# *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

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| Subject: <u>INFORMATION</u>: Top Ten Management Issues TW-1999-031 | Date: December 9, 1998 |
| From: Kenneth M. Mead Inspector General | Reply to Attn of: J-1 |

To: The Secretary
Thru: The Deputy Secretary

In response to an August 5, 1998, request from the Majority Leader and Chairman, Committee on Government Reform and Oversight, U.S. House of Representatives, the Office of Inspector General (OIG) identified the 10 top-priority management issues in the Department of Transportation (DOT). This report provides the information presented to the requesters for your information and use.

We have grouped the 10 top-priority management issues into the following areas:

1. Aviation Safety
2. Surface Transportation Safety
3. Year 2000 Computer Issues
4. Air Traffic Control Modernization
5. FAA Financing
6. Surface, Marine, and Airport Infrastructure Needs
7. Transportation and Computer Security
8. Financial Accounting as Related to the CFO Act
9. Amtrak Financial Viability/Modernization
10. DOT Implementation of GPRA

Included in this report is a synopsis as well as detailed briefing papers for each of the 10 management issues. The detailed briefing papers have a reference to the relevant strategic goals set forth in the Department's Strategic Plan. In our view, it is important to recognize that there is a link between the management issues we

identified and DOT's strategic goals. DOT's ability to achieve its strategic goals depends greatly on how effectively it addresses these key management issues.

In addition to the 10 management issues presented, aviation competition is an area we believe will become an increasingly important policy matter over the next year for the Department, the Congress, and the aviation community. Key departmental activities that have impact on aviation competition include capacity building programs at the nation's airports, the Department's proposed guidelines on unfair competitive practices, measures to ensure and increase competition at hub airports, and the cost and quality of service at small and medium size airports. Addressing competitive problems in the nation's aviation system will require strong management guidance to produce the data needed so that Congress and the Administration can make informed decisions and ensure sufficient collaboration to develop workable solutions.

Also included in this report is a bibliography of reports issued by our office and other sources that pertain to the 10 management issues. If I can answer any questions or be of further assistance, please feel free to contact me at x61959, or my Deputy, Raymond J. DeCarli, at x66767.

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# SYNOPSIS OF TOP TEN DOT ISSUES

## 1. AVIATION SAFETY

DOT needs to continually identify risks to air transportation safety and proactively reduce the major risks that can lead to accidents, fatalities, and associated economic costs. In an aviation environment that projects significant increases in air traffic, a proactive approach is essential. Major elements of the aviation safety issue include:

- Reducing the number of runway incursions -- a major risk factor at airports.

- Effectively implementing FAA's new inspection process, improving the accuracy of safety databases, and enhancing the quality of inspector training.

- Establishing management systems that assure safety risks are called to the attention of top FAA management and promptly acted upon.

- Evaluating the safety implications of U.S. code share agreements and international alliances that involve foreign air carriers and foreign air carrier equipment; if necessary, modify safety oversight and code share approval approaches accordingly.

## 2. SURFACE TRANSPORTATION SAFETY

Highway fatalities, other than those involving trucks, claim more that 35,000 lives annually. Truck accidents claim more than 5,000 lives annually. Rail and transit account for an additional 850 lost lives. Though the rates have been declining, they are still unacceptably high. Major surface transportation safety issues that DOT must address include:

- Improving DOT's motor carrier safety program for vehicle maintenance, driver qualifications, and compliance with hours of service requirements and take prompt and meaningful enforcement action for carrier noncompliance that endangers the public safety.

- Increasing the level of safety of commercial trucks and drivers entering the U.S. from Mexico.

- Increasing seat belt usage through primary enforcement of seat belt laws, education, and other strategies.

- Reducing grade crossing and rail trespasser accidents through enforcement, education, and technology.

- Improving compliance with safety regulations by entities responsible for transporting hazardous materials.

- Enhancing the effectiveness of the Federal Railroad Administration's Safety Assurance Compliance Program and using enforcement actions when voluntary and collaborative initiatives with a railroad do not promptly achieve the desired results.

## 3.  YEAR 2000 COMPUTER ISSUES

After a late start, the DOT, including FAA, has made a great deal of progress addressing its Year 2000 (Y2K) computer problems.  DOT agencies are also making substantial efforts in their outreach to the transportation industry to increase awareness of Y2K issues.  As of November 13, 1998, DOT has repaired 281 of its 295 mission-critical systems that had Y2K problems; however, the risk of system failure remains until these repaired systems are adequately tested.  DOT needs to continue with a sense of urgency, especially in FAA and the Coast Guard. Major issues that DOT must still address are:

- Completing Y2K work on all mission-critical computer systems by March 31, 1999.

- Testing all repaired systems to ensure they properly function as a unit, and together as a system.

- Obtaining assurances that the transportation industry will be Y2K compliant.

- Assuring DOT computers properly interface with those of other Government agencies, network service providers such as private telecommunications providers, and the transportation industry; develop contingency plans that can be used if critical systems fail to operate after December 31, 1999.

## 4.  AIR TRAFFIC CONTROL MODERNIZATION

FAA's multi-billion dollar air traffic control (ATC) modernization effort remains a major challenge.  Cost overruns, schedule delays, and shortfalls in performance of the past should not be repeated and new systems must come in approximately on

time and on budget and meet the requirements of a dynamic and growing aviation system.  Key elements of this management issue include:

- Reassessing and rebaselining plans for transitioning to satellite communications, navigation, and surveillance, including Free Flight.  This issue includes determining whether the Global Positioning System (GPS) and the Wide Area Augmentation System (WAAS) will be the sole means of navigation or if secondary systems will be needed.

- Incorporating human factors in the design and development of new ATC systems and avoiding the problems experienced with new systems such as the Standard Terminal Automation Replacement System (STARS).

- Strengthening DOT's capacity to oversee multi-billion dollar software intensive development contracts.  Software intensive development contracts have typically resulted in large cost increases and major schedule slippage – an issue that has affected the pace of ATC modernization for more than a decade.  While this is a significant problem associated with the FAA ATC Modernization Program, it also is an issue that bears watching during the development of Intelligent Transportation Systems by the Federal Highway Administration.  Strong oversight by the Department and the OIG to, among other things, assure contractor accountability, clear agency requirements, and strengthened internal controls, will help minimize what has historically been an area of unacceptable cost growth and schedule delays.

## 5.  FEDERAL AVIATION ADMINISTRATION FINANCING

Financing FAA activities and the air traffic control system is a major issue that the Department, the Congress, and the aviation community need to address.  For example, the operations account, which pays for air traffic controllers, will need an additional $1 billion over the next 5 years.  Operations will soon account for nearly $6 billion of the approximately $10 billion FAA budget.  Substantial funding also will be needed for the facilities and equipment account, which pays for air traffic control modernization.  Key issues associated with FAA financing include:

- Accurately determining the amount of funds that will be needed to finance FAA and determining what portion of FAA's operations, air traffic control modernization, and airport infrastructure, should be financed by the trust fund, general fund, or other sources of funds such as passenger facility charges.  This is a matter that will be debated in the next Congress.

- Developing a cost accounting system on which FAA can be better managed and upon which "user fees" could be based. FAA cannot implement a credible and reliable cost accounting system until it first ensures its financial systems accurately capture and allocate relevant cost data and FAA obtains an unqualified opinion on its financial statements. FAA's financial management systems do not currently capture accurate, reliable data and until they do, FAA cannot receive an unqualified opinion.

## 6. SURFACE, MARINE, AND AIRPORT INFRASTRUCTURE NEEDS

The Transportation Equity Act for the 21$^{st}$ Century (TEA-21) guarantees $198 billion over a 6-year period to improve safety and maintain and improve America's highways, bridges, and mass transit systems. These funds, as well as Airport Improvement Funds, must be effectively and efficiently used. Additional funding will be needed to maintain and upgrade the maritime infrastructure to meet the future needs of the marine industry. Key elements of this management challenge include:

- Strengthening internal controls to ensure adequate management and oversight of the infusion of substantial additional Federal funds for surface infrastructure projects; preventing fraud, embezzlement, and abuse of funds; and ensuring the development of sound financial plans for high-cost transportation infrastructure projects.

- Promoting the use of cost-saving techniques such as value engineering, design-build procurements, and owner-controlled insurance programs.

- Selecting high value projects for discretionary grants, awarded according to established criteria.

- Providing leadership to maintain, improve, and develop the port, waterway and intermodal infrastructure to meet current and future needs including megavessels; identifying funding mechanisms to maintain and improve the harbor infrastructure of the United States.

- Eliminating the prohibited diversion of airport revenues by airport sponsors.

## 7. TRANSPORTATION AND COMPUTER SECURITY

Presidential Decision Directives 62 and 63 require DOT to advance the nation's vital security interest by ensuring that the transportation system is protected and that our computer systems are safe from intrusion. The ability to prevent terrorist

attacks within this vast system, and fraudulent intrusions into computer systems must be strengthened.  Key elements of these issues are:

- Reducing the vulnerabilities in airport security controls.

- Enhancing the use of new technologies such as explosive detection equipment.

- Improving compliance with shipping requirements related to hazardous materials and dangerous goods.

- Developing staff expertise and technical capabilities to detect intrusions to DOT and FAA computer networks and acting to reduce vulnerabilities.

## 8.  FINANCIAL ACCOUNTING/CHIEF FINANCIAL OFFICERS ACT

DOT has made significant progress in improving its financial accounting and reporting systems. Three major issues stand in the way of DOT receiving an unqualified opinion on its financial statements, the most challenging being the FAA property and equipment accounts totaling about $12 billion.  Major financial areas that need to be addressed are:

- Developing and implementing a plan for FAA to account for and value its property and equipment, including its multi-billion dollar work-in-process accounts for Air Traffic Control Modernization.

- Computing a reliable estimate of Coast Guard's future liability for military retirement pay and health care costs.

- Ensuring that the Treasury Department develops adequate support for trust fund revenues and account balances totaling $28 billion.

## 9.  AMTRAK FINANCIAL VIABILITY/MODERIZATION

Amtrak needs to continue to seek opportunities to increase revenues and contain costs as it strives to fulfill its Congressional mandate of achieving operating self-sufficiency by the end of FY 2002.  Amtrak's FY 1998 Strategic Business Plan established a 5-year plan to reach this goal.  The plan indicates that Amtrak will have a cash loss in FY 2003, but Amtrak does not anticipate needing Federal operating funds to cover it.

We issued a report on the congressionally mandated Independent Assessment of Amtrak's Financial Requirements Through FY 2002 on November 23, 1998. We

identified a projected cash loss of $0.8 billion more than Amtrak estimated, if the Strategic Business Plan were followed, with no adjustments, through FY 2003. Amtrak's capital requirements after FY 2000 exceed projected available capital resources. Additional cash losses, as projected in the Independent Assessment, would further constrain Amtrak's already-limited ability to address significant system-wide capital needs and would likely be beyond Amtrak's ability to finance without Federal assistance. To eliminate the need for Federal operating funds, Amtrak will have to continuously review, amend, and implement programs and practices to improve its revenue and reduce its operating costs.

## 10. DOT IMPLEMENTATION OF GPRA

The Department of Transportation's strategic and performance plans were rated by Congress as the very best in the Federal Government. Yet, the difficult tasks of accurately assessing performance against the established outcome measures and modifying programs as needed to achieve the intended results remains to be accomplished. These matters require a sense of urgency since the first performance report to Congress is due on March 31, 2000.

Many of DOT's outcomes such as improved safety, reduction in fatalities and injuries, and well-maintained highways depend in large part on actions taken and assistance provided by third parties outside the Department, including other Federal agencies, states, and various components of the transportation industry. Their assistance will be critical in meeting DOT's goals. Another major factor that will impact DOT's ability to achieve its goals is the effective utilization of human resources. DOT must effectively manage the workforce, recruit highly qualified individuals for vacant positions, and provide requisite technical and other training in order to successfully meet the management, safety, and efficiency challenges facing the U.S. transportation system.

Starting in FY 1998, as part of our routine projects, we began to selectively (1) verify and validate performance data, and (2) assess various performance and outcome measures to determine their appropriateness for measuring progress toward stated goals (e.g., increased transportation safety). We plan to continue this oversight through FY 1999. We also developed a 2-day course on auditing GPRA implementation to further enhance our work in this area.

# DETAILED BRIEFING PAPERS

ISSUE 1:  AVIATION SAFETY

The Department of Transportation (DOT) needs to continually identify risks to air transportation safety and proactively reduce the major risks that can lead to accidents, fatalities, and associated economic costs.  In an aviation environment that projects significant increases in air traffic, a proactive approach to aviation safety is essential.  Recognizing the national need for a safe transportation system, DOT has made transportation safety its number one strategic goal.

DOT Strategic Goal #1

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

Key OIG Contact:  Alexis M. Stefani, Deputy Assistant Inspector General for Aviation, 202-366-0500.

Background

The aviation industry expects continued increases in air traffic – a result of increased demand – and expects closer spacing between aircraft due to more precise, satellite-based tracking and navigation capabilities.  The U.S. aviation accident rate has remained nearly flat since more reliable jet engine powered aircraft began to dominate the commercial aviation fleet.  However, as the number of flights increase, the number of accidents is statistically likely to rise in the absence of action by DOT and the aviation industry.  FAA has recognized this risk and has adopted a focused safety agenda to bring about a five-fold reduction in fatal accidents over the next decade.  FAA must now concentrate its resources on effectively implementing practices and programs to prevent the most prevalent causes of aircraft accidents.

FAA's focused safety agenda recognizes weaknesses and improvements needed in its safety processes.  Actions taken this past year by FAA are encouraging.  For example, FAA issued several airworthiness directives to improve safety, including directives to aid in preventing uncontained engine failures.  However, the issues described below are of a longstanding nature that require rigorous oversight.  The key to ensure success will be FAA and aviation industry follow-through.

Preventing runway incursions is one of FAA's safety agenda goals.  The number of runway incursions increased by over 70 percent, from 186 incursions in 1993 to

318 in 1997. FAA's preliminary data show 250 incursions through September 1998, about the same level as in 1997. FAA's near-term goal is to reduce runway incursions by 15 percent of the 1997 level, to 272, by the year 2000.

FAA also recognized problems exist in its aviation safety inspection process. In 1996, a FAA task force conducted a 90-day review of the way FAA conducts safety inspections. Two of the most significant recommendations as a result of the 90-day review were to:

- Create a national certification team to assist in processing new air carrier certifications, and

- Initiate a project to make surveillance of air carriers more targeted and systematic.

In 1997, FAA created the Certification Standardization and Evaluation Team (CSET) to certify new entrant air carriers. To address the surveillance of air carriers, FAA teamed with Sandia National Laboratories to conduct a comprehensive analysis of FAA's certification and surveillance processes. This reengineering project took 8 months and was a precursor to FAA's decision to develop a new system called the Air Transportation Oversight System (ATOS). The goal of ATOS is to aid the inspectors in targeting inspections so that system safety problems are identified and corrected before they lead to accidents. In October 1998, FAA began implementing ATOS for the 10 major passenger air carriers as well as any new entrant air carriers certified by FAA. The 10 major air carriers transport 90 percent of the flying public.

Improving safety data quality, collection, and analyses is another one of FAA's safety agenda goals. FAA implemented the Safety Performance Analysis System (SPAS) as a tool for inspectors to identify potential high risk areas. It is used to evaluate safety-related aviation data from several of FAA inspection, incident, and accident databases.

Another area of concern is the implications on safety of foreign air carriers who operate in the U.S. and/or carry U.S. citizens as passengers, especially given the recent increase in the number of codesharing agreements. From 1994 to 1998, the number of codesharing agreements has more than doubled from 61 to 163. Airlines throughout the world continue to form alliances and enter into codesharing agreements to strengthen or expand their market presence or competitive ability. The rapid increase in the number of codeshare agreements between the U.S. and foreign air carriers, as the movement toward global alliances

continues, raises questions as to whether approaches to safety oversight and approving codeshare agreements should be modified.

Audit Coverage

In recent years, DOT's Office of Inspector General (OIG) and the General Accounting Office (GAO) have issued reports identifying shortcomings in FAA's safety programs. In 1997, the OIG and FAA conducted a joint follow-up review to assess the implementation of recommendations made by FAA's 90-day safety review task force. We found that corrective actions to address the most significant recommendations identified by the 90-day safety review task force remained in process. A 1998 OIG audit also concluded that FAA's agreement to reduce the number of air traffic control supervisors will not negatively impact safety of air traffic operations, if the FAA first identifies and implements the duties that controllers-in-charge will assume from supervisors. Aviation safety issues include:

- Reducing the number of runway incursions – a major risk factor at airports,

- Effectively implementing FAA's new inspection process, improving the accuracy of safety databases, and enhancing the quality of inspector training,

- Establishing management systems that assure safety risks are called to the attention of top FAA management and promptly acted upon, and

- Evaluating the safety implications of U.S codeshare agreements and international alliances that involve foreign air carriers and foreign air carrier equipment; if necessary, modifying safety oversight and codeshare approval approaches accordingly.

Continued Rise in Runway Incursions:  In November 1997 testimony before Congress, OIG reported that the Runway Incursion Program needed to expedite solutions to systemwide problems that cause incursions. Further, OIG concluded local initiatives must be developed to end incursion threats specific to individual airports. OIG also reported that new technology is expected to help prevent human errors that lead to incursions. However, expected completion of two new systems in 1999 and 2000 will be 4 years later than initially planned. FAA issued a new Airport Surface Operations Safety Action Plan in October 1998 to strengthen its runway incursion prevention efforts, which includes actions to address OIG recommendations. We recently initiated an audit to follow up on the status of our prior recommendations, to assess FAA's progress in implementing new technologies to reduce runway incursions, and to evaluate FAA's implementation of its Airport Surface Operations Safety Action Plan.

Effectiveness of FAA's Inspection Process:  As early as 1987, GAO identified FAA's need to develop criteria for targeting safety inspection resources to areas with heightened likelihood of safety problems, such as new carriers, commuter airlines, and aging aircraft.  In 1995, OIG found FAA's targeting of inspection resources had not improved.  A 1997 OIG audit also identified targeting problems with certifications and periodic inspections of airports.  In another 1997 report, OIG found that FAA airworthiness inspectors were not routinely given basic technical training, or updated training, for the systems they were responsible for inspecting.

To further evaluate FAA's inspection process, in 1998 we initiated reviews of FAA's National Aviation Safety Inspection Program and oversight of air tour operators.  These reviews are nearing completion.  Additionally, in 1998 the OIG reported that the inactivation of the military specification for testing threaded fasteners and components (screws, nuts, and bolts with internal or external threads used in high stress systems and threaded products, such as engine drive shafts) could pose an aviation safety risk.  To more fully evaluate safety risks, in FY 1999 we plan on evaluating FAA's oversight of manufacturers' quality assurance systems for threaded fasteners and components and FAA's oversight of all-cargo air carriers.

Quality of Aviation Safety Databases:  OIG reported that FAA's databases contained inaccurate and incomplete data on runway incursions.  In addition, in 1995 GAO found that FAA needed to improve the reliability of its Safety Performance Analysis System, which integrates and analyzes information from other databases so it can be used to target areas of greatest risk.  For FY 1999, we plan to review FAA's use of safety data generated from industry self-disclosure programs, including flight operational quality assurance data to improve safety.

Safety Oversight of Foreign Air Carriers:  In FY 1999, we plan to initiate work to address the complexities of codesharing in the aviation industry and the responsibilities for aviation safety oversight when U.S. air carriers codeshare with foreign air carriers.

Investigative Coverage

Suspected Unapproved Parts:  OIG has in recent years developed an extensive investigative and training program to combat suspected unapproved parts (SUPs) sold for servicing commercial aircraft.  One OIG investigation involved the armed robbery of two FAA-certified repair stations by five defendants in Miami, Florida.  The stolen parts included jet engine disks, blades, and vanes, which were subsequently sold or "laundered" through two aviation parts companies.  The

defendants falsified airworthiness and parts traceability certifications for the stolen parts, which endangered the safety of aircraft. The leader of the conspiracy was sentenced to over 12 years in prison, 36 months probation, and $1.3 million restitution.

In 1997 OIG, FAA, and several other agencies formed a working group to combat trafficking in unapproved parts. Agencies involved seek a new criminal statute to combat such violations. OIG in the past year has conducted 22 SUP-suppression classes for more than 500 FAA safety inspectors and more classes are slated this year.

ISSUE 2: SURFACE TRANSPORTATION SAFETY

Highway fatalities, other than those involving trucks, claim more than 35,000 lives annually. Truck accidents claim more than 5,000 lives annually. Rail and transit account for an additional 850 lost lives. Though rates have been declining, they are still unacceptably high. DOT has established as its first strategic goal to marshal its resources to reduce the number of accidents that lead to fatalities, injuries, and associated economic costs.

DOT Strategic Goal #1

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

Key OIG Contacts: Patricia J. Thompson, Deputy Assistant Inspector General for Surface Transportation, 202-366-0687; Todd Zinser, Assistant Inspector General for Investigations, 202-366-1967.

Background

The Department of Transportation continues to dedicate and focus substantial DOT resources to work toward ensuring the American public has the safest transportation system possible. This is a formidable challenge, considering the number of fatalities and injuries and property damage resulting from automobile and motor carrier accidents each year. Railroad, rail-highway grade crossings, rail trespass, commuter rail transit, and hazardous materials accidents also result in loss of life and costly property damage. To its credit, DOT has dedicated resources to educational programs in support of safety, such as programs to promote increasing seat belt usage and the primary enforcement of seat belt laws. However, it is essential that DOT continues to provide vigorous and effectual enforcement of all safety regulations when other methods are not effective.

Key surface transportation challenges include:

- Improving DOT's motor carrier safety program for vehicle maintenance, driver qualifications, and compliance with hours of service requirements. Take prompt and meaningful enforcement action for carrier noncompliance that endangers the public safety,

- Increasing the level of safety of commercial trucks and drivers entering the U.S. from Mexico,

- Increasing seat belt usage through primary enforcement of seat belt laws, education, and other strategies,

- Reducing grade crossing and rail trespasser accidents through enforcement, education, and technology,

- Improving compliance with safety regulations by entities responsible for transporting hazardous materials, and

- Enhancing the effectiveness of the Federal Railroad Administration's Safety Assurance Compliance Program and aggressively using enforcement actions when voluntary and collaborative initiatives with a railroad do not promptly achieve the desired results.

Audit Coverage

A 1997 OIG audit report on the Federal Highway Administration's Motor Carrier Safety Program found that as of 1995 only 2.5 percent of the Nation's interstate motor carriers were inspected as part of safety compliance reviews. A sampling of motor carriers found that 75 percent did not sustain a satisfactory rating on safety compliance reviews. In a 1998 review, we found that 3.5 million Mexican commercial trucks entered the United States during FY 1997. Of those trucks inspected, 44.1 percent were placed out of service for serious safety violations. Motor carrier safety is a major management issue for the Department, and the OIG will provide audit coverage in FY 1999.

The Department and the OIG have also placed high priority on the transportation of hazardous materials. OIG and RSPA are jointly leading a Department-wide Program Evaluation of the Hazardous Materials Transportation Program. The objectives of the program evaluation are to (i) document the system of hazardous materials movements in U.S. commerce and DOT agency intervention actions, such as regulations, inspections, enforcement, and outreach programs, and (ii) assess the effectiveness of DOT's program as it intervenes in and affects each step in the hazardous materials transportation process. The program evaluation will document the points at which the current hazardous materials program intervenes in the transportation of these materials, from packaging to shipper to carrier to receiver, and how effectively DOT applies intervention and enforcement tools to hazardous materials shipments in the transportation stream.

Motor Carrier Safety Program: In a FY 1997 audit report, the OIG concluded that improvements were needed in FHWA's motor carrier compliance review program to expand review coverage of the motor carrier population, more accurately target carriers for review, induce prompt and sustained motor carrier compliance with

safety regulations, and ensure the quality of reviews.  We reported that during FY 1995, only 8,666 of 345,500 (2.5 percent) interstate motor carriers received compliance reviews, and 64 percent of the Nation's carriers remain unrated.  We found that FHWA's enforcement efforts were not effective in inducing prompt and sustained compliance with regulations and safe on-the-road performance.  In addition, FHWA did not ensure compliance review procedures were followed or that critical review steps were thoroughly performed.  OIG is currently auditing the effectiveness of the FHWA Motor Carrier Program and will determine whether recommendations made in earlier reports were implemented.

Motor Carrier Safety Program for Commercial Trucks at U.S. Borders:  OIG found that Mexican motor carriers had limited experience operating within U.S. safety standards, and the FHWA's strategy for opening the Mexican-U.S. border to Mexican commercial truck traffic did not provide reasonable assurance, in the near term, that trucks entering the United States will comply with U.S. safety regulations.  We also found that neither FHWA nor the states of Arizona, New Mexico, and Texas provided sufficient numbers of inspectors at border crossings.  California, however, did provide sufficient inspectors.  OIG identified a direct correlation between the condition of Mexican trucks entering the U.S. commercial zones and the level of inspection resources at the border.  California has the best inspection practices, and the condition of Mexican trucks entering at the Mexico-California border is much better than those entering all other border States.  During FY 1997, the out-of-service rate for Mexican trucks inspected in California was 28 percent compared to 42 percent in Arizona, 37 percent in New Mexico, and 50 percent in Texas.

Safety Assurance and Compliance Program:  OIG found FRA's Safety Assurance and Compliance Program (SACP) partnership and systemic approach to rail safety has improved communication and cooperation among railroad management, labor, and FRA.  SACP has also been successful in identifying and eliminating systemic safety problems.  However, the SACP process is not as comprehensive as it needs to be to achieve the desired results.  FRA must strengthen the effectiveness of SACP by:  (i) defining SACP policies and procedures more clearly, (ii) developing better railroad safety profiles, (iii) identifying systemic safety issues in safety action plans, and (iv) monitoring and enforcing railroad implementation and compliance with safety action plans.  Follow-up must be improved and firm enforcement action must be taken when a railroad does not comply with safety plans.

Rail-Highway Crossing Safety Action Plan:  OIG has initiated an audit of the Department's Rail-Highway Crossing Safety Action Plan.  The action plan involves the Department, FRA, FHWA, NHTSA, and FTA, working in partnership with the railroad and transit industries, state and local governments,

the Congress, and Operation Lifesaver. The plan presented 55 initiatives in the areas of enforcement, engineering, education, research, and legislation, intended to improve safety at the nation's railroad-highway public and private grade crossings (which total 261,317 as of September 1998). Nine out of ten fatalities involving trains occur at rail-highway crossings or as the result of trespassing on railroad tracks. In 1997, collisions at rail-highway grade crossings caused 461 fatalities and 1,540 injuries. In addition, 533 people were killed and another 519 were injured while trespassing on railroad property. OIG is focusing on evaluating DOT's effectiveness in completing the action plan's initiatives and recommendations and assessing the progress toward achieving the Department's 10-year goal to reduce rail-highway crossing accidents and casualties, including those resulting from trespassing, by at least 50 percent.

Investigative Coverage

OIG is focusing resources on investigating criminal acts that result in or contribute to accidents, including driver hours of service violations, falsification of drivers' and engineers' logs, drug and alcohol use, inaccurate maintenance records and repair logs, and the illegal transportation of hazardous materials. In 1996, large trucks contributed to one of every eight vehicle accidents. Fatigue is a significant contributing factor in many of those accidents – according to a study by the National Transportation Safety Board, fatigue is a factor in 30 percent to 40 percent of all truck accidents.

OIG has established a major investigative initiative in support of the Office of Motor Carriers (OMC) pursuit of motor carriers and drivers who falsify drivers' logs of time on the road. OIG currently has over 30 such cases open and has obtained 33 indictments for related violations in the past 18 months. In one Pennsylvania case, a Florida truck driver pleaded guilty in Federal court to a false statement pertaining to falsified driver's logs. Previously, the driver had plead guilty in state court to homicide by vehicle when his tractor-trailer crossed a center dividing line and struck five other vehicles, killing one driver and seriously injuring others. A joint OIG investigation with the state police and OMC disclosed the driver's log falsely reflected he had been off-duty the day prior to the accident, when he had actually been on duty in excess of the permissible number of hours. The driver was sentenced in state court to 12 months incarceration, 24 months probation, and fined $1,800. He was sentenced in Federal court to 21 months imprisonment, 3 years probation, and $145,000 restitution.

The investigation of illegal transportation of hazardous materials is also one of OIG's highest priority programs. Investigations have focused on the false certification of shipping manifests misrepresenting materials being shipped, false statements, mail and wire fraud, and conspiracy. Investigations in 1997 and 1998,

many conducted jointly with the Federal Bureau of Investigation, the Department of Justice Environmental Crimes Section, and the Environmental Protection Agency, have resulted in 34 indictments and 23 convictions, with total fines of $2.16 million.  In a recent case, a chemical wholesaler was charged with illegally shipping flammables aboard a Federal Express aircraft.  In addition, a barge company employee was found guilty of violating Clean Water Act regulations by polluting the Mississippi River north of New Orleans over an 11-year period.

ISSUE 3:  YEAR 2000 COMPUTER ISSUES

After a late start, the DOT, including FAA, has made a great deal of progress addressing its Year 2000 computer problems, but needs to continue with a sense of urgency in completing its work, especially in FAA and the Coast Guard.  The threat of computer-system failures is significant to DOT, the transportation industry, and the traveling public.  With about 1 year left, much work still needs to be done.  Most DOT mission-critical systems with identified Year 2000 problems have been repaired; however, the risk of system failure remains until these repaired systems are adequately tested as a unit and as a system with multiple units, including external systems with which DOT systems interface, such as the MCI telecommunications network used by the FAA Air Traffic Control System.  For the transportation industry, DOT met with representatives from various transportation sectors to promote Year 2000 awareness, and will perform a preliminary assessment of the industry's readiness by December 1998.

OIG has taken an active oversight role on both DOT internal systems and the outreach efforts.  OIG has been validating the accuracy of DOT quarterly reports to OMB.  For the upcoming testing phase, OIG will observe actual operational testing as part of our continuing oversight, to include interface testing with external systems.  Having fully functioning computer systems is a key corporate management strategy of the Department.

DOT Corporate Management Strategies

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

Key OIG Contact:  John Meche, Deputy Assistant Inspector General for Financial, Economic, and Information Technology, 202-366-1496.

Background

It has been customary in computer programming to represent years by their two final digits, a practice that for decades posed no problems.  However, the arrival of the new millennium will change the presumed first two digits from 19 to 20.  When the year 2000 arrives, computer systems may fail if programs cannot recognize "00" as signifying the year 2000, rather than 1900.  All Federal agencies – indeed, all users of computers – are advised to determine whether the shift poses the threat of breakdown to the programs upon which they rely, or has

the potential to render crucial data inaccurate. Current cost estimates to assess, repair, and test DOT systems stand at over $300 million.

We also see a major issue involving external systems that interface with DOT internal systems. Major network service providers, such as MCI, are reporting their telecommunication systems will not be Year-2000 ready until June 1999, so DOT will not be able to fully test its systems until the external systems are compliant.

Noteworthy Progress

In August 1998, we testified that 102 of FAA's mission-critical systems would not be tested and implemented by OMB's milestone of March 31, 1999. After a very late start, DOT, including FAA, has made substantial progress on its Year 2000 computer problems. As of November 13, 1998, a total of 281 of 295 mission-critical DOT systems with Year 2000 problems have been repaired, but have not been tested as a system to be certain the repairs fixed the problems. DOT has met with representatives from the aviation, maritime, surface, and rail industries to promote Year 2000 awareness and develop a high-level action plan for the Intelligent Transportation Systems. DOT also has made Year 2000 funding available under the Transportation Equity Act for the 21th Century (TEA-21) and the Airport Improvement Program. Under the direction of the Year 2000 Conversion Council, DOT sent questionnaires in November 1998 to organizations (e.g., trade associations) in the transportation industry. Based on the response, DOT will assess the transportation industry's readiness and report the results to the White House by December 11, 1998.

Audit Coverage

Since May 1997, OIG has issued four audit reports and testified before Congress twice. Major issues that DOT must still address are:

- Completing Year 2000 work on all mission-critical computer systems by March 31, 1999,

- Testing all repaired systems to ensure they properly function as a unit, and together as a system,

- Obtaining assurances that the transportation industry will be Year 2000 compliant, and

- Assuring DOT computers properly interface with external systems of other Government agencies, network service providers such as MCI, and the

transportation industry, and developing contingency plans that can be used if critical systems fail to operate after December 31, 1999.  Contingency plans are increasingly important, even if internal agency systems are Year 2000 compliant because, if the external systems fail, DOT must still be able to operate.

DOT Needs To Accelerate Year 2000 Work Schedule: On February 4, 1998, OIG testified that FAA needed to accelerate Year 2000 work because it was 7 months behind the OMB schedule.  As of November 13, 1998, DOT reported that 56 of its mission-critical systems will not be tested and implemented by March 31, 1999.  DOT still needs to accelerate its schedule to meet OMB's March 1999 date.

Testing of Renovated Systems:  Upon completion of the repair work, DOT needs to test all systems to ensure they properly function as a unit, and together as a system.  This is extremely important for the Air Traffic Control System which is a very complex and interdependent system.

Industry Awareness:  DOT agencies have made significant efforts outreaching to industry to increase awareness of Year 2000 issues.  Continued proactive attention is needed with national and international industry representatives in obtaining assurances that the transportation industry will be Year 2000 compliant.

Interfacing and Contingency Plans:  While much work has been done on fixing DOT computers, more needs to be done to ensure DOT computers can interface with other Government agencies, network service providers like MCI, and the transportation industry.  Network service providers are reporting their systems will not be Year 2000 ready until June 1999.  Contingency plans are essential due to the unknowns associated with the Year 2000.

ISSUE 4:  AIR TRAFFIC CONTROL MODERNIZATION

FAA's multibillion-dollar air traffic control (ATC) modernization effort remains a major challenge.  Cost overruns, schedule delays, and shortfalls in performance of the past should not be repeated and new systems must come in close to budget and meet the requirements of a dynamic and growing aviation system.  Modernizing the nation's ATC system is closely linked to three DOT strategic goals.  They are:

DOT Strategic Goal #1

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

DOT Strategic Goal #2

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

DOT Strategic Goal #3

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

Key OIG Contact:  Alexis M. Stefani, Deputy Assistant Inspector General for Aviation, 202-366-0500.

Background

FAA is immersed in a multi-billion dollar, mission-critical capital investment program to modernize its aging air traffic control system.  This effort involves the acquisition of a vast network of radars and automated data processing, navigation, and communications equipment.  Programs like the Display System Replacement (DSR) and the early phases of the HOST and Oceanic Computer System Replacement (HOST Replacement) mainly replace existing equipment and functionality, and are not considered software intensive development projects.  DSR provides new controller displays and workstations, and upgrades the network infrastructure at FAA's en route centers.  The HOST Replacement, currently in its first phase, replaces the mainframe HOST and oceanic computers at the en route centers.  The HOST computers process flight and radar data and are the heart of the automation system used to control air traffic in the National Airspace System.  Subsequent phases upgrade software and replace peripherals such as printers and tape drives.  Hopefully, these programs will continue to proceed well.

Other acquisitions like FAA's Wide Area Augmentation System (WAAS) and the Standard Terminal Automation Replacement System (STARS) pose significant challenges and are experiencing problems with software development and human factors issues. WAAS is a system of ground reference stations, communications satellites, and complex software that will augment the Department of Defense's Global Positioning System to provide navigation, approach, and landing capabilities for civilian use in the National Airspace System. STARS will replace air traffic controller and maintenance workstations with color displays, as well as computer software and processors, at FAA's 172 terminal air traffic control facilities. Successful deployment of WAAS and STARS is considered crucial to the implementation of Free Flight.

In addition to replacing existing systems, FAA's modernization program also includes developing new technologies to meet the emerging safety and capacity demands of the National Airspace System. These new technologies include satellite-based navigation and communications capabilities, methods to reduce runway incursions, and capabilities to move the aviation industry toward Free Flight, such as data link.

FAA estimates the cost of modernizing the system will total about $40 billion from 1981 through 2003. Congress has appropriated about $27 billion through FY 1999. FAA acknowledges the problems of the past and is addressing them with a new approach to major systems acquisitions. OIG is closely monitoring FAA's efforts to modernize its ATC systems and making recommendations to minimize further cost overruns, schedule slippages, and otherwise mitigate acquisition risks.

Audit Coverage

Both OIG and GAO have reported that ATC modernization projects have experienced substantial cost overruns, lengthy delays, and significant shortfalls in performance that have affected FAA's ability to deliver systems as promised. Significant issues that FAA must address include:

- Reassessing and rebaselining plans for transitioning to satellite communications, navigation, and surveillance technology, including Free Flight. This issue includes determining whether GPS and WAAS will be the sole means of navigation or if secondary systems will be needed. In addition, the WAAS Program recently announced software development problems associated with the integrity monitoring software. FAA and the prime contractor must resolve these software problems as soon as possible,

- Incorporating human factors in the design and development of new air traffic control systems and avoiding the problems experienced with new systems such as STARS,

- Strengthening DOT's capacity to oversee multi-billion dollar software intensive development contracts. Software intensive development contracts have typically resulted in large cost increases and major schedule slippage – an issue that has affected the pace of ATC modernization for more than a decade. While this is a significant problem associated with the FAA ATC Modernization Program, it also is an issue that bears watching during the development of Intelligent Transportation Systems by the Federal Highway Administration. Strong oversight by the Department and the OIG to, among other things, assure contractor accountability, clear agency requirements, and strengthened internal controls, will help minimize what has historically been an area of unacceptable cost growth and schedule delays,

- Eliminating systemic deficiencies and adopting a complete systems architecture for its major acquisitions,

- Improving cost-estimating and cost-accounting processes, and

- Increasing air traffic controller proficiency on a critical backup system.

We will continue to closely monitor FAA's WAAS and STARS programs, focusing on the software development problems and resolution of human factors issues. In addition, our ongoing work includes reviews of the HOST replacement, and FAA's acquisitions of technologies to reduce runway incursions and to provide data link capabilities. We also plan to initiate reviews of other technologies needed to implement Free Flight as well as FAA's program to acquire automation capabilities for the oceanic airspace.

Transition to Satellite Technology: OIG reported that FAA's transition plan for air traffic management satellite technology needed to fully address costs, financing sources, components, and timing. To successfully implement the satellite-based systems, FAA also needs to resolve issues about availability of a second signal, effects of solar activity on signals, and security from "jamming." In 1998, OIG reported that FAA needed to determine whether its WAAS Program will be a sole or primary means of navigation and stated that a back up system would be needed for the foreseeable future. OIG also reported on program financial limitations, the need to establish more realistic schedules, deferring a commitment for additional satellites, and extending the decommissioning schedule for existing navigation systems.

Design and Development of New Air Traffic Control Systems:  OIG reported that FAA did not adequately consider users' needs in the design and development of STARS, a new computer system that tracks and displays airplanes for air traffic controllers.  Controllers and maintenance technicians have identified numerous potential problems with STARS that could affect its utility to them and, as a consequence, affect air safety.  OIG reported three additional areas that posed risks to the program's costs and schedule.  A 1998 OIG review found that FAA did not adequately budget funds for controller display equipment and had no definitive plans to acquire the needed equipment for the program.  The STARS Program will not meet its original schedule and program costs are projected to increase by nearly $300 million.  Because of concerns about the significant cost growth for software development on major systems, OIG plans to initiate an audit in this area in FY 1999.

Systemic Deficiencies in Major Acquisitions:  OIG found systemic problems in FAA's major modernization acquisitions.  The problems included frequently changing requirements, inadequate oversight of contractors, poor contract specifications, and lack of comprehensive cost-benefit analyses.  In a series of reports, OIG noted that deficiencies in FAA's Advanced Automation System (AAS) Program contributed to large cost overruns and lengthy schedule delays.  In a 1998 review of AAS, OIG estimated that FAA wasted $1.5 billion on the program.  In another review, OIG recommended FAA reinstitute the use of checklists and followup processes, and strengthen planning for the integration of multiple systems.  In addition, due to serious supportability and Year 2000 concerns, OIG recommended FAA accelerate its program to acquire new mainframe computers at its enroute air traffic control centers.

Systems Architecture for Major Acquisitions:  GAO found that FAA failed to define and enforce a complete air traffic control systems architecture; a comprehensive blueprint to guide and constrain the development of the related systems.  FAA also lacked detailed information technology and communications standards.  FAA's failure to define and hold to a complete architecture has spurred incompatibilities among existing systems, and the likelihood that future systems will not be compatible.  FAA has recently issued a draft National Airspace System architecture and is working closely with the aviation industry to obtain consensus.

Cost-Estimating and Cost-Accounting Processes:  FAA's air traffic control modernization program lacks reliable cost information.  FAA's weak cost-estimating processes lead to estimates that are not analytically derived and supported.  FAA also lacks an accounting system that accumulates all project costs, increasing the likelihood of poor investment decisions throughout the life cycle of the projects.

<u>Air Traffic Controller Training on Critical Backup System:</u>  OIG recently reported that air traffic controllers at FAA's en route centers needed increased proficiency training using the HOST computer's backup system.  While we concluded that the backup system, called Direct Access Radar Channel (DARC), was reliable, we noted DARC has limitations that reduce controller efficiency.  OIG found that reliance on DARC is expected to increase during the HOST Replacement transition period.  Further, a large number of air traffic controllers at the five en route centers we visited had very limited or no operational experience controlling air traffic using DARC.  Thus, in order to minimize the impact of outages during the HOST Replacement, we recommended FAA ensure all center air traffic controllers receive additional training using DARC.

ISSUE 5: FAA FINANCING

Financing FAA activities and the air traffic control system is a major issue that the Department, the Congress, and the aviation community need to address. Currently, FAA faces significant risks in meeting rising operations costs. Over the past 10 years FAA's annual operations requirements have almost doubled from $3 billion to almost $6 billion and the cost of operations is expected to continue to rise. For example, a recent increase in pay for air traffic controllers could require as much as $1 billion in additional funding over the next 5 years.

FAA needs to find ways to manage within budgets that are not expected to keep pace with the growth in operations costs. FAA must mitigate the risks of funding shortfalls by controlling costs and increasing productivity. Also, a reliable cost accounting system is needed to support management decisions, and help identify actions that can reduce operating costs. Credible information will strengthen FAA's capacity to justify sufficient funding. Adequate financing for FAA activities underpins all five DOT strategic goals and one key Departmental corporate management strategy. They are:

DOT Strategic Goal #1

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

DOT Strategic Goal #2

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

DOT Strategic Goal #3

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

DOT Strategic Goal #4

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

DOT Strategic Goal #5

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

DOT Corporate Management Strategy

Resource and Business Process Management:  "Foster innovative and sound business practices as stewards of the public's resources in our quest for a fast, safe, efficient and convenient transportation system."  Included under this strategy are budget management, resources, financial management, and asset management.

Key OIG Contacts:  John Meche, Deputy Assistant Inspector General for Financial, Economic, and Information Technology, 202-366-1496; Alexis Stefani, Deputy Assistant Inspector General for Aviation, 202-366-0500.

Background

FAA's funding predicament for FY 1999 operations is caused, in part, by a new pay system agreed to between FAA and the National Air Traffic Controllers Association.  The new pay system could increase costs as much as $1 billion over the next 5 years with an immediate impact of $102 million on FAA's FY 1999 budget.  To further compound this issue, FAA has been prohibited by federal court from collecting approximately $93 million in user fees.  FAA will need to identify offsetting savings and productivity gains to meet its funding requirements. Achieving the necessary funding goals will require difficult decisions on what will be cut.

Securing adequate and stable funding sources for FAA is a critical issue facing DOT and the Congress.  Recognizing the seriousness of FAA's long-term financing problems, Congress directed that an independent assessment be made of FAA's budgetary requirements. The National Civil Aviation Review Commission was created to analyze FAA's budgetary requirements through FY 2002, including ways to fund the needs of the aviation system.  In December 1997, the Commission recommended that FAA be shielded from discretionary budget caps and that a direct link be established between revenues from aviation users and spending on aviation services.  The Commission also recommended that:  air traffic control become a performance-based service; FAA have a cost accounting system and authority to start innovative leasing and borrowing programs; and

FAA adopt cost-based user fees to support its air traffic system, with government funding for aviation security, safety, and government use of the system.

However, even with more liberal budgetary treatment, there are limits on revenues that can be derived from passengers, whether they are called user fees, taxes, or charges. Passengers currently pay an 8 percent tax on airline tickets and many airports impose Passenger Facility Charges to obtain funds for infrastructure projects. FAA, like other performance-based organizations in the public or private sector, must show discipline in controlling costs, particularly for operations and air traffic control acquisitions.

Audit Coverage

OIG has issued reports identifying FAA funding and accounting problems. Currently, the OIG is working on an analysis of FAA funding levels and the various assumptions used by the agency to project receipts from the trust fund, the general fund, or other sources and comparing them to various funding scenarios for operations and maintenance; facilities and equipment; airports; and research, engineering, and development accounts. Key issues associated with FAA financing include:

Accurately determining the amount of funds that will be needed to finance FAA and determining what portion of FAA's operations, air traffic control modernization, and airport infrastructure, should be financed by the trust fund, general fund, or other sources of funds such as passenger facility charges. This is a matter that will be debated in the next Congress.

Developing a cost accounting system on which FAA can be better managed and upon which "user fees" could be based. FAA cannot implement a credible and reliable cost accounting system until it first ensures its financial systems accurately capture and allocate relevant cost data and FAA obtains an unqualified opinion on its financial statements. FAA's financial management systems do not currently capture this data and until they do, FAA cannot receive an unqualified opinion.

Workforce Cost Increases: FAA and the National Air Traffic Controllers Association have negotiated a new pay system for air traffic controllers that could increase the agency's total costs of operations by as much as $1 billion over the next 5 years. FAA did not request additional funds for this pay increase in its FY 1999 budget. If FAA's future funding does not include offsetting appropriations or new revenue, and if performance improvements are not realized, the agency will face significant risks in funding the new pay system while, at the same time, meeting other critical agency requirements. These risks could be further

compounded if similar pay programs are developed in current negotiations with FAA's two other largest unions.

Cost Accounting System:  The Federal Aviation Reauthorization Act of 1996 directed FAA to develop a cost accounting system that reflects investments, costs, revenues and other financial aspects.  A fully operational cost accounting system would help FAA measure air traffic control performance, establish cost accountability, and be a basis for user fees.  FAA initially promised Congress the cost accounting system would be operational by October 1, 1998.

In August  1998, OIG reported the implementation of FAA's cost accounting system was not on schedule.  While the original schedule called for full implementation by October 1, 1998, the OIG found the schedule was overly aggressive, contained conflicting tasks, and omitted responsibilities and resource needs.  We also reported FAA had yet to establish a systematic method to identify and reflect (1) the cost of accounting adjustments, (2) cost for all development projects, (3) cost incurred by other agencies for air traffic services, and (4) the correct labor cost charged to appropriate projects.  In addition, FAA had not decided how to allocate its costs.

FAA has revised its implementation goals into two stages; an initial operational cost accounting system by December 31, 1998, and a fully operational system by March 31, 1999.  In addition, allocation rules have been drafted and are currently being validated.  In our opinion, the March 31, 1999, revised deadline for a fully operational cost accounting system is not a credible deadline and is highly unlikely to be achieved.  FAA must have an unqualified opinion on its financial statements before they can have a credible and defensible cost accounting system.

Financial Accounting and Reporting Process:  OIG identified material internal control weaknesses with FAA's financial accounting and reporting process, which resulted in OIG disclaiming an opinion on FAA's financial statements for FYs 1992 through 1997.  Based on work done as of December 2, 1998, we also expect to issue a disclaimer on FAA's FY 1998 financial statements.  These problems are discussed further under Issue 8, Financial Accounting.  Until FAA resolves its underlying financial control deficiencies, its cost accounting system will not produce accurate and defensible cost data and FAA will not be able to sustain a cost-based user fee program.

ISSUE 6:  SURFACE, MARINE, AND AIRPORT INFRASTRUCTURE NEEDS

Replacement of transportation infrastructure and construction of projects triggered by new needs is crucial to U.S. economic viability and quality of life.  The Transportation Equity Act for the 21$^{st}$ Century (TEA-21) provided an enormous infusion of funds for surface transportation infrastructure.  Numerous major transportation infrastructure projects are in progress at a cost of billions of dollars. It is imperative that DOT funds are used effectively and efficiently to improve and expand highway, transit, airport, and maritime infrastructure projects.  Meeting U.S. transportation infrastructure needs is tied to three DOT strategic goals.  They are:

DOT Strategic Goal #2

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

DOT Strategic Goal #3

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

DOT Strategic Goal #4

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

Key OIG Contacts:  Alexis Stefani, Deputy Assistant Inspector General for Aviation, 202-366-0500; Patricia J. Thompson, Deputy Assistant Inspector General for Surface Transportation, 202-366-0687; Tom Howard, Deputy Assistant Inspector General for Maritime and Departmental Programs, 202-366-1534; and, Todd Zinser, Assistant Inspector General for Investigations, 202-366-1967.

Background

TEA-21 guarantees a record $198 billion investment over a 6-year period to maintain and improve America's transportation infrastructure. Significant funding is provided for highway and transit programs, highway safety, and bridge replacement and rehabilitation.  TEA-21 provides funding for programs to protect or enhance the environment, such as $8.1 billion for Congestion Mitigation Air Quality improvements and $500 million for clean fuels.  Intelligent Transportation

System projects will receive $1.3 billion to develop and deploy advanced technologies.

TEA-21 also provides increased funding for transportation research and development on a variety of new technologies addressing critical infrastructure and safety problems, including $228 million for university education and research programs. Highway and transit discretionary grants funding will receive $16.7 billion for FYs 1999 through 2003. Improving and expanding the highway and transit infrastructure demands increased vigilance by the Department to guarantee the maximum impact. Because of the large influx of funds, there will be greater potential for fraud, embezzlement and abuse. OIG is therefore increasing its oversight of the Department's management of significant infrastructure projects.

Audit Coverage

Since October 1, 1997, OIG issued six audit reports covering selected major highway and transit infrastructure projects priced at $1 billion or more ("mega projects"). The audits focused on current costs, work completed, the accuracy of supporting data, and the potential financial and schedule risks for each mega project. As a result of these reviews, we identified lessons learned and best practices that offer opportunities for cost-savings in future large infrastructure projects, including the use of value engineering, the design-build contracting approach, owner-controlled insurance programs, and the need for a sound financial plan. Key issues include:

Strengthening internal controls to ensure adequate management and oversight of the infusion of substantial additional Federal funds for surface infrastructure projects, preventing fraud, embezzlement, and abuse of funds,

Ensuring the development of sound financial plans for high-cost transportation infrastructure projects,

Promoting the use of cost-saving techniques such as value engineering, design-build procurements, and owner-controlled insurance programs,

Monitoring major on-going infrastructure projects concerning current costs, work completed, and potential financial and schedule risks,

Recording baseline data on planned mega highway and transit projects to provide timely and comprehensive information and prioritize future reviews, and

Selecting high value projects for discretionary grants, awarded according to established criteria.

In FY 1999, OIG will continue to dedicate significant resources to assess DOT's oversight of infrastructure projects through baseline reviews to develop basic data points. We also will make in-depth reviews of major construction projects and follow up reviews on projects reviewed in previous years.

Central Artery/Ted Williams Tunnel Project: OIG found costs to complete the Boston Central Artery/Ted Williams Tunnel Project, which include the replacement of a segment of urban highway and a new airport-access tunnel under Boston Harbor, could rise as high as $11.2 billion. We also concluded there was a likelihood of higher-than-budgeted costs for change orders, contract awards, and consultant costs in the absence of aggressive cost-controls. We are currently conducting a follow up review on the project's costs, funding, and schedule.

Completion of the Metrorail System, Washington, DC: OIG found Federal, state, and local funding is sufficient to pay for construction of the four segments of the Metrorail system, with final construction costs estimated to be below the original cost estimates. The report also disclosed that the scheduled opening of one segment is at some risk, and another segment, though also at risk, is likely to open on time.

Cypress Freeway Project, Oakland, California: OIG found Federal and state funding is sufficient to pay for construction of the project, and the construction costs may be less than state estimates.

Review of Los Angeles Metropolitan Transportation Authority Metrorail Red Line: OIG found the cost and schedule estimates of the Red Line are reasonable; however, there were still funding risks. Because the Los Angeles Metropolitan Transportation Authority (MTA) lacked an up-to-date, comprehensive Finance Plan, the agency did not recognize it had insufficient revenues to fund all competing capital projects and commitments. FTA concurred with our recommendation to require MTA to develop and keep current a Finance Plan. Subsequently, on May 13, 1998, the Board adopted a Recovery Plan (Finance Plan) which identified how MTA would finance the cost to complete the on-going segments of the Red Line; meet its other responsibilities, such as a court-ordered Consent Decree to improve bus service; and fund its operating costs. OIG reviewed MTA's Recovery Plan and found it to be reasonable. We noted, however, that vigilant oversight by management will be required to ensure that the project meets Recovery Plan goals. We will continue to monitor the project and update previous audit work.

Interstate 15 Reconstruction Project in Utah: OIG found the use of the Design-Build contracting approach will enable the project to be completed ahead of schedule, saving an estimated 3 years of time compared to traditional contracting methods. The project is scheduled to open 7 months before the start of the 2002 Winter Olympic Games in Salt Lake City and surrounding environs. OIG also found the $1.6 billion cost of the project is reasonable, but funding had not been identified to cover all I-15 project costs. In August 1998, Utah's Department of Transportation requested additional Federal funding under Section 1223 of TEA-21 to cover the identified shortfall.

Allocating Discretionary Funds: OIG found that Departmental officials were frequently not funding projects identified as the highest priority (59 percent of the FHWA awards and 15 percent of the FAA awards), nor explaining or documenting the rationale for these decisions. The OIG recommended that the Secretary develop appropriate implementing guidance on allocating discretionary funds, particularly the funding of the highest national priority projects and documentation of decision rationale. The Department notified Congress that it would publish selection criteria for highway discretionary programs. In addition, the Department will provide the appropriate Committees with quarterly lists of discretionary projects selected for funding and an explanation of how the projects were selected based on the criteria. The Department also agreed that discretionary funding decisions should be documented appropriately, and Departmental officials will take the steps necessary to ensure such documentation is kept.

Investigative Coverage

OIG has made the investigation of infrastructure contract/grant fraud as one of its highest priorities. With the infusion of the tremendous amount of TEA 21 funds into rebuilding the nation's highways and transit facilities, the Office of Investigations has developed a TEA 21 strategy to protect the expenditure of Federal funds. The foundation of this strategy encompasses outreach and liaison by OIG in working with FHWA, FTA, DOT grantees, and other law enforcement agencies, including the Federal Bureau of Investigation and state criminal investigations units, to ensure that public monies are spent wisely and efficiently.

OIG has actively promoted measures within the Department to deter criminal activities. For example, as a follow up to a false claims case involving a highway construction project, OIG recommended that FHWA establish procedures in all States that require a certification statement on all claims and supplemental agreements, similar to the statement required for progress payments on highway construction contracts. The contractor would affirm that all information contained on a claim is true, correct, and accurate, subject to criminal prosecution for false

statements. This would aid in the prosecution of contractors who file misleading and false claims.

Contractor "Kickbacks":  An ongoing investigation by the OIG and the Federal Bureau of Investigation led to three guilty pleas involving conspiracy, bribery, and money-laundering.  One FHWA employee was sentenced to 37 months incarceration, 3 years supervised release, and fined $5,000 for soliciting and receiving more than $150,000 in cash and money orders from government contractors.  Two contractors have pleaded guilty to conspiracy charges on FHWA contracts involving advanced vehicle highway technologies.  A separate investigation involving the payment of gratuities to an FTA grantee employee resulted in a guilty plea by the vice president of a Cambridge, MA, construction company and charges of corruption for soliciting and obtaining money and property.

Contractor Fraud/False Billing:  As a result of an OIG investigation, on November 12, 1998, in Madison, Wisconsin Federal Court, Daniel Benkert pleaded guilty to making false statements on highway construction projects.  Benkert was a supervisor for Yahara Materials, a road construction company that also owns several aggregate pits which provide materials for the construction industry. Benkert instructed his subordinates to prepare at least 148 false weight tickets representing truck loads of gravel or aggregate that were never delivered, but billed, to a Federal-aid highway project.

Maritime Infrastructure

Background

The United States is dependent on the marine transportation system for 95 percent of overseas international trade and 25 percent of domestic trade.  This system, which is comprised of the nation's waterways, ports, and intermodal connections, requires coordination to operate efficiently and effectively.  Although national, state, and local government agencies share ownership, management, and operation of the marine transportation system with the private sector, there is no coordinated national leadership.  Without coordinated leadership, the nation's mobility, safety, economic growth, competitiveness, natural environment, and security may be adversely impacted.

The Department of Transportation needs to provide leadership to maintain, improve, and develop port, waterway, and intermodal infrastructure and services to meet current and future needs.  For example, the marine transportation infrastructure (channel depths and widths, deep-draft anchorages, portside facilities, and rail and highway access) is not adequate to meet the nation's

growing demand for moving passengers and cargo. Maritime trade is predicted to double within the next generation with megaships, including large container vessels capable of carrying over 6,000 20-foot container equivalent units, and passenger vessels with capacities exceeding 3,000 passengers. U.S. competitiveness and economic growth will be dependent upon the ability of U.S. ports to accommodate these vessels.

Since most of the nation's channels and harbors are not naturally deep enough to accommodate modern vessels, dredging is essential. Currently, only three U.S. ports, all located on the West Coast, provide channel depths of 50 feet or more that are capable of handling a fully loaded megaship. However, dredging has become controversial given concerns about dredged material disposal, increasing environmental awareness, and recognition of the sensitivity and value of the coastal ecosystems. In addition, since many ports are publicly owned state or local entities with limited budgets for dredging, economic issues must be resolved. The U.S. port industry is concerned over the Supreme Court decision that the Harbor Maintenance Tax on exports was unconstitutional. During fiscal year 1997, the trust fund generated by this tax provided about $546 million for dredging. Effectively addressing these factors is critical to economic growth and environmental stewardship.

There is a need to develop a dedicated funding stream for maritime infrastructure maintenance and improvements. The Congress did not approve the Administration's recently proposed replacement for the Harbor Maintenance Tax. Also, user fees are unpopular and funding for system projects is administered by numerous federal agencies. Inadequate and uncoordinated funding will adversely impact dredging, port development, and ultimately port selection by carriers. Finding opportunities for cost-sharing ventures and public-private partnerships to improve the maritime infrastructure is critical to U.S. competitiveness.

The Office of Inspector General plans to review the Department's efforts to maintain and upgrade the maritime infrastructure, especially as they relate to megaport development, environmental issues, and funding mechanisms. We will focus our work on initiatives resulting from the Department's November 17-19, 1998, conference on the Marine Transportation System.

Airport Infrastructure

Background

The majority of funds to maintain and improve the nation's airport infrastructure come from three sources: airport and special facility bonds, Airport Improvement Program (AIP) grants, and passenger facility charges (PFC) on airline tickets.

Airport industry associations estimate that through the year 2002, airports in the National Airport System will need $10 billion annually for capital investments to maintain the integrity of airport infrastructure. This estimate includes all capital projects, whether or not eligible for AIP grants.

Airports in the National Airport System are eligible for AIP grants awarded by the FAA. AIP grants are funded through the Airport and Airway Trust Fund, which is supported entirely by taxes on aviation users. AIP funding in FY 1998 was $1.7 billion. AIP funding for FY 1999 is $1.95 billion, but only $975 million can be obligated through March 1999 or prior to reauthorization of the AIP. FAA gives the highest priority for AIP funds to projects that address safety, security, noise mitigation, and rehabilitation/reconstruction of existing airfields. According to FAA records, from 1982 through 1996, 53 percent of AIP funds were spent for runways, taxiways, and aprons. The next largest use of AIP funds was noise projects, which accounted for 11 percent of total AIP expenditures. The OIG will continue to review the use of airport revenue to help the FAA ensure that maximum benefits to the flying public accrue from these funds.

Audit Coverage

In recent years, the OIG has issued a series of reports on airport infrastructure subjects. Key issues that must still be addressed in funding airport infrastructure needs include:

Eliminating the prohibited diversion of airport revenues by airport sponsors,

Strengthening prevention of fraud, waste, and abuse especially in view of the infusion of substantial additional amounts of Federal funds for infrastructure,

Selecting high value projects for AIP grant funds, and

Establishing policy on PFC funding eligibility requirements.

Diversion of Airport Revenue: The OIG has issued two reports since January 1998 identifying airport revenues used for prohibited purposes. One report found that the local county commission diverted $2.6 million in airport generated revenue to the county general fund for nonairport related purposes. In September 1998, OIG notified FAA of an additional $1 million in potential revenue diversions at five airports nationwide.

Airport Financial Reports: OIG found that 4 years after Congress legislated requirements associated with airport revenue use, FAA had not taken action to issue final policies. In addition, FAA did not provide effective oversight of airport

financial reports. About 20 percent of the airport sponsors required to file reports had not done so, and the majority of the reports that were filed contained incomplete and inaccurate information.

The FAA Associate Administrator of Airports has made issuing final policy on the use of airport revenue a top priority and plans to publish the policy by the end of December 1998. In addition, FAA incorporated a specific standard on the use of airport revenue in the FY 1999 performance plans of the Associate Administrator of Airports, the Director of Airport Safety and Standards, and the Manager of the Airports Compliance Division. Also, FAA issued Advisory Circular (AC) No. 150/5100-19, *Guide for Airport Financial Reports Filed by Airport Sponsors*, on September 10, 1998, which updates airport financial reporting forms and instructions.

Awarding of Discretionary Funds: FAA has developed criteria and was following its established process for identifying and prioritizing projects for discretionary funding. However, we found FAA sometimes direct funds to lower priority projects within a region instead of funding the highest national priority. FAA allocated $100 million, or 15 percent of its $669 million in FY 1997 discretionary funds to lower priority projects. Also, contrary to FAA policy, some airport sponsors requested discretionary funds for high priority projects while planning to use entitlement funds for lower priority projects that would not compete favorably for discretionary funds in the national priority system.

PFC Policy Issues: PFCs have become an important funding source for airport projects. However, FAA does not currently have a policy to address the funding of "landside" projects with PFCs, such as the light-rail extension recently approved at JFK airport. In our opinion, the FAA Administrator, prior to approving any such PFC request, should make a determination of: (1) the extent to which the "landside" project is likely to result in additional air transport passengers; (2) any impacts the approval would have on the financing of airside projects related to safety, security, capacity, or noise reduction; and, (3) whether cost sharing or the use of surface transportation funds should be used to finance a portion of such projects. This issue is of even more significance given the likelihood that proposals to increase the current $3 PFC cap may be considered during the FAA reauthorization process.

ISSUE 7:  TRANSPORTATION AND COMPUTER SECURITY

DOT needs to advance the nation's vital security interest by ensuring that the transportation system is secure and that our computer systems are safe from illegal intrusion.  Protecting the security of the traveling public is among DOT's most challenging tasks.  Transportation and computer security are linked to two DOT strategic goals and one DOT corporate management strategy.  They are:

DOT Strategic Goal #1

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

DOT Strategic Goal #5

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

DOT Corporate Management Strategies

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

Key OIG Contacts:  John Meche, Deputy Assistant Inspector General for Financial, Economic, and Information Technology, 202-366-1496; and Alexis Stefani, Deputy Assistant Inspector General for Aviation, 202-366-0500.

Background

Presidential Decision Directives 62 and 63, dated May 22, 1998, require Federal agencies to implement a more systematic approach to fighting terrorism, secure their critical information systems and facilities within 2 years, and assist industries to secure the national transportation infrastructure within 5 years.  The U.S. transportation system includes 3.9 million miles of public roads, 1.5 million miles of oil and natural gas pipelines, 123 thousand miles of major railroads, over 24 thousand miles of commercially navigable waterways, over 5 thousand public-use airports, 508 public transit operators in 316 urbanized areas, and 145 major ports on the coasts and inland waterways.  The ability to prevent terrorist attacks within this vast system, and fraudulent intrusions into computer systems must be

strengthened. Vulnerabilities of the information and communications infrastructure also affect every aspect of the transportation industry.

Civil aviation security remains a top priority. In February 1997, the White House Commission on Aviation Safety and Security reported to the President and made 31 recommendations to improve security for travelers. FAA was responsible for implementing 21 of the recommendations. As of October 1998, FAA has completed actions on 10 of the recommendations and improvements to address the remaining recommendations are in-progress.

Audit Coverage

In recent years, OIG has issued reports on aviation and computer security highlighting various weaknesses. Key elements of these issues are:

Reducing the vulnerabilities in airport security controls,

Enhancing the use of new technologies such as explosives detection equipment,

Improving compliance with shipping requirements related to hazardous materials and dangerous goods, and

Developing staff expertise and technical capabilities to detect intrusions to DOT and FAA computer networks and acting to reduce vulnerabilities.

In addition, OIG testified on aviation and computer security issues requiring immediate DOT attention.

Airport Security: OIG reported that airports and air carriers were not complying with access control and challenge requirements, and passenger screening checkpoint operators failed to detect improvised explosives devices at an alarming rate. OIG is currently conducting audits of FAA's oversight of the aviation industry's compliance with airport access control requirements, and passenger profiling and checked baggage screening requirements.

Deployment of Explosives Detection Equipment: A 1998 audit of FAA's deployment of explosives detection equipment found that air carriers were underutilizing the equipment already deployed for screening checked baggage, and the equipment performance in airports differed from its performance during certification testing. OIG continues to monitor FAA's explosives detection equipment deployment activities and progress.

Dangerous Goods/Cargo Security: A 1997 audit found substantial rates of noncompliance with dangerous goods regulations and cargo security requirements

during assessments and tests of air carrier and airfreight forwarders operations. Also, a 1997 OIG/FAA joint review of air courier operations found compliance with cargo security requirements unacceptable and controls over air courier shipments inadequate.

Aviation Security:  In May 1998, OIG testified that to meet current and future threats to aviation security, FAA needs an integrated strategic plan to guide its efforts and prioritize funding needs.  The strategic plan should include a balanced approach covering basic research, equipment deployment and use, certification and operations testing processes, data collection and analysis on actual operator performance, and regulation and enforcement of aviation security requirements.

Computer Security:  In August 1998, OIG testified that DOT had not obtained assurances of compliance with DOT security requirements from outside users of its computer networks, and only 1 of the 20 major DOT networks had been certified as secured.  FAA also needs to implement more sophisticated network security measures when modernizing the National Airspace System with open system and common network technologies.  Physical security over the Host computers in the en-route centers needs to be improved to avoid losing both the primary and backup computers to a single catastrophic event.

ISSUE 8:  FINANCIAL ACCOUNTING/CHIEF FINANCIAL OFFICERS ACT

DOT has made significant progress in improving its financial accounting and reporting systems.  The President has established a goal to earn an unqualified audit opinion on the Governmentwide FY 1999 financial statements.  The Department also has adopted this goal for its financial statements.  Three major issues stand in the way of DOT receiving an unqualified opinion on its financial statements, the most challenging being the FAA property and equipment accounts totaling about $12 billion.  FAA cannot implement a reliable and credible cost accounting system until it receives an unqualified opinion on its financial statements.  The Department has developed a plan to correct problems with its property and equipment accounts.  Sound financial accounting is a key corporate management strategy in the Department.

DOT Corporate Management Strategy

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

Key OIG Contact:  John Meche, Deputy Assistant Inspector General for Financial, Economic, and Information Technology, 202-366-1496.

Background

Four Federal statutes have established new standards for financial accounting and reporting by federal agencies, starting with the Chief Financial Officers Act of 1990 (CFO).  These laws aim to improve financial management, control of funds, and reliability of financial information.  Pertinent laws adopted subsequent to the CFO Act include the Government Performance and Results Act of 1993, the Government Management Reform Act of 1994, and the Federal Financial Management Improvement Act of 1997.

Audit Coverage

Since passage of the CFO Act, OIG has issued 33 audit reports on DOT financial statements.  Those reports made 295 recommendations regarding 196 findings.

OIG's most current work includes three audit reports in March 1998 on DOT's Fiscal Year 1997 Financial Statements; the DOT Consolidated Financial Statements, and the financial statements for the Federal Aviation Administration and the Highway Trust Fund.  Major financial areas that need to be addressed are:

Developing and implementing a plan for FAA to account for and value its property and equipment, including its multi-billion dollar work-in-process accounts for Air Traffic Control Modernization,

Computing a reliable estimate of Coast Guard's future liability for military retirement pay and health care costs, and

Ensuring that the Treasury Department develops adequate support for trust fund revenues and account balances totaling $28 billion.

We also reported that the Department's core accounting system did not support the financial statements, and the Department does not have a cost accounting system in place. For FY 1998 financial statements, cost accounting systems are needed to provide cost information to evaluate program accomplishments and performance measures included in the Department's Strategic Plan.

With respect to FAA, on December 2, 1998, we identified three major issues standing in the way of FAA getting an unqualified audit opinion on its financial statements.

The work-in-process account, with a current balance of $3.7 billion, includes erroneous cost data and projects that were completed over 5 years ago. Only active projects should be in this account.

FAA cannot provide supporting documentation for its real property (land, buildings and structures) valued at $2.5 billion, and must use alternative procedures to compute supportable real property values.

Personal property (equipment) was valued at $4.4 billion, but FAA cannot support its acquisition costs because much of the costs were "written off" as operating expenses.

At this late stage, there are no easy solutions. Hard work, effective teamwork, accountability, and operating with a sense of urgency are a must. DOT and OIG are working together closely to correct problems identified in audits. Some fixes will be time consuming and costly. Further, some of DOT's financial management systems are out of date and are in the process of being replaced. The Department is developing temporary processes to provide adequate support for financial statements until old systems are replaced.

ISSUE 9:  AMTRAK FINANCIAL VIABILITY/MODERNIZATION

Congress created the National Passenger Railroad Corporation, "Amtrak", in 1971 to provide a national system of modern intercity passenger rail.  Since its creation, it has been the shared goal of Congress and Amtrak for the service to operate without Federal operating assistance.  However, Amtrak has continued to rely heavily on Federal funds to cover its annual operating losses.  Amtrak's current plans are to eliminate the need for this assistance by the end of FY 2002 because it is uncertain how much longer, and to what extent, Congress will be willing to provide operating assistance.  Amtrak modernization is closely linked to three DOT strategic goals.  They are:

DOT Strategic Goal #2

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

DOT Strategic Goal #3

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

DOT Strategic Goal #4

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

Key OIG Contact:  Mark Dayton, Director, Technical Staff, 202-366-2001.

Background

Section 202 of the Amtrak Reform and Accountability Act of 1997 (ARAA) directed the Office of Inspector General to contract with an independent entity to conduct a complete analysis of Amtrak's financial needs through FY 2002.  The contract was awarded in May 1998 and a final report has been issued.  The law requires the OIG to monitor the contractor's progress and to perform such overview and validation or verification of data as is necessary to assure that the independent assessment meets the requirements of the ARAA.

The assessment validated Amtrak's reporting of its current financial status and reviewed Amtrak's systems for financial reporting.  A key element of the assessment was to analyze Amtrak's Strategic Business Plan to determine whether

its projections for achieving self-sufficiency by the end of FY 2002 were reasonable. The assessment reviewed Amtrak's estimates of capital needs and produced alternative capital requirements scenarios. The assessment compared the various estimates of capital needs to projected available capital investment resources to identify any potential funding shortfalls.

Audit Coverage

OIG has performed several Amtrak-related reviews in recent years. Significant issues that must be addressed include:

Implementing substantial infrastructure improvements to the Northeast Corridor in order to realize the projected benefits of high-speed rail service, and

Mitigating the risks in Amtrak's Strategic Business Plan. Amtrak has significant capital needs and the projected level of Federal funding between FY 1999 and FY 2003 is likely to fall short of needs by $0.5 billion to $1.8 billion. To the extent that Amtrak's operating losses are greater than projected, this capital shortfall will increase as Amtrak will need to use more of its Federal funding to cover operating losses, leaving less for capital spending. Amtrak's plans, if not adjusted, will result in operating losses in FY 2003 and beyond that will likely require continued Federal operating support.

High-Speed Rail in the Northeast Corridor: Amtrak plans to begin high-speed rail service in October 1999. When fully implemented, service between Boston and New York will take 3 hours, 10 minutes and service between New York and Washington, D.C. will take 2 hours, 45 minutes.[1] Amtrak's original 1995 budget for trains, maintenance facilities, and infrastructure improvements was $1.9 billion; by October 1998 it had grown to $2.47 billion. Delays in the electrification project construction schedule will make the October 1999 start-up date a challenge, but it is one Amtrak is confident will be met. Finally, if they are not addressed, an estimated $3.2 billion in remaining Northeast Corridor infrastructure needs will negatively affect the speed and reliability of this service, which will ultimately stifle ridership and constrain revenues. As Amtrak attempts to meet its congressional mandate of becoming operationally self-sufficient by the end of FY 2002, high-speed rail revenues are expected to play a critical role.

Independent Assessment of Amtrak: This was completed in November 1998, and assessed the likelihood that Amtrak will meet its goal of achieving operating self-sufficiency by the end of FY 2002. We reviewed the projections in Amtrak's

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[1] Current running times are: 4 hours, 45 minutes (New York to Boston); 3 hours, 2 minutes (New York to Washington, DC)

Strategic Business Plan to determine whether the actions Amtrak has specified as a means of reaching this goal are reasonable. We found that portions of the plan are at risk, and that if the plan were followed without modification, Amtrak's cash loss over the period FY 1999 to FY 2003 would be $0.8 billion higher than forecast in the plan, $2.9 billion versus $2.1 billion. We fully expect that Amtrak will make adjustments to its business plan, as it has in FY 1998, and replace nonperforming activities with new activities to increase revenues or decrease costs, thereby mitigating at least some of this additional loss.

Amtrak has estimated its capital needs total between $3.9 billion and $4.7 billion for the period FY 1999 through FY 2003. Expected Federal funding during this period is $2.2 billion which would result in a funding shortfall of at least $1.7 billion. We believe Amtrak's bare minimum capital needs total $2.7 billion, but recommend a higher level to sustain Amtrak beyond FY 2003 and provide funds to invest in new business ventures. This level would be between $3 and $4 billion during the period FY 1999-FY 2003. We note that the funding shortfall for even meeting minimum needs would total $0.5 billion. These projected shortfalls assume that Amtrak's operating losses would not exceed what it projects in its business plan. If they do, Amtrak will need to use more of its capital funding to offset the losses, which would further deplete the amount of funding available for capital investment.

The Amtrak Board is aware of the risk and has informed the OIG that it has already initiated changes to the Strategic Business Plan that will eliminate at least $390 million of at-risk revenues and cost reductions cited in the assessment.

The ARAA requires the OIG to assess Amtrak's 1999 Strategic Business Plan. OIG has taken note of the Amtrak Board's observations, concerns, and changes to its Strategic Business Plan, and will address their validity during the next phase of OIG's congressional mandate.

ISSUE 10:  DOT IMPLEMENTATION OF GPRA

Many of DOT's outcomes such as improved safety, reduction in fatalities and injuries, and well-maintained highways depend in large part on actions taken and assistance provided by third parties outside the Department, including other Federal agencies, states, and various components of the transportation industry. Their assistance will be critical in meeting DOT's goals.  Another major factor that will impact DOT's ability to achieve its goals is the effective utilization of human resources.  DOT must effectively manage the workforce, recruit highly qualified individuals for vacant positions, and provide requisite technical and other training in order to successfully meet the management, safety, and efficiency challenges facing the U.S. transportation system.

Key OIG Contact:  Mark Dayton, Director, Technical Staff, 202-366-2001.

Background

GPRA required the development, by all Federal agencies, of 5-year strategic plans and annual performance plans and reports.  DOT issued its first strategic plan in September 1997, and its first performance plan for FY 1999 in February 1998.  In a rating of agency plans by Congress, both were found to be the best among those submitted by 24 Federal agencies.  Nevertheless, the General Accounting Office has identified several weaknesses in these plans, especially in the area of crosscutting issues and the verifying and validating of performance data.  The Department's first performance report to Congress is due March 31, 2000.

Audit Coverage

In FY 1998, we issued 19 audit reports that addressed DOT's implementation of GPRA.  Although DOT's strategic and performance plans were highly rated, we identified a number of programmatic and/or operational areas requiring improvement.  Some of the areas include:

Establishing performance goals and measures for:  (1) FAA's personnel reform initiatives and runway incursion program, (2) USCG's oversight of private sector oil spill response capabilities, and (3) FRA's commuter rail safety requirements,

Completing performance goals and measures for:  (1) the diversion of airport revenue, and (2) risk of terrorism to U.S. passengers at foreign and domestic ports and waterfront facilities, and

Improving performance goals and measures for:  (1) FAA's contract tower program, and (2) DOT's and FAA's FY 1997 Financial Statements.

As stated in DOT's FY 1999 performance plan, OIG will selectively: (1) verify and validate performance data, and (2) assess performance measures to determine their appropriateness for measuring progress toward stated goals. Moreover, to further enhance our work in this area, we have developed a 2-day course on auditing GPRA implementation. This course, which is being given to all audit staff, addresses relevant GPRA regulations, policies, and guidelines; OIG oversight responsibilities; and approaches for auditing performance goals, measures, and data. To date, nearly 50 auditors have received the training.

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