department-wide, multi-modal transportation R&D program will be initiated in FY1998 to support research in the following key areas which are further defined in the Transportation Science and Technology Strategy: human performance and behavior; advanced materials; computers, information and communications; energy and environment; sensing and measurement; and tools for modeling and design.

- ***Education and Training.*** We will capitalize on the benefits of advanced technology, changing organizational relationships and globalization to create a multi-disciplinary transportation education and training program for the nation--the Garrett A. Morgan Technologies and Transportation Futures Program. The program will: build professional capacity for government and industries involved in transportation, create general public awareness of transportation and its benefits, ensure a globally competitive workforce, and prepare the next-generation transportation professionals with a multi-disciplinary education. We will use distance-learning technologies to provide lifetime-learning opportunities for all Americans with particular emphasis on transportation safety and security.

Investment in research and technology will help the Department and the nation foster transportation breakthroughs for the next century while demonstrating and deploying advanced technologies and concepts that will provide the American public with the world's best transportation system in the 21st Century. The investments will provide the intellectual capital the nation and Department need to address the transportation challenges of the 21st Century. The elements identified above support all five strategic goals of the Department and, if implemented, could dramatically improve the safety, mobility, environmental quality and security of the nation's transportation system while enhancing its economic growth and trade.

Information Technology Management Strategy

Goal: Improve mission performance, data sharing, system integrity, communications, and productivity through deployment of information systems which are secure, reliable, compatible, and cost effective now and beyond the Year 2000.

DOT will use information technology (IT) to improve both mission and process performance. To the extent that IT can be tied directly to specific strategic goals, appropriate wording has been included in Section VI of the DOT strategic plan. However, many of the benefits derived from IT transcend both program needs and organizational processes. Recognition of the critical role IT

will play in helping DOT accomplish its corporate management strategies is reflected in the narrative included in this section.

DOT's information systems -- consisting of data, software, hardware, and telecommunications -- will be fully integrated into Departmental activities. We will advance the precepts of the Clinger-Cohen Act and the Paperwork Reduction Act by reengineering and streamlining internal government processes so that they are more effective and cost efficient. We will take responsibility for improving the way we plan for and manage our substantial Department IT investments. We will devise an architectural blueprint to be used in ensuring our IT systems are appropriately linked. We will work closely with our transportation partners to ensure the successful transition of our IT systems into the next century. We will improve the quality, reliability and accessibility of information for our employees and for other users. We will use IT to mitigate the paperwork burden imposed on the public.

To implement our IT corporate management strategy, within the next five years DOT will:

- ***Productivity Enhancement.*** Improve Departmental productivity through integration of IT into DOT's internal decision-making processes (e.g., strategic planning, budgeting, research and development, capital planning, acquisitions/grants, program management, performance measurement, etc.) and through evaluation/reengineering of business processes, information needs, and systems to ensure that current and future IT investments are managed effectively and efficiently and to migrate toward a "paperless" environment. Improve governmental productivity by considering stakeholder needs in setting Federal/Departmental IT policy and by importing and exporting promising IT initiatives, and by identifying opportunities to enhance information sharing with the public and other entities (e.g., Internet, teleconferencing). Assess DOT employee IT needs to improve Departmental productivity and provide the workforce with the necessary tools and training to facilitate achievement of mission and program objectives.

- ***Customer Communications.*** Take advantage of IT capabilities by using communication tools such as the Internet and teleconferencing to improve information exchange between DOT and the public. Enable efficient and effective communications and greater accessibility to information through interoperability and interconnectivity.

- ***Information Infrastructure.*** Develop a Department technology blueprint and management plan to determine how DOT IT can be effectively integrated into the national information infrastructure; where system and data linkages/transmission capabilities and standards are needed; where redundancies, deficiencies, and vulnerabilities exist; and where information quality and accuracy can be improved.

- ***IT Security.*** Ensure that DOT's IT systems are secure from unauthorized and inappropriate

access to avoid vulnerabilities and the consequences of intentional harm to the transportation system.

- ***Year 2000.*** Ensure that DOT's IT systems are Year 2000 compliant to prevent mission/service performance disruptions. Apply the OMB phased approach to resolve the Year 2000 problem -- i.e., complete the assessment phase by 12/31/97; complete the renovation phase by 12/31/98; complete the validation phase by 6/30/99; and complete the implementation phase for all mission-critical systems by 11/30/99 and for all other DOT IT systems by 12/31/99.
- ***Innovation and Partnerships.*** Increase system and information capability by supporting, in partnership with industry, the development, deployment, and promotion of new and emerging IT applications that improve the quality and efficiency of the nation's transportation system (e.g., enhanced navigational guidance systems, automated control systems, "smart" highways). Support basic and applied research -- both mode-specific and multi-modal -- on IT enabling technologies. Investigate and foster best IT practices and trends through partnerships with industry and other Federal, state, and international entities. Use IT as a means of virtual vs. physical transportation to avoid environmental damage and to enhance the quality of life for Americans.

Link to Strategic Goals: IT is a critical enabler for DOT to achieve its strategic goals. We will partner with industry to build the transportation infrastructure of tomorrow, the Cyberway, as well as to devise modes of transportation for traversing it. The pervasiveness of IT in the transportation system, whether it be for operating traffic control systems, performing inspections, conducting sophisticated modeling/simulation or sharing information with the public via Internet, makes maximizing its value and utility essential.

Resource and Business Process Management Strategy

Goal: Foster innovative and sound business practices as stewards of the public's resources in our quest for a fast, safe, efficient and convenient transportation system.

The allocation of resources, including financial, human, and information resources and capital assets, is the most significant tool the Department has to achieve its strategic goals. Our management objective is to ensure that the resources obtained from the public are used in a cost effective way to accomplish the Department's strategic goals. To that end, DOT will ensure that its internal business processes are streamlined, innovative and equitable. We will strive to make doing business with DOT for the public both simple and fair. We will focus on the major business processes as defined by cost and staff. In addition to human resources and information resources (which we have discussed separately) we have targeted budget, financial, capital assets, acquisition and grants, and regulatory management processes. We will ensure that all operational programs provide the best service at the least cost to meet the needs of public. Common sense

management practices and performance outcomes for those programs will improve accountability and access the effectiveness of our programs. To implement our resource and business process management strategy, within the next five years. DOT will take the actions described below.

- ***Budgetary Management.*** Use the budget process as a management tool to assist DOT in identifying budget priorities to ensure that fiscal resources are used in the most cost effective manner to achieve the strategic goals of the Department. The budget process will provide timely, useful and reliable budget, financial and performance data to support decision making. Decisions, in turn, will be made based on resources needed to achieve performance results targeted to our strategic goals. The budget process will be open, honest and supported with clear justifications that demonstrate its linkage to the strategic goals. We will, by FY1999, develop an integrated five year capital investment and information management plan and annual performance and operational plans which best support the budget goals of the Department as a part of the budget process. By FY 2000, we will integrate the information generated through program evaluation into the budget process so that we will be better informed as to whether a specific program is meeting its goals and so that resources can be adjusted to better meet the DOT goals.

- ***Resources.*** Operational processes, skills and technologies, regulatory efforts, and other activities necessary to achieve these goals have been outlined under each of the Department's strategic goals. It is virtually impossible to attribute dollar and personnel resources to these goals specifically without double counting. This is because budgeted resources often support a range of DOT strategic goals. DOT's five strategic goals are cross-cutting by design and recognize a fundamental strength of DOT--that existing capacity delivers public value in multiple areas. Careful program and project development ensures that a dollar spent on transportation infrastructure simultaneously advances safety, mobility, economic growth, the mitigation of harmful impacts, and national security. A dollar spent on improving the National Airspace System (NAS) advances safety, mobility, and economic growth and trade. The majority of DOT resources are similarly multi-purpose in nature. In FY1997, DOT's budget resources total $40.3 billion. The requests for future years will be based on assessments of resources needed to achieve our strategic goals.

- ***Financial Management.*** Implement common sense improvements in financial management. Based on best practices in the private and public sectors, we will revise our financial management systems so that program offices can provide direct input of financial data and get direct output. This will increase the quality and the cost-effectiveness of financial services in the Department. We will elevate the quality and vitality of financial management personnel to be initiators and facilitators of positive financial management improvements. The Department's books will be kept in a way that assures accountability to the public. We will assure the provision of reliable financial information from integrated automated systems capable of generating financial statements that result in clean audit opinions. The two major

operating administrations and the Department's consolidated financial statements will earn "clean" opinions by fiscal year 2000.

Specifically, the Department established a five year plan to improve financial management and accountability over its financial resources. Recurring problems cited by the Office of the Inspector General (OIG) center around the weaknesses associated with selected elements of the Department whose ability to account for property and equipment (P&E) and operating materials and supplies (OMS) is not up to par. We currently depend on cumbersome manual review processes and systems that are not integrated, are incompatible, and do not retain the types of data required to reconcile with data accumulated in core accounting systems for P&E and OMS. This has also hampered our ability to properly classify, as capital or expense, these assets at the time of acquisition and as such, the integrity of the financial information is compromised. The result is that transactions received and processed by the accounting system may not incorporate all relevant data.

DOT is taking aggressive action to correct these deficiencies. The USCG, MARAD, and FAA have developed corrective action plans to implement the necessary changes to address these issues, reconcile the data, and ensure that the integrity of the system is maintained. The Department's Office of Financial Management has established a constructive and productive working relationship with the OIG to clarify issues, and reach agreement on actions that need to be taken in order to achieve an unqualified opinion on the Department's Consolidated Financial Statement. We have achieved an unqualified opinion regarding 60 percent of the Department's funds, including the entire Highway Trust Fund and the Saint Lawrence Seaway Development Corporation.

DOT is working with OIG to address the major problems that have been identified in prior audits of our financial statement. These include improving documentation to support general ledger balances, ensuring that costs are appropriately categorized and either expensed or capitalized, depreciation schedules are produced and appropriately documented, and physical inventories are completed and appropriately documented. In addition, we are working to ensure that balances in the General Ledger are fully supported by subsidiary records and that items are expensed when used and not when purchased. To achieve our objectives, the Chief Financial Officer's (CFO) office has held high-level meetings with the OIG and all operating administrations, and developed specific corrective action plans. Further, we have used the experience gained from previous audits to learn valuable lessons. For example, we have fine tuned the preparation process, started it earlier, and created OA, OIG, and financial management working groups to address and resolve issues that arise.

- ***Capital Assets Management.*** Ensure that all DOT facilities meet the highest Federal standards in terms of accessibility, energy conservation, security systems, technology and maintenance. To accomplish that we will conduct period reviews of real property to ensure

we are using the space in the most efficient and effective manner consistent with our ONE DOT management strategy, providing best quality services and maintaining safe and secure operations. We will achieve savings through sale, transfer or disposal of unneeded materials, facilities, land and other assets.

- ***Rulemaking.*** Work in partnership with state and local officials and industry partners to ensure that DOT's regulatory processes are fair, open, outcome-focused and cost-effective. We will focus on compliance and where appropriate, streamline process and use electronic systems to minimize the burden of doing business with DOT. We will conduct regular comprehensive reviews of regulations to ensure they are necessary and written to encourage outcomes. When these regulations are necessary, we will ensure they are comprehensive, timely, outcome oriented, and written in clear and simple English.
- ***Acquisition Management.*** We will continuously improve and promote acquisitions and grants systems which provide the best value products and services to meet Departmental missions and support the strategic plan. We will continue to streamline internal DOT procedures to eliminate unnecessary paperwork and delegate authority to the appropriate working level through such tools as the DOT Procurement Reinvention Laboratory. To minimize the burden on the public, doing business electronically will become the standard in DOT. We will provide the acquisition workforce with the skills and knowledge they need to operate effectively in the procurement environment of the 21st Century. The acquisition of capital assets will be linked to DOT's strategic goals and will be evaluated against established cost, schedule and performance metrics. To accomplish this, we will review new, proposed high-cost procurements to ensure they are justified and cost-beneficial before they begin and monitor and track their progress against established cost and schedule baselines. To evaluate our success in meeting our goals, we will continue to use an array of performance measurement tools that provide a balanced set of data on the quality, timeliness, cost and productivity of our processes.

These strategies to improve resource management are fundamental to achieving our strategic goals. Proper allocation of resources and accountability for their use will ensure our resources are used in ways that best advance our goals. Specific performance outcomes will be developed on an annual basis and incorporated into the Departmental Performance Agreements. In most areas Department-wide performance guidance will be developed and appropriate offices will develop specific goals based on the nature of their workload. For example, in the acquisition management area FTA will focus on grants management systems while FAA will focus on large system acquisition processes.

The following section addresses specific management challenges and high-risk areas identified by the General Accounting Office in its Report *Observations on DOT's Draft Strategic Plan.*

Management Challenges Identified by the General Accounting Office (GAO)

The Department works closely with both OIG and GAO in providing comments on and responding to the audits and evaluations provided on our policies, programs, and their implementation. In addition, there are established tracking and follow-up systems that regularly provide information on the implementation status of recommendations. Management participates in a joint tracking system with OIG that contains information regarding recommendations on which action continues and those on which action has been completed. In accordance with Public Law 100-504, the Inspector General Act Amendments of 1988, both the Secretary and OIG report to the Congress on audits and audit results. Section 106(b) of the Act requires that agency heads submit semiannual reports to the Congress regarding management decisions and final actions taken pursuant to audit recommendations. The Department also works with GAO to provide information on recommendation implementation status and close out completed recommendations. In this process, conducted annually, the Department provides GAO with information on the status of open recommendations, and seeks closure on those recommendations on which action has been completed, and those that involve continuing action. GAO subsequently produces a report describing the status of open recommendations throughout the Federal government.

The GAO reviewed the draft strategic plan that DOT provided congressional committees on July 2. GAO published its assessment in its report *Observations on DOT's Draft Strategic Plan.* One of GAO's assessments concerned whether the DOT strategic plan addressed management problems GAO had previously identified. GAO raised four categories of critical management issues: (1) enhancing transportation safety and security; (2) improving the management of aviation, highway, and transit programs; (3) meeting the long-term funding needs of FAA and Amtrak; and (4) having an appropriate organizational structure and adequate financial and other management information. Under these categories GAO referred to programs administered by DOT's operating administrations.

Although this Strategic Plan does not include discrete actions needed in specific programs administered by the operating administrations, it does address GAO's concerns. For example, in the category of safety and security, GAO suggests targeting FAA inspections to the areas of highest risks. We have addressed this concern in our Strategic Plan. One of the strategies we will use in achieving our safety strategic goal is "Use a common sense approach in our focus on the *highest safety risks through risk-based management,* incentives, and performance based regulations to optimize use of resources." This approach would apply to all of DOT's safety programs. More detailed examples of how our Plan addresses GAO concerns are included in Appendix D.

XII. CONSULTATION WITH STAKEHOLDERS

DOT has a tradition of consulting with its customers and stakeholders as a routine matter of how we do business. Because of this customer orientation, the Department is well positioned to solicit and receive comments on all aspects of its work through a well developed, partnership network that involves all of our operating administrations. For example, as we developed our proposal for reauthorization of the Intermodal Surface Transportation Efficiency Act, the Department conducted a national outreach program to gather citizen input at State and local levels. We held regional forums in every section of the country and convened over one hundred focus groups in 40 States. In that process we heard from the stakeholders in the nation's transportation system: Members of Congress and elected leaders at the State and local levels; transportation operators; freight and transit interests; business and labor leaders; safety advocates and environmentalists; and a broad range of citizens. What we heard and learned from this and other outreach efforts informed our strategic planning process.

The Department also seeks customer and stakeholder input from our extensive home page on the Internet. This homepage is designed to meet the needs of our customers by offering one-stop shopping, so that customers can obtain information faster. To improve access to information, the Web site combines a thematic approach as well as the more traditional reflection of the DOT organization structure. This combination steers customers to their topic of interest quickly, normally in two clicks. It offers customers the information they need in the manner they want it. In June, we posted the draft strategic plan on the homepage under *What's Hot at DOT* and under *Strategic Plan*. Our Operating Administrations also sought and received comments on the Plan on their Web sites. We activated a mailbox for comments and received several which we considered in revising the plan.

As a result of our on-going outreach efforts, we were well equipped to seek and receive comments on our draft Strategic Plan. Between June and August, our Secretarial Offices and operating administrations activated their networks and conducted an assertive, wide-ranging outreach campaign described in detail below.

Employees: Because our employees are our most important asset and because our employees will be the most important factor in determining how successful we will be in achieving our strategic goals, we asked all our Modal Administrators and Office Directors to seek the comments of their staffs. We wanted to make sure that all of our employees had the opportunity to read the plan and discuss how it would affect their day-to-day jobs. For example, Office of the General Counsel discussed the Plan in a meeting with Chief Counsels from the operating administrations and urged the Chief Counsels to repeat the process in their counterpart organizations. The Director of the Office of Policy of the

Research and Special Programs Administration went to the Volpe National Transportation Systems Center in Cambridge, Massachusetts, to convene a special meeting with Volpe staff to discuss the Plan.

Unions: Beginning in early 1997, the Deputy Secretary held several meetings with the DOT Partnership Council which represents our unions to apprise them of the status of the plan and seek their input. In addition, the Partnership Council nominated one of its members to join the Department's Strategic Planning Team. The effort to obtain the input of our employees and unions was successful. We received many thoughtful comments ranging from technical corrections to suggestions for improvements in the plan.

Customers and Stakeholders: To make contact with our customers and stakeholders including other Federal agencies outside the Department and intergovernmental partners; and to make sure they knew we were serious about learning their views on the plan, we employed a variety of communications techniques including meetings, individual contact, the Internet, mail, fax and telephone. All of our Operating Administrations participated in this successful outreach effort. Two examples illustrative of the outreach effort follow. The Saint Lawrence Seaway Development Corporation (Seaway) sent the plan to the Saint Lawrence Seaway Authority President and staff in Ottawa, Canada; the eleven major United States ports from Duluth at the lakehead to Ogdensburg, New York, in the St. Lawrence River; the American Great Lakes Ports Association, the Great Lakes Commission; the Shipping Federation in Montreal, Canada; the Chicago Board of Trade; the Great Lakes Shipping Association; the five members of the Seaway advisory board; and the three United States and one Canadian pilotage associations. Similarly, the FRA sent plans to over 60 rail-related associations, industry supplier organizations, the Chairmen, Presidents and Chief Executive Officers of railroads, State DOT's, and several railroad unions. FRA set up a special e-mail address for the receipt of comments from both internal and external constituents and also provided fax numbers and mailing addresses. FRA also telephoned its customers and urged them to fax in their comments so they could be considered in revising the Strategic Plan. In response to the outreach conducted by the Seaway, FRA and all of our other Modal Administrations, we received hundreds of very thoughtful comments on our plan.

Transportation Future Search: On August 7, 1997, the Secretary of Transportation, Rodney E. Slater, inaugurated system-wide, collaborative planning with 49 transportation providers and consumers to envision the future of transportation. In the 30-year history of DOT, never had leaders from every transportation sector -- aviation, automotive, highways, transit, rail, and maritime, safety and consumer advocates, partners from other levels of government, labor and universities -- met together in one room. The goals for this half-day session were to develop:

- A collaborative vision of opportunities and challenges that face transportation and DOT through the year 2020 and beyond;
- Common ground where all transportation modes and interests coincide; and
- A sense of how to maximize transportation's contribution to economic growth and trade.

The outcomes of the session were supportive of DOT's draft strategic plan and participants reached consensus on DOT's role in leadership, advocacy, education, intermodalism, and safety. Specifically, they urged DOT to:

- Take a strong leadership role in safety and in combining parochial interests in the transportation community to reflect a future global vision.
- Say no to the status quo with respect to technology, take risks, and promote research and new technologies;
- Advocate the importance of transportation investment and be sure that states, local governments, and the private sector take part. This means continuing to highlight the importance of transportation in supporting growth and prosperity with decision-makers throughout government;
- Educate the public about the importance of transportation in the United States economy and quality of life; and
- Promote intermodalism and intermodal solutions. Our goal should be an integrated system for persons and freight that recognizes the growing complexity and greater demands on transportation as a whole.

The message to DOT was consistent and was given an acronym: TEA--Transportation, Education, and Advocacy. Attendees indicated that success is invisible, and that the public does not understand how important transportation is to the economy and to the quality of their lives. They also noted that transportation's importance is only increasing with the globalization of the economy. Overall, participants urged DOT to take the lead in educating the public about the importance of transportation and in becoming an advocate for transportation within government and in the broader public dialogue about national priorities. They urged Secretary Slater to continue these dialogues to prepare for the 21st Century. One participant stated, "By bringing everyone to the table to discuss their ideas and goals for the future, you have taken a strong step in the right direction."

Federal Agencies: Early in 1997, our Strategic Planning Team conducted a Department-wide survey to identify programs in other Federal agencies where there might be shared authorities and functions, major coordination, program overlap or duplication of effort. The results of the survey revealed extensive coordination and partnering efforts but no actual duplication of effort. An example from the FHWA illustrates this point. Under the National Environmental Protection Act (Section 404), the FHWA, EPA and other agencies have authority to review

and comment on environmental documents. The EPA has much broader environmental responsibilities than other agencies, takes a more holistic view of resource impacts than do those agencies with responsibility for single resources, and can refer project decisions to the

Council on Environmental Quality if they have strong objections to the proposed action. The roles of the various agencies involved in approving Section 404 permits are fairly clear in the law and implementing regulations. EPA is the only Federal agency that can "veto" the permit decision. On the other hand, FHWA or the project proponent (State DOT, local government, etc.) is the permit applicant and prepares the permit request, responds to comments, and has responsibility to fulfill the terms and conditions of the permit when issued. [3]

Thus, having completed this survey, we were prepared at the program level to contact our counterpart agencies when the time came to share our Plan with other Federal agencies. This coordination occurred during the June/July/August time frame. In those areas where we share a mission similar to that of another Federal agency, we coordinated our draft plan with those agencies. For example, issues relating to aviation have been coordinated with the National Aeronautic and Space Administration (NASA); goals regarding clean air and water and other environmental issues have been coordinated with the Environmental Protection Agency (EPA); and issues of national security, security in the transportation system and drug enforcement have been coordinated with National Security Council and Department of Defense (DOD). For the other Federal agencies where the mission is not so closely shared, we have relied upon the process which the Office of Management and Budget (OMB) has established to ensure coordination among the Federal agencies.

Congress: In early July, we delivered copies of the plan to the Chairs and Ranking Members of: the Senate Committees on Appropriations; Banking, Housing, and Urban Affairs; Budget; Commerce, Science, and Transportation; Environment and Public Works; Finance; and Governmental Affairs; and the House Committees on Appropriations; Budget; Commerce; Transportation and Infrastructure; Government Reform and Oversight; Science; and Ways and Means. Our Office of Governmental Affairs followed through with personal telephone calls offering to brief key Congressional staff on the Plan. We were pleased to conduct several briefings which informed our decision-making as we finalized our Plan.

On August 7 and 8, Secretary Slater and Deputy Secretary Downey, convened a leadership retreat at the Turner Fairbank Highway Research Center in McLean, Virginia, to consider all of the comments the Department received from all of its employees, unions, customers and stakeholders. Over 70 members of the DOT political and career leadership participated in the retreat and, using

[3]Table 7 illustrates DOT's work with Federal agencies in cross-cutting functions.

a consensus process that assigned participants to specific strategic goals, deliberated about whether to accept or reject the hundreds of comments. Thus, at the conclusion of the retreat, DOT's leadership had clearly focused on the broad range of comments we had received and made modifications to the statements of goals, outcome goals and the sections on how we will achieve the goals.

XIII. STEPS TO DISSEMINATE STRATEGIC GOALS AND OBJECTIVES WITHIN DOT

For the past 4 years, DOT has employed several communications and management tools to disseminate its strategic goals and objectives throughout the agency and hold managers accountable. We will continue to use these tools to in the future. These measures include:

➢ *Communications*

We will use a variety of techniques to communicate our safety, mobility, economic growth and trade, human and natural environment and national security goals to our employees, other Federal, state and local agencies, and our customers and stakeholders. We will begin by communicating the message in the Strategic Plan to all DOT employees both in headquarters and in the field through a live roll-out of the plan that is televised and broadcast to all DOT offices in the field. We will amplify the message by publishing a brochure that contains a precis of the Strategic Plan small enough for employees to keep on hand at all times. At headquarters and in their travels to our field offices, our Modal Administrators will educate our workforce about our strategic goals, explaining how their specific jobs support the plan. They will encourage our workforce to be creative in developing new ways of doing business that will help us achieve the goals.

We believe it is important to communicate our mission and goals to our intergovernmental and industry partners as well as to the public. We will continue to post our strategic plan on our Web site and invite comments from the public via our open mailbox. We will stay on message in our public appearances and discuss our goals with our customers and stakeholders at every opportunity.

➢ *Incentives*

The Department of Transportation believes in finding the good and praising it. Thus, we will be proactive in identifying and rewarding employee contributions that help us fulfill our mission and achieve our goals. Indeed, the DOT awards and recognition programs require that the employee and team contributions support the mission and goals of the Department. Secretary Slater personally recognizes employees who make exceptional contributions to the Department. Since our workforce is our most valuable asset, providing highly visible and frequent incentives to our staff improves morale and increases the likelihood of our achieving our goals.

➢ ***Accountability***

Every year for the past 4 years, DOT's Assistant Secretaries, Modal Administrators and Office Directors have signed Annual Performance Agreements with the Secretary. These agreements parallel the structure of the goals in the Strategic Plan. They contain annual performance goals and describe projects and program initiatives that support each strategic goal. The Deputy Secretary tracks progress against the milestones in the agreements via monthly meetings with these officials. We will continue this practice of holding our leadership accountable for the achievement of our strategic goals into the future beginning with Performance Agreements for FY1998. Beginning in FY1999 these Performance Agreements will be the revised and updated from the Performance Plan submitted with the proposed budget for that year.

Similarly, we hold managers accountable for achieving our strategic goals through the Department's Performance Management framework which contains standards linked to each of the strategic goals. Thus, we will reward our workforce for accomplishing the goals in our strategic plan.

➢ ***Budget Process***

Finally, we will reinforce the goals in our Strategic Plan via the annual budget process to tie resources to results. We will evaluate budget requests and allocate resources to those programs and activities that best help us achieve our five strategic goals.

- Over the period of this Strategic Plan, the DOT will explore the best manner to align its ten operating administration budgets and over 140 budget program activities with the strategic goal activities highlighted in this document.

- DOT will use program evaluation to understand and quantify the degree of influence our activities exert on strategic outcomes. We will use these evaluations to determine the resource allocation and strategies that achieve maximum results.

- DOT will encourage management for results throughout the Department, fostering the development of measures that assist modes in managing their activities and in developing resource requests that advance common DOT strategic goals.

- DOT will ensure that new initiatives proposed in the annual budget process identify performance indicators and data sources and clearly support the strategic goals put forward in this document.

- DOT will not use performance measures alone to make budget decisions, but will continue to use a broad range of analytic tools along with performance

- measures
  to best allocate resources and advance strategic goals.

XIV. CROSS-CUTTING FUNCTIONS

Through its programs, the Department works in partnership with many other Federal agencies involved in cross-cutting functions. Table 7 illustrates major, cross-cutting functions that DOT program managers routinely coordinate with other Federal agencies. Program managers frequently discuss planning, implementation, regulations, and performance measurement, the latter most recently emphasized by GPRA, with their Federal (and, although not included in Table 7, State and local government) counterparts. Many hold regularly scheduled meetings that are needed to discuss how the agencies will proceed to achieve their shared goals and objectives. Often these programs share goals and objectives as well as statutory authority. Over the years, good partnerships develop, and frequently roles and responsibilities are defined through carefully crafted memoranda of understanding. Table 7 illustrates both the complexity and the extensive nature of the productive partnerships DOT enjoys with its counterpart agencies. On Table 7, each DOT function is placed under the strategic goal it bests supports although some functions support more than one goal.

Table 7. Coordination of Cross-Cutting Functions

Departments	Safety	Mobility	Economic Growth & Trade	Human & Natural Environment	National Security
Agriculture	RSPA/FRA/Sanitary Food Transportation Act		FHWA/Federal land transfers (Natural Resources Conservation Service) FTA/Welfare to Work MARAD/Domestic shipping; cargo preference, Ports	FHWA/Farmland Protection (Forest Service) RSPA/Unusually Sensitive Areas (USA)Project	
AID			MARAD/Cargo preference		FHWA/Africa Program, Russia Program, Haiti Initiative
Commerce	RSPA/Smart Vehicles & Operators; Enhanced Transp. Weather Services NHTSA/Harmonization	RSPA/Monitoring, Maintenance & Rapid Renewal of the Physical Infrastructure MARAD/Inter-modal development	FHWA/NAFTA OST/Open Markets Abroad (e.g., Commercial Aircraft Sales) RSPA/Enhanced Goods & Freight Movement at Domestic & Internat'l Gateways MARAD/Intenat'l Activities FTA/Welfare to Work	FHWA/Clean Water Act, Endangered Species Act CG/Enforcement of Laws & Treaties (fisheries enforcement-NMFS) MARAD/Envir. Protection NHTSA/Partnership for a New Generation of Vehicles RSPA/Next Generation Motor Vehicle & Ships; Unusually Sensitive Areas (USA) Project - NOAA FTA/Livable Communities	FAA/Coop with Customs on White House Commission Recs.
Departments	**Safety**	**Mobility**	**Economic Growth &**	**Human & Natural Environment**	**National Security**

			Trade		
Defense	FHWA/Motor carrier safety of Defense contractors RSPA/Human Factor Research; Aviation Safety Research Alliance; FAA/Joint/Shared Air Traffic Control Required Avionics on Military Aircraft FRA/High Speed Rail R&D NHTSA/National Transportation Biomechanics Reseach Center.	CG/Aids to Navigation RSPA/Global Deployment Analysis System; Monitoring, Maintenance, Rapid Renewal of the Physical Infrastructure MARAD/intermodal Development FAA/Special Use Airspace (restricted civilian use at certain times)	MARAD/MARI-TECH; cargo preference RSPA/Next Generation Motor Vehicles & Ships, Next Generation Global Air Transportation; OST/Airline Fitness MARAD/Domestic Shipping, ports	FHWA/Clean Water Act (Corps of Engineers) MARAD/Envir. Protection FTA/Brownfields, NEPA Process	FHWA/Defense access roads; National Highway System (Highway Traffic Mgmt Comm.) CG/Defense Readiness, Drug Enforcement RSPA/US Transcom, Air Military Command; Reserve Aircraft Fleet (CRAF); NATO Alliance MARAD/Ready Reserve Force; Maritime Security Program; Nat'l Security/Emerg. Planning FAA/Civilian Reserve Aircraft Fleet (CRAF); Joint Air Traffic Control; Special Use Airspace.
Education	NHTSA/Statement of Commitment on Safety Issues FTA/Promote safe behavior and practices for children and adults DOT/Moving Kids Safely	FAA/Aviation Education Programs	RSPA/Garrett A. Morgan Technology & Transportation Futures Program FTA/Welfare to Work		
Departments	**Safety**	**Mobility**	**Economic Growth &**	**Human & Natural Environment**	**National Security**

			Trade		
Energy		RSPA/Monitoring Maintenance & Rapid Renewal of the Physical Infrastructure; Risk Mgmt Performance Measures	RSPA/Next Generation Motor Vehicles & Ships MARAD/Domest. Shipping	RSPA/Environ. Sustainability of Transportation Systems; Local Envir. Assess. Systems. NHTSA/Corp. Average Fuel Economy	
EPA	RSPA/Hazmat Regulatory Program; Hazmat Emerg. Preparedness, Registration and Grant Program; Hazmat Info. Sys. FRA/Joint Invest. & Enforcement			FHWA/Health, hazardous waste, land and water usage, air quality FTA/Livable Communities, Environmental Justice, ISTEA transp. planning, Clean Air , Brownfields, Livable Communities CG/Marine Environmental Protection) RSPA/Unusually Sensitive Area (USA) Project; Local Envir. Assessment Systems; Envir. Sustainability of Transp. Systems; Next Generation Motor Vehicles & Ships MARAD/Envir. Protection NHTSA/Corp. Average Fuel Economy FAA/Aviation Noise & Pollution Overflight of Nat'l Parks Aviation Fuel FRA/Locomotive Emission STDS (Brown Fields) OST/Environmental Justice	
Departments	**Safety**	**Mobility**	**Economic Growth & Trade**	**Human & Natural Environment**	**National Security**

FCC	CG/Search and Rescue (marine communications)				
FEMA	FRA/Emergency Planning RSPA/Pipeline Nat'l Disasters "Hot Spots"; Hazmat Emerg. Preparedness (HMEP) Registration and Grant Program; Hazmat Info. System NHTSA/Federal Interagency Cmte on Emergency Medical Sys.	RSPA/Disaster Resistant Communities Program; Disaster Mgmt Transportation System FTA/Restoration of transit following natural disasters		CG/Marine Environmental Protection (emergency response)	FHWA/Emerg. Relief Program MARAD/Nat'l Security/Emerg. Planning
GSA		FTA/Transit Benefit Program		DOT facilities upgrade	
Departments	**Safety**	**Mobility**	**Economic Growth & Trade**	**Human & Natural Environment**	**National Security**
HHS	NHTSA/Injury Prevention, Emergency	RSPA/Partnership Accessibility for	FTA/Coordinating Council-Access to Jobs, Rural, Elderly	RSPA/Environ. sustainability of Transp. Systems	

	Medical Service, Healthy People 2000 FTA/Safe practices for children and adults RSPA/Hazmat Emerg. Preparedness, Registration and Grant Program; Food Safety Program DOT/Moving Kids Safely; Strengthening Safe Communities	Aging & Transp. - Disadvantaged Populations FTA/Increase intermodal interconnectivity of service; Implement. of Americans w/Disabilities Act requirement	and Handicapped Service; Welfare to Work		
HUD	DOT/Moving Kids Safely: Strengthening Safe Communities	FHWA/Metropolitan Planning FTA/Intermodal Planning Group,	FTA/Welfare to Work	RSPA/Partnership Environment Sustainability of Transp. Systems FTA/Livable Communities, Brownfields	
Departments	**Safety**	**Mobility**	**Economic Growth & Trade**	**Human & Natural Environment**	**National Security**
Interior	NHTSA/Indian Health Service, Traffic Safety Outreach, Bureau of Indian Afrs.-Implement. of a Tribal Safe			FHWA/Clean Water Act, Endangered Species Act; Federal Land Transfers, Historic Preserv. Act; Land & Water Conservation Fund Act	

	Community Program RSPA/MMS, Memorandum of Understanding (MOU) Joint Pipe-line Jurisdiction FRA/Rails with Trails			CG/Marine Environmental Protection; Offshore Minerals Mineral Mgmt Service RSPA/Unusually Sensitive Area (USA) Project MARAD/Envir. Protection FAA/Aviation Operations over national Parks (eg. Grand Canyon) FTA/Nat'l Environ. Protection Act (NEPA)	
Justice	NHTSA/Motor Vehicle Theft Prevention; Motor Vehicle Odometer Fraud; FRA/Safety Outreach DOT/Moving Kids Safely: Strengthening Safe Communities		OST/Airline Competition, Anti-competitive Behavior, Review of International Airline Alliances; Title VI-Civil Rights Act of 1964; Title IX-Education Amendment Act of 1972; Disadvantaged Business Enterprise (DBE)	OST/Environmental Justice	CG/Enforcement of Laws & Treaties (drug enforcement-DEA; migrant enforcement-INS) FAA/FBI on White House Commission Recs. RSPA/Total Terminal Security RSPA/ Support to Immigration & Naturalization Service (INS) FTA/Land Transp Security FRA/Border Issues
Departments	**Safety**	**Mobility**	**Economic Growth & Trade**	**Human & Natural Environment**	**National Security**
Labor	CG/Marine Safety (vessel health standards-OSHA) RSPA/Hazmat Regulatory Program; Hazmat Info. System	RSPA/Accessibility for Aging & Disadvantaged Populations	OST/Airline Strikes FTA/Welfare to Work		

	NHTSA/Seat belt program				
NASA	FAA/Research on Aviation Safety Technologies RSPA/Aviation Safety Research Alliance NHTSA/Advanced Air Bag Develop.	FRA/High Speed Rail FAA/Research on Hypersonic Transport	FAA/Research on Aviation Transport, General Aviation. Commercial Space Program RSPA/Next Generation Global Air Transportation;	FAA/ Research on Engine Noise, Emissions	
NSF	NHTSA/FHWA/Speed limit program	RSPA/Monitoring Maintenance & Rapid Renewal of the Physical Infrastructure		CG/Ice Operations (scientific research)	
Departments	**Safety**	**Mobility**	**Economic Growth & Trade**	**Human & Natural Environment**	**National Security**
NTSB	CG/Marine Safety (marine crash investigation) FAA/Crash Investigation NHTSA/Highway crash investigation		OST/Family Assistance Plans		

	FRA/Rail Crash Investigation				
Nuclear Regul. Commission	RSPA/Hazmat Regulatory Program; Hazmat Inspection Program;				
OPM			FTA/Welfare to Work		
SBA			FHWA/DBE FAA/AIP disadvantaged & small business set- asides RSPA/SBIR Prog. (Small Business Innovation Res.) NHTSA/SBIR Program OST/Disadvantaged Business Enterprise (DBE); OSDBU/DBE		
Departments	**Safety**	**Mobility**	**Economic Growth & Trade**	**Human & Natural Environment**	**National Security**
State	NHTSA/Harmonization Issues FAA/Regulatory Harmonization; International Civil Aviation Organiz. (ICAO)		FHWA/Africa Program, Russia Program, Haiti Initiative MARAD/Internat'l Activities OST/Open Skies Negotiations FAA/Internat'l Acceptance of Systems such as Global	FAA/Regulatory Harmonization; International Civil Aviation Organiz. (ICAO)	CG/Enforcement of Laws and Treaties, Defense Readiness (international training, diplomacy, treaties) MARAD/Nat'l Security/Emerg. Planning FTA/Land Transp Security

			Positions System Satellite (GPS); RSPA/NAFTA R&D Plan		
Treasury		FAA/AIP Grants	FHWA/IRS fuel tax; NAFTA-Customs Border Crossings		CG/Enforcement of Laws & Treaties (drug enforcement-USCS) FAA/Coord. w/ATF on White House Commission Recs RSPA/Total Terminal Security
USTR	NHTSA/Harmonization issues		MARAD/Internat'l activities FAA/Open Skies FRA/Internat'l Programs(NAFTA) OST/Trade and International Negotiations		
Civil Rights Commis'n			FHWA/Title XI - DBE OST/Civil Right Act of 1964		

Table 7. Coordination of Cross-Cutting Functions (Continued)