Office of Inspector General

Top Ten Management Issues

Department of Transportation

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Memorandum

U.S. Department of **Transportation**

Office of the Secretary of Transportation

Office of Inspector General

INFORMATION: Top Ten Management Subject:

Challenges; PT-2001-017

Kenneth M. Mead K. L. M. Inspector General

Reply to Attn of: J-1

Date: January 18, 2001

The Secretary

Thru: The Deputy Secretary

This document was prepared in response to an October 12, 2000, request of the Chairmen of the Senate Budget and Governmental Affairs Committees, and the Majority Leader and Chairmen of the Committees on the Budget and Government Reform, U.S. House of Representatives. The Office of Inspector General (OIG) was requested to identify the top-priority management challenges in the Department of Transportation (DOT). The document provides the information presented to the requesters for your information and use.

Taken as a whole, our list encompasses DOT programs that require continual attention to ensure ever safer transportation, programs on which there are significant economy and efficiency concerns, and programs with questionable success in achieving results. Our summaries include a narrative description of progress in the last year and open issues and recommendations, a matrix showing progress on specific priority tasks needed to address these issues, and a bibliography of related work by our office and other organizations.

The following table shows how we have grouped the top management challenges in this year's report, as compared to last year's report.

Items in Current Top 10 List	Items in Last Year's Top 12 List		
Aviation Safety	Aviation Safety		
Surface Transportation Safety	Surface Transportation Safety		
Aviation System Capacity and Air Traffic Control Modernization	Air Traffic Control Modernization		
Surface and Airport Infrastructure	• Surface, Marine, and Airport Infrastructure		
Coast Guard Capital Acquisition Budget	Coast Guard Deepwater Capability Replacement Project		
Transportation Security	Transportation Security		
Computer Security	Computer Security		
Amtrak Financial Viability and	Amtrak Financial Viability and		
Modernization	Modernization		
MARAD's Ship Disposal Program	MARAD's Ship Disposal Program		
 Departmental Business Practices 	• Financial Accounting/Chief Financial		
- Financial accountability;	Officers Act		
- Timeliness of rulemaking;	 FAA Financing and Reauthorization 		
- Human resources management;	 Government Performance and Results 		
- Oversight of contract costs and	Act		
closeouts;			
- Government Performance and Results			
Act (GPRA);			
- Space requirements for a new DOT			
headquarters building			
- Transportation Administrative Service			
Center (TASC) role in providing			
administrative support.			

The key differences from last year's list are:

- 1. We expanded the Air Traffic Control Modernization area to include issues of aviation capacity including runway and airport capacity and the impact this is having on customer service, particularly cancellations and delays. Meeting the anticipated demand for air travel and reducing delays is an urgent issue because the National Airspace System is operating at the fringes of capacity. Over the last 2 years, DOT's Air Travel Consumer Report has ranked flight problems (delays, cancellations, and missed connections) as the number 1 complaint out of 11 complaint categories reported.
- 2. We created a new, comprehensive item on Departmental Business Practices by: 1) combining the Government Performance and Results Act, FAA Financing and Reauthorization, and Financial Accounting/Chief Financial

Officers Act items; and 2) adding other key Department-wide concerns, including human resources management, the new DOT headquarters building, the appropriate role for TASC in providing Departmental headquarters administrative services, and the pace of Departmental rulemakings.

This new combined item ties to how the 1999 Performance Report/2001 Performance Plan categorizes these business practice issues. It also enables us to cover new or emerging issues – such as the follow up to our report on the Department's rulemaking process and the space needs of the new DOT headquarters building. Finally, it also seemed logical to combine our previous business practice items at this time – since FAA has been reauthorized, the Department has achieved a clean opinion on its financial statements, and the Department's GPRA reports are consistently rated among the best in the Government.

Addressing the management challenges on our list is key to enabling the Department to meet its goals, support safe and efficient transportation systems for the American public, and satisfy Congressional expectations of sound agency management. We have discussed the items on our list with senior agency management, testified before Congress or discussed with Congressional staff the most important of these issues, and have briefed the incoming Administration's transition team on our key findings and recommendations in these areas. We look forward to working with the Congress, the Department's career staff, and the new Administration's officials on these issues in 2001.

If we may be of further assistance on this, or any other matter, please contact Todd Zinser, Acting Deputy Inspector General, at (202) 366-6767, Alexis Stefani, Assistant Inspector General for Auditing, at (202) 366-1992, or David Gamble, Acting Assistant Inspector General for Investigations, at (202) 366-1967.

Office of Inspector General Top Management Challenges Facing DOT January 2001

Aviation Safety

Safety Indicators:

• Reversing the sharp increases and record highs in runway incursions and controller operational errors.

Safety Workforce:

- Training and certifying the controllers-in-charge (CIC) that the Federal Aviation Administration (FAA) proposes to have replace non-union supervisors.
- Realizing productivity gains promised by the National Air Traffic Controllers Association (NATCA) agreement with FAA. Part of that agreement includes a new pay system for controllers that will require \$1 billion in additional funding over the 5-year life of the agreement. Between 1998 and 2001, FAA's operations costs have risen over \$1.2 billion or 25 percent. The controller pay system has contributed to the rise in these operations costs. Now other FAA workforces want pay increases as well, which must be negotiated under FAA's personnel reform authority. Productivity gains are needed to offset the additional payroll costs of the new pay systems and free up a greater portion of FAA's overall budget for important safety measures.
- Developing an air traffic controller pipeline to backfill for retirements while adhering to the NATCA agreement's ceiling of 15,000 controllers. FAA and NATCA should weigh potential staffing and cost benefits of contracting out low level non-radar towers, limited consolidation of air traffic control facilities, and operating oceanic air traffic control more like a business financed through user fees.

Safety Oversight and Rulemakings:

- Strengthening FAA's new system for inspecting airlines, known as the Air Transportation Oversight System (ATOS).
- Reducing protracted delays in responding to identified safety issues. FAA's lack of attention to sufficiently and timely repond to independent laboratory test results on fastener quality and FAA's delayed action of a year before informing air carriers of defective cables suggests a weaknesses in FAA's process to evaluate safety issues brought to the agency's attention.

• Issuing long delayed rulemakings regarding pilot hours of service and rest periods, air tour safety, and repair stations and repairman certification standards. FAA also needs to resolve issues related to waiving enforcement actions, which are central to issuing the Flight Operations Quality Assurance (FOQA) rule and getting the air carriers to provide the detailed safety data that would be available under FOQA. It is unlikely that FAA can make further progress in this area alone without the support of the Department of Justice or the Office of Management and Budget.

Surface Transportation Safety

NHTSA's Vehicle Defects Investigations:

• Implementing Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act safety requirements and improving NHTSA's ability to proactively identify and see to it that vehicle defects are corrected.

Motor Carrier Safety:

- Curbing fraud, abuse and mismanagement in issuance of Commercial Drivers Licenses (CDL).
- Implementing the Motor Carrier Safety Improvement Act of 1999 filling remaining leadership positions in the new Federal Motor Carrier Safety Administration (FMCSA), and issuing rulemakings required by law. Strong enforcement, including shut down orders, is needed for the minority of carriers that are egregious offenders and a risk to public safety, with educational/outreach efforts are appropriate where they work. A multifaceted approach is needed.
- Reviewing comments on the proposed hours-of-service regulation reducing the allowable driving time for commercial truck and bus drivers from 16 to 12 hours within a 24 hour period and requiring on-board electronic recorders to document hours of duty. FMCSA will need to address opposition to the regulation in the trucking and bus industries and concerns in the Congress, which has prohibited the Department from adopting a final rule in Fiscal Year 2001.
- Improving Mexican truck safety oversight in readiness for opening the borders under the North American Free Trade Agreement (NAFTA). There are still significant shortfalls in Federal border inspection staffing and facilities. However, recent increases in the number of Federal border inspectors

correlated with a reduction in the percent (down from 39% in FY 1999 to 35% in FY 2000) of Mexican trucks entering the United States that were placed out of service for significant safety violations.

<u>Pipeline and Hazardous Materials Safety:</u>

- Completing maps showing location of hazardous material pipelines; establishing inspection frequencies for natural gas pipelines; training Research and Special Programs Administration (RSPA) inspectors in advanced pipeline inspection technologies, and working with Congress on the pipeline program reauthorization.
- Improving deployment, training, and coordination of the Department's Hazardous Materials inspection and enforcement resources (affects FAA, Federal Railroad Administration (FRA), FMCSA, Coast Guard, and RSPA) and working with Congress on the Hazardous Materials program reauthorization.

Rail Safety:

• Ensuring that Amtrak, the States of New York and New Jersey, and the Federal Government develop an action plan for addressing the nearly \$900 million in unfunded fire and life safety projects in the jointly-used rail tunnels approaching Penn Station-New York.

Aviation System Capacity and Air Traffic Control Modernization

Strategy for Addressing Delays:

- Developing a strategic plan for addressing aviation capacity shortfalls, delays and cancellations in the short (1-2 years), intermediate (4-5 years), and long terms (8-10 years).
- Developing and implementing a uniform system for tracking delays, cancellations and their causes.
- Developing "capacity benchmarks" for the Nation's top 30 airports describing the number of operations the airport can handle at various times of the day under ideal weather conditions. Such benchmarks are critical to understanding the true impact of airline scheduling practices and what relief can be expected from new technology and airport infrastructure enhancements.

Establishing FAA's Air Traffic Control Services as a Results Based Organization:

• Implementing structural reforms directed in the Wendell H. Ford Aviation Investment and Reform Act For the 21st Century (AIR-21) including an expanded role for the Management Advisory Council, the creation of an Air

- Traffic Services Subcommittee (whose members were just named), and the appointment of a Chief Operating Officer.
- Establishing a cost accounting system and performance metrics. FAA originally planned to have the cost accounting system in place by October 1998 but completion dates have slipped many times FAA now anticipates completing the system at the end of FY 2002.

Airline Customer Service Commitment:

- Congress directed the Office of Inspector General (OIG) to review airline implementation of the 12 provisions of the Airline Customer Service Commitment for improving air travel. Airlines have been making a clear and genuine effort to strengthen attention paid to customer service, but bottom-line results (as of our June interim report) have been mixed. A key to the success of the Airline Customer Service Commitment is that each airline needs to have a credible tracking system for compliance with each provision of the Commitment and contingency plans for dealing with delays in airport terminals and onboard aircraft. We will be issuing another report to Congress and the Secretary in early 2001.
- Monitoring and enforcing consumer protection laws and addressing airline competition issues both domestically and internationally. Staff resources budgeted have declined sharply at a time when complaints and competition issues have reached record highs.

Managing FAA's efforts to use New Technology to Increase Safety, Efficiency, and Capacity:

- Strengthening management oversight of multi-billion dollar software-intensive development contracts designed to modernize the air traffic control system and increase system capacity. FAA needs to use the procurement flexibilities Congress granted it in 1995 to hold contractors and FAA staff accountable for cost-effectiveness and reasonable adherence to established schedules. Key milestone decisions need to be made this year with several modernization efforts, including Wide Area Augmentation System (WAAS), Standard Terminal Automation Replacement System (STARS), and the Oceanic Replacement Program.
- Defining and implementing plans for transitioning to satellite-based navigation and landing systems.
- Implementing International Civil Aviation Organization (ICAO) delegations to provide modernized air traffic control services over the Pacific and the Atlantic Oceans.

• Moving forward with airspace redesign efforts and linking them with plans for implementing free flight technologies.

Assessing FAA's Role in Planning for Nationwide Airport Infrastructure Needs:

- Significant increases in capacity and corresponding reductions in delays will be achieved mostly through new infrastructure new runways and airports. Between 1991 and 2000, a total of 6 new runways were added at the 29 largest airports, with another 15 either proposed or under construction most will not be opened for several years. A key question over the next several years will focus on whether FAA should move from a passive role (distribution of grant funds) to a more active one of facilitating a strategic view of airport expansion, leveraging grant funds to capacity-constrained locations, and helping to resolve local opposition.
- Addressing severely capacity-constrained airports with no realistic near-term hope for meeting demand. Options that will be debated run the gamut from "do nothing and let the market straighten things out," to peak hour or congestion pricing, authorizing airline scheduling discussions under antitrust supervision, and lotteries - another form of slot control.

Surface and Airport Infrastructure

Oversight of \$230 billion (FYs 1998-2003) in Infrastructure Funding:

- Ensuring oversight stewardship for federal funds to prevent fraud, waste and abuse and avoid scandal in administering the Transportation Equity Act for the 21st Century (TEA-21), and the Aviation Investment and Reform Act for the 21st Century (AIR-21), which provided an unprecedented infusion of funds for highway, transit, and airport projects. In FY 2000 alone, OIG investigations led to 52 indictments and 36 convictions in these areas.
- Following through on commitments to enhance Department of Transportation (DOT) oversight capacity and practices in order to identify problems and mitigate risks on mega-projects (such as Central Artery, Woodrow Wilson Bridge, and San Francisco Bay Area Rapid Transit (BART) Airport Extension).

DOT Role in Facilitating Future Infrastructure Projects:

- Advancing projects to improve capacity, relieve congestion, and enhance safety while respecting the letter and intent of environmental laws.
- Mitigating risks on Federal Transit Administration (FTA) projects with full funding grant agreements. When annual Federal appropriations are less than scheduled payments in grant agreements, grantees may need to find alternate

funding sources or extend the construction schedules. In both instances, project costs may increase.

Coast Guard Capital Acquisition Budget

- Working with the Office of Management and Budget to reconcile differences between Coast Guard's capital acquisitions proposals (\$750 million in FY 2002) and budget targets (\$520 million in FY 2002). Similar challenges are expected in future years.
- Completing the planning process for the estimated \$10 to \$15 billion Deepwater project in order to justify budget requests what is to be purchased, at what cost, and in what time frame. Contractor proposals are due in April 2001.
- Establishing realistic budget and schedule estimates for the National Distress System an important search and rescue safety capability first discussed in the early 1980s that the Coast Guard plans to deploy between 2003 2006.

Transportation Security

Aviation Security:

- Maximizing the effectiveness and usage of explosives detection equipment.
- Completing pending rulemakings on certification of screening companies, airport access requirements and accounting for active airport identification cards.
- Implementing the Airport Security Improvement Act of 2000, which will strengthen background investigation requirements for airport personnel.

Surface Transportation Security:

• Finalizing the draft DOT surface transportation security research strategy, based on recommendations from the National Research Council.

Computer Security

- Completing the vulnerability assessments of infrastructure mission-critical systems.
- Evaluating the security impact of the proposed integration of National Airspace System air traffic control and FAA administrative systems.

- Completing background checks on contractor and DOT employees.
- Implementing security measures against attacks on DOT computers and improving controls over passwords to prevent fraud.

Amtrak Financial Viability and Modernization

- Attaining operating self-sufficiency by the statutory 2003 date largely depends on Amtrak's ability to: close a \$737 million gap in projected cost savings and revenues, which Amtrak pledged to achieve through undefined management actions; and deliver and generate revenues from all 20 trainsets planned for high-speed service in the Northeast Corridor.
- Even if Amtrak were to meet its operating self-sufficiency mandate by 2003, its long-term survival is going to depend on Amtrak's addressing a serious capital funding shortfall. Amtrak believes its annual capital needs are in the neighborhood of \$1.5 billion. Amtrak was counting on passage of Senate Bill No. 1900, the Bond Bill (it did not clear the last Congress), and on annual capital appropriations of \$400 to \$500 million.

MARAD's Ship Disposal Program

• Developing and implementing an environmentally and financially responsible program to dispose of the 115 ships in the National Defense Reserve Fleet by the statutory deadline of September 30, 2006. The number of ships awaiting disposal is growing, and they pose an immediate environmental threat in Virginia, Texas, and California. The 40 "worst condition" ships average 50 years in age and have been awaiting disposal for two decades.

Departmental Business Practices

Financial Accountability:

- Sustaining a clean opinion on the financial statements covering DOT's \$58 billion budget depends heavily on: implementing a new financial system (Delphi) across the Department; and the accuracy of FAA's multi-billion dollar property account and developing a credible system for tracking FAA's property.
- Developing and implementing a departmentwide cost accounting system (CAS) particularly in FAA where its proposed CAS has been under development for over 4 years. FAA will not be able to operate as a results-

based organization or accurately account for the cost of air traffic control operations without a CAS.

Rulemaking:

• Improving the timeliness of DOT rulemakings. During 1999, DOT was working on 152 significant rules that were in development an average of 3.1 years. Several important safety related rules are overdue (e.g., railroad grade crossings) and others (e.g., the rules implementing new motor carrier program safety enchantments) may not be done by their statutory due date. Although the Secretary committed the Department to a course of corrective action, the key to improving the rulemaking process is effective implementation, particularly the establishment of a departmentwide tracking and monitoring system. This system will need the capability to identify problems occurring Departmentwide, track priorities and schedules, and ensure that reports on the status of individual rulemaking actions are submitted.

Contract Closeouts:

• Improving oversight of contract costs, particularly through use of independent contract close-out audits. Some DOT contracting officers are closing out cost reimbursable contracts without independent audits and with minimal oversight. We found little evidence of review on the amounts being billed by contractors.

Government Performance and Results Act:

 Maintaining and improving the Department's highly rated Strategic Plan and combined Performance Report/Performance Plan under the Government Performance and Results Act.

Other Administrative Issues:

- Resolving space requirements for the new DOT headquarters building.
- Resolving the Transportation Administrative Support Center's (TASC) role in providing administrative support services for the Department's headquarters units.

1. AVIATION SAFETY

Given the continued growth in demand for air travel and the limited capacity of the National Airspace System, the Federal Aviation Administration (FAA) must be more aggressive in evaluating known risks and identifying and evaluating unknown risks that may cause future accidents. The aviation industry expects continued growth in air traffic as a result of increased demand and the emergence of new technologies may result in closer spacing between aircraft due to more precise, satellite-based tracking and navigation capabilities.

We see the key issues in this area as:

- ✓ Reducing the number of runway incursions and operational errors; two aviation safety indicators of serious safety risks. Record levels of runway incursions (400) and operational errors (1,154) are occurring amid increasing runway and airspace congestion. Runway incursions are incidents on the runway that create a potential collision hazard. Operational errors are errors made when an air traffic controller allows the distance between two aircraft to fall below FAA's minimum separation standards. These incidents occur mostly in midair.
- ✓ Replacing air traffic control supervisors with non-supervisory controllers without jeopardizing safety,
- ✓ Providing timely and effective oversight of air carriers' aircraft maintenance, and
- ✓ Completing pending rulemakings on new safety practices and flight crew rest requirements.

<u>Progress in the Last Year:</u> Improvements have been made in the following areas.

• The Federal Aviation Administrator made reducing runway incursions a top priority. A new Director for the Runway Safety Program was given central oversight authority for all runway safety work being performed within FAA. FAA also conducted a human factors symposium and held regional runway safety workshops, which culminated in a Runway Safety National Summit in June 2000. Based on recommendations made at these events, FAA developed a list of 10 initiatives most likely to reduce runway incursions in the near term such as, enhanced air traffic controller training and improved pilot evaluation and testing.

- The Department issued Code Share Safety Program Guidelines that provide for safety assessments by U.S. air carriers of their international code share partners. FAA developed procedures to review U.S. air carriers' code share programs and U.S. carriers have begun conducting safety assessments of their code share partners. These changes should positively impact the safety of U.S. passengers traveling on international code share flights.
- FAA has positively responded to concerns about its oversight of air carriers' aircraft maintenance programs that were generated by the January 2000 Alaska Airlines crash. In July 2000, FAA began conducting special assessments of the major aircraft safety programs for nine of the largest commercial air carriers to determine if carriers have procedures in place to provide safety oversight of their aircraft operations. FAA also plans to use the results of these reviews to determine if changes are needed in its oversight procedures for carriers' aircraft maintenance programs.
- To address safety issues associated with aging aircraft, FAA issued over 40 airworthiness directives on electrical wiring and 18 on fuel systems for large commercial aircraft. FAA and industry also conducted inspections of inservice aircraft that are 20 years old or more to assess the condition of the U.S. transport fleet with respect to wiring and to identify other areas of concern.
- FAA continued to pursue the issue of suspected unapproved parts (SUPs). Since fiscal year (FY) 1997, FAA, aided by the OIG, conducted SUP training for over 1,500 aviation safety inspectors. Additional classes are planned for FY 2001. In FY 2000, FAA initiated 262 SUP investigation cases and OIG obtained 9 indictments related to the sale and use of SUPs.
- On April 5, 2000, the Aircraft Safety Act of 2000 was signed into law. This new law will stiffen the penalties for people and corporations that engage in the manufacture, sale, and use of unapproved parts. Specifically, it authorizes the Attorney General to seek civil remedies to stop offenders from re-entering the business and to direct the destruction of stockpiles and inventories of unapproved parts so they do not find their way into legitimate commerce. The Act gives law enforcement a potent weapon in the fight to protect the safety of the traveling public. The Department of Transportation, Department of Justice, National Aeronautics and Space Administration, and the Federal Bureau of Investigation all supported this legislation to stiffen the penalties for those that traffic in unapproved parts.

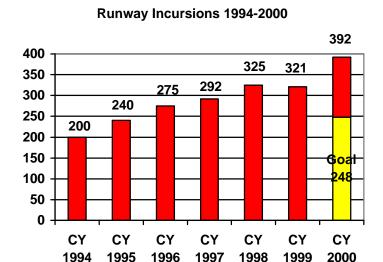
<u>Most Significant Open Recommendations and Issues</u>: While FAA has made progress in addressing factors that affect aviation safety, the agency needs to address several important safety issues, including the following major elements.

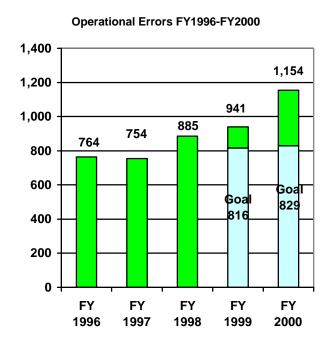
• <u>Safety Indicators.</u> Record levels of runway incursions (400) and operational errors (1,154) are occurring amid increasing runway and airspace congestion.

<u>Runway Incursions.</u> Despite significant management focus in the past year, FAA has not been able to reduce the number of runway incursions. As shown on the chart, runway incursions have grown from 200 in 1994 to 321 in 1999, a 60 percent increase. In the first 11 months of the year 2000, there were 392 runway incursions. By the end of 2000, the number of

runway incursions will likely 400, surpass significantly more than FAA's goal of no more than 248 incursions for the year. Now FAA must follow through initiatives started in 2000 at the national and local levels to reverse the upward trend of runway incursions. Also, FAA must identify and evaluate emerging technologies that can be advanced quickly for use by pilots and air traffic controllers at high-risk airports.

Operational Errors. **FAA** been ineffective reducing operational errors, which have increased by 51 percent from 764 to 1,154 from FY 1996 to FY 2000 as shown on the chart. Further, FAA did not meet its goals established in DOT's Performance Plan for reducing operational errors to .496 and .486 per 100,000 operations in FY 1999 and FY 2000, respectively.





While operational errors can pose a serious safety risk, the true safety risk remains unknown because FAA does not determine the severity of every incident.

Facilities with the most reported operational errors over the past 5 fiscal years have shown little progress in reducing operational errors. During FY 2000, 70 percent of all operational errors occurred at just 25 facilities. Moreover, 22 of the 25 facilities with the most operational errors in FY 2000 showed no progress over FY 1996 levels. FAA must approach reducing operational errors with a sense of urgency and provide strong national oversight to ensure that efforts made to reduce operational errors are effective in reversing the upward trend.

• <u>Safety Workforce.</u>

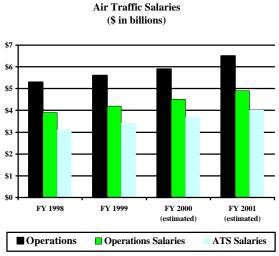
Replacing Non-Union Air Traffic Control Supervisors. FAA plans to reduce the number of air traffic control supervisors and replace them with non-supervisory air traffic controllers acting as controllers-in-charge (CICs). As we reported in November 1998, before FAA can begin a reduction in supervisors, it must provide increased training to these nonsupervisory air traffic controllers on their new roles and responsibilities for ensuring safe air traffic operations. FAA is currently training CICs on their new roles and responsibilities. However, in our ongoing efforts to ensure that FAA develops an expanded CIC Program that addresses our recommendations, we identified a February 2000 memorandum from the Director of Air Traffic Services that essentially allows all air traffic controllers to become CICs without going through the required CIC selection process to ensure that only the most qualified controllers are selected. This action is contrary to FAA's established requirements and to assurances that the CIC Program would not become an entitlement. In October 2000, we requested that FAA take action to correct this problem.

<u>Air Traffic Pay and Staffing</u>. FAA also faces other workforce issues that could impact the safe and efficient operations of the air traffic control system.

In 1998, FAA signed a 5-year collective bargaining agreement with the National Air Traffic Controllers Association (NATCA) that included a new pay system for controllers outside the Federal General Schedule. Unlike the labor unrest seen throughout the aviation industry last year, the agreement has created labor support and stability between FAA and its largest workforce. However, the associated costs are significant. FAA estimates that the agreement will require nearly \$1 billion in additional

funding over the 5-year life of the agreement. Through FY 2000, FAA has incurred over \$240 million in additional operating costs as a result of the new system. However, the negotiated productivity changes intended to offset some of those additional costs are not yet in place system-wide; FY 2001 and 2002 will determine to what extent they are implemented and quantified.

As shown on the chart, the controller pay raise has contributed to the continued increases in operating costs, which have risen from \$5.3 billion in FY 1998 to \$6.5 billion in FY 2001. example, in FY 2001, air traffic services salaries are 60 percent of FAA's total operating costs and 82 percent of total operations salaries.



FAA's Total Operations, Operations Salaries, and

FAA has also implemented a new pay system for Air Traffic managers, supervisors, and specialists, that is limited to those personnel at Air Traffic facilities. This pay system does not apply to Air Traffic managers, supervisors, and specialists at headquarters or regional offices. FAA needs to address concerns that this pay system may be resulting in reduced incentives for supervisors to aspire to higher management positions in headquarters and regional offices.

According to NATCA, approximately 50 percent of the controller workforce is expected to retire in the next 10 years. FAA currently plans to expand its controller workforce by an additional 600 controllers by the end of FY 2002 (in accordance with the controller staffing ceiling included in the current labor agreement with NATCA). However, FAA will have to increase its efforts in recruitment and training of air traffic controllers to develop a pipeline to backfill for retirements while still adhering to the agreement's staffing ceiling. FAA and NATCA should weigh potential staffing and cost benefits of contracting out low level non-radar towers, limited consolidation of air traffic control facilities, and operating oceanic air traffic control more like a business financed through user fees.

• Safety Oversight.

Implementing the Air Transportation Oversight System. FAA should move more quickly to strengthen and complete implementation of its new inspection process (ATOS) for air carriers and improve the accuracy of safety databases. FAA initiated ATOS at 10 major air carriers in October 1998, but has not fully implemented the program at any of these carriers. ATOS goes beyond inspecting airplanes for regulatory compliance to evaluating the underlying controls established for basic airline systems, such as personnel training and flight operations. To benefit from ATOS, FAA must evaluate and correct many issues, such as obtaining management and workforce "buy-in" to the ATOS concept, training inspectors on how to monitor an air carrier's operations under ATOS, training inspectors how to audit vendors that provide contract maintenance and repair service, and developing consistent, accurate data. These obstacles must be overcome for FAA to achieve the safety benefits envisioned by the ATOS concept, which is to use data to monitor industry trends and better target inspection resources.

Oversight of Air Carrier Maintenance and Aircraft Manufacturing. FAA needs to strengthen its oversight systems for aircraft maintenance and aircraft manufacturing operations. As a result of special safety assessments initiated during FY 2000, FAA identified significant deficiencies in aircraft maintenance programs at Alaska Airlines and at least two other major air carriers. FAA also identified quality control weaknesses within Boeing's aircraft manufacturing operations. The findings in these audits underscore the need for FAA to improve its oversight of air carriers' aircraft maintenance and aircraft manufacturing processes, including the manufacture of aircraft parts. FAA has recognized that improvements must be made and is taking steps to determine why its routine surveillance did not identify and correct deficiencies found during these special assessments.

Responding to Identified Aircraft Safety Issues. We identified two examples of delays by FAA in responding to aircraft safety issues brought to its attention.

In May 1999, the Department of Defense developed information about defective aviation cable placed in aircraft to adjust flight controls such as the rudder. After the Department of Defense determined from testing that the cable did not meet strength specifications, it notified other Federal agencies, including FAA, of the nonconforming cable. However, FAA

delayed action for a year before informing air carriers of the nonconforming cable. The fact that FAA did not respond timely to this potential safety issue suggests a systemic weakness in FAA's procedures for evaluating and acting on safety issues.

In September 1999, an accredited independent laboratory we contracted with (Hill Air Force Base) found a 27 percent nonconformance rate for thread dimensions in the threaded fasteners we sampled from air carrier and repair station inventories. To investigate the reasons for these nonconformances, FAA simply sent the parts back to the manufacturers that produced them. The manufacturers found a 3 percent nonconformance rate. Rather than investigate the reasons for the wide disparity in test results, FAA initially accepted the manufacturers' results, concluding that no systemic problem existed with the manufacture of threaded fasteners. After we made repeated requests for FAA to support its position, it has now initiated a new evaluation, 1 year after we first discussed our sample results with FAA.

Aircraft Wiring. FAA must move beyond data collection on the safety of non-structural aircraft components, especially wiring, to implementation of methods to improve aircraft safety. Since the TWA Flight 800 and Swissair Flight 111 accidents, FAA has issued over 40 airworthiness directives on wiring for large commercial aircraft and embarked on several research efforts. Recent FAA/industry inspections of older aircraft show the need for additional actions, including improved maintenance practices, better training for maintenance personnel and FAA inspectors, and new technologies for detecting and preventing problems with aircraft wiring. To be proactive, FAA needs to develop an overall strategy to guide FAA and industry efforts and revamp how airlines and repair stations report problems with wiring.

• Rulemaking.

<u>Issuing Timely Regulations</u> FAA should issue timely regulations to provide guidance to the aviation industry and to promote adoption of new safety practices. For example, since 1994 FAA has been working on developing new standards for flight crewmember duty period limitations, flight time limitations and rest requirements. In 1999, the National Transportation Safety Board (NTSB) recommended FAA develop new hours of duty and rest standards, and publish a rulemaking addressing pilot fatigue – issues left hanging since FAA published a proposed rule in 1995. FAA has still not issued a final rule, and no publication date has been established.

FAA should also move forward with other long-delayed rulemakings, such as repair station and repairman certifications, aging aircraft safety standards, and air tour industry standards. These rulemaking efforts started as far back as 1986, but no final rules have been issued. FAA should aggressively move forward with these important rulemakings.

Additionally, FAA has been working since 1993 on developing a flight operations quality assurance (FOQA) program to advance aviation safety by obtaining better safety data from air carriers. FOQA provides a decided advantage to other safety data available to FAA because FOQA would provide objective, quantitative data on what occurs during flights rather than what is subjectively reported by individuals. Aircraft equipped with state-of-the-art electronic "black-box" sensors can record hundreds of data parameters for safety analysis. Without a FOQA program, this safety data would not be available to FAA. FAA will use FOQA data to identify safety trends and accident precursors.

FAA issued a proposed rule on FOQA in July 2000, but it is unlikely that further progress in this area can be made by FAA alone. The Department of Justice, as well as the Office of Management and Budget, must weigh in to resolve complex issues concerning the waiving of enforcement actions when airlines voluntarily provide FOQA data.

Key OIG Contact: David A. Dobbs, Deputy Assistant Inspector General for Aviation, 202-366-0500.

1. Aviation Safety

Dark Grey = Top Priority Task for 2001 Light Grey = Include in 2001 Top Management Challenges Efforts White = Sufficiently Resolved to be Dropped from Management Challenges Efforts	First Year Issue Raised in OIG Management Challenges Report	Was Significant Progress made in last year?
 Reduce runway incursions by developing new education and training programs for controllers, implementing improved procedures and airport markings and lighting, and implementing new technology based initiatives. 	1998	N
 Reduce air traffic operational errors and deviations by focusing on improving regional oversight of problem facilities with recurring operational errors and deviations. 	1999	N
 Comply with the new designation and selection guidelines for the expanded Controller-in-Charge Program to ensure that only the most qualified controllers are selected. 	New Issue	New Issue
 Identify and correct the weaknesses in the new inspection process (ATOS) for air carriers. 	1999	N
 Increase efforts in recruiting and training to prepare for retirements. 	New Issue	New Issue
 Implement controller workforce productivity gains to offset increases in operating costs. 	New Issue	New Issue
 Resolve outstanding regulatory issues and implement the flight operations quality assurance (FOQA) program. 	1999	Some
• Identify and correct systemic issues within FAA that led to gaps in its oversight of air carriers' aircraft maintenance, aircraft manufacturers, and aviation parts manufacturers.	New Issue	New Issue
 Devise methods for reducing protracted delays in responding to safety issues brought to FAA's attention, including conducting a comprehensive investigation to reconcile the disparity in tests of fastener thread dimensional conformance found by a Fastener Quality Act accredited laboratory and tests performed by the manufacturers of the fasteners and a non-accredited consultant. 	New Issue	New Issue

•	Develop an overall strategy identifying efforts, and revamp how air carriers and repair stations report wiring problems.	New Issue	New Issue
•	Move forward with other long-delayed rulemakings, such as flight time limitations and rest requirements, and air tour standards.	New Issue	New Issue
•	Establish and implement procedures to ensure U.S. air carriers perform thorough and relevant safety assessments of their code share partners.	1999	Y
•	Enact legislation stiffening penalties for people and corporations that traffic in suspected unapproved parts.	1998	Υ

2. SURFACE TRANSPORTATION SAFETY

Surface transportation – motor vehicle, large truck, railroad, and pipeline transportation – accidents in the United States continue to account for over 42,000 fatalities annually. In 1999, over 36,000 fatalities resulted from motor vehicle accidents not involving large trucks, over 5,000 resulted from crashes involving large trucks, and over 1,000 resulted from railroad, rail transit and pipeline accidents. While down from the over 46,000 fatalities a decade ago, the number of surface fatalities remains high, and the Department needs to continue its efforts on reducing fatalities.

- Motor vehicle fatalities continue to take a heavy toll on American families, accounting for over 85 percent of all transportation-related fatalities. Alcohol-related accidents claim the biggest number of highway fatalities, about 16,000 in 1999 down from 25,000 in 1982. Other factors influence highway fatalities such as defects in motor vehicles and motor vehicle equipment. One example is the recent tire defects, which have been implicated in 148 deaths and over 500 injuries.
- The Secretary set Department goals in May 1999 to reduce large-truck related injuries by 20 percent by the end of 2008 and large-truck related fatalities by 50 percent by the end of 2009. The 1999 number of injuries and fatalities involving large trucks increased to 142,000 injuries while fatalities remained relatively constant at 5,362 fatalities (although the fatality rate per 100 million miles traveled declined modestly due to the increase in commercial miles traveled). The 1999 goals of reducing injuries to 126,000 and fatalities to 4,988 were not achieved. The 2000 goals are 125,000 injuries and 4.934 deaths.
- More than 900 people were killed in railroad accidents in 1999, divided about evenly between deaths from crossing accidents and deaths from trespassing. Collisions, derailments, and other accidents on mass transit, including commuter rail, heavy rail, and bus service, account for an additional 300 deaths each year.
- There are roughly 300 million hazardous materials shipments in the Nation each year, and the vast majority of these shipments arrive at their destinations safely. For the first 7 months of 2000, there were 9,310 reported incidents involving these shipments, but only 233 involved fatalities, hospitalization, road closure, or evacuation of 6 or more people. Although the number of incidents is low in comparison to the number of shipments, the potential for catastrophic incidents, such as the 1996 ValuJet crash that killed 110, makes this an area that warrants continued vigilance.

• The Nation's more than 2 million miles of pipelines transport natural gas, crude oil, and refined petroleum products to industry, residences, and other users. These pipelines include 156,000 miles of hazardous liquid interstate pipelines, 325,000 miles of natural gas interstate pipelines, and 1.7 million miles of natural gas intrastate pipelines. Pipeline transportation is very safe; however, about 350 pipeline accidents are reported each year. Included in this number are rare catastrophic incidents, such as the August 2000 explosion in Carlsbad, New Mexico, in which a 30-inch natural gas pipeline violently ruptured resulting in 12 fatalities, illustrate the need for improved pipeline safety.

Our work has identified five areas in surface transportation safety. They are motor vehicle safety, motor carrier safety, railroad safety, hazardous materials safety, and pipeline safety.

MOTOR VEHICLE SAFETY

Progress in the Last Year:

- Congress enacted and the Department supported legislation that will help prompt states to adopt a standard of .08 Blood Alcohol Concentration to reduce alcohol-impaired driving and save lives. States not adopting the standard will face highway-funding restrictions beginning in FY 2004.
- Congress passed the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act which is designed to enhance National Highway Traffic Safety Administration's (NHTSA) ability to identify and investigate potential defects in vehicles and equipment by establishing additional reporting requirements for manufacturers, increasing civil penalties, and establishing criminal penalties.

Most Significant Open Recommendations and Issues:

• Despite the combined efforts of Federal, state, and local governments, seat belt use rates have remained relatively constant, ranging from 66 to 70 percent since 1993. Preliminary 2000 seat belt use rates are at 71 percent nationwide, below the national goals of 85 percent for 2000 and 90 percent for 2005. NHTSA is unlikely to reach and sustain its goals unless it focuses technical assistance efforts on evaluating seat belt programs to determine their effectiveness and encouraging the use of those programs that are working. The states are using a variety of approaches to increase seat belt use, including partnerships, educational and enforcement campaigns, and primary and secondary enforcement laws. Primary enforcement means a police officer can stop a vehicle and issue a citation when the officer observes the driver or a

passenger violating the state's seat belt law. Secondary enforcement means that a citation for violating a state's seat belt law can only be written after a police officer stops the vehicle for another infraction. Primary enforcement laws, adopted by 17 states and the District of Columbia, are highly controversial because of concerns about individual rights and racial profiling. Forty-nine states and the District of Columbia have adopted seat belt use laws.

- Early identification of defects by NHTSA's Office of Defects Investigation (ODI) can be improved. During the hearings on the Firestone tire recall, Congress raised questions as to the preparedness of ODI for handling information that may contain early warning signs of product defects. Significant gaps exist in identifying potential defects because ODI relies on consumer complaints in determining whether a safety problem warrants investigation. These data are not comprehensive or reflective of the nature and extent of potential safety defects. Other NHTSA databases, such as the Fatality Analysis Reporting System (FARS) and the National Automotive Sampling System (NASS), and other sources of information, such as manufacturer warranty claims, lawsuits, insurance claims data, and news articles are not routinely used by ODI to determine whether a potential defect warrants investigation.
- The TREAD Act requires NHTSA to conduct 10 rulemakings in the areas of defects, tires, and rollover tests. For example, by June 2002, NHTSA is required to complete a rulemaking establishing early warning reporting requirements for motor vehicle and equipment manufacturers, including the reporting of all incidents to NHTSA involving fatalities or serious injuries alleged or determined to be caused by a possible defect. Six of the 10 rulemakings must be completed in 2001 or 2002. Since OIG found that it takes DOT, on average, 3.8 years to complete a rule, significant management effort will be required to issue these rules in a timely manner, as required by the Act.

MOTOR CARRIER SAFETY

Progress in the Last Year:

• Following the Motor Carrier Safety Improvement Act of 1999, the Department established the Federal Motor Carrier Safety Administration (FMCSA) in January 2000. FMCSA increased enforcement activity – the number of compliance reviews performed as well as the number of enforcement cases initiated.

- FMCSA strengthened its oversight of the states' Commercial Driver's License (CDL) Program by developing a program to test the actual operation of state systems and to train FMCSA employees who conduct oversight reviews of state systems.
- DOT formed a panel of experts to review the CDL Program scandals in Illinois and Florida. These states have been the subject of ongoing Federal investigations resulting in more than 38 people being charged in schemes to sell CDLs to unqualified applicants. The panel made recommendations to address vulnerabilities in both states' CDL systems that contributed to the illegal activity.
- In April 2000, FMCSA issued a Notice of Proposed Rulemaking to reform the 63-year-old hours-of-service regulation for commercial truck and bus drivers. The proposed rule would reduce the driving time allowed within a 24-hour period from the current maximum of 16 hours to 12 hours and would require use of on-board electronic recorders to document hours of duty. The trucking and bus industries strongly oppose the proposed rule. FMCSA held extensive hearings and roundtable discussions, and extended the comment review process to December 15, 2000. The FY 2001 Transportation Appropriations Act prohibits the Department from adopting a final rule in FY 2001.
- On August 22, 2000, FMCSA issued a regulation prohibiting motor carriers found to be unfit from operating commercial vehicles in interstate commerce and establishing an unsatisfactory safety rating as a determination of unfitness.
 FMCSA also issued a final rulemaking in December 2000 that allows it to shut down motor carriers who do not pay the civil penalties assessed for violating safety regulations.
- FMCSA issued a Notice of Proposed Rulemaking addressing "camioneta" van operations on January 11, 2001. The proposed rule would apply to 9-15 passenger vans conducting service for direct payment over distances greater than 75 miles. This rulemaking was required by the Motor Carrier Safety Improvement Act of 1999
- FMCSA and NHTSA initiated a pilot study to determine the causes of serious large-truck crashes. FMCSA will use the results of the study to identify effective countermeasures for reducing the occurrence and severity of crashes.
- Congress approved the Department's budget request for 20 additional border inspectors. These inspectors will perform safety inspections on Mexican trucks entering the United States to ensure they comply with U.S. safety regulations.

Most Significant Open Recommendations and Issues:

- Since January 2000 key FMCSA leadership positions have remained unfilled, including the Associate Administrator for Policy and Program Development and Associate Administrator for Enforcement and Program Delivery. However, these two positions were filled on December 31, 2000, by moving two Senior Executives within FMCSA. The Motor Carrier Safety Improvement Act of 1999 provides the Department with the tools needed to improve motor carrier safety, so filling key leadership positions and implementing the new law will be the subject of keen interest. Strong enforcement, including shut down orders, is needed for the minority of carriers that are egregious offenders and a risk to public safety, but educational/outreach efforts are perfectly appropriate where they work. A multifaceted approach is needed.
- FMCSA needs to expedite rulemaking actions to realize the benefits of the many safety initiatives provided by the Motor Carrier Safety Improvement Act of 1999. Congress provided the requisite funding to implement these many safety initiatives, which include enhancements to the CDL Program and additional civil penalties and sanctions for noncompliance with safety regulations. FMCSA identified 29 rulemakings in the new Act, including 6 Congress mandated to be issued by December 9, 2000. Three of the six rules were completed by the deadline. Since we found it takes DOT on average 3.8 years to complete a rule, significant management effort will be needed to ensure all of the safety initiatives are timely implemented.
- Scandals and scams involving CDLs are occurring at an alarming rate. Investigations in Illinois and Florida led to 34 convictions, and at least 9 deaths were traced to drivers who illegally obtained CDLs in Illinois. Other state CDL programs are vulnerable; work thus far has shown problems in the states of Georgia and North Carolina. Improved Federal oversight of the CDL program will help ensure that controls over the states' testing and licensing of commercial drivers preclude unqualified individuals from receiving commercial licenses.
- Driver hours-of-service violations and falsified driver logs continue to pose significant safety concerns. Research has shown that fatigue is a major factor in commercial vehicle crashes. During roadside safety inspections, the most frequent violation cited for removing a driver from operation is exceeding allowed hours of service. Use of electronic recorders and other technologies to manage the hours-of-service requirements has significant safety value. FMCSA's April 2000 proposed rulemaking would revise the hours of service by reducing the driving time allowed within a 24-hour period and by phasing in, over a period of years, the use of on-board electronic recorders to document

drivers' hours of service. The Congress prohibited the Department from adopting a final rule during FY 2001. FMCSA management should use this time to consider all of the comments received and revise the proposed rule as appropriate.

- An increase in the number of Federal border inspectors correlated with a reduction in the number of Mexican trucks entering the United States that were placed out of service for significant safety violations. During FY 2000, 40 inspectors were at the border compared to 13 in FY 1998. For FY 2000, FMCSA's database shows that overall 35 percent (Arizona 39 percent, California 25 percent, New Mexico 28 percent, and Texas 39 percent) of the inspected Mexican vehicles were placed out of service for significant safety violations, compared to 39 percent in FY 1999. The U.S. national vehicle out-of-service rate was 25 percent for FY 1999 and 24 percent for FY 2000. Although 20 additional inspectors are scheduled to be on board in January 2001, there are still significant shortfalls in Federal border inspection staffing and facilities. In 1998, we estimated that 126 inspectors were needed during port operating hours to provide 2 inspectors to each inspection facility plus additional inspectors that are needed for high-volume ports.
- Mexico-domiciled motor carriers are operating improperly in the United States and violating U.S. statutes, either by not obtaining the required operating authority or by operating beyond the scope of their authority. During FY 1998, we found 52 Mexican motor carriers that were operating improperly in 20 states outside the 4 southern border states, and we also found 202 Mexican motor carriers operating improperly beyond the commercial zones within the border states. The additional inspectors at the ports of entry increased the number of enforcement cases against Mexican motor carriers operating improperly. Also, the Motor Carrier Safety Improvement Act of 1999 provided for significant increases in penalties, suspension and revocation of operating authority, and placing vehicles immediately out of service for operating authority violations. The provisions of this legislation need to be implemented expeditiously.

RAILROAD SAFETY

Progress in the Last Year:

• DOT's program for reducing railroad-highway grade crossing accidents and fatalities by 50 percent over a 10-year period continues to make progress. Through 1999 (6 years since program inception), the number and rate of rail crossing accidents have decreased by 29 percent (from 4,892 to 3,489) and 39 percent (from 7.97 to 4.90), respectively.

Most Significant Open Recommendations and Issues:

- A significant safety need, shared by Amtrak and the commuter railroads serving Penn Station-New York is the \$898 million fire and life safety program needed to bring the rail tunnels up to contemporary standards. For example, several of the current evacuation routes include narrow 10-flight spiral staircases that simultaneously serve as entranceways for emergency workers. Amtrak, the States of New York and New Jersey, and the Federal Government must develop an action plan for adequately and expeditiously funding these fire and life safety projects. It is essential that any funds made available for life safety needs be safeguarded to ensure that they are used only for that purpose.
- Because of the importance of data for enforcement of safety standards, Representative Oberstar requested the Office of Inspector General to review the full range of safety-related data gathered by the Federal Railroad Administration (FRA). Historically, FRA has relied almost entirely on individual inspectors to subjectively select the location and frequency of site inspections, reflecting inspector priorities, personal knowledge, and experience. While site inspections are but one element of FRA's safety inspection strategy, FRA management and inspectors could make greater use of prior inspection data contained in the inspection database for planning purposes, such as selecting inspection sites and coordinating inspections.
- Our work found positive attributes in FRA's close partnerships with railroads under the Safety Assurance and Compliance Program (SACP) for identifying safety-related deficiencies, but also found shortfalls in follow up and enforcement of identified safety deficiencies such as widespread track defects. After 5 years of experience with the SACP program, it is time to assess its long-term costs and benefits. A reduction in railroad-related fatalities has been achieved, but nationwide train accidents have increased during the past 3 years, and FRA has not met its accident and injuries goals. Specifically, SACPs identified deficiencies in CSXT track but were not effective in ensuring corrections were made. The rate of CSXT track-related accidents more than doubled from 1995 to 1999, even though the railroad implemented a Safety Action Plan in 1997. This is particularly problematic because Amtrak uses CSXT track for some of its passenger service.
- The numbers of grade crossing accidents and fatalities have decreased significantly. Additional improvements in grade crossing safety are becoming increasingly difficult to achieve because many of the most hazardous crossings have already been upgraded or closed. To help achieve DOT's accident and fatality reduction goals, DOT and FRA have begun to encourage the implementation of three cost-effective strategies: installation of median

barriers, use of well-advertised photo enforcement particularly at problematic crossings, and imposition of stricter penalties to deter drivers from ignoring signals and bypassing existing safety devices. In order for FRA to actually achieve its accident and fatality reduction goals, the states and railroads need to use these cost-effective strategies.

HAZARDOUS MATERIALS SAFETY

Progress in the Last Year:

• The Hazardous Materials Program Evaluation (HMPE) recognized that improved program coordination would contribute to the safer transport of hazardous materials. The Secretary addressed the HMPE recommendation by creating an office under the Associate Deputy Secretary and Director, Office of Intermodalism, that will serve as the focal point to better administer the Department's hazardous materials program. The Secretary signed a delegation of authority to improve hazardous materials program coordination.

Most Significant Open Recommendations and Issues:

• The Department needs to ensure the effective implementation of the Hazardous Materials Program Evaluation recommendations. Shippers have historically received less attention than warranted, based on inspection results, even though shippers are the entry points for hazardous materials in commerce. The current process focuses on carriers. The Department needs to deploy, train and coordinate its diverse, hazardous materials inspection and enforcement resources in order to focus them on specific problem shippers, and on human error problems that carriers and shippers have in common, regardless of the mode of transport involved. FAA, FRA, FMCSA, Coast Guard, and the Research and Special Programs Administration (RSPA) are the affected agencies.

PIPELINE SAFETY

Progress in the Last Year:

• RSPA issued a final rulemaking on November 3, 2000, requiring operators of large hazardous liquid pipelines (those with 500 or more miles of pipeline) to assess the integrity of all pipeline segments that could affect high consequence areas, through internal inspection, pressure testing, or other equally effective

means. Under the final rulemaking, operators must complete assessments within 7 years, with a continual re-inspection interval of every 5 years.

Most Significant Open Recommendations and Issues:

- The Department needs to complete the development of a geographic information system showing the location of hazardous liquid and natural gas pipelines and establish inspection frequencies for natural gas pipelines—these requirements were established by the Congress 8 years ago, but still need to be completed. The Department also needs to train RSPA inspectors to understand and evaluate advanced pipeline inspection technologies and an operator's qualification program; and work with Congress on the pipeline program reauthorization.
- During 2000, the House considered and the Senate passed different versions of a pipeline reauthorization bill; these differences will need to be revisited in 2000. Additionally, on November 3, 2000 the President directed the Secretary to develop and implement a comprehensive plan to improve pipeline safety nationwide in five areas:
 - 1. Improve pipeline safety standards by issuing a final rulemaking defining high consequence areas in which hazardous liquid pipeline operators must develop and follow integrity management plans; and begin implementing no later than January 15, 2001, a comprehensive plan for further improving hazardous liquid and natural gas pipeline safety standards. RSPA issued a final rulemaking on Integrity Management for large hazardous liquid pipelines (those with 500 or more miles of pipeline) on November 3, 2000, requiring operators to assess the integrity of all pipeline segments that could affect high consequence areas. RSPA is hosting public meetings in anticipation of an integrity rule for natural gas transmission pipelines. The assessments are to be performed using internal inspection, pressure testing, or other proven, equally effective means

In addition, on December 8, 2000, RSPA issued the final rule "Pipeline Safety: Areas Unusually Sensitive to Environmental Damage," which identifies the high consequence areas within which pipelines are to be inventoried so that the assessments can be performed. However, RSPA is using the voluntary National Pipeline Mapping System in lieu of regulations requiring an inventory in high consequence areas. In addition, RSPA has not issued long overdue safety rules addressing small hazardous liquid pipeline operators (less than 500 miles) or any natural gas transmission pipelines.

- 2. Strengthen enforcement of pipeline safety laws and regulations by assessing the efficacy and current use of all enforcement tools available to the Office of Pipeline Safety and developing a policy designed to ensure strong, consistent, and effective enforcement of pipeline safety standards and compliance.
- 3. **Enhance Federal-state partnerships** by issuing guidelines outlining opportunities and responsibilities for states to participate in the oversight of interstate pipelines, including new construction, incident investigation, and additional oversight of interstate pipeline transportation.
- 4. Provide the public with better information and opportunities to participate by initiating activities that expand public participation in pipeline decisions and provide increased access to natural gas and hazardous liquid pipeline data and information.
- 5. Support research and development of innovative pipeline safety technologies by initiating a process to seek advice and consultation from other Federal and state agencies, academia and research institutions, industry, pipeline safety advocates, environmental organizations, and other stakeholders on the development and implementation of a cooperative program of research and development. The program should establish research priorities, coordinate and leverage funding, and maximize efforts to ensure pipeline integrity.

Key OIG Contacts: Thomas J. Howard, Deputy Assistant Inspector General for Maritime and Highway Safety Programs, 202-366-5630; Mark R. Dayton, Deputy Assistant Inspector General for Competition Oversight, Economic, Rail, and Special Programs, 202-366-9970; and David H. Gamble, Acting Assistant Inspector General for Investigations, 202-366-1967.

2. Surface Transportation Safety

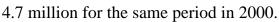
Dark Grey = Top Priority Task for 2001	First Year Issue Raised in OIG	
Light Grey = Include in 2001 Top Management Challenges Efforts	Management	Was Significant
White = Sufficiently Resolved to be Dropped from Management Challenges Efforts	Challenges Report	Progress made in last year?
• Strengthen Federal oversight to ensure that states take timely action to disqualify commercial drivers who commit Federal disqualifying offenses.	1999	N
Take prompt and meaningful enforcement action against carriers that do not comply with Federal Motor Carrier Safety Regulations.	1999	N
• Improve the motor carrier safety program for vehicle maintenance, driver qualifications, and compliance with hours-of-service requirements.	1999	N
Continue revising the hours-of-service regulations for commercial truck and bus drivers.	1999	Some
 Increase the level of safety oversight for commercial trucks and drivers entering the United States from Mexico. 	1999	Some
 Make further safety improvements at highway-rail grade crossings by targeting limited resources to proven, cost-effective strategies and addressing railroad trespassing accidents. 	1999	N
• Implement Hazardous Materials Program Evaluation Report recommendations to better coordinate hazmat resources to place greater emphasis on shippers, develop strategies to reduce human error as a cause of hazardous materials incidents, and review and analyze existing databases to improve data quality.	1999	Some
Map and periodically inspect hazardous liquid pipelines located in areas unusually sensitive to environmental damage from a pipeline accident.	1999	Some
 Revise the strategy for increasing seat belt usage. • 	New Issue	New Issue

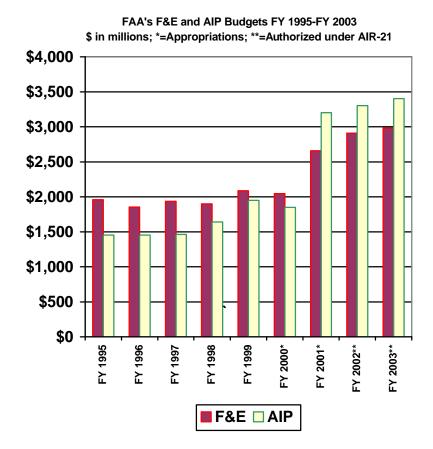
	New Issue	New Issue
completing all rulemakings by the congressional deadline.		
filling key FMCSA vacancies, expeditiously completing rulemakings, and issuing internal policies and procedures.		
Strengthen oversight to ensure that states improve the testing and licensing processes for CDLs.	New Issue	New Issue
 Ensure that Amtrak, the states of New York and New Jersey, and the Federal Government develop an action plan for addressing the nearly \$900 million in unfunded fire and life safety projects in the rail tunnels approaching Penn Station-New York. 	New Issue	New Issue
 Increase FRA's use of the railroad safety inspection database for selecting inspection sites and coordinating Federal and state inspections. 	New Issue	New Issue
 Develop and implement an action plan to improve pipeline safety in five areas addressed by the President's memorandum dated November 3, 2000. 	New Issue	New Issue

3. AVIATION SYSTEM CAPACITY AND AIR TRAFFIC CONTROL MODERNIZATION

Meeting the anticipated demand for air travel is an urgent issue because the National Airspace System is operating at the fringes of capacity delays and consumer dissatisfaction are at all time highs. Complaints for the first 11 months of 2000 increased 16 percent (18,966)to 22,089) over complaints during the same period in 1999.

U.S. airlines transport over 600 million passengers annually, and this number is expected to grow to over 900 million by 2010. Scheduled operations for the top 10 carriers increased from 4.6 million for the first 9 months of 1999 to over

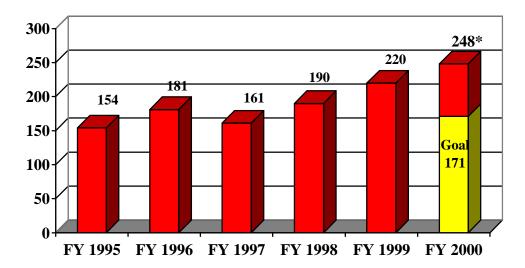




In January 2000, the Congress passed the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century, more commonly known as "AIR-21". AIR-21 will provide FAA with nearly \$8.6 billion to modernize the air traffic control system (the Facilities and Equipment (F&E) account) and almost \$10 billion in airport improvement program (AIP) funds from fiscal year (FY) 2001 through 2003.

Against a backdrop of growing demand for air travel, there has been a rapid increase in flight delays and cancellations. Between 1995 and 1999, FAA reported a 58 percent increase in flight delays. Likewise, the Bureau of Transportation Statistics reported a 68 percent increase in cancellations. For the first 9 months of 2000, over 1 in 4 domestic flights—affecting approximately 119 million passengers—were delayed, canceled, or diverted, with the average delay exceeding 50 minutes.

Flight Delays 1995 - 2000 Rate per 100,000 Flight Operations * = Preliminary



We see the key issues in this area as:

- ✓ Developing a strategy for addressing system efficiency, delays, and capacity in the short, intermediate, and long term;
- ✓ Establishing FAA's Air Traffic Services as a results-oriented organization;
- ✓ Monitoring airline commitments to customer service and DOT's enforcement of consumer protection laws;
- ✓ Managing FAA's efforts to use technology to increase the safety, efficiency, and capacity of the National Airspace System; and
- ✓ Assessing FAA's role in planning for nationwide airport infrastructure needs.

Most Significant Open Recommendations and Issues: Addressing flight delays, cancellations, and resulting consumer dissatisfaction will require a multifaceted approach, including new technology, airspace redesign, and airport infrastructure enhancements. Additional efforts, such as moving FAA toward a results-oriented organization, will not increase the likelihood of success unless the agency has a strong financial underpinning (a cost accounting system) and FAA staff are held accountable for achieving results within established metrics.

• Developing a Strategy for Addressing System Efficiency, Delays, and Capacity in the Short, Intermediate, and Long Term.

Developing a Strategic Plan for Addressing Capacity Shortfalls. The Congress, industry, and travelling public need to know what can be reasonably expected from various initiatives to address capacity (new technology and additional runways) in the short term (1 to 2 years), intermediate term (4 to 5 years), and long term (8 to 10 years). This is important because the modernization effort will provide only incremental capacity improvements in the short term. The window for sorting through options for the short term (as the spring and summer of 2001 approach) is extremely narrow. Open questions include whether airline scheduling discussions for specific airports should be permitted under antitrust supervision, whether peak-hour pricing (if legal) will provide any meaningful relief, and whether implementing a lottery for airport usage (such as LaGuardia) will work.

Developing and Implementing a Uniform System for Tracking Delays, Cancellations, and their Causes. DOT and FAA have started a number of actions (including the Spring/Summer 2000 initiative which enhanced communication between FAA and airlines) to address delays and cancellations. However, the Department's ability to address the increase in delays and cancellations has been hampered by the lack of a uniform system for tracking delays and cancellations and their causes – this has led to misleading and inconsistent data. While some progress has been made to develop a common reporting system, much work remains. A Secretarial-level task force made recommendations to improve the reporting process; now follow through and timeframes for implementation are needed. Until consistent delay and causal data reporting are available, examining the causes of delays and identifying effective long-term solutions will be problematic.

<u>Developing "Capacity Benchmarks."</u> An important first step in addressing the delay problem is to develop a set of "capacity benchmarks" for the Nation's top 30 airports. Establishing benchmarks is critical to understanding airline scheduling practices and what relief can be expected from technology and new runways. FAA is developing benchmarks and expects to complete them in January 2001. At the very least, benchmarks will provide a common framework for understanding what maximum arrival and departure rates can physically be handled under various conditions at each of the top 30 airports, by time of day.

Quantifying the Benefits of Modernization Projects. A significant portion of FAA's investment in air traffic control modernization is geared to enhancing safety or replacing aging equipment with modern technology that is easier to operate and maintain—not enhancing capacity. FAA will not have a good handle on the capacity-related benefits of Free Flight Phase 1 technologies (principally new automated controller tools) until 2002,

when systems are fully deployed. New communications, navigation, and surveillance technologies offer benefits in terms of reduced flight times and more flexible routes, but they are longer term efforts. Benefits from these new technologies depend on synchronized investments by FAA (in new ground systems) and airspace users (in new avionics). Anticipated benefits will not accrue until large numbers of airspace users are equipped with new avionics, which can be costly. Without new runways, the capacity relief from new technology is likely to be incremental, not a quantum leap.

• Establishing FAA's Air Traffic Services as a Results-Oriented Organization.

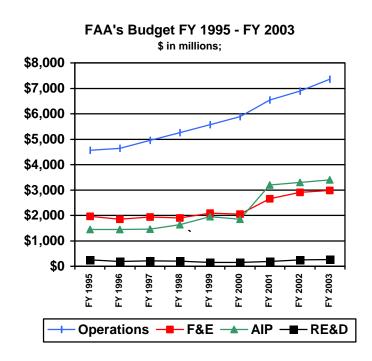
Increasing Accountability for Achieving Results. Proposals for FAA to operate as a results-based organization are not new. They go back to at least 1996 (when FAA was exempted from Federal procurement and personnel rules and directed to establish a cost accounting system) and were reinforced in 1997 by the National Civil Aviation Review Commission. These proposals were again reinforced by AIR-21 which significantly increased FAA's budget and directed various "structural" reforms including an expanded role for the Management Advisory Council, the creation of an Air Traffic Services Subcommittee, and the appointment of a Chief Operating Officer. Most recently, on December 7, 2000, the President, through an Executive Order, directed that Air Traffic Services be reorganized into a "performance-based" organization.

Implementing AIR-21. FAA is in the very early stages of implementing the various reforms directed by AIR-21, including forming the Management Advisory Council, and the Air Traffic Services Subcommittee (whose members were just named); however, a *Chief Operating Officer has not yet been selected*. While these measures have the potential to assist FAA in transitioning into a more results-oriented organization, it is much too early to tell if they will be successful.

<u>Preconditions to a Results-Oriented Operation.</u> For FAA to operate as a results-based organization, the agency needs meaningful aviation system efficiency metrics in place. FAA employees and its contractors must be held accountable for meeting goals approximately on time and approximately within budget. FAA also needs a cost accounting system (CAS) to identify areas of low productivity and high cost and, conversely, areas where operations are cost effective. When Congress exempted FAA from Federal procurement and personnel rules and increased the agency's budget, the expectation was that personnel and procurement reform would make the agency results-oriented and a CAS would be put in place.

- -- Implementing a Cost Accounting System. FAA needs a CAS to accurately identify and allocate costs in order to make sound financial and managerial decisions. Identifying areas of waste and low productivity, as well as areas of high productivity and cost effectiveness, are good examples. A credible CAS would also provide FAA with a basis for establishing user fees if Congress and the Administration elect to restructure FAA's financing. Congress directed FAA to develop the CAS in 1996 and FAA originally planned to have the system in place by October 1998. FAA now plans to complete the system at the end of FY 2002 with an agency-wide labor distribution system to follow in 2003.
- Controlling FAA's Operating Costs. FAA's budget has risen from \$8.2 billion in 1995 to over \$12.5 billion in FY 2001, largely due to the airport improvement program and sharply rising costs of FAA's operations account. The operations account (which is salary driven) represented \$5.9 billion or nearly 60 percent of FAA's FY 2000 budget. New pay systems, developed as a result of FAA's personnel reform

efforts, have helped to fuel the increase. For example, FAA estimates the new pay system negotiated with **NATCA** will require \$1 billion nearly in additional funding over the of 5-year life the Now, other agreement. FAA workforces want pay increases as well, which must be negotiated under FAA's reform authority. To offset the additional costs of NATCA the agreement and increase productivity, FAA and NATCA negotiated series of workplace



changes. However, the productivity changes are not yet in place system-wide; FY 2001 and 2002 will determine to what extent they are implemented and quantified.

 Monitoring Airline Commitments to Customer Service and Enforcing Consumer Protection Laws. Airline Customer Service Commitments. In 1999, the Air Transport Association and its member airlines executed a document known as the Airline Customer Service Commitment to demonstrate the airlines' dedication to improving air travel. The airlines agreed to implement 12 provisions, such as improved communication with passengers, quoting the lowest available fare, timely return of lost baggage, and taking care of passengers during extended onboard aircraft delays. However, the Commitment does not address underlying reasons for customer dissatisfaction such as extensive flight delays, baggage not showing up on arrival, and long check-in lines. Until these areas are effectively addressed by FAA, airlines, and airports, there will continue to be discontent with air travel.

Congress directed the OIG to review airline implementation of the 12 provisions for improving air travel. Airlines have been making a clear and genuine effort to strengthen attention paid to customer service, but bottom-line results (as of our interim report date) have been mixed. In our June customer service report, we noted that efforts to turn the tide were frustrated by record delays, which translated into customer discontent. Airlines have a ways to go to restore customer confidence. We will be issuing another report to the Congress and the Secretary in early 2001. By this time, the airlines will have had a full year to implement their commitments.

Staffing for Enforcement of Consumer Protection Laws. DOT resources devoted to consumer protection and competition concerns have declined sharply at a time when complaints and competition issues have reached record highs. The need for adequate staffing is particularly acute considering the challenges DOT faces with respect to rapid development of ticketing through internet sites, airline mergers and alliances with foreign and domestic carriers, and unfair competitive practices. In 1985, the office responsible for handling airline customer complaints was staffed at 40. In 1995, this staff was down to 20, and in 2000, it was down to 17 staff members.

• Managing FAA's Efforts to Use New Technology to Increase Safety, Efficiency, and Capacity.

<u>Strengthening the Management of Major System Acquisitions.</u> In 1995, Congress exempted FAA from Federal procurement regulations that the agency argued hindered its ability to effectively modernize the National Airspace System. Since then, FAA has made progress with some modernization efforts. Elements of Free Flight Phase 1 have been deployed and FAA completed the Display System Replacement program, which

modernized domestic en route centers by replacing aging display equipment. FAA acknowledges past problems and is addressing them with a more incremental approach ("build a little, test a little") to some acquisitions. However, software-intensive efforts such as WAAS and STARS continue to experience significant schedule slippage and large cost growth.

STATUS OF SELECTED FAA ACQUISITIONS

	Original	Current	Original	Current	
Project	Estimate	Estimate	Operations	Operations	Status
Wide Area Augmentation	\$892.4	\$2.9 Billion	1998	To be	The big cost and schedule
System (WAAS):	Million			determined	driver focuses on
Provides the augmentation					resolving WAAS integrity
needed to make GPS fully					concerns. A clear picture
usable for en route, terminal,					of WAAS performance,
non-precision, and Category 1					cost, and schedule will not
precision approaches.					be available until early
					2001 when independent
					technical reviews are
					complete.
Standard Terminal	\$940.2	\$1.4 Billion	1998	2002.	While FAA has
Automation Replacement	Million				successfully deployed the
System (STARS):					Early Display
Replaces controller and					Configuration at two sites,
maintenance workstations					this does not provide the
with color displays,					full level of STARS. A
processors, and computer					major risk still remains in
software at over 170 terminal					deploying all STARS
air traffic control facilities.					systems by 2008.
Free Flight Phase 1 (FFP1):	\$722 Million	\$722 Million	2002	2002	Progress is being made,
Composed of new	For Limited	For Limited	For Limited	Cost and	but the most difficult
information exchange systems	Deployment	Deployment	Deployment	schedule for	work for the new
and automated controller tools				national	automated controller tools
(Center TRACON				deployment	lies ahead. Program costs
Automation System and				have yet to	reflect costs for limited
Conflict Probe).				be	deployment at select
				determined	locations. Cost to
					implement FFP1
					technologies nationwide is
					uncertain but substantial.

STATUS OF SELECTED FAA ACQUISITIONS (Continued)

	Original	Current	Original	Current	
Project	Estimate	Estimate	Operations	Operations	Status
Airport Movement Area Safety System (AMASS): AMASS is a software enhancement for the Airport Surface Detection Equipment (ASDE-3), which is designed to monitor airport surface traffic and alert air traffic controllers to potential collisions at 34 airports.	\$59.8 Million	\$152 Million	1996	2001	FAA has been developing AMASS to address an NTSB recommendation made in 1991. AMASS has been delivered to 33 airports, but is not yet operational anywhere. The first system is scheduled to be operational in June 2001, and the last system is scheduled to be operational in September 2002.
Weather and Radar Processor (WARP): WARP provides meteorologists and air traffic controllers at en route facilities with more accurate graphic weather information to help identify weather conditions that may adversely impact air traffic control and aircraft operations.	\$125.6 Million	\$143.6 Million	1999	To be determined	The first operational WARP system for controller displays has been delayed by 2 years. A number of complex technical and human factors issues remain unresolved. Additional cost and schedule changes are likely.

<u>Contract Oversight.</u> Our work on a diverse set of FAA acquisitions shows that the agency needs to strengthen contract oversight. In some cases, we found that Government cost estimates were prepared by the contractor or were not prepared at all. FAA needs to make greater use of earned value management techniques and cost controls (cost ceilings). In addition, FAA needs to analyze variances between agency and contractor cost estimates to ensure costs are fair and reasonable. Greater use of the Defense Contract Audit Agency for assessing costs is also needed to protect the Government's interests. FAA needs to use the procurement and personnel flexibility granted in 1996 to hold contractors and FAA staff more accountable.

Major Decision Points for Several High Profile, Multi-Billion Dollar Modernization Efforts Are on the Horizon for 2001. These efforts include WAAS (satellite navigation), STARS (new controller displays and software for terminal facilities), and Oceanic Modernization (for facilities that control traffic over large segments of the Pacific and Atlantic Oceans).

-- <u>Defining and Implementing Plans for Transitioning to Satellite-Based</u> <u>Navigation and Landing Systems.</u> The transition to satellite-based systems for navigation offers the potential to enhance capacity by providing more flexible routes and closer spacing of aircraft. In the past year, WAAS experienced a number of setbacks; and new cost, schedule, and performance baselines have not yet been developed. Key decisions will be needed in the first 6 months of this year that focus on determining how to proceed with WAAS and establishing realistic cost and schedule baselines. We recommended that FAA reduce WAAS contract expenditures (about \$4 million a month) until solutions have been identified; obtain independent, scientific advice on complex technical issues; and task the Defense Contract Audit Agency to conduct a series of audits (including floor checks to assess labor charges) on the WAAS contract.

The key cost and schedule driver for WAAS now focuses on the integrity of the new system, i.e. the ability of the system to alert the pilot when the system should not be used. Local Area Augmentation System (LAAS), specifically developed for providing precision approach capability, is taking on a more prominent role in FAA's plans. A key decision focuses on how to accelerate the development and implementation of LAAS.

Replacing Aging Equipment with Modern Technology. A key decision this year focuses on defining a deployment strategy for STARS. STARS will replace air traffic controller and maintenance workstations with digital, color displays, as well as computer software and processors, at FAA's 172 terminal air traffic control facilities. STARS was designed to provide the software and hardware platform necessary to support future air traffic control enhancements. While this acquisition was intended to maximize the use of commercially available equipment, unanticipated extensive human factors revisions and software development have changed STARS to a developmental system. FAA estimates that STARS will cost an additional \$462 million over initial estimates and the last full-service STARS will be deployed by September 2008, over 3½ years behind schedule.

While FAA has successfully deployed an Early Display Configuration at two smaller sites, this does not provide the full level of STARS. The early display configuration is primarily a display replacement and does *not* provide air traffic controllers and maintenance technicians with a full replacement of the 30-year old automation system currently in use. Moreover, new digital controller displays are critical for implementing Free Flight Phase 1's automated controller tools. A major risk still remains in obtaining the resources necessary to deploy all STARS systems by 2008 - decisions are needed now on how and when to deploy STARS.

Implementing International Civil Aviation Organization (ICAO) Delegations to Provide Modernized Air Traffic Control Services over the Pacific and Atlantic Oceans. The United States is responsible for providing air traffic control services to aircraft operating in large segments of airspace over the Pacific and Atlantic Oceans. Past FAA efforts to modernize its facilities to provide these services met with little success. In 1995, FAA awarded a contract to develop and produce an advanced Oceanic Automation System. However, due to funding limitations and contract performance issues, the contract scope was dramatically reduced in 1998 to include only limited elements of the program. FAA has now embarked on a significant acquisition to take advantage of commercially available technology. FAA intends to award a contract by the end of FY 2001. Although this effort is a comparatively less costly acquisition than WAAS or STARS, FAA needs to stay on schedule with this effort because of the significant ramifications for the growing international aviation market.

Moving Forward with Airspace Redesign. The U.S. domestic airspace system is a patchwork network (based on existing ground-based systems) that has evolved since the end of World War II. There is general agreement that the design of the National Airspace System must be revamped to meet the anticipated demand for air travel. This is important because the full benefits from new automated controller tools as well as new communication, navigation, and surveillance technologies cannot be realized until new air traffic control procedures and airspace redesign efforts are complete.

In the past year, FAA has initiated a number of efforts to revamp airspace associated with key air traffic control "choke points"—all of which are east of the Mississippi River. FAA needs to clarify what can realistically be done with respect to airspace redesign coupled with new technology and revised procedures in the short, intermediate, and long term.

Addressing Cultural Issues That Continue to Hinder FAA's Ability to Manage Acquisitions. FAA has implemented a new team approach to managing acquisitions, called the Integrated Product Development System or "IPDS for short. This team concept integrated all necessary disciplines throughout the acquisition process to manage and resolve program issues. However, FAA has struggled with implementing this team concept because the agency's culture reflects a vertical management hierarchy that is inconsistent with a team approach. We surveyed over 1,000 FAA team members involved in developing new technology and found that improvements needed address: (1) additional training, are to

(2) organizational barriers to communication, (3) lack of authority to make program decisions, and (4) perceptions that senior management is not fully supportive of the team concept.

Assessing FAA's Role in Planning for Nationwide Airport Infrastructure Needs.

<u>Infrastructure Development.</u> Quantum leaps in capacity and corresponding reductions in delays will be achieved mostly through new infrastructure – new runways and airports. Between 1991 and 2000, a total of 6 new runways were added at the 29 largest airports, with another 15 either proposed or under construction. Most of these new runways will not be open for several years (assuming current projections hold). Two new airports have been built - Denver, which is very successful, and Mid-America, which has had little commercial passenger or cargo traffic thus far.

New Runways at Large Hub Airports, 1991 through 2007

	Estimated	
City, State	Opening Date	Status
Las Vegas, NV	1991	Completed
Detroit, MI	1993	Completed
Salt Lake City, UT	1995	Completed
Dallas/Ft. Worth, TX	1996	Completed
Philadelphia, PA	1999	Completed
Phoenix, AZ	2000	Completed
Detroit, MI	2001	Under Construction
Minneapolis, MN	2003	Under Construction
Orlando, FL	2003	Under Construction
Denver, CO	2003	Under Construction
Houston, TX (Runway 15R/33L)	2003	Under Construction
Miami, FL	2003	
Charlotte, NC	2003	
Houston, TX (Runway 8L/26R)	2004	
Atlanta, GA	2005	
Cincinnati, OH	2005	
Dallas/Ft. Worth, TX	2005	
St. Louis, MO	2006	
Boston, MA	2006	
Seattle, WA	2006	Under Construction
Los Angles, CA	2007	

<u>Funding Is Not the Problem.</u> AIR-21 provides unprecedented funding for airports – a multi-billion dollar budget increase and authorization for increased Passenger Facility Charges. On the other hand, decisions to build new runways or airports ultimately rest with state and local authorities. Both the Administration and Congress face a decision whether FAA should move from a passive role (essentially distributing grant funds) to a more active one of proposing a strategic view of the national airspace and airport system, leveraging grant funds to capacity-constrained locations, and helping to resolve local opposition.

<u>Environmental and Noise Issues.</u> Concerns abound about the time and process required to secure environmental and noise clearances for airport infrastructure projects. This is referred to by some as "environmental streamlining", but others fear this means short-circuiting or bypassing environmental protections and an infringement of property rights. Opportunities exist here to fashion solutions with airport, highway, transit, and rail interests, who face a common challenge of moving projects forward expeditiously while making sure environmental issues and mitigation are properly addressed.

<u>Capacity Constrained Airports.</u> Of immediate concern is the issue of what to do with airports where demand substantially exceeds capacity and the airlines schedule more flights than can possibly be handled, resulting in significant delays and cancellations. LaGuardia Airport is the most well known example where a lottery for airport use was recently established to address the phenomena of "demand greatly exceeding capacity." For airports that are severely capacity constrained with no realistic near-term hope for expansion, solutions under consideration run the gamut from "do nothing and let the market straighten things out," to peak hour or congestion pricing, authorizing airline scheduling discussions under antitrust supervision, and lotteries – which is really just another form of slot control.

<u>Key OIG Contact</u>: David A. Dobbs, Deputy Assistant Inspector General for Aviation, 202-366-0500.

3. Aviation System Capacity and Air Traffic Control Modernization

Dark Grey = Top Priority Task for 2001		First Year Issue Raised in OIG		
Light Grey = Include in 2001 Top Management Challenges Efforts		Management	Was Significant	
White = Tasks Deleted from Top Priority List		Challenges Report	Progress made in last year?	
 Place a high priority on funding and conducting human factors studied process. Establish a mechanism for making the necessary trade-off oriented design and a design that is technically and financially feasible 	between an ideally human	1998	Y	
 Strengthen the capacity to oversee multi-billion dollar software-inten STARS and WAAS. Establish contract cost mechanisms such as ea Defense Contract Audit Agency audits that will ensure products are agreed upon budget. The WAAS monthly contract expenditure rate 	arned value management or delivered on time and within	1998	Some	
Develop uniform system for tracking delays, cancellations, and asso	ciated causes.	New Issue	New Issue	
Work with airlines to establish credible tracking system for compliant implementing Airline Plan, buttressed by performance goals and me		New Issue	New Issue	
Complete development of capacity benchmarks for the Nation's 30 I	argest airports.	New Issue	New Issue	
• Quantify the capacity benefits expected from new air traffic control to Flight).	echnology (e.g., Free	New Issue	New Issue	
Clarify airspace redesign requirements for near-, mid-, and long-term	n goals.	New Issue	New Issue	
 Periodically assess FAA's progress to improve IPDS team operation benchmark, and take required actions to make improvements. 	s, using our survey results as a	New Issue	New Issue	
Develop a strategic plan for addressing capacity shortfalls.		New Issue	New Issue	
Define and implement plans for transitioning to satellite-based navig	ation and landing systems.	New Issue	New Issue	
 Implement ICAO delegations to provide modernized air traffic contro Atlantic Oceans. 	I services over the Pacific and	New Issue	New Issue	

estimates and the contractor's proposed cost estimates.

 Evaluate whether FAA's role in planning for nationwide airport infrastructure should move from a passive role to a more active one of facilitating a strategic view of airport expansion, leveraging grant funds to capacity-constrained locations, and helping to resolve local opposition.

New Issue

New Issue

4. SURFACE AND AIRPORT INFRASTRUCTURE

The Transportation Equity Act for the 21st Century (TEA-21) and the Aviation Investment and Reform Act for the 21st Century (AIR-21) provided an unprecedented infusion of funds for highway, transit, and airport infrastructure projects. Highway and transit funding increased by over 40 percent and airport infrastructure funding by about 75 percent. TEA-21 provides \$218 billion for highway and transit projects while AIR-21 makes \$12.4 billion available for airport infrastructure projects.

The most pressing issues are ensuring that available funds are used as intended by 1) expeditiously advancing projects to improve capacity, relieve congestion, and enhance safety while respecting the letter and intent of environmental laws; and 2) exercising stewardship and oversight to prevent fraud and mismanagement.

Concerns abound over the length of time and process associated with environmental clearances (including noise) for infrastructure projects. All of the modes face this challenge. In 2000, the Department proposed environmental streamlining rules, but the proposed rules were not well received by state transportation officials and industry. This remains a top infrastructure challenge for the new Secretary and Congress.

History instructs us to be on the outlook for fraud and to take steps proactively to prevent it whenever major investments in infrastructure programs are made. The Inspector General, with the support of American Association of State Highway and Transportation Officials (AASHTO), the Justice Department, and the Federal Bureau of Investigations (FBI), has a major initiative in this area. In FY 2000 alone, the Office of Inspector General (OIG) investigations led to 52 indictments and 36 convictions in these areas (indictments increased 49 percent over 1999, convictions by 24 percent over the same period).

The Department needs to continue to improve its stewardship and oversight of transportation funding. The Federal Transit Administration (FTA) has improved its oversight and became one of a few agencies to be removed from the High-Risk list of the General Accounting Office. However, the Federal Highway Administration's (FHWA) focus has been on engineering, while inadequate attention has been paid to transportation planning, controlling project costs, and ensuring money is being spent appropriately. The painful Boston Central Artery Project disclosures last year, several internal embezzlement/kickback cases, and the \$14 million in fines and jail terms in the Palumbo Brothers/Monarch Construction cases illustrate the need for improved stewardship and oversight. While Federal agencies must take the lead role the states also have an obligation, as front line authorizers, to ensure stewardship and oversight of Federal funds.

Progress in the Last Year:

- New guidance on finance plans issued. In the aftermath of the Central Artery's stunning cost increase, on February 17, 2000, at the direction of the Secretary, FHWA agreed to implement the Inspector General's recommendations for improving FHWA's oversight of the Project. Those included issuing revised guidance for reporting financial data, requiring the Central Artery Project to identify additional funding, and requiring projects to accurately disclose significant changes to the project scope in their annual financial plans. In 2000, both FHWA and FTA issued new guidance for financial reporting on infrastructure projects greater than \$1 billion.
- A special task force was convened to review FHWA's oversight. The Secretary also convened a special Task Force on the Central Artery to examine the circumstances that led to FHWA's failure of oversight on that project and recommend improvements to ensure effective oversight in the future. On Force March 31. 2000. the Task issued a report 34 recommendations to improve FHWA's oversight. FHWA action on the Task Force recommendations is progressing. For example, FHWA has created its own headquarters "mega project team" to oversee the administration of infrastructure mega projects.
- A One DOT task force examined oversight of large transportation infrastructure projects across the Department. Following up on the Central Artery Task Force, the Secretary established a One DOT Task Force on Oversight of Large Transportation Infrastructure Projects to develop policy and strengthen oversight procedures for monitoring large dollar construction projects across the entire Department. The Task Force provided its report to the Secretary, and, on December 29, 2000, the Secretary signed a memorandum adopting the report and directing the FAA, FHWA, FTA, and the USCG to "promptly begin the important work to implement these recommendations."
- OIG efforts to combat fraud continued in FY 2000. In continuing its effort to detect and prevent waste, fraud, and abuse in TEA-21 programs, during FY 2000, OIG investigations of contract and grant fraud resulted in 52 indictments and 36 convictions. In October 2000, as part its fraud awareness initiative, OIG spearheaded a National Fraud Conference on Highway Construction and Related Programs with the FHWA, the American Association of State Highway & Transportation Officials, the FBI, and the Georgia Department of Transportation. The conference attracted 330 officials from Federal and state law enforcement agencies, state highway and transit departments, and state prosecutors and inspector general offices nationwide.

• FAA issued guidance on airport financial reports. FAA revised guidelines for airport sponsors in preparing annual airport financial reports. It is intended to standardize reporting requirements and provide information that is more meaningful for monitoring the use of airport revenues.

Most Significant Open Recommendations and Issues:

- Oversight of the cost, schedule and performance of infrastructure mega projects. Monitoring of the cost, schedule, and performance of mega projects is critical to identify problems and initiate action to mitigate risks as soon as possible. The Department has identified and initiated steps to improve its oversight. The key now is to implement the new procedures. DOT needs to:
 - -- Follow through on recommended actions to improve its oversight capacity. These actions included the following.
 - -- Timely implementation of all the recommendations for improving oversight made by the Secretary's Task Force on the Central Artery and the One DOT Oversight Task Force is essential. These include vigorous enforcement of financial reporting requirements, designating accountable oversight managers for megaprojects, and taking timely action to protect Federal interests on projects designated as "at risk."
 - -- Diligent enforcement of the new FHWA and FTA guidance for financial reporting on infrastructure projects greater than \$1 billion, and critical analysis of the plans submitted are needed to ensure the Department is provided complete and consistent reporting of basic standardized financial data. Fully developed finance plans have been useful in identifying emerging cost and funding shortfalls in projects.
 - -- *Independent analysis* of project performance and close oversight of project management on federally funded highway projects by FHWA's "mega project team" is required.
 - -- Ensure adequate funds for project oversight. Transit project management oversight funds are dependent on the amount appropriated for New Starts. With the depletion of commitment authority by the addition of new grant agreements, oversight funds will soon be insufficient to adequately monitor all large-dollar projects as well as numerous earmarked projects. FTA advised Congress that a funding shortfall in oversight funds of about \$5 million is anticipated for FY 2002. The Conference Report for the

Department of Transportation Appropriations Act for Fiscal Year 2001 directed FTA to develop a plan for the 2002 budget submission that:

- -- determines the amount of funds needed to maintain an adequate level of oversight for all projects requiring oversight and the level of funding that likely will be available;
- -- identifies options to cover any projected funding shortfalls; and
- -- identifies steps to respond to any shortfalls that may occur.
- -- Mitigate risk on FTA projects with full funding grants agreements.
 - -- Within the past year, the number of New Starts projects with full funding grant agreements increased from 15 to 22. Commitments for the current 22 projects with full funding grant agreements and 6 pending projects would consume the remaining New Starts commitment authority provided by TEA-21.
 - -- In FY 2001, 83 projects, received \$1.06 billion in New Starts appropriations. However, Congress earmarked funding for 61 projects that were not appropriated for full funding grant agreements by FTA. These 61 projects received \$437 million or 40 percent of all New Starts funding. Meanwhile, projects with full funding grant agreements have, over the past 4 years, not received the full funding they were supposed to receive under their grant agreements. When the annual Federal appropriations are less than the scheduled payment in the grant agreements, grantees may need to find alternative funding sources or extend the construction schedules. In either instance, overall project costs may increase.
- -- Ensure the viability of statewide transportation infrastructure programs by:
 - -- Ensuring that states requesting funding for large infrastructure projects provide adequate funding to maintain and operate the remainder of their statewide transportation infrastructure programs.
 - -- Ensuring timely completion of projects. In addition to financial pressure from large projects, earmarking of appropriated funds can reduce the Department's and grantees' flexibility to fund other important projects, as well as to adequate funding to complete projects. Earmarking has been increasing. In FY 2001, 85 percent (\$2.47 billion of \$2.89 billion) of funding in 13 Department of Transportation programs was earmarked for 977 projects. Timely

completion of the statewide program may be at risk if project costs rise above available funding (earmarked amounts and other funding).

- -- Continuing to strengthen internal controls over project cost estimates. Grantees underestimating costs to obtain project acceptance has been a problem. Project approval should be delayed or made conditional until designs are complete enough to support accurate cost estimates.
- -- Ensure appropriate use of Airport revenues. As a condition for approval of a FAA grant, Federal law requires the airport sponsor to agree to comply with specific assurances, including an assurance that airport revenues will be used only for the capital or operating costs of the airport. While FAA has issued new guidance, it must follow through and exercise adequate oversight to:
 - -- Ensure that airport revenues are used for eligible purposes.
 - -- Ensure that annual audits conducted under the Single Audit Act adequately monitor the use of airport revenues.
 - -- Resolve and close significant OIG recommendations concerning airport revenue diversions, particularly recommendations that have remained open or unresolved for extended periods.
- <u>Detection of fraud, scandal, and abuse</u>. Improving fraud detection and training, procedures, and techniques among DOT operating administrations and their program recipients who are responsible for oversight of infrastructure programs by:
 - Coordinating with FHWA Program Administration Office to conduct joint training sessions for state and local highway agencies on its 2000 Contract Administration Handbook, which includes a new section on fraud indicators and procedures for reporting fraud to the OIG.
 - -- Developing fraud prevention and detection recommendations for enhancing FTA's Triennial Review and other oversight tools.
 - -- Coordinating with FAA and airport authorities to conduct fraud awareness briefings and training to their staffs nationwide.

- -- Coordinating with FHWA and transportation/highway industry organizations, such as the American Association of State Highway & Transportation Officials, to have all FHWA highway program recipients include the OIG in their operating procedures for reporting allegations of fraud, waste, and abuse on Federal-aid infrastructure construction projects. At present, FHWA highway program recipients usually report allegations of fraud involving Federal-aid highway projects to FHWA division offices or state and local law enforcement agencies.
- <u>Highway, transit, and airport mega projects.</u> The following is a list of mega projects and the total estimated cost (including the Federal portion).

Project Name	Project Cost (Billions)
Highway Projects	
Alameda Corridor	\$2.4
California Route 30/210	\$1.1
Central Artery / Ted Williams Tunnel	\$14.1
Cypress Freeway	\$0.967
Edsel Ford Freeway, Detroit, MI	\$1.3
Illinois "FIRST" program	\$4.1
Interstate 15, Salt Lake City, Utah	\$1.6
Interstate 25 Corridor, Denver, CO	\$3.3
Interstate 278, Gowanus Expressway	\$0.8 to \$9
Interstate 635, North Dallas, TX	\$1.5
Las Vegas (Clarke County) NV Beltway	\$1.5
Maryland Intercounty Connector	\$1.2
Miami Intermodal Center	\$1.9
Milwaukee East-West Corridor	\$0.55 to \$0.870
Mon-Fayette Expressway	\$2.5
Tampa Interstate	\$1.5
Spokane Freeway	\$1.1
Springfield Interchange, Alexandria, VA	\$0.6
Texas Route 130	\$1.0
US 71 Relocation, DeQueen, AR	\$1.1
West Virginia's Corridor H	\$1.3
Woodrow Wilson Bridge	\$2.2

Transit Projects	
Atlanta North Line Extension	\$0.5
Bay Area Rapid Transit Extension	\$1.5
Dallas North-Central Light Rail Extension	\$0.5
Denver Southeast Corridor	\$0.9
Houston Regional Bus	\$1.0
Hudson Bergen Rail	\$2.2
Los Angeles Red Line	\$4.5
Minneapolis/Hiawatha Corridor Light Rail	\$0.7
Sta Glitir Extension/St. Louis MetroLink	\$0.3
South Boston Piers Transit Way	\$0.6
San Juan Tren Urbano Rail Transit	\$1.7
Airport Capital Improvement Projects*	
Chicago O'Hare International Airport	\$2.1
Los Angeles International Airport	\$4.9
Dallas/Fort Worth International Airport	\$3.9
San Francisco International Airport	\$4.4
Denver International Airport	\$1.6
Lambert International Airport (St. Louis)	\$2.1
Miami International Airport	\$5.0
George Bush International Airport	\$1.2
Horuston)erdale International Airport	\$1.7
* This list of airport infrastructure projects includes both runway and other facility projects estimated to cost over \$1 billion. The table at page 40 lists runway projects at major hub airports, including projects costing less than \$1 billion.	

<u>Key OIG Contacts</u>: Thomas J. Howard, Acting Deputy Assistant Inspector General National Transportation Infrastructure Activities, 202-366-5630; and David H. Gamble, Acting Assistant Inspector General for Investigations, 202-366-1967.

4. SURFACE AND AIRPORT INFRASTRUCTURE

First Year Issue Raised in OIG Management Challenges	Was Significant Progress made
New Issue	in last year? New Issue
New Issue	New Issue
New Issue	New Issue
New Issue	Some
1999	Some
New Issue	New Issue
New Issue	New Issue
	Raised in OIG Management Challenges Report New Issue New Issue New Issue New Issue

	lonitor project performance and mitigate funding risks for infrastructure projects to protect the overnment's financial interests as soon as problems are identified.	1999	Some
	Continue to strengthen internal controls over project cost estimates to prevent grantees from nderestimating costs in order to obtain project acceptance.	1999	Some
• R	each final agreement on revenue diversion with Hawaii and Queen City airports.	1998	N
• Is	ssue guidance on preparing finance plans for mega projects.	1999	Υ

5. COAST GUARD CAPITAL ACQUISITON BUDGET

Preliminary estimates indicate that capital improvement funding of \$15 billion or more will be needed over the next 20 years to modernize assets that are critical to the Coast Guard's Marine Safety, Search and Rescue, Law Enforcement, and Marine Environmental Protection programs. Although Coast Guard has not yet provided definitive cost estimates, it has reported that the Deepwater Capability Replacement Project will cost more than \$10 billion, and the National Distress and Response System Modernization Project will cost from \$240 million to \$300 million. Other ongoing major capital acquisition projects include the Seagoing Buoy Tender replacement project and the Ports and Waterways Safety Systems project. In addition, Coast Guard estimates that the annual capital investment in shore facilities will increase from \$61 million in FY 2001 to \$129 million in FY 2005.

The Coast Guard capital acquisition budget will need to more than double from \$400 million annually to at least \$850 million annually on a sustained basis to meet its stated requirements. The Office of Management and Budget targets for the Coast Guard's acquisition budget ranges from \$520 million to \$552 million annually for FY 2002 through FY 2205.

<u>Progress in the Last Year:</u> As directed by the Department's FY 2000 Appropriations Act, Coast Guard prepared a 5-year Capital Investment Plan, which identified funding needs through FY 2005.

The President's Interagency Task Force, appointed to provide advice and recommendations on the appropriate roles and missions for the Coast Guard, issued its report in December 1999. The Task Force reported that the Coast Guard would need to continue performing all of its multiple missions and endorsed the need for the Deepwater Project as a near term national priority. The Deepwater project has received significant support form the Commerce, Defense, Justice, and State Departments.

Three industry teams continued work on developing competing concept design proposals for replacing or modernizing Deepwater assets. The contractors' design proposals are due in April 2001. The planning process for Deepwater is expected to cost \$116.2 million (FY 1998 -- \$4.9 million; FY 1999 -- \$24.8 million; FY2000 -- \$44.2 million; FY01 -- \$42.3 million).

Coast Guard awarded three contracts in August 2000 for the preliminary design of the National Distress and Response System Modernization Project. The contractors' proposals are due in November 2001. The planning process for the project is expected to cost \$42 million.

Most Significant Open Recommendations and Issues: The Department, the Administration, and Congress face long-term challenges in proceeding with Coast Guard's stated requirements for a significant and sustained increase in acquisition funding. Other transportation programs, such as FAA operations, Maritime Administration's ship disposal program, and AMTRAK, are also seeking budget increases and will be competing with Coast Guard for limited Federal funding. These funding decisions and trade-offs must be made in the context of the missions and responsiveness expected of the Coast Guard. Short-term challenges facing the Department and the Coast Guard include:

• Reconciling Capital Investment Priorities and Budget Targets. Coast Guard's current 5-year Capital Investment Plan does not include full funding for the Deepwater Capability Replacement Project. When full funding estimates for Deepwater are included, Coast Guard's capital needs exceed Office of Management and Budget targets by more than \$300 million per year. Coast Guard needs to establish capital investment priorities and continue working with the Office of Management and Budget to reconcile their respective capital funding proposals and budget targets.

The budget plus-up being sought by the Coast Guard is not just a FY 2002 phenomenon. Once the Deepwater acquisition gets underway, sustaining it will require a Coast Guard acquisition budget of at least \$850 million annually for the foreseeable future. The Coast Guard notes that during the 1970s and 1980s its acquisition budget was higher than \$400 annually when looked at in FY 2000 dollars.

• <u>Justifying the FY 2002 Budget Request for Deepwater</u>. In our March 9, 2000 report on "The Coast Guard's Planning Process for the Deepwater Capability Replacement Project," we recommended that the Coast Guard justify how it can proceed with a Deepwater budget request of \$350 million for FY 2002 in advance of completing its planning process. The Coast Guard told us that they have preliminary information from the contractors to justify the budget request. That justification was briefed to the Deputy Secretary of Transportation and the Director of Budget and Program Performance on November 20, 2000.

The planning process for Deepwater has been endorsed and praised by many organizations. The Coast Guard wants to proceed with a budget request for this project. Given this, Coast Guard should be prepared for questions on which Deepwater assets need to be acquired or modernized, how this will be done, what it will cost, and when funding will be needed. We are reviewing the Coast Guard's Deepwater project.

• <u>Justifying the FY 2002 Budget Request for the National Distress and Response System Modernization Project</u>. The Coast Guard's 5-year Capital Investment

Plan includes \$199 million for the Distress and Response System. Funding for the project could be at risk given the magnitude of the needs for the Deepwater project and overall funding limitations. Deficiencies in the Distress and Response System have existed for at least 10 years, and the National Transportation Safety Board has criticized Coast Guard's interim fixes as insufficient.

Like Deepwater, Coast Guard plans to justify proceeding with a procurement request of \$42 million for Distress and Response System Project in FY 2002 although the comprehensive planning process is not complete. The major task for Coast Guard is to present a specific system modernization plan that details what assets need to be acquired or modernized, how it will be done, what it will cost, and when funding will be needed. Contractor proposals are due to the Coast Guard in November 2001. We are reviewing the Distress and Response System Project.

Key OIG Contact: Thomas J. Howard, Deputy Assistant Inspector General for Maritime and Highway Safety Programs, 202-366-5630.

5. Coast Guard Capital Acquisition Budget	First Year Issue Raised in OIG	Was Significant
Dark Grey = Top Priority Task for 2000	Management Challenges	Progress made in last
Light Grey = Include in 2000 Top Management Challenges Efforts	Report	year?
White = Sufficiently Resolved to be Dropped from Management Challenges Efforts		
• Establish capital investment priorities and work with OMB to reconcile their respective capital funding proposals and budget targets. When full funding estimates for the Deepwater Capability Replacement Project are included, Coast Guard's capital needs exceed OMB targets by more than \$300 million per year.	1999	N
	1,,,,	
 Reconcile how it can proceed with a budget request in advance of completing its comprehensive planning process for Deepwater. 	1999	Some
Establish realistic budget and schedule estimates for the National Distress System Project.	New Issue	New Issue
Correct inaccuracies in data previously provided to the industry teams on the cost of operating existing Deepwater assets.	1999	Υ
Transition the "system-of-systems" approach from concept development and planning to budgeting and acquisition.	1999	Υ

6. TRANSPORTATION SECURITY

The terrorist attacks against the U.S.S. Cole and U.S. embassies in Kenya and Tanzania highlight the global nature of terrorism and the need for everyone to work together to oppose it worldwide. To oppose this global threat and advance the Nation's vital interest, DOT must do all it can to ensure that the transportation system is secure. The U.S. transportation system includes 3.9 million miles of public roads, 2.2 million miles of oil and natural gas pipelines, 123,000 miles of major railroads, over 24,000 miles of commercially navigable waterways, over 5,000 public-use airports, 508 transit operators in 316 urbanized areas, and 145 major ports on the coasts and inland waterways.

We see the key issues in this area as:

- ✓ Maximizing the effectiveness and usage of explosives detection equipment,
- ✓ Completing pending rulemakings on certification of screening companies, airport access requirements, and accounting for active airport identification media (airport ID) used to access secure airport areas,
- ✓ Implementing the Airport Security Improvement Act of 2000, which will strengthen background investigation requirements for airport personnel, and
- ✓ Finalizing the draft DOT surface transportation security research strategy, based on recommendations from the National Research Council.

Progress in the Last Year:

- Established new policies for the checked baggage security program, and proposed new security screening requirements for air carriers.
- Conducted nation-wide testing of airport and air carrier compliance with access control requirements to ensure that actions were taken to improve airport security.
- Conducted a broad-scoped audit of compliance with requirements for issuing and accounting for airport ID, and worked to improve compliance with requirements.
- Amended airport and air carrier security programs to require audits of background investigations, and started developing additional written guidance on background investigation requirements.
- Established a performance measure for Critical Infrastructure Protection under the National Security Goal of DOT's FY 2001 Performance Plan.

• Drafted surface transportation research and development security strategy that incorporates recommendations made by the National Research Council for DOT to clearly define its surface transportation problems and security objectives.

Most Significant Open Recommendations and Issues:

• Aviation Security.

Maximize Effectiveness and Usage of Explosives Detection Equipment. FAA has made significant progress in deploying existing advanced security technologies. FAA must now shift its emphasis from simply deploying equipment to maximizing the effectiveness and usage of explosives detection equipment. For example, FAA has no quantitative basis for determining where expensive bulk explosives detection machines would be most effectively used. This in turn has contributed to the underutilization of these machines, with as much as 50 percent of the deployed units still screening fewer bags in a day than the machines are certified to screen in an hour.

On November 22, 2000, the President signed the Airport Security Improvement Act of 2000, which requires FAA to maximize the use of explosives detection equipment. A sharper focus is now necessary on policy, planning, and integration. This includes defining deployment and usage goals, refining certification and operator testing processes, and collecting and analyzing data on actual equipment and operator performance.

Improve Employee Compliance with Access Control Requirements. FAA has demonstrated that widespread, comprehensive testing can result in improved compliance with access control requirements. However, testing alone will not be enough to motivate employees to accept and consistently meet their responsibilities for airport security. FAA needs to: (1) complete a pending rulemaking that would make individuals directly accountable for noncompliance with access control requirements; (2) issue regulations requiring airport operators to have a security compliance program that fosters and rewards compliance; and (3) ensure that airports and air carriers provide comprehensive and recurrent training that teaches employees their role in airport security. The Airport Security Improvement Act of 2000 requires FAA to improve airport security by implementing these and other recommendations resulting from our 1999 audit of airport access control.

<u>Improve Screener Performance</u>. In September 1996, the White House Commission on Aviation Safety and Security recommended that FAA certify screening companies and improve screener performance. In May 2001, FAA expects to issue a final rule establishing training requirements for screeners and requiring screening companies to be certified. To achieve this, FAA needs to have

a means to measure screener performance, and methods of providing initial and recurrent screener training as well as ensuring that the screeners maintain their proficiency through actual experience with the machines in the airport environment. Therefore, FAA must complete deployment of equipment that will help in the testing and training of screeners. The Airport Security Improvement Act of 2000 directs FAA to strengthen training requirements for screeners.

Strengthen Employee Background Investigation Requirements. Two recent OIG investigations, conducted in cooperation with FAA, resulted in fining two companies doing business at major U.S. airports for falsely certifying that background investigations were performed when, in fact, they were not. One of the companies supplied security staff for an airport and was ordered by a U.S. District Judge to pay more than \$1.5 million for allowing untrained employees to operate security checkpoints. Some of these employees had criminal backgrounds, including drug dealing, kidnapping, aggravated assault and theft.

The Airport Security Improvement Act of 2000 directs FAA to strengthen background investigation requirements to include criminal checks for all individuals with unescorted access to secure airport areas, including screeners, and expand the list of crimes that disqualify an individual from having unescorted access to those areas. FAA also needs to incorporate in background investigation requirements the use of credit checks and drug tests to reduce the risk of undesirable individuals working in secure airport areas.

<u>Properly Account for Airport IDs</u>. FAA needs to issue standard procedures for airport operators to periodically account for the number of active airport IDs, and conduct complete assessments of compliance with requirements for accounting for airport IDs. Assessments should include sufficient testing and use standard methodologies to ensure that data collected in the field can be used to identify and correct systemic problems. FAA plans to issue final rules in 2001 requiring airport operators and air carriers to periodically audit active airport IDs, and issue standards and procedures to ensure the audits are effective.

• Surface Transportation.

<u>Finalize Surface Transportation Security Strategy</u>. DOT currently provides briefings to the National Security Council and counterterrorism working groups about transportation security issues to develop awareness, and ultimately funding, for research, development, testing, and evaluation for DOT-related projects. The Department should: finalize its draft surface transportation research and development security strategy, which incorporates recommendations made by the National Research Council; develop ways to assess surface transportation security issues; and prioritize areas for Department action. Chemical and biological detection capabilities for airports and transit systems, as well as methods to ensure

the safe return of passengers to these areas after an actual or threatened attack, should be tested and evaluated.

Key OIG Contacts: David A. Dobbs, Deputy Assistant Inspector General for Aviation Programs, 202-366-0500; Thomas J. Howard, Deputy Assistant Inspector General for Maritime and Highway Safety Programs, 202-366-5630; Mark R. Dayton, Deputy Assistant Inspector General for Competition, Economic, Rail, and Special Programs, 202-366-9970.

6. Transportation Security

 Dark Grey = Top Priority Task for 2001 Light Grey = Include in 2001 Top Management Challenges Efforts White = Sufficiently Resolved to be Dropped from Management Challenges Efforts Establish an integrated strategic aviation security plan that includes a balanced approach covering advanced security technologies (including explosives detection equipment) acquisition, deployment and use. 	First Year Issue Raised in OIG Management Challenges Report	Was Significant Progress made in last year? N
 Implement the Aviation Security Improvement Act of 2000, which requires: → increasing the usage of explosives detection equipment; → strengthening airport access control security systems and programs to safeguard passengers, aircraft, and airport property; → improving screener training; and → strengthening background investigation requirements (including Federal Bureau of Investigation criminal checks) for employees granted unescorted access to secure airport areas. 	New Issue	New Issue
Complete pending rulemaking requiring certification of screening companies. Complete pending rulemaking and develop standard presedures for circuit appreture to account for	2001 New Issue	New Issue Some
 Complete pending rulemaking and develop standard procedures for airport operators to account for airport identification media required to access secure airport areas. Develop methods for assessing vulnerabilities in surface transportation and prioritize areas for Departmental action. 	New Issue	Yes

7. COMPUTER SECURITY

DOT must aggressively address known risks and also take on the challenge of identifying and addressing the unknown risks associated with computer security in today's interconnected world. A 1997 study by the President's Commission on Critical Infrastructure Protection pointed out widespread capability to exploit the Nation's infrastructure vulnerabilities, particularly through information networks.

Recent denial-of-service attacks on e-commerce sites and e-mail systems have served as "wake-up" calls for enhancing Internet security. Recognizing this, the President issued directives to all Federal agencies aimed at strengthening Internet security. The most important of the President's initiatives in this area is Presidential Decision Directive 63 (PDD-63) which requires that the Nation's critical infrastructure, both physical and cyber-based, be protected from intentional destructive acts.

In addition to managing unauthorized access or attacks by outsiders, agencies also need to enhance security over insiders, including employees, contractors, and grantees. A survey performed by the Federal Bureau of Investigation (FBI) reported that insiders constitute the greatest intruder threat. In DOT, two employees were recently prosecuted for embezzling funds through stolen passwords, including one who embezzled \$600,000 from DOT.

E-Government is becoming an important part of Government operations. Web sites are powerful tools for the Federal Government to improve the quality of its services. However, until people are confident that their privacy is protected, they will not use the services provided on Government sites.

Progress in the Last Year:

- DOT identified 108 information systems as critical to the Nation's infrastructure. DOT is developing schedules to complete assessment of these systems' vulnerabilities by September 2001 and allocating resources to have these systems secured by May 2003, as required by PDD-63.
- DOT enhanced network firewall security to prevent unauthorized Internet access to DOT's private networks as a result of OIG findings.
- DOT established Computer Security Incident Response Capabilities to detect
 and prevent malicious activities. For example, FAA has installed 12 network
 intrusion detection mechanisms to protect its private networks. Also, DOT
 plans to ask FAA to lead the coordination with the FBI National Infrastructure
 Protection Center, which is the national focal point for gathering information
 on threats to critical infrastructures.

- DOT started providing information security awareness training to employees. FAA completed this task by providing training videotapes to all its employees.
- DOT examined the validity of 73,000 user accounts authorized to access DOT systems and removed over 5,000 access authorizations.

Most Significant Open Recommendations and Issues:

- Completing the Vulnerability Assessments of Infrastructure Mission-critical Systems. This is important to help determine resource needs and prioritize which computer vulnerabilities to fix first. DOT deemed 108 systems essential to the Nation's economy and security, which need to be secured against intentional attacks by May 2003, as required by PDD-63. These include 102 FAA systems supporting air traffic control operations and 6 U.S. Coast Guard systems supporting search and rescue and maritime safety operations. While the Coast Guard has completed the vulnerability assessment, FAA still is assessing vulnerabilities associated with its air traffic control systems. FAA plans to complete all assessments by September 2001. Without complete assessments, FAA cannot estimate the time and resources needed to secure these systems and prioritize the vulnerabilities that need to be fixed first.
- Evaluating the Security Impact of the Proposed Integration of the National Airspace System for Air Traffic Control and FAA Administrative Systems. The current computer networks supporting National Airspace System (NAS) operations are relatively immune from intruders because of the system's physical isolation. However, FAA is considering replacement of these physically isolated networks with an integrated network supporting both administrative and NAS operational needs. Replacing what are now separate networks with an integrated network requires determining that the common network approach will not compromise NAS security because the integrated network will have connections to the Internet. Until the NAS vulnerability is fully assessed and FAA can give assurances that the common network approach will not compromise NAS security, FAA should not proceed to integrate the air traffic control and administrative systems on a common network.
- Completing Proper Background Checks on DOT Employees and Contractor Personnel, and Incorporating Background Check Requirements in Contracts. DOT policy requires background checks on both employees and contractor personnel based on designated position sensitivity level or risk level. OIG found a lack of proper background checks on contractor personnel and DOT employees tasked to maintain and secure Headquarters network systems, which were critical to DOT operations. For 102 DOT employees and contractor

personnel reviewed, only 4 DOT employees and 1 contractor employee received extensive background checks. Fifty-five (55) contractor personnel did not receive any background checks. FAA is in the process of identifying all contractor personnel associated with its air traffic control systems for background checks and requiring more comprehensive background checks for thousands of contractor personnel.

- Implementing Security Measures against Attacks on DOT Computers and Improving Controls over Passwords. OIG found DOT computers were accessible by unauthorized Internet users. Specifically, OIG gained unauthorized access from the Internet to about 270 computers located within DOT's private networks. Also, Internet users were able to bypass DOT's firewall security and gain access to DOT's private networks because 13 public web servers were inappropriately placed on DOT's private networks. As a result of OIG audits, DOT has enhanced firewall security against unauthorized Internet access and removed public web servers from DOT's private networks. OIG also found that 900 computers located throughout DOT could be accessed by unauthorized insiders such as employees, contractors, and grantees. OIG's prior reviews identified other vulnerabilities to attack and abuse by insiders. For example, our work resulted in the prosecution of two employees who embezzled funds through stolen passwords, including one who embezzled \$600,000 from DOT.
- Ensuring that Third-party Networks (such as Contractors, Trade Associations, or State Agencies) Connected to DOT Systems are Secured. Third-party connections provide another avenue for non-DOT personnel to gain access to DOT's private networks. However, access through these connections is not subject to firewall security controls. Instead, DOT's policy is to obtain "Statements of Conformance" from these third parties certifying that their computer systems are in compliance with DOT security requirements. OIG found conformance statements were not being obtained.
- Completing Certification and Accreditation of DOT Systems. Both the Office of Management and Budget (OMB) and DOT require that management assess whether controls and security in computer systems are commensurate with the risk resulting from the loss, misuse, unauthorized access to, or modification of, the computer systems. OIG found a mission-critical DOT financial management system, which was used to manage billions of dollars, was placed into operation without certification and accreditation. OIG was able to gain unauthorized access to the system's primary computer by using a widely known user identification "code."
- Eliminating Vulnerabilities on Web Servers and Developing a "Checklist" to Help Ensure Proper Configuration of Web Servers. DOT has over 240 web

servers that it encourages the public to access from the Internet through the DOT Home Page. Of the 119 web servers reviewed, OIG identified a total of 111 vulnerabilities that made DOT web sites susceptible to attack. Such attacks could result in web sites being defaced or web servers being put out-of-service.

Ensuring Proper Use of Cookies on DOT Web Sites. The term "cookie" represents a mechanism used on web sites to collect information by placing small bits of software on web users' computers. There are two types of cookies—persistent cookies and session cookies. Session cookies are used only during a single browsing session and do not collect information in ways that raise privacy concerns. Conversely, persistent cookies track information over time or across web sites. They remain stored on visitor computers until the specified expiration date, and can be used to collect individual browsing information, such as the visitor's areas of interest. Use of persistent cookies on DOT web sites requires the Secretary's approval and disclosure of the use of cookies.

OIG first reported improper use of cookies on DOT's web sites in August 2000. A followup review in October disclosed a lack of progress including use of persistent cookies without the Secretary's approval and thousands of web pages not checked for potential use of cookies. As of December 2000, all DOT components, except FAA, have certified their use of cookies to be in compliance with DOT policy. OIG's independent testing validated the certification; however, the testing still detected use of unauthorized cookies on FAA web sites. FAA has agreed to check all web pages for corrections by January 31, 2001.

<u>Key OIG Contact</u>: John L. Meche, Deputy Assistant Inspector General for Financial, Information Technology, and Departmentwide Programs, 202-366-1496.

7. Computer Security

Dark Grey = Top Priority Task for 2001 Light Grey = Include in 2001 Top Management Challenges Efforts White = Sufficiently Resolved to be Dropped from Management Challenges Efforts	First Year Issue Raised in OIG Management Challenges Report	Was Significant Progress made in last year?
Complete vulnerability assessments of infrastructure mission-critical systems.	1999	Some
• Evaluate the security impact of the proposed integration of National Airspace System for air traffic control and FAA administrative systems.	New Issue	New Issue
Ensure that third-party networks connected to DOT systems are secured.	1998	N
 Complete proper background checks on DOT and contractor employees, and incorporate background check requirements in all existing and new system contracts. 	New Issue	New Issue
 Implement security measures against attacks and improve controls over passwords. 	New Issue	New Issue
Complete certification and accreditation of DOT systems.	New Issue	New Issue
• Eliminate vulnerabilities on web servers and develop a "checklist" to help ensure proper configuration of web servers.	New Issue	New Issue
Ensure proper use of cookies on DOT web sites.	New Issue	New Issue
 Identify and cancel all system user accounts assigned to contractor and DOT employees who no longer work for DOT. 	1998	Υ
 Require all system user accounts in the security database to be validated, and develop a policy for re-validation of employees and contractors. 	1998	Υ

8. AMTRAK FINANCIAL VIABILITY AND MODERNIZATION

<u>Issue:</u> Since 1997, Amtrak has operated under a Federal mandate to become independent of Federal operating assistance while operating a nationwide passenger rail system. The 1997 Amtrak Reform and Accountability Act (ARAA) mandated that Amtrak develop a plan to eliminate its need for Federal operating support after FY 2002. The ARAA also established a mandate for the Office of Inspector General to conduct an annual assessment of Amtrak's financial needs and condition in each year that Amtrak requests Federal funds.

Progress in the Last Year: In FY 2000, Amtrak's cash loss was \$562 million (\$121 million worse than projected), largely as a function of longer-than-projected delays in the Acela high-speed rail program. While revenues and ridership improved markedly in 2000, expense growth kept pace, preventing Amtrak from making significant progress on reducing its losses and achieving its glide path to operational self-sufficiency. On October 18, 2000, Amtrak accepted delivery of the first Acela trainset and began Acela Express revenue service on December 11, 2000, between Washington, D.C. and Boston. Finally, Amtrak completed its congressionally mandated long-term capital needs estimate for the south end of the Northeast Corridor, although a comprehensive multi-year capital plan for the entire system is still in development.

Most Significant Open Recommendations and Issues: Amtrak's performance in 2001 will likely be a good indicator of whether or not it will be able to reach its mandate for operational self-sufficiency by 2003. Our recent assessment of Amtrak's business plan concluded that if no corrective actions were taken, Amtrak's cash loss would be about \$1.4 billion more than it projected over the 5-year period 2000 through 2004. Amtrak's performance in 2001 and beyond will depend heavily on Amtrak's ability to close a \$737 million gap in savings and revenues, which Amtrak pledged to achieve through undefined management actions; and deliver and generate revenues from all 20 trainsets planned for high-speed service in the Northeast Corridor. The bottom line is Amtrak's cash losses must drop by an average of nearly \$100 million each year for Amtrak to reach operating self-sufficiency in 2003.

• Implementing High-Speed Rail. In FY 2000, Amtrak experienced an additional 3 months of delays in the start-up of Acela Express, which had a negative impact on Amtrak's financial performance. Amtrak must strictly adhere to its schedule for bringing the 20 new trainsets on line and fully implementing service in order to avoid any further revenue impacts in 2001. The delayed implementation will negatively affect revenues in 2001, but may be offset if aviation delays continue to plague the Northeast. Amtrak must also be open to the possibility of adjusting fares and schedules to maximize revenues. The success of high-speed rail in the Northeast Corridor is not only

important to Amtrak's financial improvement, but will serve as a model for other proposed high-speed corridors around the country.

- Filling Business Plan Gaps. In addition to reliance on revenues from its Northeast Corridor high-speed service, Amtrak's business plan projects it will reach operating self-sufficiency largely through \$737 million in undefined management actions. In essence, these undefined actions represent the gap between the cash loss improvements Amtrak needs and what it expects to get from actions it has already identified. If Amtrak's 2001 business plan does not fully define tangible, supportable, and feasible actions to fill this gap, we strongly doubt that Amtrak will be able to achieve its mandate by 2003.
- Eliminating Capital Funding Shortfall. For the past 2 years, we have projected that Amtrak would face serious capital funding shortfalls beginning in 2001. Our predictions have come true. For all practical purposes, Amtrak's \$2.2 billion in Taxpayer Relief Act (TRA) capital funds have been obligated, borrowed or spent, leaving only the annual Federal appropriation to cover Amtrak's operating losses and capital program. In 2001, assuming Amtrak's cash losses are no higher than it projects, Amtrak would need another \$385 million in addition to its 2001 appropriation in order to:
 - meet all minimum capital needs including mandatory debt repayment and environmental obligations (Amtrak faces an expected shortfall of \$91 million in this area alone in 2001);
 - continue funding for key projects in progress, including many revenueproducing and expense-saving projects that support the self-sufficiency glide path; and
 - fulfill existing commitments to states for corridor development projects.

However, even an additional \$385 million would not enable Amtrak to invest in new projects, including the development of additional high-speed corridor projects. Amtrak could not begin to address these corridor needs without a significant *additional* funding mechanism.

Despite expected shortfalls, Amtrak has chosen to follow an investment strategy of funding projects with expected high rates of return at the expense of some minimum infrastructure and equipment needs. If Amtrak continues to employ this strategy, in the very near future it will begin to see infrastructure breakdowns that will compromise the high quality, reliable service necessary to reach Amtrak's revenue and ridership goals. In our September 2000 assessment report, we recommended that Amtrak reprogram any authorized, but unobligated, TRA funds that were approved for projects outside minimum needs. The reprogrammed funds should be used first to satisfy all minimum needs before any remainder is used for non-minimum purposes. In addition, we recommended that the Amtrak Board withhold future approval for any

other than minimum need capital projects and that Amtrak management prepare a long-term capital plan that identifies all capital needs, their costs, their timing and their priority.

Funding Long-Term Capital Needs. In the long term, Amtrak's ability to make critical improvements in the Northeast Corridor, as well as invest in new services to sustain and improve its operating revenues, will depend on its ability to obtain a significant and sustained capital funding source. One option proposed in the last Congress and passed by the House was the High-Speed Rail Investment Act (HSRIA), which would make \$10 billion available over 10 years through the sale of bonds for development of high-speed corridors around the country. While such an instrument would solve the challenge of obtaining a sustained long-term funding source, it will be important that any proposed bill provide for sufficient Federal oversight of Amtrak's spending of the bond proceeds. Eliminating this oversight would be tantamount to handing Amtrak a blank check. In addition, if Congress decides that something similar to HSRIA is an appropriate vehicle for addressing Amtrak's capital requirements in the Northeast and other high-speed corridors, continuation of any bonding authority should be made contingent on Amtrak meeting its operating self-sufficiency mandate as prescribed by law.

It should be noted, however, that Amtrak's total annual capital requirement will be close to \$1.5 billion for developing new corridors, addressing general capital needs, and beginning to address a backlog of needs in the Northeast Corridor. Even if some version of HSRIA were to be reconsidered in the next Congress, Amtrak would still need an additional \$500 million in annual capital appropriations.

The backlog of needs in the Northeast Corridor includes almost \$900 million in critical fire-safety improvements in the tunnels beneath Penn Station-New York (see page 25, Surface Transportation Safety). A number of options are available for funding these improvements, including Federal appropriations or an instrument similar to HSRIA. Whatever option is selected, it is essential that funds be specifically earmarked for fire-safety needs in the tunnels to ensure that they are not diverted for another purpose.

<u>Key OIG Contact:</u> Mark R. Dayton, Deputy Assistant Inspector General for Competition, Economic, Rail, and Special Programs, 202-366-9970.

8. Amtrak Financial Viability and Modernization

Dark Grey = Top Priority Task for 2001 Light Grey = Include in 2001 Top Management Challenges Efforts White = Sufficiently Resolved to be Dropped from Management Challenges Efforts	First Year Issue Raised in OIG Management Challenges Report	Was Significant Progress made in last year?
 Identify tangible, realistic, and measurable actions to fill the undefined management actions and projected revenue increases and cost reductions at risk of not being achieved in Amtrak's Strategic Business Plan. 	1999	N
 Move with prudent speed to initiate and fully ramp up Acela Express and Acela Regional service between Boston, New York, and Washington, D.C. as soon as possible. 	1999	Some
 Work with Congress and the Administration to determine an appropriate level of long-term capital funding necessary to sustain a viable railroad and identify the means by which these funds will be provided. 	1999	N
• Develop a long-term capital plan that identifies in a comprehensive manner systemwide capital needs, priorities, costs, and timing.	New Issue	New Issue
 Ensure that appropriate investment is made in operational reliability and other projects that are necessary to achieve and sustain revenues projected to result from high-speed rail and other key services. Absent approval of significant additional capital funding, this would include reprogramming capital funds not yet spent on non-minimum needs projects and withholding approval for any non- minimum needs projects until minimum needs have been satisfied. 	1998	N
Complete the overdue 20-year capital plan for the south end of the Northeast Corridor.	1999	Υ

9. MARAD'S SHIP DISPOSAL PROGRAM

The Maritime Administration (MARAD) currently has 116 obsolete vessels in the National Defense Reserve Fleet (NDRF) awaiting disposal. These vessels are deteriorating and pose an immediate environmental threat in Virginia, Texas, and California. They contain hazardous substances such as fuel oil, asbestos, solid and liquid polychlorinated biphenyls, lead, radium, and chromates. Immediate state and Federal action would be required, should the hazardous materials escape into the water.

The so-called "40 worst condition" vessels are on average 50 years old and have been awaiting disposal for two decades. Some have deteriorated to a point where a hammer can penetrate their hulls. During FYs 1999 and 2000, MARAD spent over \$2 million to repair leaking vessels and keep them afloat.

The approach of selling MARAD's vessels for domestic scrapping has not worked. Since 1995, only eight obsolete vessels were scrapped. The number of vessels awaiting disposal has grown from 66 in 1997 to 116 today and is expected to reach 155 by the end of FY 2001.

Key factors contributing to MARAD's limited progress are: (1) the loss of the overseas market for scrapping vessels; (2) current limitations in domestic capacity for scrapping; and (3) a Navy pilot program that is paying contractors to scrap its vessels.

Progress in the Last Year:

- Two vessels were scrapped.
- MARAD's FY 2001 authorization included approval of a 5-year extension (from the end of FY 2001 to FY 2006) in the deadline for disposing of MARAD's obsolete vessels, and allowance for MARAD to pay to dispose of its obsolete vessels in the most economical manner at either foreign or domestic locations.
- Congress appropriated \$10 million, which can be used to scrap vessels in MARAD's National Defense Reserve Fleet. This amount will likely fund the scrapping of an *estimated* 3 to 5 vessels.

<u>Most Significant Open Recommendations and Issues</u>: The Department, the Administration, and the Congress continue to face a challenge in determining how to fund the disposal of MARAD's fleet of environmentally dangerous vessels in a timely manner.

- MARAD is required to consult with the Navy and the Environmental Protection Agency to develop a program for scrapping its obsolete vessels, and report to the Congress by April 30, 2001. The program must define how the vessels will be scrapped, identify funding and staffing requirements, and set milestone dates for the disposal of each vessel. Until this report is submitted, Congress has prohibited MARAD from scrapping any but its "worst condition" vessels.
- MARAD and the Navy must also report to the congressional defense committees no later than June 1, 2001, on the total number of vessels currently designated for scrapping, and the costs and schedule estimates for scrapping the vessels.

Key OIG Contact: Thomas J. Howard, Deputy Assistant Inspector General for Maritime and Highway Safety Programs, 202-366-5630.

9. MARAD's Ship Disposal Program

 Dark Grey = Top Priority Task for 2001 Light Grey = Include in 2001 Top Management Challenges Efforts White = Sufficiently Resolved to be Dropped from Management Challenges Efforts 	First Year Issue Raised in OIG Management Challenges Report	Was Significant Progress made in last year?
 In consultation with the Navy and the Environmental Protection Agency, MARAD must prepare and begin implementation of a plan for the vessels awaiting disposal, targeting the "worst condition" vessels. The plan must include disposal methods and milestones. 	1999	N
 The Navy and MARAD must report to the congressional defense committees no later than June 1, 2001, regarding the total number of vessels currently designated for scrapping, and the schedule and costs for scrapping these vessels. 	New Issue	New Issue
Seek legislative approval to extend the mandate to dispose of obsolete vessels by 2001.	1999	Υ
Obtain relief from the requirement to maximize financial returns on obsolete vessels.	1999	Υ

10. DEPARTMENTAL BUSINESS PRACTICES

DOT has established corporate management strategies (departmental business practices) that cut across all organizational boundaries within DOT and are key to performing its missions efficiently and providing its customers with consistent and seamless transportation policy and services.

Our work has identified five areas of DOT business practices that we think rise to the level of the agency's top management challenges. They are:

- financial accountability;
- timeliness of rulemaking;
- oversight of contract costs and closeouts;
- implementation of the Government Performance and Results Act (GPRA);
- administrative issues concerning space requirements for a new DOT headquarters building and the Transportation Administrative Service Center (TASC) role in providing administrative support.

Some of these issues are longstanding problems (financial accountability) while others are relatively new (DOT headquarters building). OIG has issued many key reports over the last few years with recommendations addressing the Department's business practices.

FINANCIAL ACCOUNTABILITY

Progress in the Last Year:

- After 9 total years of work and because of extraordinary efforts, DOT was able to provide sufficient evidence supporting all material line items on its FY 1999 Financial Statements, resulting in its first clean audit opinion.
- DOT partially implemented its new accounting system, called Delphi, within three of its internal agencies, the Federal Railroad Administration, the Office of Inspector General, and the Research and Special Programs Administration.
- FAA issued its Interim Final Rule on user fees for aircraft overflights, and began charging user fees for aircraft that fly in U.S. airspace, but do not take off or land here. In September 2000, FAA began billing airlines about \$3 million per month in overflight fees.
- FAA implemented portions of its cost accounting system, which is planned to be fully operational by the end of FY 2002.

Most Significant Open Recommendations and Issues:

• Implementing a Financial Management and Accounting System. To sustain a clean audit opinion, the Department needs to implement a state-of-the-art financial management and accounting system across the Department that provides accurate and timely financial data, and produces the financial data for preparing annual financial statements. Successful implementation of the new Delphi accounting system by all DOT Operating Administrations is the foundation for financial statements and is essential to avoid the extraordinary and labor-intensive efforts that were needed over the last 2 years to overcome deficiencies in existing financial systems. Such efforts are not sustainable for the long term, and Delphi must be successfully implemented to sustain unqualified audit opinions on future annual financial statements.

DOT was planning to have a fully operational and compliant accounting system by June 30, 2001. However, Delphi was to be fully operational in one of DOT's smaller operating administrations by May 2000, but as of November 30, 2000, a total of 56 unresolved issues still existed, 21 of which DOT categorizes as major issues. Most of the 21 major unresolved issues were identified over a year ago. On December 20, 2000, the DOT Deputy Chief Financial Officer advised that Delphi's implementation will be delayed due to the deferred availability of Oracle U.S. Federal Financial software.

• Implementing an Integrated Property Management System for FAA. FAA's property account alone is so significant (with acquisition costs of about \$16 billion) that failure to properly track and account for the property items, retain documentation supporting acquisition values, and compute depreciation on its property can jeopardize a clean audit opinion for FAA and DOT.

FAA was able to support the acquisition cost in its property accounts only by using alternative procedures and labor-intensive methods, such as preparing electronic spreadsheets to compute depreciation for 30,000 property items, manually researching and creating documentation files supporting \$1.5 billion in costs for 20,000 backlogged job orders, and performing detailed manual searches of expense transactions back to 1982. Such manual processes are prone to errors and inaccuracies. FAA currently is implementing an integrated property management system. However, its first try to implement this new system failed to produce accurate results. FAA currently estimates it will have a compliant property management system by November 12, 2001.

• <u>Developing and Implementing a Departmentwide Cost Accounting System</u>. This action is particularly important in FAA where a cost accounting system has been under development for over 4 years. This is a significant undertaking for FAA and FAA is trying hard to do it right. FAA needs a cost accounting system to

manage its operations and to control its growing costs. In the last 4 years, FAA's operations costs have increased from \$5.3 billion to 6.5 billion. FAA will not be able to operate as a results-based organization or accurately account for the cost of air traffic control operations without a cost accounting system that is compliant with accounting standards. FAA currently plans to have a fully operational cost accounting system by the end of FY 2002.

• Developing and Implementing a Labor Distribution System for FAA. FAA needs such a system to capture labor and other costs associated with specific programs to better assess workload and performance. FAA has been slow to establish a labor distribution system. At present, FAA cannot accurately account for its labor cost by project or activity. FAA needs a labor distribution system to control its growing costs and improve the productivity of its workforce. FAA's operations costs alone have risen from \$3.8 billion in 1990 to nearly \$6 billion in FY 2000. Labor cost represents about 70 percent of FAA operations costs. By FY 2003, FAA projects its operations costs will grow to about \$7.4 billion. FAA is working on an FAA-wide labor distribution system and currently plans to have it fully operational by July 31, 2003. FAA cannot have a fully operational and effective cost accounting system without a labor distribution system. Otherwise, its cost accounting system will lack credibility.

TIMELINESS OF RULEMAKING

Progress in the Last Year:

On July 20, 2000, the OIG issued a report disclosing that despite congressional mandates and interest from the public in issuing rules more quickly, DOT took more than twice as long to complete a significant rule and completed half as many significant rules in 1999 as it did in 1993. For the significant rules completed in 1999, DOT took an average of 3.8 years and a median of 2.8 years to issue a final rule. Table 1 compares the number of significant rules completed by Operating Administrations (OAs) in 1993 and 1999 and the average time to complete these rules.

Table 1: Significant Rules Completed by OAs in 1993 and 1999

OA	Number of Completed Significant Rules		Average Time in Years to Complete Significant Rules		
	1993	1999	1993	1999	
OST	3	3	4.4	6.6	
USCG	5	0	2.1	N/A	
FAA	17	3	0.7	3.0	
FHWA/FMCSA	3	3	0.4	2.3	
FRA	2	2	2.8	1.5	
NHTSA	10	4	2.8	3.7	
FTA	2	1	2.3	0.3	
RSPA	3	3	1.6	5.9	
BTS	0	1	0	3.6	
TOTAL	45	20			
AVERAGE			1.8	3.8	

Our analysis shows that DOT has taken as long as 12 years to issue rules. Although overall DOT is taking longer to complete rules, it issued 7 of the 20 significant rules in less than 2 years: 5 were administrative in nature and 2 involved safety issues.

Concerning ongoing rules during 1999, DOT was working on 152 significant rules that were in various stages of development for an average of 3.1 years, compared to 177 significant rules for an average of 2.1 years in 1993. Examples of significant safety related rules with congressionally established deadlines that have not been met and remain open are shown in Table 2.

Table 2: Examples of Significant Rulemakings that were Overdue as of April 2000

OA	Rulemaking Identification Number (RIN)	Rulemaking Action	Action Due	Deadline	Years Past Deadline
OST	2105-AC65	Computer Reservations System Regulations Comprehensive Review	Final Rule	12/31/1997	2.3
USCG	2115-AD23	Permits for the Transportation of Municipal and Commercial Wastes	Final Rule	06/15/1989	10.9
USCG	2115-AD66	Discharge-Removal Equipment for Vessels Carrying Oil	Final Rule	08/18/1992	7.7
FAA	2120-AC87	Installation of Crashworthy Fuselage Fuel Tanks and Fuel Lines	NPRM	02/03/1989	11.2
FAA	2120-AD26	Sole Radio Navigation System; Minimum Standards for Certification	Final Rule	09/30/1989	10.6
FMCSA (FHWA)	2126-AA07 (2125-AC78)	Federal Motor Carrier Safety Regulations; General Transportation of Hazardous Materials	Final Rule	11/15/1991	8.4
FMCSA (FHWA)	2126-AA18 (2125-AD75)	Railroad Grade Crossing Safety	Final Rule	02/26/1995	5.2
FRA	2130-AA71	Whistle Bans at Highway-Rail Grade Crossings*	Final Rule	11/02/1996	3.5
FRA	2130-AA89	Locomotive Cab Working Conditions	Final Rule	03/03/1995	5.1
FRA	2130-AB16	Power Brake Regulations: Freight Power Brake Revisions	Final Rule	12/31/1993	6.3
RSPA	2137-AB15	Pipeline Safety: Gas Gathering Line Definition	Final Rule	10/24/1994	5.5
RSPA	2137-AC39	Emergency Flow Restricting Devices	Final Rule	10/24/1996	3.5
RSPA	2137-AC00	Safeguarding Food From Contamination During Transportation	Final Rule	08/01/1991	8.7
FTA	2132-AA63	Major Capital Investment Projects: Establish Criteria To Evaluate Major Capital Investment Mass Transportation Projects	Final Rule	12/07/1998	1.4

^{*}Since this list was prepared in April 2000, Congress has directed FRA not to issue this rule before July 1, 2001. See Section 1127 of the Omnibus Consolidated Appropriations Act, December 15, 1999.

To improve the rulemaking process within the Department and its OAs, the OIG recommended the Secretary of Transportation:

1. Establish the timely completion of significant rulemaking actions as a priority within the DOT Strategic Plan, develop measurable objectives for issuing quality rules in a timely manner in the annual Performance Plans, and report accomplishments in the Performance Report.

- 2. Set departmentwide priorities for significant rulemaking actions; and include in Administrators' performance agreements, the requirement to establish priorities for issuing significant rules and establish schedules for meeting deadlines at each rulemaking stage.
- 3. Develop a training session on the rulemaking process and establish a requirement that incoming senior management officials in the OAs and OST attend the session.
- 4. Provide the authority to a senior management official, senior management team, or centralized office to ensure that OAs establish priorities and schedules by submitting quarterly reports on the status of OAs' rulemaking actions to the Secretary.
- 5. Create and manage a departmentwide rulemaking tracking and monitoring system to identify problems occurring both departmentwide and at the individual OAs and take corrective actions to streamline the rulemaking process.
- 6. Direct OAs to use best practices, such as the use of technology and supplemental rulemaking methods, to enhance the rulemaking process, as appropriate.

In response to the OIG report, the Secretary emphasized the Department's commitment to improving the rulemaking process by including requirements to establish rulemaking priorities in the Operating Administrators' FY 2001 performance agreements. Moreover, the Secretary agreed to (1) create and manage a departmentwide tracking and monitoring system to identify problems with individual rulemaking actions and streamline the rulemaking process by May 2001; (2) establish priorities and schedules for significant rulemakings in FY 2001; and (3) direct Operating Administrators to include timely completion of significant rulemaking actions as a priority in the DOT Strategic Plan, develop measurable objectives, and report rulemaking accomplishments in the Performance Report for FY 2002.

Most Significant Open Recommendations and Issues:

• Improving the Timeliness of Rulemaking. Although the Secretary committed the Department and each of its OAs to a course of corrective action, the key to improving the rulemaking process is the effective implementation of the recommended corrective actions, particularly the establishment of a departmentwide tracking and monitoring system. This system will need the capability to identify problems occurring departmentwide and in the individual OAs, track priorities and schedules, and ensure that OAs submit to the Secretary quarterly reports on the status of individual rulemaking actions.

OVERSIGHT OF CONTRACT COSTS AND CLOSEOUTS

Progress in the Last Year:

• Although this is a new issue, the DOT Assistant Secretary for Administration and the DOT Deputy Chief Financial Officer already have taken action to require contracting officers to: (1) review all physically completed contracts on an annual basis to ensure that only those funds necessary to pay the contractor's final invoice are retained under the contract, (2) take full advantage of contract quick closeout procedures, (3) have all contractors comply with closeout requirements, and (4) comply with DOT policy on monitoring of contract closeouts.

Most Significant Open Recommendations and Issues:

• Improving Oversight of Contract Costs. Since DOT internal agencies took over responsibility for contract audits, independent audits of DOT contracts by the Defense Contract Audit Agency have dropped from 397 in 1996 to 68 in 1999, resulting in minimal oversight over millions of dollars in contract costs. During the 5 years ended April 2000, DOT, excluding FAA, closed 864 cost-reimbursable contracts valued at \$559 million. FAA was not included in this audit, but will be reviewed as a separate audit to be done later.

We found in our sample review of these contracts that most (1) were closed without independent audits, (2) were not supported with annual certified contractor incurred cost proposals, (3) were not adjusted during contract performance for changes in billing rates, and (4) were awarded without determining whether the contractors' accounting systems were adequate to handle cost-reimbursable contracts as required by Federal regulations. For cost-reimbursable contracts, our sample results disclosed little evidence of review of the amounts billed by contractors.

• <u>Improving Timeliness of Contract Closeouts and Deobligation of Funds</u>. As of April 3, 2000, DOT had 419 cost-reimbursable contracts with obligations of \$232 million that were overdue for closure from 1 to 9 years.

IMPLEMENTATION OF GPRA

Progress in the Last Year:

• DOT prepared, in March 2000, its first performance report required by GPRA. A recent study by the Mercatus Center of George Mason University ranks it as the second best among Federal agencies. DOT also was one of only two Federal agencies that received an "A" on its FY 1999 Performance Report from the Chairman of the Senate Committee on Governmental Affairs.

- DOT was the only Federal agency to conduct a "dry run" for its first GPRA performance report, which was due to Congress by March 31, 2000. The dry run gave DOT early warning of issues and time to address and resolve many of the issues before publishing its first report.
- The Bureau of Transportation Statistics has begun publishing a monthly "Transportation Indicators" report, which presents timely information on a wide array of transportation measures and trends, and could be a useful tool for tracking progress toward DOT strategic and performance goals.
- In response to an OIG audit report, Coast Guard improved the accuracy of its recreational boating fatality data and adjusted its performance goal for reducing the number of recreational boating fatalities. The OIG audit found that the Coast Guard used inaccurate historical data when it developed specific targets for its goal of reducing recreational boating fatalities.

Most Significant Open Recommendations and Issues:

- Maintaining and Improving the Department's Highly Rated Strategic Plan and Combined Performance Report/Performance Plan. A major factor that will impact DOT's ability to achieve its goals is the effective use of human resources. DOT must effectively manage its workforce, recruit highly qualified individuals for vacant positions, and provide appropriate technical and professional training in order to successfully meet the management, safety, and efficiency challenges facing the U.S. transportation system. In the past year, DOT made a Department-wide effort to devote at least two percent of its payroll budget to training. Another approach considered as a possible Secretarial initiative, but as yet incomplete, is reestablishing a central training authority in the Department responsible for executive training and management development.
- <u>Linking GPRA Performance Measures to the Cost of Achieving Results</u>. DOT will be unable to do this until its cost accounting systems are fully operational, which for FAA is planned for no sooner than the end of FY 2002.
- Verifying and Validating the Quality of GPRA Performance Data. DOT receives
 much of its performance data from sources outside the Department's control. To
 help with data quality issues, DOT's Bureau of Transportation Statistics is
 developing a statistical policy framework where the DOT Operating
 Administrations will work together to identify and implement the current, best
 statistical practice in all aspects of their data collection programs.
- <u>Developing Performance Measures Supported by Valid Data</u>. In the course of our ongoing audits, OIG reviews the Department's performance measures and the

validity of the data being used to support those measures. Examples of our key findings follow.

- FAA should develop one or more performance measures for assessing air traffic control performance using the Aviation System Performance Metric data system, now under development. Quality control lapses with FAA's current aviation delay data system could lead to FAA reporting inaccurate and misleading performance data.
- Office of Pipeline Safety (OPS) should collect sufficient data to precisely identify pipeline accident causes. OPS has a goal to reduce "outside force damage" to pipelines by 5 percent over the next 3 years. However, we found that hazardous liquid pipeline accidents were underreported by 18 percent casting doubt on progress OPS is reporting.
- The Federal Motor Carrier Safety Administration should standardize crash data requirements and crash data collection procedures, and obtain and analyze crash causes through comprehensive crash evaluations. The Department established a goal in 1999 to reduce large truck-related fatalities 50 percent by the end of 2009 and injured persons 20 percent by the end of 2008. Deficiencies in the available crash data and knowledge about the causes of a crash limit the design and implementation of effective strategies aimed at reducing large truck-related fatalities and injuries.

ADMINISTRATIVE ISSUES

Progress in the Last Year:

• In response to our prior reports, the Transportation Administrative Service Center (TASC) has taken action to discontinue services that were not cost effective. To date, TASC's Transportation Computer Center stopped providing mainframe computer services for DOT internal agencies in July 2000, and TASC has shut down its Learning and Development and Management Applications units.

Most Significant Open Recommendations and Issues:

• Resolving Space Requirements for the New DOT Headquarters Building. In 1992, DOT estimated it needed 1.70 million square feet of space for its new headquarters building. In response to subsequent "downsizing" initiatives, the General Services Administration and OMB reduced DOT's space requirements to 1.35 million square feet, which Congress approved in 1997. Since then, DOT requested and received options for an additional 400,000 square feet from the five finalists in the bidding process for the new lease. OMB is reviewing DOT's recommended bid proposal. According to the TASC Director, upon approval by

OMB, DOT plans to request congressional approval to exercise the option for the additional space.

• Resolving TASC's Role in Providing Administrative Support Services for the Department's Headquarters Units in Washington, DC. DOT policy allows internal DOT agencies to use outside sources instead of TASC when a financial analysis demonstrates that the outside source is cost effective. However, a 1999 OIG report disclosed that DOT agencies were not performing these financial analyses. For example, our analysis of graphics projects that were done by outside firms found TASC services were cost effective for 8 of 15 projects, but the agencies were not held accountable for noncompliance.

When DOT agencies use outside sources for administrative services and it is not cost effective to do so, the agencies pay more while TASC loses revenues necessary to cover its overhead costs. Without a critical mass of customers to provide a particular service and generate income, TASC's ability to efficiently and competitively offer a wide range of administrative services will erode.

In January 2000, FAA stopped using TASC to provide its employees with transit benefits. FAA had accounted for 44 percent of the DOT agencies' activity under this program. Although TASC's service delivery has declined in certain areas within DOT, TASC has increased its non-DOT business, mainly in the transit benefit area. For example, in FY 2001, TASC expects to provide transit benefit services to 13 of the 14 cabinet agencies. Further, TASC projects that over 60 percent of its FY 2001 overall revenues will come from non-DOT sources.

The Department and its internal agencies need to settle on the role of TASC in providing administrative services to the Department's headquarters agencies in Washington, DC. Policy guidance providing the rules for when agencies are to use TASC and under what circumstances agencies are free to use outside sources should be enforced, and agencies should be held accountable when they ignore DOT policy.

<u>Key OIG Contacts</u>: John L. Meche, Deputy Assistant Inspector General for Financial, Information Technology, and Departmentwide Programs, 202-366-1496; David A. Dobbs, Deputy Assistant Inspector General for Aviation, 202-366-0500; and Thomas J. Howard, Deputy Assistant Inspector General for Maritime and Highway Safety Programs, 202-366-5630.

10. Departmental Business Practices

Dark Grey = Top Priority Task for 2001 Light Grey = Include in 2001 Top Management Challenges Efforts White Configuration Research to be Dropped from Management Challenges Efforts	First Year Issue Raised in OIG Management Challenges	Was Significant Progress made
White = Sufficiently Resolved to be Dropped from Management Challenges Efforts	Report	in last year?
Implement of a state-of-the-art financial system.	1998	Some
Develop and implement a labor distribution system for FAA.	1999	Some
• Implement a commercial, off-the-shelf, integrated property management system for FAA.	New Issue	New Issue
Establish a DOT rulemaking tracking and monitoring system.	New Issue	New Issue
Resolve space requirements for the new DOT headquarters building.	New Issue	New Issue
Develop and implement a departmentwide cost accounting system, especially in FAA.	1998	Some
Link GPRA performance measures to the cost of achieving targeted results.	1998	N
Verify and validate the quality of GPRA performance data.	1998	Some
Resolve TASC's role in providing administrative support within DOT.	1998	N
Develop performance measures supported by valid data.	New Issue	New Issue
Improve oversight of contract costs, particularly through independent closeout audits.	New Issue	New Issue
• Improve timeliness of contract closeouts and deobligation of funds on completed contracts.	New Issue	New Issue
 Maintain and improve the Department's strategic plan and combined Performance Report/Performance Plan with effective use of human resources. 	New Issue	Some
Establish overflight user fees for Air Traffic Control services.	1998	Υ
Reauthorize the FAA.	1999	Υ

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