

TOP MANAGEMENT CHALLENGES

Department of Transportation

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Office of the Secretary
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Office of Inspector General

Subject: **INFORMATION:** DOT's FY 2007
Top Management Challenges
Report Number PT-2007-004

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Inspector General

Reply to
Attn. of: J-1

To: The Secretary
Deputy Secretary

The Office of Inspector General (OIG) has identified 10 top management challenges for the Department of Transportation (DOT) for fiscal year (FY) 2007. In considering the items for this year's list, we continue to focus on the Department's key strategic goals to improve transportation safety, capacity, and efficiency.

The OIG's list for FY 2007 is summarized below. This report and the Department's response (see Appendix) will be incorporated into the DOT Performance and Accountability Report, as required by law. The exhibit to this report compares this year's list of management challenges with the list published in FY 2006.

• **Defining, Developing, and Implementing Strategies To Improve Congested Conditions on the Nation's Highways, Ports, Airways, and Borders**

- *Leading Stakeholders*
- *Overcoming Organizational Structures That Inhibit Intermodal Tradeoffs*
- *Funding Future Infrastructure Needs Will Be a Challenge*
- *Proposals for Market-Based Solutions To Better Utilize Existing Capacity Raise Important Policy Issues*
- *Keeping Planned Short- and Long-Term Aviation Capacity Enhancing Initiatives on Schedule To Relieve Congestion and Delays*

- **FAA Reauthorization—Reaching Consensus on a Financing Mechanism To Fund FAA and Establishing Funding Requirements**
 - *Deciding on a Financing Mechanism That Promotes a More Efficient Use of the Air Traffic Control System and Is Considered Equitable by All Users*
 - *Determining the Next Generation Air Transportation System’s Funding Requirements, Quantifying Expected Benefits, and Developing a Roadmap for Industry To Follow*
 - *Continuing Efforts To Address the Expected Surge in Air Traffic Controller Attrition*
 - *Using the Cost Accounting System To Control Costs and Improve Operations*
- **Responding to National Disasters and Emergencies—Assisting Citizens and Facilitating Transportation Infrastructure Reconstruction**
 - *Clarifying Roles and Responsibilities Given Expanded Mission Requirements*
 - *Ensuring Continued Vigilance in Protecting Taxpayer Funds Spent for Relief and Recovery Efforts*
- **Strengthening Efforts To Save Lives by Improving Surface Safety Programs**
 - *Promoting Improved Performance Measures and Enhanced State Accountability To Maximize Efforts To Reduce Fatalities Caused by Impaired Driving*
 - *Building on Successful Efforts To Better Enforce Motor Carrier Safety Regulations*
 - *Ensuring the Integrity and Future Modernization of the Commercial Driver’s License Program*
 - *Enhancing Railroad Safety Through Improved Oversight of Grade-Crossing Reporting and Better Identification of Trends*
- **Aviation Safety—Performing Oversight That Effectively Utilizes Inspection Resources and Maintaining Aviation System Safety**
 - *Advancing Risk-Based Oversight Systems*
 - *Maintaining a Sufficient Inspector Workforce*
 - *Reducing the Risk of Accidents on the Ground and in the Air*

- **Making the Most of the Federal Resources That Sustain Surface Transportation Infrastructure Improvements by Continuing To Emphasize Project Oversight**
 - *Initiatives To Improve the Oversight of Highway Funds Need To Be Implemented Effectively To Ensure That Projects Are Completed On Time, Within Budget, and Free From Fraud*
 - *FHWA's Oversight Must Include Actions To Ensure That Highway Tunnels Are Safe for the Driving Public*
 - *FTA Must Continue To Exercise Vigilant Oversight To Ensure Large and Complex Transit Infrastructure Projects Are Completed on Time and Within Budget*
- **Achieving Reform of Intercity Passenger Rail**
 - *Amtrak Must Do More To Improve Cost-Effectiveness, Operate Efficiently, and Improve Performance*
 - *Amtrak Needs a New Model for Providing Passenger Rail Transportation*
- **Improving Acquisition and Contract Management To Reduce Costs and Eliminate Improper Payments**
 - *Institutionalizing the Use of Defense Contract Audit Agency Contract Audit Services*
 - *Strengthening Financial Management Oversight of Institutions Performing Research Under DOT Cooperative Agreements and Grants*
 - *Promoting More Vigilance and Enhanced Oversight of FAA's Acquisition and Contract Management Practices*
 - *Ensuring That Department Employees Maintain High Ethical Standards*
 - *Enforcing Suspensions and Debarments More Rigorously*
- **Protecting, Monitoring, and Streamlining Information Technology Resources**
 - *Enhancing Air Traffic Control Systems Security Through Resource Commitment and Progress Measurement*
 - *Meeting New Security Standards While Recertifying Systems Security*
 - *Securing the Consolidated IT Infrastructure and Eliminating Operating Administrations' Fragmented Systems Backup/Recovery Sites*
 - *Working With Operating Administrations To Strengthen Oversight of IT Investment and To Streamline Duplicative IT Systems*
- **Strengthening DOT's Coordination of Research, Development, and Technology Activities and Funding**
 - *Ensuring Effective Coordination of DOT's Research, Development, and Technology Activities*

If you have any questions concerning this report, please call me at (202) 366-1959 or Todd J. Zinser, Deputy Inspector General, at (202) 366-6767. You may also contact Theodore P. Alves, Principal Assistant Inspector General for Auditing and Evaluation, at (202) 366-1992.

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1. Defining, Developing, and Implementing Strategies To Improve Congested Conditions on the Nation's Highways, Ports, Airways, and Borders

The Department is implementing new initiatives to reduce transportation congestion nationwide, and this is the first year that the Office of Inspector General has reported it as an emerging issue. The Department has taken initial steps to pursue cross-modal approaches with various stakeholders; yet, there are difficult challenges the Department must overcome to achieve solutions that will provide short- and long-term benefits to the traveling public.

Transportation congestion reduces Americans' quality of life and limits economic growth. Time spent sitting in traffic or on a runway is time taken away from our families and communities, wastes billions of gallons of fuel, and costs billions of dollars in lost productivity.¹ The benefits businesses and consumers realized from reductions in the cost of moving freight in recent years² could be erased if projected increases in freight transportation are not properly addressed.³ In addition, the more than doubling of international trade in recent years has led to congestion at border gateways, which is expected to worsen as trade and security requirements increase.⁴ Congestion can be tackled by improving the efficiency and productivity of existing facilities and investing in new capacity through projects that will have the highest rate of return.

The Secretary's May 2006 plan, the *National Strategy to Reduce Congestion on America's Transportation Network*, provides a blueprint for Federal, state, and local authorities to reduce congestion. The plan's six elements are: relieve urban congestion by establishing Urban Partnership Agreements with selected communities, allow the private sector to assume a broader role in investing in transportation, promote operational and technological improvements that increase information dissemination and incident-response capabilities, establish a new "corridors of the future" competition, address freight bottlenecks and expand

¹ The Texas Transportation Institute estimated that in 2003, congestion in the top 85 urban areas caused 3.7 billion hours of travel delay and 2.3 billion gallons of wasted fuel, for a total cost of \$63 billion.

² The cost of moving freight dropped from 16.1 percent of U.S. Gross Domestic Product in 1980 to approximately 10.0 percent in 2000. *The Freight Story: A National Perspective on Enhancing Freight Transportation*. U.S. Department of Transportation. November 2002.

³ In terms of tons transported, domestic freight transportation by truck, rail, air, water, and air grew by about 20 percent from 1993 to 2002 and is expected to increase by another 65 to 70 percent by 2020. *Freight Facts and Figures 2005*. U.S. Department of Transportation.

⁴ Between 1990 and 2000, U.S. international trade more than doubled in inflation-adjusted terms, rising from about \$900 billion to \$2.2 trillion. According to the Federal Highway Administration, "Many gateways now suffer from congestion, which is expected to intensify as a result of increased demand and enhanced security measures." *The Freight Story: A National Perspective on Enhancing Freight Transportation*. U.S. Department of Transportation. November 2002.

freight policy outreach, and accelerate major aviation capacity projects and provide a future funding framework.

To date, the Department has begun a public outreach campaign to state legislators, transportation officials, and chief executive officers of major companies to encourage multi-state approaches to congestion, public-private partnerships, and multi-modal strategies. The Department has instituted working groups that meet weekly and comprise representatives from different disciplines to encourage consideration of multi-modal solutions. The Department has established target outcomes and developed performance measures and milestones to gauge progress towards these targets.

The challenges facing the Department in implementing this initiative and reducing congestion are:

- Leading stakeholders who are not used to following when the Department neither controls the purse strings nor has the final decision making power,
- Overcoming stovepipe programs and organizational structures that inhibit intermodal tradeoffs among transportation solutions,
- Meeting demands for additional resources in circumstances of constrained Federal resources,
- Achieving acceptance of market-based solutions to better utilize existing capacity, and
- Keeping aviation capacity improvements on schedule.

Leading Stakeholders

Solutions to congestion problems cut across transportation modes; however, the Department's role in funding and/or approving projects varies greatly among the modes. The Department funds and operates the air traffic control system, but states and localities set highway and transit priorities for most projects in these areas, and ports and freight railroads largely decide on investments in capacity enhancements with no Federal funding and little Federal involvement. For some modes, particularly highways and transit, Congress is actively engaged in deciding which projects to fund.

The Department faces a difficult challenge in convincing other stakeholders to follow its lead and make congestion a unifying priority in their investment decisions. To be successful, the Department needs to gain maximum leverage from those tools it has to influence decisions on transportation infrastructure investments (i.e., its "bully pulpit"), prioritization of regulatory reviews and approvals, and alignment of the Department's data and research agenda to spotlight the impact of congestion and the benefits from its relief.

Overcoming Organizational Structures That Inhibit Intermodal Tradeoffs

The different transportation modes have rarely worked together to determine the best solution to congestion in any particular bottleneck. To relieve highway congestion, for example, the solution may be to develop alternatives to building new highways, such as freight rail, transit, intercity passenger rail, or barge. However, the Department is organized by transportation mode and the different pots of transportation funding typically can only be used to support a single modal solution. The Alameda Corridor project is an example of effective cooperation among departmental modal administrations. In that project, the Federal Highway Administration and the Federal Railroad Administration worked cooperatively to create a 20-mile long rail cargo expressway linking the ports of Los Angeles and Long Beach to the intercontinental rail network near downtown Los Angeles. Separating rail and highway traffic resulted in more efficient freight rail movements and reduced traffic congestion on surface streets.

The Department needs to convince stakeholders, including its own employees, that congestion, and the intermodal tradeoffs required to solve congestion, will be a long-term priority that will endure beyond any changes in departmental leadership.

Funding Future Infrastructure Needs Will Be a Challenge

Over the long term, the Department will need to find new funding solutions for surface, maritime, and aviation infrastructure, either seeking new sources of funding or using existing funds in better ways. The National Surface Transportation Policy and Revenue Study Commission created in The Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and chaired by the Secretary has the potential to provide important insights for the Department and Congress to consider regarding funding surface transportation needs in the future. The Department should carefully weigh all alternatives for funding the Nation's surface transportation needs to set the groundwork for the next surface transportation reauthorization. In particular, there is a growing interest of private sector capital investors in surface transportation and with it, concerns in some sectors regarding the appropriateness of these investments. While the Department is working to remove or reduce barriers to private sector investment in the construction and operation of transportation infrastructure, it also needs to articulate the case that these investments are in the public's long-term interest. The Department's challenge regarding funding the Nation's aviation needs will be to achieve consensus on a financing mechanism that meets the Federal Aviation Administration's (FAA) future resource needs, promotes a more efficient use of the air traffic control system, and addresses users' equity concerns.

Proposals for Market-Based Solutions To Better Utilize Existing Capacity Raise Important Policy Issues

Building new roads and runways is one way to address congestion, but equally important is improving the efficiency and productivity of existing infrastructure. Value pricing, also referred to as peak-period or congestion pricing, is a mechanism that allocates the costs of congestion more equitably to its contributors. For highways, this can take the form of tolls that vary by the level of demand, tolls that vary by level of occupancy, and priced express lanes. For aviation congestion, the Department has a long-term goal of using a market-based strategy to reduce congestion at LaGuardia Airport and has the opportunity to consider congestion pricing as part of FAA's reauthorization proposal.

The Department's challenge will be to educate the public on pricing strategies and their benefits. This includes overcoming the perception of double taxation (i.e., the belief that the roads have already been paid for) and income-equity issues. The Department will also need to be vigilant in monitoring collateral effects of market-based pricing strategies on its constituents, such as the impact of these strategies on air service in small communities.

Keeping Planned Short- and Long-Term Aviation Capacity Enhancing Initiatives on Schedule To Relieve Congestion and Delays

In the short term, the Department needs to keep planned infrastructure projects on track. While new technologies can enhance airport arrival rates, new runways provide the most increases in capacity. FAA reports that since 2000, 12 new runway projects have been built at some of the Nation's busiest airports. A major airport project at Chicago O'Hare is underway, and additional runways are expected to be completed, including ones at airports in Boston, Philadelphia, and Seattle, between now and the end of 2008. Table 1-1 provides information on the runway projects that are tracked in FAA's Operational Evolution Plan (OEP), the Agency's overall blueprint for enhancing capacity and reducing delays.

Table 1-1. Status of Major New Runway Projects, September 2006

Airport	Initial OEP (June 2001) Estimated Completion Date	Current Estimated Completion Date	Phase	Current Cost Estimate* (in Millions)
Boston Logan	Dec 2005	Nov 2006	Construction	\$87
Philadelphia	Not in initial OEP	Dec 2007	Construction	\$65
Seattle-Tacoma	Nov 2006	Nov 2008	Construction	\$1,129
Los Angeles	Not in initial OEP	Jun 2008	Construction	\$333
Washington-Dulles	Not in initial OEP	Nov 2008	Construction	\$243
Chicago O'Hare (Phase I)	Not in initial OEP	Nov 2008	Construction	\$619

* Estimated cost data for Boston Logan, Philadelphia, Seattle-Tacoma, Los Angeles, and Washington-Dulles were obtained from airport sponsors. Estimated cost data for Chicago O'Hare were obtained from an FAA update to its quarterly report.

These six runway projects are expected to significantly increase airport operations or contribute to delay reduction. The Department's challenge is to make sure the navigation equipment, new procedures, and airspace modifications are in place when these projects are commissioned to get the expected capacity benefits.

As we have noted in the past, airspace changes—even without a new runway—can enhance the flow of air traffic. In May 2005, we made recommendations aimed at improving the overall management and execution of FAA's airspace redesign efforts, including coordination among FAA organizations. FAA has taken some steps to address our concerns and now is pursuing 20 airspace projects. The challenges facing FAA's airspace redesign efforts focus on completing complex environmental reviews and matching projects with available funds.

In the longer term, the Department and FAA need to continue to develop concepts, milestones, and transition strategies for the next generation air traffic management system being developed by FAA's Joint Planning and Development Office. The next generation system is expected to accommodate three times more aircraft through, among other things, increasing automation for controllers and shifting greater responsibility to the cockpit. The importance of FAA's efforts to develop the next generation system and corresponding funding requirements are included in our views on the challenges facing FAA in the upcoming reauthorization process.

For further information, the following reports and testimonies can be seen on the OIG web site at <http://www.oig.dot.gov>:

- *Perspectives on the Progress and Actions Needed To Address the Next Generation Air Transportation System*
- *Chicago's O'Hare Modernization Program*
- *Airspace Redesign Efforts Are Critical To Enhance Capacity but Need Major Improvements*
- *Aviation Industry Performance: Trends in Demand and Capacity, Aviation System Performance, Airline Finances, and Service to Small Airports (June 2005 and August 2006)*
- *Review of December 2004 Holiday Air Travel Disruptions*
- *Audit of Small Community Aviation Delays and Cancellations*
- *Observations on Current and Future Efforts To Modernize the National Airspace System*
- *Observations on the Progress and Actions Needed To Address the Next Generation Air Transportation System*

2. FAA Reauthorization—Reaching Consensus on a Financing Mechanism To Fund FAA and Establishing Funding Requirements

The aviation excise taxes that support Federal Aviation Administration (FAA) programs and the authorization underlying most of those programs (VISION 100) expire at the end of fiscal year (FY) 2007. Over the next year, the congressional aviation agenda will be dominated by two separate but related issues: how to finance FAA programs and the level of funding those programs require. Moving forward with reauthorization will require the Department, FAA, and Congress to reconcile very divergent stakeholder positions regarding potential financing mechanisms, obtain more precise funding requirements, and ensure tighter controls over Agency costs.

To its credit, FAA has hosted forums and held discussions with aviation stakeholders and is developing a proposal regarding the best way to finance FAA. The challenges facing FAA in this regard include:

- Deciding on a financing mechanism that promotes a more efficient use of the air traffic control system and is considered equitable by all users;
- Determining the Next Generation Air Transportation System's (NGATS) funding requirements, quantifying expected benefits, and developing a roadmap for industry to follow;
- Continuing efforts to address the expected surge in air traffic controller attrition; and
- Using its cost accounting system to control costs and improve operations.

Deciding on a Financing Mechanism That Promotes a More Efficient Use of the Air Traffic Control System and Is Considered Equitable by All Users

There has been considerable debate over whether the current excise tax system is fair, is equitable, and will generate sufficient revenues to meet future FAA needs, particularly regarding NGATS. Stakeholders have very divergent, and at times opposing, views on the answer to this question.

Proponents of the current system note that excise tax revenues, which are deposited into the Aviation Trust Fund, have increased over the past 2 years, and the estimates show revenues continuing to increase over the next decade. However, others note that revenues are less than what was estimated previously, when events such as the September 11th attacks impacted the industry as a whole.

While Trust Fund revenues are an important aspect of the debate, they are only one part of the equation. Determining whether projected revenues will be sufficient to cover FAA's costs depends on assumptions regarding future appropriations for FAA programs, such as airport grants and capital programs, as well as contributions from the General Fund. It is extremely difficult, if not impossible, to determine the "right" assumptions regarding these factors, making it equally difficult to answer whether the current financing system will be adequate in the future.

A more fundamental question regarding FAA's future is whether the air transportation system will be sufficient to meet the anticipated future demand for air travel. FAA projects that the current system (or business as usual) will not be sufficient to meet future demands. Over 700 million passengers used the system last year, and this number is forecast to grow to over 1 billion by 2015. As part of its overall solution to this problem, FAA should examine whether a financing system can promote a more efficient use of the air traffic control system. The Agency can use the expiration of the current aviation excise taxes as an opportunity to seek consensus on implementing such a system. There are a number of options for FAA to consider.

Excise Taxes. FAA has long been supported by a system of excise taxes, the revenues from which are deposited into the Aviation Trust Fund. Almost 70 percent of those revenues come from the 7.5 percent ticket tax and \$3.30 segment tax. Excise taxes are easy to collect, familiar to air travelers and industry, and difficult to evade. While the current taxes are not directly related to the FAA's costs in providing the specific services used, the General Aviation community argues that they fairly allocate costs among users. However, airlines argue that they pay disproportionately more for the services they receive. In addition, as FAA points out, excise taxes are not linked to usage or cost of providing services. As such, excise taxes provide little incentive for the efficient use of FAA services or for the more cost effective provision of services by the Agency. Furthermore, if excise tax revenues did increase, this would not automatically translate into an increase in spending on FAA programs under current budget rules.

User Charges. User charges attempt to correlate the cost of a providing a service to the fees collected for using that service. In practice, the strength of this correlation can vary significantly. For example, over 100 countries base their user charges on a combination of aircraft weight and distance flown. These charges are more closely related to costs than are excise taxes but less closely related than a true cost-based fee-for-service user charge.

User charges can provide incentives for users to be more efficient in their use of FAA services and for FAA to control costs. These incentives become stronger the

closer the charges approximate cost-based fee-for-service charges and the degree to which there is appropriate user oversight of the charges and their expenditure. Also, cost-based fee-for-service user charges are more likely than excise taxes to fall on the mandatory side of the budget, allowing them to be spent without congressional action.

However, there is intense controversy regarding what type of fees should be charged, who should pay what, and how—if at all—the current oversight of FAA spending should be altered. There is also disagreement on the cost of administering the fees and the burden on the aviation community of paying them. We believe that any proposal to give FAA more flexibility and additional funds needs to be accompanied by strong oversight mechanisms to ensure funds are spent efficiently.

Should FAA determine that a user charge can be developed that promotes the efficient use of FAA services, it faces a formidable challenge in making the case for change and obtaining consensus on what that change should entail. To meet this challenge, FAA would need to demonstrate clearly and convincingly why the current excise tax financing mechanism is not adequate and how its proposed solution would fix this problem.

Borrowing/Bonding. This alternative would either permit the FAA to borrow directly from the Treasury or permit it, or another entity on its behalf, to sell bonds in the private markets. This solution is typically considered in conjunction with user charges, although such charges are not a prerequisite. The borrowing or bonds would be repaid or backed by FAA-generated revenues, such as excise taxes or user charges.

Borrowing or bonding authority would provide FAA with a large infusion of funds, presumably for capital projects, without requiring similarly large upfront increases in excise taxes or user fees. However, granting this authority would require significant legislative changes to implement and waivers of current budget rules to be effective. As we have previously noted, borrowing or bonding authority by itself provides little incentive for either users or FAA to operate efficiently and would require a powerful oversight mechanism to ensure that FAA invests wisely and controls costs.

Determining the Next Generation Air Transportation System's Funding Requirements, Quantifying Expected Benefits, and Developing a Roadmap for Industry To Follow

Closely related to the question of how to finance FAA is what level of funding to provide to it. As we previously stated, the answer to this question determines the level at which excise taxes, user fees, or borrowing/bonding needs to be set to support the program authorizations. FAA's future funding requirements will be

driven, in large part, by the need to change the current air transportation system to meet the anticipated demand for air travel and reduce FAA operating costs.

FAA's Joint Planning and Development Office (JPDO) was mandated by Congress to develop a vision for the next generation air transportation system in the 2025 timeframe and coordinate diverse agency research efforts. Currently, participating agencies include the National Aeronautics and Space Administration, the Department of Commerce, the Department of Defense, and the Department of Homeland Security.

Key challenges for the Department, FAA, and the JPDO focus on what the new office can deliver and when and how much its proposals will cost. These are central questions in the debate about how to finance FAA programs and will shape the size, requirements, and direction of the capital program for the next decade.

Moving to the next generation system is a high-risk effort and will require significant investments from FAA (new ground systems) and airspace users (new avionics). The JPDO is conducting workshops with industry to gather input on the potential costs of the future system. FAA's Air Traffic Organization (ATO) and a working group of the Agency's Research, Engineering, and Development Advisory Committee have developed some estimates, but they have not been finalized or approved by senior FAA management. There are considerable unknowns, and costs depend on, among other things, performance requirements for new automation and weather initiatives and to what extent FAA intends to consolidate facilities.

Preliminary estimates from the ATO suggest that next generation air traffic management initiatives would cost a total of \$4.4 billion for the next 6 years above the current investment levels in FAA's Capital Investment Plan. These preliminary numbers do not distinguish between development efforts, adjustments to existing programs, or implementation of new initiatives.

FAA will have to analyze information from the JPDO/industry workshops and other sources and provide Congress with expected funding requirements and when the funding will be needed. When transmitting this information to Congress, FAA should provide cost data on three vectors—research and development needed (including demonstration projects), adjustments to existing projects, and estimates for implementing NGATS initiatives.

Also, another challenge that was raised at the JPDO workshops concerns the need for FAA to clearly define the expected benefits from NGATS initiatives, particularly for projects that require airspace users to equip with new avionics. At an April 2006 workshop, industry participants asked FAA for a "service roadmap" that (1) specifies required equipage in specific time increments, (2) bundles

capabilities with clearly defined benefits and needed investments, and (3) uses a 4- to 5-year equipage cycle that links with aircraft maintenance schedules. It will be important for FAA to provide industry with this information.

Continuing Efforts To Address the Expected Surge in Air Traffic Controller Attrition

Another challenge facing FAA is the hiring and training of over 11,000 new controllers through FY 2015 as controllers hired after the 1981 strike begin retiring. In December 2004, FAA developed a comprehensive workforce plan for addressing that challenge. FAA issued the second in a planned series of reports in June 2006. The workforce plan lays out the magnitude of the issue and establishes broad measures for meeting the challenge. However, as we reported in May 2005, the plan lacks essential details concerning two key areas.

First, the plan does not address staffing needs by location. Planning by location is critical because FAA has over 300 terminal and en route air traffic control facilities with significant differences in the types of users they serve, the complexity of airspace they manage, and the levels of air traffic they handle. Without accurate facility-level planning, FAA runs the risk of placing too many or too few controllers at key locations. FAA recognizes this need and is in the process of evaluating its facility staffing standards down to the sector and position level for each location. FAA expects to complete this assessment for its 21 en route centers (its largest facilities) by the beginning of the next calendar year. However, the estimated completion date for the entire project is not until 2008. Given the significant expenditures that will be required to hire and train controllers over the next 10 years, FAA needs to ensure this project remains on track.

Second, FAA's plan does not identify how much it will cost. The cost of hiring and training 11,000 new controllers will be substantial, particularly since it currently takes new controllers 2 to 5 years to become fully certified. During that time, FAA incurs the cost of trainees' salaries and benefits as well as the cost of the salaries and benefits of the certified controllers who instruct them one-on-one. FAA needs to develop detailed cost estimates before the next submission of its staffing plan, particularly now that questions concerning new controllers' salaries have been settled under a new contract with the National Air Traffic Controllers Association.

Using the Cost Accounting System To Control Costs and Improve Operations

Irrespective of the financing system ultimately decided upon, it is important that FAA has an effective cost accounting system. This becomes more important for those options that approach true cost-based user fees.

FAA has substantially completed a cost accounting system for all its lines of business and labor distribution systems for all its personnel. With a number of further refinements, FAA should have a sufficiently accurate system to support cost-based user fees. These refinements include making further progress in assigning labor hours to projects, documenting an easily understandable and readily available set of rules, and establishing new and specific labor codes to track costs as duties change. Also important to this discussion is allocating FAA's costs to airspace users. FAA needs to finalize and publish its ongoing cost allocation study.

In addition to its role in financing options, FAA's cost accounting system can help FAA more effectively manage its operations. However, FAA makes only limited use of its cost accounting system for this purpose. To use the system effectively, FAA must improve the accuracy and timeliness of the financial data, link the system with its performance measures, and assign about \$1 billion in miscellaneous service-level costs (including depreciation) to facilities.

For further information, the following reports and testimonies can be seen on the OIG web site at <http://www.oig.dot.gov>:

- *Observations on FAA's Oversight of Aviation Safety*
- *Perspectives on the Progress and Actions Needed To Address the Next Generation Air Transportation System*
- *Perspectives on FAA's FY 2007 Budget Request and the Aviation Trust Fund*
- *FAA Has Opportunities To Reduce Academy Training Time and Costs by Increasing Educational Requirements for Newly Hired Air Traffic Controllers*
- *Next Steps for the Air Traffic Organization*
- *Report on Controller Staffing: Observations on FAA's 10-Year Strategy for the Air Traffic Controller Workforce*
- *Addressing Controller Attrition: Opportunities and Challenges Facing the Federal Aviation Administration*
- *Opportunities To Improve FAA's Process for Placing and Training Air Traffic Controllers in Light of Pending Retirements*
- *FAA's Management of and Control Over Memorandums of Understanding*

3. Responding to National Disasters and Emergencies— Assisting Citizens and Facilitating Transportation Infrastructure Reconstruction

The Department of Transportation (DOT) has a significant role in assisting citizens and helping states and localities to rebuild infrastructure damaged or destroyed during natural and manmade disasters, such as earthquakes and acts of terrorism. Under the National Response Plan, DOT is the lead agency for coordinating transportation support (Emergency Support Function-1) during these types of emergencies and serves as a support agency for 11 other critical functions. For example, DOT works with state and local transportation departments and industry partners after disasters to assess transportation infrastructure damage and analyze associated impacts on transportation operations, nationally and regionally, and to report changes as they occur. DOT also has statutory roles related to preparedness for, response to, and recovery from emergencies, such as through the Federal Highway Administration's Emergency Relief program.

Since the 2005 Gulf Coast hurricanes, DOT has undertaken a number of initiatives to enhance preparations for future disasters, such as examining regulations that may impede the transportation industry's ability to quickly respond to disasters and developing procedures to overcome such hurdles. DOT has also been responsive to our audit recommendations. For example, better procedures are now in place for evaluating contractor price quotes and ensuring documentation of the actual amount of services received before authorizing payments under the Department's emergency disaster relief transportation services contract.

The Department needs to ensure that it remains responsive to the changing emergency operations environment and that relief and recovery aid is spent appropriately. We see two key issues that DOT needs to focus on to better mitigate the effects of future disasters:

- Clarifying roles and responsibilities given expanded mission requirements and
- Ensuring continued vigilance in protecting taxpayer funds spent for relief and recovery efforts.

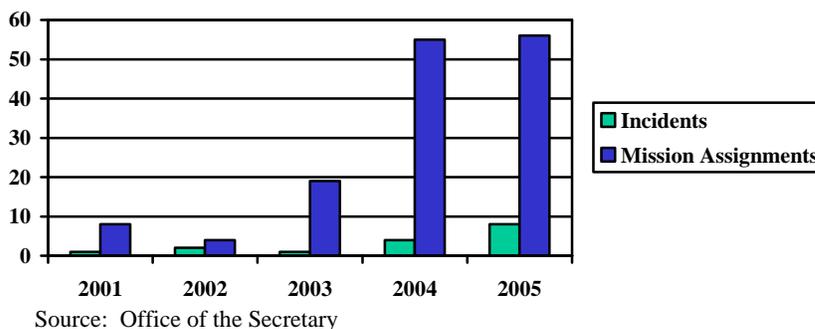
Clarifying Roles and Responsibilities Given Expanded Mission Requirements

As a result of the presidentially directed "lessons learned" review of the Federal Government's response to last year's hurricanes, DOT has been given new responsibilities for mass evacuations when disasters overwhelm state and local government capabilities. The Department is now primarily responsible for

developing the capability to conduct and coordinate the potential movement of millions of *people* within the general population during response efforts, while also moving *commodities*, such as water, ice, and food, which composed the bulk of DOT emergency disaster relief transportation services efforts in the past. DOT has already taken many short-term actions, such as coordinating with the American Red Cross to improve evacuation capabilities based on lessons learned in 2005 and is examining a range of potential longer-term options, including ways to maximize internal resources and processes to better respond to catastrophic incidents requiring mass evacuations.

The number of disasters involving DOT relief and recovery assistance, including those requiring Federal Emergency Management Agency (FEMA) mission assignments for services under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, has increased during the past 3 years (see Figure 3-1). In addition, the magnitude and duration of relief and recovery efforts in response to the 2005 hurricanes has far surpassed those of any previous disasters in which DOT has been involved. For example, many of the FEMA-requested emergency transportation services required as a result of these hurricanes lasted for more than 6 months, which is much longer than the historically typical duration of several weeks or a month or 2. We note that the Nation is also facing an avian bird flu pandemic threat that, if it materializes, could last 18 months.

Figure 3-1: Departmental Disaster Involvement



To fulfill future emergency response responsibilities, DOT Office of the Secretary and Operating Administration personnel must work together effectively with staff at FEMA and other Federal agencies and with state and local government entities across the Nation. This requires clearly defined missions, chains of command, lines of communication, and adequate resources for effective intra- and inter-agency coordination. DOT has reported that while the systems, plans, and training it had in place for fulfilling its National Response Plan responsibilities during the 2005 Gulf Coast hurricanes generally worked well, they were not always sufficient for the devastation wrought by Hurricanes Katrina, Rita, and Wilma in Louisiana, Mississippi, Alabama, Texas, and Florida.

According to DOT, telecommunications systems, such as satellite phones, failed; communications and coordination with FEMA staff were difficult; and lines of authority were not always clear. DOT is taking steps to address these issues and remain responsive to the changing emergency operations environment. For example, the Department has been coordinating with FEMA and the U.S. Army Corps of Engineers to improve communications capabilities and is emphasizing disaster planning as part of its Security, Preparedness and Response Strategic Goal in its “Strategic Plan for Fiscal Years 2006-2011.”

Ensuring Continued Vigilance in Protecting Taxpayer Funds Spent for Relief and Recovery Efforts

History has shown that substantial infusions of funding for disaster relief and recovery efforts increase the risk of fraud by those who exploit weaknesses in Government oversight. Senior departmental leaders, including the Secretary, have emphasized that DOT should provide effective stewardship and oversight of disaster-related expenditures to prevent fraud, waste, and abuse. The general consensus within and outside the Department has been that the scope of the 2005 Gulf Coast hurricane disasters presents special challenges for DOT and its Operating Administrations to ensure that taxpayer interests are fully protected. Public and congressional expectations for future disasters are likely to be no different, given the stewardship and oversight standards set for the 2005 hurricane disasters.

DOT expects to spend nearly \$4.5 billion⁵ responding to the 2005 Gulf Coast hurricanes, primarily for emergency and permanent repairs to damaged roadways and bridges on Federal-aid highways. Included in this amount is about \$500 million in Stafford Act disaster assistance for which FEMA will only reimburse DOT after FEMA determines it can rely on DOT reports that the expenditures were valid and appropriate. If FEMA determines that it cannot rely on DOT reporting, it will disapprove the reimbursement requests until it is satisfied that the expenditures were legitimate. The Office of Inspector General is working with the Department’s Office of Intelligence, Security, and Emergency Response to ensure sufficient Defense Contract Audit Agency coverage of DOT’s emergency transportation services contract, which has a value not to exceed \$800 million. This contract is managed by the Federal Aviation Administration and supports DOT-wide responsibilities during national emergencies, primarily in response to FEMA mission assignments. We believe the cost of Defense Contract Audit Agency audit coverage should be identified as a FEMA reimbursable item for mission assignments involving the use of this contract and that DOT should ensure these types of audits are accomplished, as appropriate.

⁵ The majority of these funds are from two emergency supplemental appropriation bills signed into law in response to the 2005 Gulf Coast hurricanes, specifically Public Law 109-148, December 30, 2005 (119 Stat. 2680), and Public Law 109-234, June 15, 2006 (120 Stat 418).

DOT has also taken other actions to ensure more intense oversight of its obligations and expenditures related to disaster relief and recovery activities. For example, the Department's Assistant Secretary for Budget and Programs/Chief Financial Officer (1) created a special financial integrity team to ensure that spending resulting from Hurricane Katrina is thoroughly documented and funds are properly accounted for and (2) has already issued guidance on tracking and reporting costs related to the 69 tasks assigned to the Department as part of the National Strategy for Pandemic Influenza for planning, detecting, and responding to this emerging threat.

Continued vigilance and follow-through at all levels of the Department is needed to ensure that relief and recovery aid is spent appropriately. This is an especially critical issue because the risks of disaster-related fraud, waste, and abuse increases when 100 percent of the funding is provided by the Federal Government, as was the case for most of last year's hurricane-related relief and recovery projects. Simply put, because grantees no longer are required to share in the cost of these projects, they have less incentive to control costs.

In addition, post-hurricane staffing for at least one grantee left fewer staff available to perform oversight. For example, we found that after experiencing financial difficulties due to the substantial loss of passenger revenue following the hurricanes, management at New Orleans International Airport cut operations staffing levels by almost half, from a pre-Katrina level of 222 employees to just 123 employees after the hurricane. Similarly, the airport accounting staff was cut from 10 to 7, leaving fewer staff to manage FAA Airport Improvement Program hurricane grant expenditures.

For further information, the following reports can be seen on the OIG web site at <http://www.oig.dot.gov>:

- *Federal Aviation Administration Oversight of Airport Improvement Program Hurricane Grants*
- *Mississippi Department of Transportation's Award of Selected Hurricane Katrina Emergency Repair Contracts*
- *Internal Controls Over the Emergency Disaster Relief Transportation Services Contract*
- *Internal Controls Over Payments for Emergency Disaster Relief Transportation Services*
- *Management Advisory: Accounting and Financial Reporting of Related Hurricane Costs*

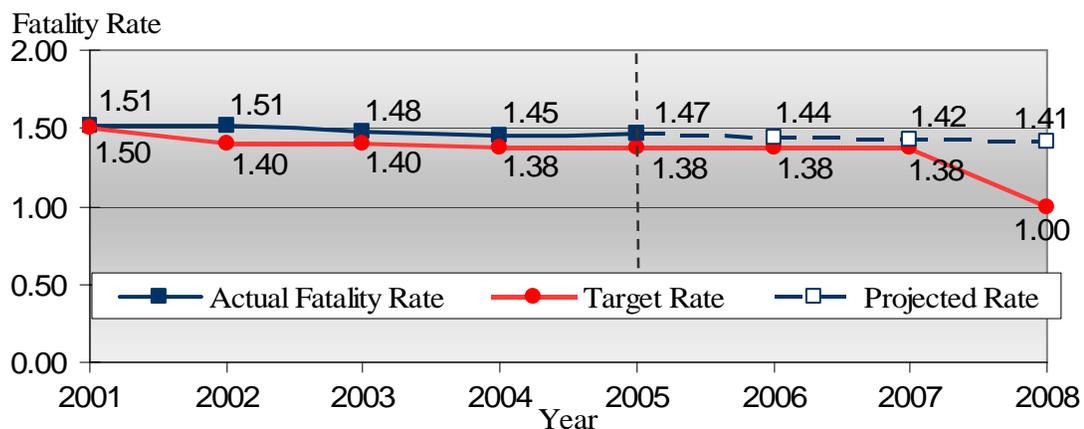
4. Strengthening Efforts To Save Lives by Improving Surface Safety Programs

The Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) provided significant enhancements for surface transportation safety programs. As the Department implements these programs, it must use the increased resources across all modes in ways that result in safer surface transportation and more lives saved.

While the highway fatality rate per 100 million vehicle miles traveled has been reduced by approximately 40 percent in the last 20 years, 2005 marked the first increase in the highway fatality rate since 1986. The most recent crash data from the National Highway Traffic Safety Administration (NHTSA) shows that 43,443 people were killed in motor vehicle crashes in 2005 and the crash fatality rate for 2005 increased to 1.47 from 1.45 in 2004.

The Department of Transportation's (DOT) ambitious target, set forth in the September 2003 Strategic Plan, was to reduce the fatality rate to 1.0 by 2008. However, as shown in Figure 4-1, the actual rates have lagged behind the yearly targets, and our projection of past trends estimates a 2008 fatality rate of 1.41. DOT's latest Strategic Plan for 2006 through 2011, issued in September 2006, sets transportation safety as the Department's number one goal and retains the target rate of 1.0 but extends the time for reaching this goal out to 2011. Meeting the 1.0 target rate, even with this extended timeframe, will require a significant acceleration in past improvements.

Figure 4-1: Actual Highway Fatality Rates Lag Targeted Rates*



Source: NHTSA budget information for actual fatality rates and target rates. Projected rates for 2006, 2007, and 2008 were calculated using NHTSA's forecasting methodology.

* Fatality rates are shown as the number of fatalities per 100 million vehicle-miles traveled.

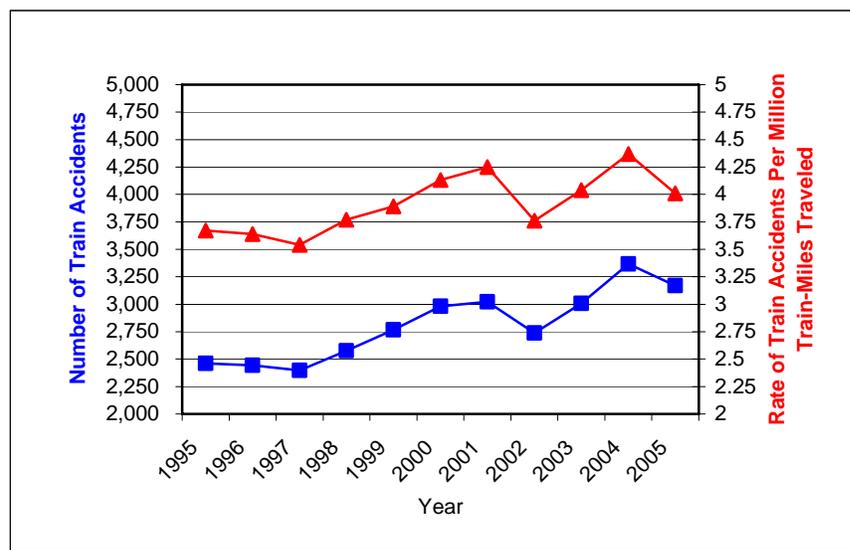
Despite the overall increase in highway fatalities and the fatality rate in 2005, the latest data show improvements in a number of areas, including these examples.

- Alcohol-related traffic fatalities accounted for 16,885 of the 43,443 fatalities in 2005 (39 percent), the lowest level since 1999.
- Fatalities in large truck crashes decreased in 2005 to 5,212, after increasing in the 2 previous years.
- The number of young drivers (age 16 to 20) killed declined from 3,538 to 3,374.
- Observed seat belt use increased to 82 percent in 2005, compared to 80 percent in 2004.

The highway crash data also show specific areas where challenges remain. For example, motorcycle fatalities increased by 13 percent in 2005, from 4,028 to 4,553. In addition, non-occupant fatalities (including pedestrians) rose by almost 6 percent, from 5,532 to 5,849. The rise in fatalities in these two areas more than offset an overall decrease in passenger vehicle fatalities.

For rail safety, data from the last decade also show challenges, although the 2005 data registered an improvement. In 2005, train accidents decreased by 6 percent and the rate of train accidents per million train-miles traveled decreased by 8 percent. However, the overall data for 1995 through 2005 show that train accidents increased by 29 percent and the rate of train accidents grew by 9 percent (see Figure 4-2).

Figure 4-2: Trends in the Number and Rate of Train Accidents



Source: Federal Railroad Administration

The importance of rail safety is illustrated by the tragic consequences that can occur from just one accident. For example, a 2005 train accident in Graniteville, South Carolina, which was attributed to human error, caused the train to derail and a tank car to release a hazardous material. As a result, 9 people were killed and 292 people were injured.

To their credit, NHTSA, the Federal Motor Carrier Safety Administration (FMCSA), and the Federal Railroad Administration (FRA) have taken action to address the surface safety challenges discussed in our previous reports. To further enhance DOT's surface safety programs for highway and rail travel, we have identified the following key actions in this year's report:

- Promoting improved performance measures and enhanced state accountability to maximize efforts to reduce fatalities caused by impaired driving,
- Building on successful efforts to better enforce motor carrier safety regulations,
- Ensuring the integrity and future modernization of the Commercial Driver's License (CDL) Program, and
- Enhancing railroad safety through improved oversight of grade-crossing reporting and better identification of trends.

Promoting Improved Performance Measures and Enhanced State Accountability To Maximize Efforts To Reduce Fatalities Caused by Impaired Driving

NHTSA is the lead Federal agency responsible for reducing alcohol-impaired driving. In our ongoing audit of alcohol-impaired driving programs, the 10 states reviewed reported benefits derived from Federal funding. However, NHTSA's ability to fully gauge the effectiveness of state programs would be improved if states had established performance measures designed to assess key strategies, such as sustained enforcement of alcohol-impaired laws. We are discussing with management ways to help NHTSA target Federal resources to the program areas most likely to lead to future reductions in alcohol-impaired traffic fatalities. Enhanced state accountability will also be promoted if NHTSA continues the timely implementation of the triennial reviews of highway safety grant programs that are required by SAFETEA-LU and follows up on recommendations made to the states in these reviews.

Building on Successful Efforts To Better Enforce Motor Carrier Safety Regulations

Our 2006 audit found that FMCSA's implementation of the Motor Carrier Safety Improvement Act of 1999 had significantly improved oversight of motor carrier safety. However, the audit found that FMCSA could further strengthen its

oversight by imposing maximum fines on truck or bus companies that chronically violate serious safety regulations. FMCSA did not consistently implement the law's sanctions against such repeat violators—only 33 of the 533 repeat violators we identified received the maximum penalty. In response to the report, FMCSA committed to strengthening its policy by May 2007 to ensure all violations falling within the two most serious categories set up by the Agency are appropriately counted when identifying chronic or repeat violators subject to maximum penalties.

Our 2006 audit also found that FMCSA and the states have taken and are continuing to take positive steps to improve the quality of safety-related performance data, but challenges remain. For example, after FMCSA took action, the percentage of motor carriers not reporting census data on drivers and trucks was reduced from 42 percent as of January 2003 to approximately 27 percent as of January 2005. Data also show improvement in the overall completeness of crash reporting from the states, although studies done at selected states indicate that more improvements are needed.

Quality data are needed to properly rank motor carriers' safety performance, identify high-risk motor carriers, and target those carriers for compliance reviews and inspections. Reasonable and workable quality standards must also be maintained if the data are to be made public. The challenge to obtain higher quality data will require continued effort from FMCSA and the states to carry out the initiatives that are underway.

Ensuring the Integrity and Future Modernization of the Commercial Driver's License Program

Over the past 5 years and with the support of FMCSA, we have carried out investigations with other law enforcement agencies that involved CDL fraud schemes in 24 states. These investigations have led to the prosecution of CDL fraud schemes in 15 states and have revealed that thousands of CDLs were issued to drivers who obtained them through corrupt state or state-approved (third-party examiners) testing processes. Curbing CDL fraud is important to highway safety and ensures that only drivers with requisite skills, including applicable training for hazardous material transportation, obtain CDLs.

Our 2006 audit on CDL oversight recognized several positive steps that FMCSA took to counter CDL fraud. For example, FMCSA instituted a fraud component within its CDL compliance review program. It also worked with the states and other organizations to identify fraud vulnerabilities and to develop model law enforcement programs. In 2007, FMCSA needs to follow through on its commitment in response to our report, to request that states track the status of

drivers suspected of fraud, and to continue to demonstrate the high priority it places on this issue.

FMCSA is also faced with the challenge of modernizing the Commercial Driver's License Information System (CDLIS). The CDLIS Modernization Program should improve the system's security and effectiveness and prevent further system degradation as system usage and requirements grow. The modernization efforts should also address future financing of the system.

Enhancing Railroad Safety Through Improved Oversight of Grade-Crossing Reporting and Better Identification of Trends

FRA has taken significant steps to reduce collisions and fatalities at highway-rail grade-crossings, including the establishment of a reconciliation process to ensure that fatal grade-crossing collisions are promptly reported to the National Response Center. However, our ongoing audit work shows that railroads are not providing timely written reports to FRA for all grade-crossing collisions (both fatal and non-fatal). In some cases, collisions have gone unreported. Without data on all grade-crossing collisions, FRA's ability to identify emerging trends and new areas for further safety improvements is limited.

The identification of trends for the targeting of resources to high-risk areas is particularly critical, because FRA inspections decreased by 6 percent, from 67,517 in 2003 to 63,264 in 2005. To facilitate the targeting of resources, in October 2005, FRA began to phase in the implementation of its National Inspection Plan. The Plan is intended to make better use of data and direct safety inspectors to high-risk areas. This action will complement the aggressive and ambitious National Rail Safety Action Plan launched in May 2005. The Action Plan includes initiatives to reduce train accidents caused by human factors and to enhance hazardous materials safety and emergency preparedness. Better targeting of resources may enable FRA to carry out its safety mission more efficiently, but FRA needs to ensure that its inspection activity remains at the level needed to adequately oversee the safety of the Nation's railroads.

For additional information, the following reports and testimonies are available on the OIG web site at <http://www.oig.dot.gov>:

- *Reauthorization of TEA-21 Safety Programs*
- *Processing Petitions To Import Non-Canadian Gray Market Vehicles*
- *Follow-Up Audit on NHTSA's Office of Defects Investigation*
- *Significant Improvement in Motor Carrier Safety Since 1999 Act but Loopholes for Repeat Violators Need Closing*
- *Federal Motor Carrier Safety Administration Oversight of Commercial Driver's License Program*

- *Background Checks for Holders of Commercial Driver's Licenses With Hazardous Materials Endorsements*
- *Follow-Up Audit of the Implementation of the North American Free Trade Agreement's Cross-Border Trucking Provisions*
- *Highway-Railroad Grade Crossing Safety Issues*
- *FRA Safety-Related Findings and Recommendations*
- *Report on the Audit of the Highway-Rail Grade Crossing Safety Program*
- *Audit of Oversight of Highway-Rail Grade Crossing Accident Reporting, Investigations, and Safety Regulations*

5. Aviation Safety—Performing Oversight That Effectively Utilizes Inspection Resources and Maintaining Aviation System Safety

Safety is the Federal Aviation Administration's (FAA) highest priority. For more than 4 years, FAA and the U.S. aviation industry has experienced one of the safest periods in history, even though the industry was undergoing dramatic changes. However, the August 27, 2006, crash of Comair Flight 5191 served as a reminder that we must continue to do more to make a safe system even safer.

While the Comair accident is the most recent U.S. air carrier accident, other fatal accidents occurred in the past year as well. In December 2005, a 58-year old Chalks Ocean Airways seaplane crashed off the coast of Florida when the right wing separated from the aircraft during flight. During the same month, a Southwest Airlines aircraft skidded off the runway at Chicago Midway and collided with an automobile off the airport grounds. Each of these accidents is the subject of an ongoing National Transportation Safety Board investigation.

Notwithstanding these tragic accidents, the United States has maintained one of the safest aviation systems in the world. This is a remarkable accomplishment given the many changes occurring within the industry. For example, network air carriers continue to work aggressively to move away from high-cost structures by reducing in-house staff, renegotiating labor agreements, and increasing the use of external repair facilities. To address these changes, FAA is working to implement and refine risk-based safety oversight systems.

At the same time, FAA must also remain attentive to other issues that could affect the safety of the aviation system, such as runway incursions (potential collisions on the ground) and operational errors (potential collisions in the air). In recent years, FAA has made progress in reducing the overall number of runway incursions, but serious incidents (where a collision was barely avoided) continue to occur. For example, on March 21, 2006, a controller at Chicago O'Hare mistakenly cleared two commercial aircraft (an Airbus 319 and an Embraer E145) for takeoff on intersecting runways. Before stopping, the two aircraft came within 100 feet of one another at the runway intersection.

Key challenges for FAA are:

- Advancing risk-based oversight systems for air carriers and external repair facilities,

- Maintaining a sufficient inspector workforce to effectively respond to changes in the industry, and
- Continuing to emphasize and address the risks of runway incursions and operational errors.

Advancing Risk-Based Oversight Systems

In the past 8 years, FAA has made important progress in developing risk-based approaches to safety oversight. As of October 13, 2006, there are 39 air carriers under FAA's Air Transportation Oversight System—a system that permits inspectors to use maintenance and operations data to focus their oversight on areas of higher risk. In addition, FAA has developed a risk-based oversight system for aircraft repair facilities. However, FAA continues to face challenges in advancing both these efforts. Also, FAA needs to gather more information about the type of work repair facilities not certificated by FAA perform and determine what range of actions are required to improve oversight of these facilities.

Risk-Based Oversight System for Air Carriers. FAA has made significant progress in implementing its risk-based oversight approach for air carriers; however, FAA is still refining the system and working to implement it at the remaining 85 air carriers. In 2005, we reported that the system was not mature enough to permit inspectors to effectively respond to the rapid changes occurring in the industry. Further, when the 2005 mechanics' strike occurred at Northwest Airlines, FAA abandoned the system in favor of a more simplified approach to oversight that was much like the process used under the old inspection system.

In response to our 2005 report, FAA developed guidance to help inspectors more thoroughly address industry changes, such as financial distress and growth, when assessing safety risks. FAA also revised guidance to ensure inspectors are continually monitoring the effects of air carrier changes, rather than waiting for a major event such as an air carrier declaring bankruptcy. In addition, FAA has now developed a schedule and plans to complete transition of all air carriers to its risk-based oversight system by the end of calendar year 2007. For this effort to be successful, FAA must ensure its inspectors are well trained and located in areas of greater need.

Oversight Systems for External Repair Facilities. As air carriers worked to reduce costs, use of external maintenance facilities dramatically increased. Air carriers that had traditionally performed all their maintenance in-house began to use domestic and foreign repair facilities to do this work. For example, in March 2005, Delta Air Lines announced that it would substantially reduce its in-house mechanics' staff and use external facilities to perform most of its heavy airframe maintenance. From 1996 to 2005, air carriers' use of external repair

facilities has grown from 37 percent of air carriers' maintenance costs to 62 percent.

Recognizing that its inspector workforce cannot provide continuous oversight of every maintenance facility and in response to recommendations in our July 2003 report, FAA has now developed a risk-based oversight approach to FAA-certificated repair stations. However, at the time of our review, the system has not been fully implemented; rather, inspectors had the option of using a manual system for assessing potential safety risks at repair stations. According to FAA, the more effective automated system was implemented on October 1, 2006. As with its air carrier oversight system, FAA must ensure its inspectors are well trained on the new system for this effort to be successful.

FAA also needs to develop a more effective oversight process for work performed at non-FAA-certificated repair facilities. In December 2005, we reported that air carriers are now using these facilities to perform critical and scheduled maintenance work. We identified 6 domestic and foreign facilities that performed scheduled maintenance and 21 that performed maintenance that is key to the airworthiness of the aircraft. FAA oversight of the work performed at these facilities is important because there are significant differences in regulatory requirements for operation of the facilities and the amount of training the mechanics at non-certificated repair facilities receive. For example, non-certificated repair facilities are not required to have a quality control system, designated supervisors and inspectors, or a training program.

We recommended that FAA inventory air carrier maintenance providers and identify which non-certificated facilities perform critical maintenance functions and scheduled maintenance and, based on the results of this inventory, make a determination as to whether it should limit the type of work non-certificated facilities can perform. Also, we recommended that FAA evaluate air carrier training and oversight programs for work performed at non-certificated facilities. FAA committed to implement all our report recommendations and needs to follow through on its commitment.

Maintaining a Sufficient Inspector Workforce

Much attention has been paid to controller staffing—FAA plans to hire over 11,000 controllers in the next 10 years. While replacing retiring controllers is a critical issue for FAA, it is also important to maintain a safety inspector workforce sufficient to achieve the Agency's mission of safety oversight.

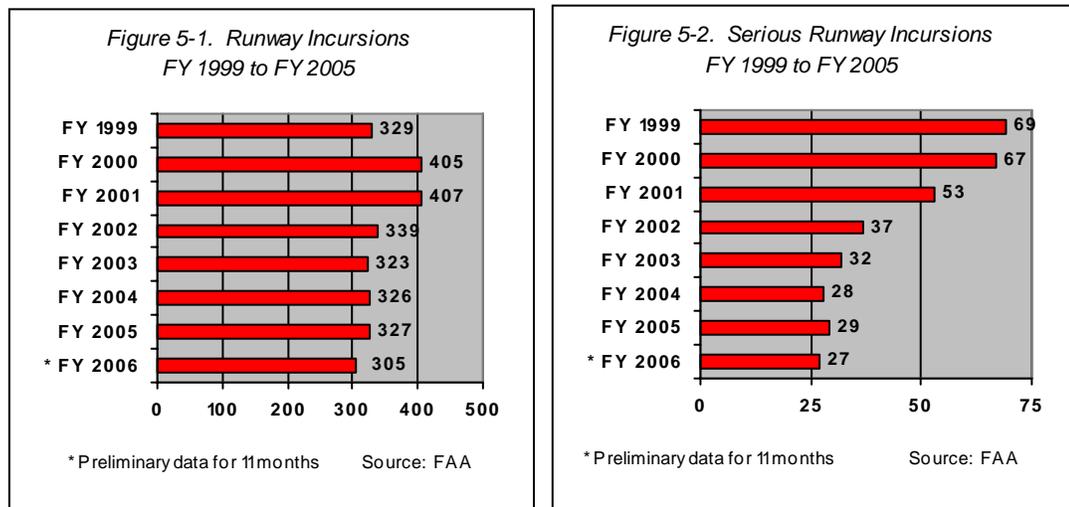
FAA's fiscal year (FY) 2007 budget request calls for an increase of 116 safety inspectors. However, it is unlikely that staffing gains over the next few years will be enough to offset the number of safety inspectors eligible to retire during the same time period. For example, this year, 28 percent of the current inspector

workforce (1,008 of 3,628) will be eligible to retire. By 2010, half of the current safety inspector workforce (1,820 of 3,628) will be eligible to retire. Just as FAA has recognized the need to address an expected surge in controller attrition, it must also ensure it closely monitors retirements and takes steps to hire and train the next generation of safety inspectors. FAA will need to carefully evaluate its inspector staffing levels to ensure it can sustain sufficient oversight in light of the potential attrition within that workforce.

Reducing the Risk of Accidents on the Ground and in the Air

Two primary indicators of system safety are runway incursions and operational errors. Reducing these incidents are key performance goals for FAA that require heightened attention at all levels of the Agency.

From 1998 to 2001, we reported that runway incursions were increasing at alarming rates. To its credit, FAA took decisive action—it established regional runway safety offices, conducted numerous safety evaluations at problem airports, initiated aggressive educational programs for pilots, and implemented technologies at major airports that alert controllers of potential runway accidents. As shown in Figures 5-1 and 5-2, the total number of runway incursions decreased from a high of 407 in FY 2001 to 327 in FY 2005, and the most serious incidents have decreased from a high of 69 in FY 1999 to 29 in FY 2005.



However, since 2003, the number of runway incursions has leveled off, and very serious runway incursions (those in which a collision was barely avoided) continue to occur. Recent incidents at several large airports highlight the potential safety risks associated with runway incursions. During the period FY 2005 through August 2006, Boston Logan, Chicago O'Hare, and Philadelphia International all experienced increases in runway incursions. Boston Logan had

22 incidents (1 severe), Chicago O'Hare had 15 incidents (5 severe), and Philadelphia had 15 incidents (1 severe involving a collision). Those were the highest number of runway incursions among the Nation's large commercial airports. FAA needs to remain committed to its efforts addressing these significant safety risks.

While FAA has seen a reduction in the number of runway incursions nationwide, it has not had the same success with operational errors—where aircraft come too close together in the air. Not only are these incidents continuing to increase, but shortcomings in FAA's reporting system for operational errors have indicated that the true number of these incidents is not yet known.

For example, in FY 2005, there were 1,489 operational errors (up from 1,149 in FY 2004), which is the highest number of errors reported in the past 6 years. Seventy-three of those errors were classified as serious incidents (those rated as "high" severity), compared to 40 serious incidents reported in FY 2004.

While the increases in operational errors are significant, it is important to recognize that the number of errors reported in prior years may not be an accurate benchmark. This is because at the majority of FAA facilities, FAA relies on an inaccurate system of self-reporting operational errors. In September 2004, we reported that only 20 of FAA's 524 air traffic control facilities have an automated system that identifies when operational errors occur. At its towers and terminal radar approach control (TRACON) facilities, FAA depends on an unreliable system of self-reporting operational errors.

This past year, FAA has taken steps to improve operational error reporting. For example, FAA implemented procedures that require towers and TRACONs to conduct random audits of radar data to identify potential unreported operational errors. FAA Headquarters is also conducting random audits at selected facilities and is evaluating its severity rating system in an effort to more accurately capture the collision risk that operational errors pose. More importantly, FAA is developing an automated system to identify when operational errors occur at TRACON facilities. FAA plans to start fielding this system in FY 2008 with an estimated completion date in FY 2009.

Clearly, these actions are steps in the right direction. FAA will need to remain committed to following through on those efforts and identify an accurate baseline of the number of operational errors that are actually occurring.

For further information, the following reports and testimonies can be seen on the OIG web site at <http://www.oig.dot.gov>:

- *Safety Oversight of an Air Carrier Industry in Transition*
- *Letter to Representative Oberstar Regarding FAA Actions on Air Carriers' Use of Aircraft Repair Stations*
- *Controls Over the Reporting of Operational Errors*
- *Alleged Cover-Up of Operational Errors at DFW TRACON*
- *Review of Air Carriers' Use of Non-Certificated Repair Facilities*
- *Letter to Representative Oberstar Regarding FAA's Aging Airplane Safety Rule*

6. Making the Most of the Federal Resources That Sustain Surface Transportation Infrastructure Improvements by Continuing To Emphasize Project Oversight

At a time when transportation infrastructure needs are increasing faster than the financial resources available to fund them, stewardship of taxpayer dollars continues to be a priority for the Department of Transportation. During fiscal year 2006, both the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) took positive actions to increase their oversight of grant funds. For example, FHWA continued to strengthen its oversight of inactive obligations by deobligating \$738 million in unneeded funds for highway projects. Joint work by FHWA and the Office of Inspector General resulted in one firm agreeing to a \$3 million civil settlement involving the inappropriate use of Disadvantaged Business Enterprises on 38 different federally funded highway projects. In addition, FTA continues to use its special office in New York City to oversee \$4.4 billion in high-priority transit projects being built in Lower Manhattan in response to the September 11, 2001, terrorist attacks.

FHWA's and FTA's actions are steps in the right direction, but more needs to be done to sustain and build on these oversight improvements. This is a significant challenge, given the annual budgets of both Operating Administrations: FHWA's of about \$40 billion and FTA's of about \$9 billion.

We see three key issues that need continued management emphasis.

- FHWA must ensure that initiatives to strengthen its oversight of Federal highway funds are implemented effectively so that major projects are delivered on time, within budget, and free from fraud.
- FHWA's oversight must include actions to ensure that highway tunnels are safe for the driving public.
- FTA must continue to exercise vigilant oversight to ensure that large and complex transit infrastructure projects are completed on time and within budget.

Initiatives To Improve the Oversight of Highway Funds Need To Be Implemented Effectively To Ensure That Projects Are Completed on Time, Within Budget, and Free From Fraud

In 2006, FHWA implemented several initiatives to strengthen its oversight—testing whether Federal highway payments to states were eligible for

reimbursements, issuing new regulations to help states monitor obligated Federal highway funds, and dedicating staff in its Division Offices to oversee active major projects. Although we foresee positive outcomes to these initiatives, FHWA must take additional steps to ensure that large, complex construction projects are delivered on time, within budget, and free from fraud.

Specifically, FHWA needs to:

- **Strengthen financial and cost controls for Federal highway funds to better detect improper payments to states.** FHWA's implementation of its Financial Integrity Review and Evaluation (FIRE) Program will help to improve controls and safeguard highway funds. The FIRE Program is the cornerstone of FHWA's plan to improve oversight by supporting the annual certification of internal and financial controls over the Highway Trust Fund financial statements. The program also includes a risk assessment of the grant financial management process and statistical reviews of Federal-aid billing transactions to determine whether costs submitted to FHWA by state transportation departments are eligible for reimbursements. Establishment of the FIRE Program is a significant step. FHWA must ensure that the program is implemented effectively in each of its 52 Division Offices.

In addition, FHWA Divisions need to do more to ensure that states have better financial management practices for identifying and recovering improper payments, particularly on state contracts awarded with Federal-Aid Highway funds. FHWA also needs to refine its testing techniques for identifying improper payments. For example, in August 2006, FHWA recovered \$20 million from the Tennessee Department of Transportation for the Memphis Intermodal Transportation Project because Federal highway funds approved for this project were inappropriately used to build a parking garage adjacent to a national sports arena. While FHWA's actions in recovering these funds were effective, stronger oversight by FHWA is needed to help avoid such improper payments in the first place.

- **Ensure that cost estimates and schedule milestones for major projects are realistic, reasonable, and credible and that potential risks are thoroughly considered.** FHWA can build on its existing practices by increasing its oversight and providing greater financial and technical expertise to help states address funding shortages, cost increases, schedule delays, and construction quality issues. FHWA oversees 117 major highway projects⁶ estimated to cost \$192 billion (\$63 billion for 37 active projects and \$129 billion for 80 projects currently in the pipeline).

⁶ The Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users defines major highway construction projects as those that are estimated to cost \$500 million or more.

Of the 12 major highway projects we are monitoring, two-thirds have experienced moderate to significant increases in their cost estimates. We found that states' cost estimates have frequently excluded or understated known elements of cost growth that were needed to complete projects. Further, some major highway projects have fallen months or years behind schedule, which has led to rising project costs. To ensure that states prepare reliable estimates of the cost to complete major projects, FHWA needs to routinely validate the reliability of estimated costs.

As a result of Hurricane Katrina destroying three major bridges, the value of Federal-aid highway programs in both Louisiana and Mississippi more than doubled. FHWA mobilized very quickly to respond to the catastrophic conditions and took the initiative to evaluate costs and to question unreasonable emergency repair contract charges. However, FHWA's continued oversight will be important to ensure that, in addition to other highway projects, those three critical bridge replacement projects are completed on time, within budget, and able to withstand future hurricanes.

- **Ensure that special oversight managers are properly trained to identify risks.** Several provisions under the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) promote stronger oversight of Federal-aid funds by: (1) lowering the major project threshold from \$1 billion to \$500 million and (2) requiring states to submit project management plans and annual financial plans to FHWA for each major project. According to FHWA, the lower monetary threshold is expected to more than double the number of active and future major projects that will require FHWA's oversight. To meet the challenge of providing primary Federal oversight of active major highway construction projects, FHWA assigned project oversight managers to its Division Offices. These managers are responsible for identifying cost growth, schedule delays, funding shortages, and other critical risks on active major highway projects. FHWA needs to ensure that they are trained in identifying critical risks and taking appropriate corrective actions.

FHWA's Oversight Must Include Actions To Ensure That Highway Tunnels Are Safe for the Driving Public

During the past 2 years, serious failures in construction quality on the Central Artery/Tunnel Project have highlighted the need for FHWA to take additional steps to ensure the safety of the Nation's highway infrastructure. Effective quality control and vigilant oversight are key components throughout the construction process to ensure the safety of the driving public. The Project's complex network of tunnels and bridges has a history of schedule delays and construction problems, including water leaks and the July 10, 2006, ceiling collapse that killed an

automobile passenger and led to widespread tunnel closures. To address these problems, FHWA is providing technical assistance to the National Transportation Safety Board in its investigation and to Massachusetts to support the reopening of closed tunnels, conducting an independent review of the ceiling failure, and advising the Governor's office on a "Stem-to-Stern Safety Review."⁷ The magnitude of this oversight effort, as well as the intense public concern for the safety of this massive project, presents a significant challenge to FHWA and the Department beyond their normal oversight roles. FHWA's actions will be critical in 2007 to restore confidence that the Project is safe.

The safety problems that surfaced in the Central/Artery Tunnel Project also call into question the oversight and quality control processes for constructing and maintaining highway tunnels. In light of the known problems of the Central Artery tunnels, FHWA should develop and implement a system to ensure that states inspect and periodically report on the condition of the Nation's tunnels. FHWA should begin by promptly determining whether a rulemaking or additional legislative authority is necessary for this action.

FTA Must Continue To Exercise Vigilant Oversight To Ensure Large and Complex Transit Infrastructure Projects Are Completed On Time and Within Budget

FTA has an established program for oversight of its transit infrastructure projects, including the hiring of outside project and financial management oversight consultants. FTA uses a risk-based approach for the oversight of its Federal projects—a best practice. In addition, it has recently taken the initiative to fine-tune its risk-based assessments of transit projects and has hired an external consulting firm to evaluate this approach. FTA's initiatives have generally improved oversight for its projects; however, numerous large and complex transit projects; especially those in New York City and the Washington, DC, metropolitan area; will present new oversight challenges.

On July 13, 2006, we testified to Congress that effective day-to-day oversight of these large and complex transportation projects is critical and that FTA should use all of its oversight tools effectively. For example, FTA's project management oversight contractors are charged with regularly monitoring each project and providing feedback to Federal officials should any problems arise. The oversight contractors hired for each project are charged with conducting risk assessments, reviewing costs and schedules regularly, and assessing each grantee's plans for the project. The key points are that FTA must ensure that it fully analyzes the results

⁷ The goal of the Stem-to-Stern Safety Review, performed by a major forensic engineering firm under a contract with the Commonwealth of Massachusetts, is to conduct an independent review of the infrastructure within the Metropolitan Highway System tunnels and facilities and to provide a complete assessment of the near- and long-term safety of the system.

of the contractors' reports; takes actions, where appropriate; and exercises its own oversight role in addition to the contractors' work.

Vigilant oversight will be particularly important because FTA must continue to oversee a number of transit infrastructure projects throughout the Nation, while at the same time overseeing several large and complex initiatives collectively costing about \$19 billion. The initiatives are the Lower Manhattan Recovery Projects (four FTA projects and one FHWA project with a Federal commitment of \$4.4 billion), the New York/Second Avenue Subway Minimum Operable Segment (estimated to cost \$4.7 billion), the Long Island Rail Road East Side Access (estimated to cost \$7.3 billion), and the Dulles Corridor Metrorail Project (estimated to cost \$2 billion).

The projects in New York City and the concurrent construction activity there can be expected to create significant competition for materials and labor. As demonstrated in our September 2006 report on selected Hurricane Katrina contracts that were awarded in Mississippi, increased competition for materials and labor, among other things, resulted in much higher prices for emergency repairs of highways and bridges. FTA will need the right mix of oversight resources to effectively manage costs, schedules, and quality issues during the construction of each of these large infrastructure projects.

For further information, the following reports and testimonies can be seen on the OIG web site at <http://www.oig.dot.gov>:

- *Testimony on Impact of Water Leaks on the Central Artery/Tunnel Project and Remaining Risks*
- *Audit of Federal Highway Administration's Inactive Obligations*
- *Audit of Oversight of Load Ratings and Postings on Structurally Deficient Bridges on the National Highway System*
- *Testimony on Lower Manhattan Reconstruction: Lessons Learned From Large Transportation Projects*
- *Audit of the Mississippi Department of Transportation's Award of Selected Hurricane Katrina Emergency Repair Contracts*

7. Achieving Reform of Intercity Passenger Rail

Intercity passenger rail service is an important component of a balanced transportation system. However, as we stated last year, the current model for providing this service remains broken. Amtrak continues to incur unsustainably large operating losses, provide poor on-time performance, and require increasing levels of infrastructure and fleet investment. Amtrak projects a \$1.2 billion operating loss in fiscal year (FY) 2006, the fifth consecutive year of operating losses in excess of \$1 billion. Adding to its fiscal troubles, Amtrak's flagship service, *Acela*, is underperforming financially. Meanwhile, Amtrak's overall on-time performance worsened this past year. In July, overall on-time performance fell to 67.7 percent—2.4 percent below July FY 2005 year-to-date levels.

A year ago, we indicated that the Department must work with Congress and other stakeholders to break the cycle of appropriations without authorization for Amtrak and to realign the size, operations, and governance of the intercity passenger rail system to match the levels and sources of funding available. In the past year, modest progress was made on our recommendation regarding reducing Amtrak's costs. Still outstanding is our recommendation regarding mechanisms giving states a larger voice in determining service requirements and establishing adequate and stable Federal funding.

Critical questions remain regarding where intercity passenger rail makes sense, what types of service should be provided, how much it should cost, and who should pay for it. Reform should focus on reducing costs while improving mobility in corridors (routes of less than 500 miles) around the country—not just in the Northeast Corridor—and in restructuring long-distance service (routes of greater than 500 miles) to complement corridor services. In the meantime, the Department should use its broad authority, through the grant approval process, to secure improvements in Amtrak's operating efficiency.

Additional effort is needed in the following areas to create a new model for passenger rail transportation.

Amtrak Must Do More To Improve Cost-Effectiveness, Operate Efficiently, and Improve Performance

Amtrak has an obligation to be a prudent steward of the taxpayer support it receives and operate cost effectively; yet it has few, if any, internal incentives to do so. Its operations are neither disciplined by competition since it is the sole provider of intercity passenger rail service nor by the marketplace since it has access to the Federal treasury. As a result, until recently, there has been little

implementation of reforms to improve the cost-effectiveness of Amtrak's operations.

This past year, Congress directed Amtrak to operate more cost effectively by achieving savings from operational reforms. Our office was required to report on and certify Amtrak's achievement of operational reform savings. This requirement—in conjunction with constrained appropriations, the Department's grant application review process, and the Amtrak Reform Board's strategic reform initiatives—has resulted in modest savings from the first stages of a limited number of operational reform initiatives. Much more needs to be done. In addition, the Department must work to institutionalize incentives for Amtrak to control costs that will ensure taxpayers receive the maximum level of intercity passenger rail service in exchange for their subsidies.

We have reported quarterly on the 15 areas targeted to operational reform that Amtrak identified to reduce long-term operating costs. We found that only a few, primarily those targeting food and beverage and overhead functions, have resulted in any savings so far (Amtrak saved \$46.3 million through May of this fiscal year, of which only \$3.8 million was from FY 2006 reform initiatives). Amtrak expects to implement an expanded list of reforms in FY 2007.

As we indicated in our quarterly reports, to operate efficiently and achieve significant reductions in its Federal operating subsidies, Amtrak must address the cost of state-supported services, route restructuring, and its labor costs. We have also reported that Amtrak's losses on its food and beverage and sleeper service remain unacceptably high. Although it has begun to reform its food service, we have yet to see a plan that would result in Amtrak breaking even in this area. Additionally, while some sleeper service reform has begun, Amtrak needs to do more to achieve its goal of breaking even in this area as quickly as possible.

Many of Amtrak's reform efforts will take several years of sustained commitment to implement fully. Also, for many reforms, the difficult work has not yet begun. In light of the considerable time and effort required for Amtrak to achieve meaningful operational reforms, the Department will be challenged to ensure that the proper external incentives are brought to bear on Amtrak to see this effort through to fruition.

Amtrak Needs a New Model for Providing Passenger Rail Transportation

The Department and Amtrak need to give states more say in selecting the best mix of service for their constituents and provide the infrastructure funding needed for passenger rail to operate as an effective alternative mode of transportation.

States should decide which cities are served, schedules, frequency of service, and what amenities should be provided. Those decisions are made by Amtrak, unlike

other transportation programs (including highways, transit, and airports) in which similar key decisions are made by state or local governments. As a result, these service decisions do not always reflect the states' preferences and priorities. Intercity passenger rail would be better served with state-led initiatives as to where and how intercity passenger rail service is developed. State sponsorship will become increasingly important because the states should also be asked to provide increased operating and investment support. Capital funding decisions, as with mass transit, should ultimately reside with the Department, based on congressional direction and in partnership with the states.

No corridor around the country, including the Northeast Corridor, can provide the type of mobility needed without significant up-front investment. In the Northeast Corridor, this means bringing the existing facilities to a state of good repair. In other corridors around the country, it means creating the infrastructure for high-frequency services in partnership with freight railroads and commuter authorities.

A robust Federal program of capital matching grants will be essential if these corridors are to be developed. In addition, long-distance services that provide connections between corridors require recapitalization if they are to be run efficiently and are to provide the high-quality services their passengers deserve. None of this, however, implies giving more money directly to Amtrak, especially under the current model.

Introducing competition into the intercity passenger rail system by authorizing multiple passenger rail service providers is one way to encourage efficiency and innovation. But competition is not likely to occur unless and until the rail system is restored to a state of good repair. The first steps that must be achieved are to ensure adequate Federal and state funds are available for infrastructure repair; make significant reductions to operating costs; and give states more power to select routes, schedules, frequencies, and amenities.

For further information, the following reports and testimonies can be seen on the OIG web site at <http://www.oig.dot.gov>:

- *FY 2006 First, Second, and Third Quarterly Reports on Amtrak's Financial Status*
- *Intercity Passenger Rail and Amtrak*
- *Reauthorization of Intercity Passenger Rail and Amtrak*
- *Analysis of Cost Savings on Amtrak's Long-Distance Services*
- *Assessment of Amtrak's 2003 and 2004 Financial Performance and Requirements*

8. Improving Acquisition and Contract Management To Reduce Costs and Eliminate Improper Payments

Over the past several years, the Department has shown its ability to strengthen its oversight practices in the area of grant oversight and financial management when it focuses its attention on the issue. For example, the Department made significant progress strengthening its oversight of Federal-aid highway grants since we highlighted the issue as a management challenge in 2004. As we report in a separate section of this document, Federal Highway Administration (FHWA) division officials worked aggressively with states this year to review the need for inactive funds on transportation projects. As a result, \$738 million of idle Federal-aid funds were made available for use on active transportation projects. The Department, which requested about \$8.7 billion for acquiring goods and services in its fiscal year (FY) 2007 budget, should now apply the same degree of dedication and initiative toward strengthening its procurement and acquisition processes.

Providing increased attention to ensure that procurement and acquisition activities are conducted in an efficient and effective manner and that taxpayer dollars are protected from fraud and abuse is a Government-wide priority. Congress enacted the Services Acquisition Reform Act of 2003, which established Chief Acquisition Officers at Federal agencies with the intention of strengthening oversight of the acquisition life-cycle. More recently, in October 2006, the Deputy Attorney General formed a nationwide procurement fraud task force to focus law enforcement resources, including our office and other Inspectors General on this issue. For our part, we have also focused significantly more audit and investigative resources on procurement and acquisition issues, including the establishment of a new senior executive position and the hiring of additional staff to carry out a robust audit program for contracting and procurement activities in the Department.

In recent years, we identified incidents of fraud, waste, and abuse on Department of Transportation (DOT) contracts and research agreements. When these incidents were brought to management's attention, DOT and its agencies took swift action to correct the problem or limit its impact. For example, upon notifying the Federal Aviation Administration (FAA) of wasteful contract management practices affecting a \$500 million multiple-award program to acquire support services, the FAA Administrator immediately acted on our recommendations and issued a directive requiring actions to enhance competitive practices, strengthen reviews over payments, and add integrity training.

While DOT agencies are cooperating on eliminating problems as they arise and implementing actions to improve its stewardship and oversight processes, as illustrated by FAA's actions, DOT must be more proactive to further enhance its vigilance and oversight in this area.

We have identified several contracting issues that require the Department's focused attention:

- Institutionalizing the use of Defense Contract Audit Agency contract audit services,
- Strengthening financial management oversight of institutions performing research under DOT cooperative agreements and grants,
- Promoting more vigilance and enhanced oversight of FAA's acquisition and contract management practices,
- Ensuring that Department employees maintain high ethical standards, and
- Enforcing suspensions and debarments more rigorously.

Institutionalizing the Use of Defense Contract Audit Agency Contract Audit Services

Contract audit services provided by Defense Contract Audit Agency (DCAA) are a valuable tool for assisting contracting officers in combating excessive prices and unallowable charges. Additionally, monetary benefits from DCAA audits not only cover audit costs but can also reduce program costs. For example, from FY 2001 through FY 2005, DOT agencies saved \$8 for every \$1 spent on a DCAA contract audit.

The Department is doing more to obtain these needed audits. For example, DOT's Office of the Senior Procurement Executive has been working with DCAA, Operating Administrations, and the Office of Inspector General to find better methods for obtaining needed audits. Additionally, responding to our recommendation, FAA revised its guidance to require that all cost-reimbursable contracts over \$100 million and 15 percent of those contracts under \$100 million obtain post-award audits of allowable costs incurred. Also, FAA's acquisition baselines for major programs are now required to set aside funding for audits, including pre-award audits of prices for new contracts. At other DOT agencies, incurred-cost audits are now required, unless sufficient justification is documented for not obtaining them.

However, these policy enhancements need to be implemented more effectively throughout the Department. Recent Office of Inspector General audits covering

all DOT agencies identified that many program offices are not setting aside funding for audits and some procurement officials are unaware of or lack details on implementing the audit policies. For example, a recent audit of the use of contract audit services at DOT agencies other than FAA—covering 30 cost-reimbursable contracts valued at \$618 million—disclosed that DOT contracting officers did not obtain any annual incurred-cost audits for 18 of the 30 contracts (60 percent).

Strengthening Financial Management Oversight of Institutions

Performing Research Under DOT Cooperative Agreements and Grants

The Department uses cooperative agreements and grants to partner with universities to acquire transportation-related research services. According to DOT senior acquisition officials, DOT agencies in FY 2005 awarded agreements valued at over \$200 million to colleges, research centers, and other similar recipients. In contrast with contract and grants awards, cooperative agreements require more collaboration between Federal agencies and awardees.

In recent audits and investigations, we found recipients and DOT agencies lacked sufficient guidance and procedures to administer and oversee the agreements. Examples include:

- An audit of cooperative agreements awarded to a major university, which performs research on crash simulations, concluded that the university billed FHWA for “inflated or fictitious” charges. We found a serious lack of oversight and internal controls, and the university agreed to reimburse the Government more than \$1.8 million for the full amount of overcharges plus penalties. The responsible professor has been imprisoned for embezzlement.
- The Research and Innovative Technology Administration’s management and oversight of an assistance award to a major university was inadequate, and, as a result, about \$3.5 million in ineligible costs were allowed as matching funds. The university claimed a building as its matching funds, but our investigation determined that no transportation education, research, or technology transfer occurred at the building.
- A non-profit research entity billed a Federal Transit Administration cooperative agreement for over \$400,000 in unallowable charges and failed to apply its share of matching funds to liquidate expenditures under the grant. This matter is currently under investigation by the Office of Inspector General.

In response to recent audits and investigations, FHWA established a new division responsible for administering cooperative agreements. The new division is developing detailed guidance for administration and oversight of grants and cooperative agreements. FHWA needs to follow through to ensure that it provides

adequate oversight of cooperative agreements, and other Operating Administrations need to similarly strengthen their oversight of cooperative agreements.

Promoting More Vigilance and Enhanced Oversight of FAA's Acquisition and Contract Management Practices

FAA faces challenges for each phase of the acquisition cycle, including planning, awarding, and administering contracts. Our audit of a multiple-award procurement program valued at over \$500 million found particular problems with the program structure. Unlike other support services programs, such as those offered by the General Services Administration, FAA did not establish common labor categories and qualifications or leverage the Government's buying power by pre-competing labor rates. Instead, FAA defined and negotiated labor rates separately for each contract and overpaid for services under the program. Likewise, competitive practices were not used for most individual contract awards.

We identified weaknesses in FAA's methods of pricing and awarding new contracts for support services. FAA contracting officers did not adequately conduct or document price analyses. Although over 76 percent of 114 support services awarded under the program lacked sufficient competition, price analyses were not adequately supported. We estimated that FAA would be paying \$24 million to \$44 million more if all option years under existing support services contracts were exercised. Also, problems in contract administration, the last phase of an acquisition, were identified in our review of 11 support services contracts. In one case, performance problems were not addressed, and the contractor was being reimbursed for work performed beyond the statement of work. FAA followed our recommendations throughout the audit; most significantly, FAA dissolved the program and is obtaining these services using competitive procurements. Further, FAA's Administrator issued a directive to require that any new award over \$1 million with fewer than three competitive bids not be awarded without the review and approval of the FAA Deputy Administrator.

Our work on DOT's emergency transportation contract administered by FAA also identified problems with price analyses. In the aftermath of Hurricane Katrina, the immediate transportation of people and vital supplies to and from hurricane-affected areas was critical. FAA contracting officials immediately modified the contract to ensure the availability of emergency services. Due to rushed conditions, however, sufficient steps were not taken to ensure that the services were reasonably priced. For example, one contracting officer awarded a modification that doubled the maximum contract value for additional services for Hurricane Katrina without obtaining a price proposal or negotiating reductions to fixed indirect rates. Although an emergency existed, the contracting officer is still responsible for ensuring that pricing factors are reasonable. Due to the

emergency, the modification could have been awarded subject to a later review of pricing factors. FAA needs to continue strengthening its oversight of acquisitions to ensure that procurement and contracting officials implement the Agency's Acquisition Management System regulations and guidance.

Ensuring That Department Employees Maintain High Ethical Standards

DOT, like other Federal agencies, is vulnerable to contract and grant fraud stemming from ethical lapses on the part of employees involved in awarding or administering procurements. Employees involved in the acquisition of support services are particularly susceptible. For example:

- At one Operating Administration, a program manager (who is no longer with the Department) received a \$120,000 kickback from a contractor who was awarded about \$3.5 million in purchase orders for information technology services.
- At another Operating Administration, a senior executive attended social functions paid for by a contractor (the executive's previous employer) and exerted perceived pressure on subordinates to award over \$1.1 million in contract task orders to this contractor for a strategic plan and marketing-related services.
- At a third Operating Administration, a program manager steered a \$465,000 subcontract for financial analysis-related services to a firm owned and controlled by a household member.
- In a departmental office, a senior manager (who is no longer with the Department) awarded multiple sole-source contracts and cooperative agreements for support services, including advertising and logistics, to an individual with whom the director socialized.

In many cases, officials failed to maintain an appropriate "arms-length" relationship with contractors and cooperative agreement recipients, resulting in significant administrative and, sometimes, criminal consequences for both employees and contractors. In some instances, employees simply did not recognize in advance that their actions could violate ethical standards or create, at a minimum, the appearance of ethical impropriety.

DOT needs to continually promote and reinforce ethical standards—in particular, the critical importance of avoiding conflicts of interest in contracting—through rigorous ethics awareness and training programs. Moreover, while DOT has taken some steps to strengthen controls, such as those governing cooperative agreements for the Office of the Secretary, it needs to remain vigilant to strengthen internal

controls to prevent and detect inappropriate conduct involving procurements and take action when violations occur.

Enforcing Suspensions and Debarments More Rigorously

The Department has also strengthened its procedures to ban companies and individuals that defraud the Government. Most notably, DOT has taken firm action to enhance its suspension and debarment actions when fraud is identified. DOT promulgated a new, more rigorous Suspension and Debarment Order in June 2005, which increased accountability and has resulted in an increase in the number of indicted or convicted parties referred to Operating Administrations for suspension and debarment actions. However, more work is needed to implement the policy, specifically in ensuring timelier processing and reporting of suspension and debarment actions. A centralized database is also needed, and agencies need to share best practices to identify effective procedures for implementing the policy.

For further information, the following reports and testimonies can be seen on the OIG web site at <http://www.oig.dot.gov>:

- *Financial Policies and Procedures at the George Washington University National Crash Analysis Center*
- *Audit of the Federal Aviation Administration's RESULTS National Contracting Service*

9. Protecting, Monitoring, and Streamlining Information Technology Resources

The Department of Transportation's (DOT) information technology (IT) investment portfolio, with more than 400 computer systems supporting key mission areas at a cost of about \$2.5 billion annually, is one of the largest among civilian agencies. Over 80 percent of these investments are in air traffic control modernization. During fiscal year (FY) 2006, the Department made noticeable improvements in tracking, prioritizing, and correcting security weaknesses—a major concern identified last year. The departmental Investment Review Board also provided close oversight to a multibillion-dollar IT investment project managed by the Federal Aviation Administration (FAA). However, the Department did not make adequate progress in strengthening air traffic control systems security and needs to continue enhancing oversight of IT investments.

FY 2007 will be a particularly challenging year for the Department. First, it has to implement a consolidated IT infrastructure to support all Operating Administrations (except FAA and the Surface Transportation Board) in the new Headquarters building. This consolidated IT infrastructure presents opportunities to eliminate fragmented IT operations; however, it will require a higher level of security protection—one that has not yet been tested. In addition, about 230 systems—more than half of the Department's total inventory—are due for security recertification and have to meet new security standards. The major challenges facing DOT in the IT security and investment areas include the following:

- Enhancing air traffic control systems security through resource commitment and progress measurement,
- Meeting new security standards while recertifying systems security,
- Securing the consolidated IT infrastructure and eliminating Operating Administrations' fragmented systems backup/recovery sites, and
- Working with Operating Administrations to strengthen oversight of IT investment and to streamline duplicative IT systems.

Enhancing Air Traffic Control Systems Security Through Resource Commitment and Progress Measurement

The President has designated air traffic control systems a critical national infrastructure due to the important role commercial aviation plays in fostering and sustaining the national economy and ensuring citizens' safety and mobility. In FY 2004, based on audit findings, FAA made a strong commitment to enhancing the security protection of air traffic control systems. One of its promises was to complete security reviews of all operational air traffic control systems—at en route, approach control, and airport terminal facilities—between FY 2005 and FY 2007. This is critical to protecting air traffic control systems because security vulnerabilities could inadvertently be created when changes are made to the “baseline” systems to meet local operational needs.

FAA made little progress in reviewing operational air traffic control systems security until after April 2005, when the Inspector General sent a letter to the FAA Administrator expressing concern over the slow pace of the corrective action. By the end of FY 2005, FAA had conducted initial reviews at all en route facilities, representing a clear step in the right direction. However, FAA did not follow through with this effort during FY 2006 because of, according to FAA officials, a funding shortage.

In October of this year, the FAA Chief Information Officer (CIO) and the head of the Air Traffic Organization committed to developing a plan by the end of December 2006 detailing the approach FAA will take during FY 2007 to evaluate security differences between systems used to direct air traffic at terminal and tower facilities and the “baseline” systems previously tested in its computer laboratory. If this process is implemented effectively, it will significantly strengthen security protection of air traffic control systems.

Another FAA promise was to develop a contingency plan to restore more than essential air services in case of prolonged service disruptions at en route centers. FAA's existing business continuity plan has worked well in the past to ensure flight safety when dealing with temporary, less severe disruptions.

In FY 2005, we reported that FAA had identified a contingency strategy to deal with prolonged service disruptions but was years away from its implementation. In October of this year, the FAA Deputy Administrator informed us that FAA had identified an interim solution based on the results of an engineering study. The Deputy Administrator also made a strong commitment to fund this interim solution with existing FAA resources.

We recognize that FAA faces critical decisions in balancing its priorities and using its funds at a time of increasingly tight budgets. Yet, issues concerning the

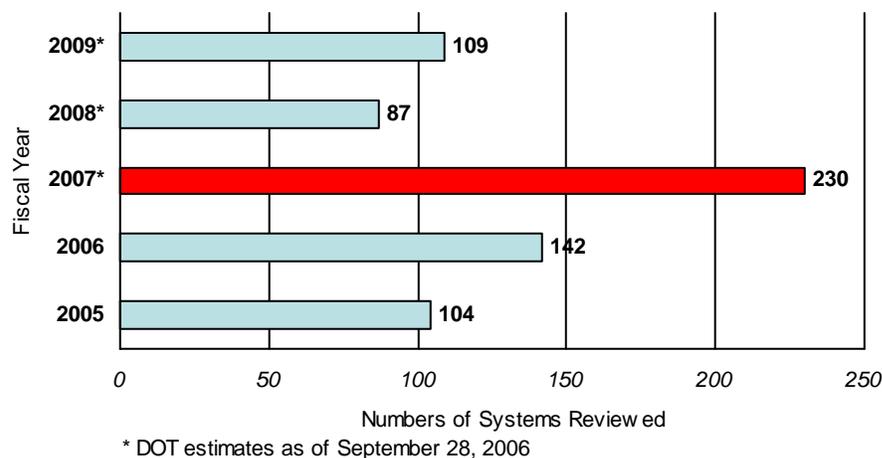
security of a critical national infrastructure should receive attention and support from the Office of Management and Budget and Congress.

We plan to initiate an audit of FAA's progress in reviewing operational systems security and implementing the interim solution for contingency planning in accordance with the approved plans.

Meeting New Security Standards While Recertifying Systems Security

In FY 2004, the Department made significant strides in reviewing and testing information systems security and successfully increased the system certification and accreditation (C&A) rate from 33 percent to over 90 percent. The C&A process is a statutory requirement to ensure that information systems are adequately secured to support agency missions and must be conducted every 3 years or upon major system change. The 2004 reviews are due for recertification in 2007, as will be the systems moving to the new Headquarters building (a major change). Consequently, DOT will be faced with the need to recertify some 230 systems during FY 2007 (see Figure 9-1).

Figure 9-1: DOT Information Systems Estimated To Require Certification and Accreditation Reviews, Fiscal Years 2005-2009



What further complicates the issue is that these recertifications have to meet new Government standards. The Federal Information Security Management Act of 2002 (FISMA) required the National Institute of Standards and Technology to develop minimum Government security standards for Federal agencies. These new standards become effective in March 2007 and may require security upgrades in agency systems, such as greater encryption sophistication. In performing a preliminary assessment on a safety-critical system, we found that it meets only

about two-thirds of the minimum security standards in one critical area. To meet all of these challenges, the Operating Administrations will need to submit system recertification work schedules for approval, identify security upgrade needs and funding sources, and report progress against approved schedules throughout the year.

Securing the Consolidated IT Infrastructure and Eliminating Operating Administrations' Fragmented Systems Backup/Recovery Sites

Traditionally, each Operating Administration has managed its own IT infrastructure (e. g., desktop computers, local area networks, and e-mail) in the departmental Headquarters. These duplicative IT operations were expensive to maintain and had inconsistent security protections—both physical and logical.⁸ Since they were interconnected, security weaknesses in one Operating Administration's infrastructure could endanger others: in other words, the agencies' IT security was only as strong as the weakest link. As part of the move to the new Headquarters, the Department seized the opportunity to consolidate these IT infrastructure operations into one.

While the consolidated IT infrastructure can help strengthen Departmentwide security protection and make IT operations more efficient, it needs to be thoroughly tested before being accredited for operation. However, the plan and schedule to implement and test this new infrastructure are still evolving, due to a variety of move-related problems. If not properly secured, this consolidated infrastructure could result in much greater harm to the integrity of departmental system operations than would be the case if only one Operating Administration were affected. The Department needs to allow sufficient time to thoroughly test this new IT infrastructure before installing Operating Administration mission-critical systems on the new infrastructure.

As part of this IT consolidation effort, the Department needs to identify a consolidated backup/recovery site at a sufficient geographic distance from the new Headquarters and conduct contingency testing for all Operating Administration systems operating on the consolidated IT infrastructure after completing the Headquarters move. Further, the CIO needs to direct that the Operating Administrations not make additional investments to equip their individual backup/recovery sites until decisions have been made for the consolidated backup/recovery site. Operating Administrations have been responsible for establishing their individual backup/recovery sites because they had separate IT infrastructures. In FY 2003, we reported inadequate contingency planning and testing at Operating Administration recovery sites. In addition, we reported that,

⁸ Logical security consists of software safeguards for an organization's systems, including user identification and password access, authentication, access rights, and authority levels. These measures are to ensure that only authorized users are able to perform actions or access information on a network or a workstation.

to reduce the probability of losing both primary and backup sites to the same disaster, the Department needed to develop guidance on the minimum geographic distance between a system's primary and recovery processing sites. We found cases in which Operating Administrations' recovery sites were within 10, 15, or 25 miles of primary sites. In case of an emergency, those Operating Administrations would likely lose both the primary and backup computers for their mission-critical systems, such as safety inspection and grants management systems, since natural disasters often cover areas larger than 25 miles.

Working With Operating Administrations To Strengthen Oversight of IT Investment and To Streamline Duplicative IT Systems

Last year, we expressed concern over the departmental Investment Review Board's ability to provide value-added services when reviewing FAA's major IT investment projects. As a result, we recommended that the Department clarify the Board's authority and increase the Board's capability to research potential project cost, schedule, and performance shortfalls on complicated IT investments. Subsequently, the Department confirmed that the Board, through advising the Secretary, can influence budget decisions on all IT investments. During FY 2006, the Board used this authority to enhance project management of a multibillion-dollar investment project called FAA Telecommunications Infrastructure.

In terms of identifying problems associated with major IT investments, the Department plans to delegate this responsibility to individual Operating Administration review boards to oversee their specific IT investments. While we support the idea of holding Operating Administrations more accountable for their own projects, this will not be possible until the departmental Board establishes clear performance measures for IT investments, such as Earned Value Management (EVM) measures. However, we found that 70 percent of DOT's major IT investment projects met fewer than half of the Office of Management and Budget's criteria for EVM implementation. Currently, 13 departmental IT investment projects are included in the Office of Management and Budget's high-risk list, 12 of which are related to air traffic control modernization—the management of which remains on the Government Accountability Office's high-risk list, where it has been for more than 10 years. The departmental Board needs to work with Operating Administration review boards to continue exercising knowledgeable oversight of these major IT investments.

Another area requiring senior management attention is continuing to streamline duplicative common systems for cost savings. In FY 2003, the Department identified opportunities to consolidate duplicative systems used in 11 common business areas across Operating Administrations, such as office IT infrastructure, financial management, grants management, and training. During FY 2006, the Department completed its consolidation of recruitment systems and will complete

consolidation of IT infrastructures at the new Headquarters in FY 2007. Progress has also been made in eliminating duplicative financial systems and teaming with the Department of Housing and Urban Development to streamline grants management systems. The Department needs to continue to actively pursue streamlining these duplicative systems to realize the cost savings that consolidation can offer.

For further information, the following reports and testimonies can be seen on the OIG web site at <http://www.oig.dot.gov>:

- *DOT Information Security Program (October 2004, 2005, and 2006)*
- *Security and Controls Over the Remote Maintenance and Management System, FAA*
- *Security and Controls Over Technical Center Computer Systems, FAA*
- *Security and Controls Over En Route Center Computer Systems, FAA*
- *Office of the Chief Information Officer's Budget, DOT*

10. Strengthening DOT's Coordination of Research, Development, and Technology Activities and Funding

The Department of Transportation's (DOT) management strategy for research, development, and technology (RD&T) activities is a relatively new initiative, and this is the first year that the Office of Inspector General has reported it as an emerging issue. DOT has taken significant steps in improving coordination of its RD&T activities, but there are a few areas that bear watching to ensure long-term benefits to the Department.

For 2007, DOT has requested over \$1 billion for RD&T. (See Table 10-1 for a listing of RD&T funding by Operating Administration.)⁹ These funds are used to support a wide assortment of RD&T projects and activities, including the Federal Aviation Administration's continued work on aviation safety (\$88 million), the Federal Highway Administration's Innovative Bridge Research and Development program (\$11.2 million), the Pipeline and Hazardous Materials Safety Administration's pipeline safety research (\$9.7 million), and the Federal Railroad Administration's Train Occupant Protection Program (\$4.95 million). While many of these RD&T programs are highly specialized, others cut across various modes of transportation—such as human factors research.¹⁰

**Table 10-1: RD&T Budget Request by Operating Administration
FY 2007 Actual (\$000)**

FHWA	\$586,079
FAA	\$263,148
NHTSA	\$84,502
FTA	\$61,685
FRA	\$38,646
PHMSA	\$12,236
FMCSA	\$12,458
RITA	\$4,362
Other	\$8,910
Total	\$1,072,026

In 2005, DOT took two significant steps designed to improve the coordination of the various research efforts and to maximize the Department's RD&T investments. The first involved the establishment of the Research and Innovative Technology Administration (RITA) in accordance with the Norman Y. Mineta Research and Special Programs Improvement Act of 2004. RITA was established in part to coordinate, facilitate, and review the Operating Administrations' RD&T programs and activities and to help identify and eliminate cross-modal project

⁹ The dollar amounts listed in Table 10-1 are based on the amount of funds received by each Operating Administration. In some cases, however, funds are used to support programs administered by another DOT or state organization. For example, FHWA officials note that a large portion of their RD&T budget is used to fund programs administered by RITA, including \$110 million for Intelligent Transportation Centers and \$69.7 million for University Transportation Centers. Another \$165.7 million is dedicated Federal-Aid Highway funds apportioned to the states for research.

¹⁰ Human factors research is an area in which cross-modal coordination has occurred for many years through the Human Factors Coordinating Committee.

redundancies.¹¹ A second step involved the creation of the RD&T Planning Council. Comprising senior DOT officials and chaired by the RITA Administrator, the Planning Council (and subordinate Planning Team) was tasked with ensuring "...cross-modal collaboration and coordination in the RD&T initiatives within DOT and with external entities."¹²

RITA's and the RD&T Planning Council's ability to effectively coordinate the Department's RD&T program is affected by a number of factors. First, in an August 2006 report, the Government Accountability Office (GAO) noted that RITA lacked a strategic approach sufficient to ensure the Department is effectively managing its RD&T investment.¹³ Second, the Transportation Research Board (TRB) in an August 2006 letter to the Acting Secretary of Transportation cited the growth in congressional RD&T earmarks and the resulting impact on DOT's ability to manage its RD&T programs in support of strategic objectives. Third, RITA and the RD&T Planning Council have limited oversight authority and must rely on a consensus-based decision making process to prevent unnecessary duplication of RD&T efforts and resolve cross-modal differences. Finally, while the RD&T Planning Council has received significant support from DOT's senior leadership over the last year, it will be critical that such support be maintained over the long term. As a result of these factors, we see the Department's efforts to ensure the effective coordination of RD&T activities as an emerging issue.

Ensuring Effective Coordination of DOT's RD&T Activities

Whereas RITA's and the RD&T Planning Council's overall challenge will be to effectively coordinate the Department's RD&T program, their success is largely dependent on how well a number of key factors are addressed. First, GAO recently reported that RITA's ability to fulfill its mission is hampered by the lack of a clear implementing strategy, established performance goals, and an evaluation plan that indicates how the Agency's coordination role will further DOT's mission or ensure the effectiveness of the Department's RD&T investment. In particular, GAO recommends that RITA develop a strategy to identify and review all RD&T projects for duplication and to identify areas for joint efforts. Other issues affecting RITA include the lack of a DOT-wide database for monitoring RD&T programs and activities and vacancies in several key management positions (e.g., RITA Administrator and the Associate Administrator for the Office of Research, Development and Technology).

¹¹ RITA also helps fulfill one of the initiatives in the President's Management Agenda. That initiative calls for the implementation of investment criteria for research and development.

¹² DOT Order 1120.39A, "Research, Development and Technology Planning Council, Team, and Process," May 2, 2005.

¹³ U.S. Government Accountability Office, "Transportation Research: Opportunities for Improving the Oversight of DOT's Research Programs and User Satisfaction with Transportation Statistics," GAO-06-917, August 2006.

A second factor deals with the growth in congressional RD&T earmarks and their impact on RITA's and the Planning Council's ability to ensure the effective use and allocation of DOT's RD&T resources. Between 1995 and 2003, congressional earmarks of DOT's research budget increased from 1 percent to 14 percent according to a 2005 study done by the University of California, Berkeley. This study also noted that earmarks were especially high for surface transportation programs. For example, between fiscal year (FY) 1997 and FY 2003, congressional earmarks of the Federal Highway Administration's research budget increased from 12 percent to 29 percent. Likewise, earmarks were over 40 percent of FY 2006 funding for the Federal Highway Administration Surface Transportation Research, Development, and Deployment Program (STRDD).¹⁴ Moreover, in its August 2006 letter, TRB cited the dramatic growth in earmarking and the resulting constraints on the Department's ability to allocate resources in a coherent and strategic manner. As a result, TRB called on DOT "...to put forward a thoughtful and persuasive plan for RD&T investment." TRB's hope is that such a plan will help foster executive branch and congressional agreement on Federal RD&T funding for the Nation's most pressing transportation needs.

A third factor affecting RITA and the RD&T Planning Council involves their ability to effectively resolve cross-modal differences. To date, the Council has been instrumental in helping define RITA's RD&T coordination role, drafting the Department's 5-year RD&T Strategic Plan,¹⁵ and providing a Departmentwide forum for reviewing, coordinating, and strengthening RD&T budget submissions. Whether RITA and the Council will have similar success in achieving consensus on cross-modal differences—such as eliminating areas of unnecessary duplication—remains to be seen. For instance, DOT Order 1120.39A, "Research, Development and Technology Planning Council, Team, and Process" simply indicates that the "Planning Team shall adopt participative consensus-based decision making procedures. In the absence of consensus, options for resolution shall be referred to the RD&T Planning Council." Since the Planning Council and RITA do not have direct authority to adjudicate cross-modal RD&T disagreements, both may face challenges in trying to prevent unnecessary duplication without the assistance of DOT's senior leadership.

Thus, the Department faces a number of challenges in the RD&T arena. RITA needs to establish a clear implementing strategy for improving DOT-wide RD&T coordination, DOT needs to develop an RD&T investment plan for gaining executive branch and congressional agreement on funding DOT's research priorities, and the Planning Council needs to have the long-term support of senior

¹⁴ Making up roughly half of FHWA's authorized RD&T funding, STRDD includes a range of projects dealing with pavement, structures, environment, technology, highway safety, planning, and policy.

¹⁵ This plan will serve as a guide for the Department's RD&T investments over the next 5 years.

DOT leaders to prevent unnecessary duplication and resolve cross-modal disagreements. These factors will all play a critical role in improving coordination among the Operating Administrations and ensuring the best use of the Department's substantial RD&T investment.

For further information, the following reports and testimonies can be seen on the OIG web site at <http://www.oig.dot.gov>:

- *Volpe's Project Management Oversight*
- *The Role and Functions of the Volpe National Transportation Systems Center*
- *Improving Aviation Safety, Efficiency, and Security: FAA's FY 2001 Budget Request for Research, Engineering, and Development*
- *DOT's Management and Oversight of University-Based Research*

EXHIBIT. COMPARISON OF FY 2007 AND FY 2006 TOP MANAGEMENT CHALLENGES

Items in FY 2007 Report	Items in FY 2006 Report
<ul style="list-style-type: none"> Defining, Developing, and Implementing Strategies To Improve Congested Conditions on the Nation's Highways, Ports, Airways, and Borders 	—
<ul style="list-style-type: none"> FAA Reauthorization—Reaching Consensus on a Financing Mechanism To Fund FAA and Establishing Funding Requirements 	<ul style="list-style-type: none"> Reauthorizing Aviation Programs—Establishing Requirements and Controlling Costs Are Prerequisites for Examining FAA Financing Options
<ul style="list-style-type: none"> Responding to National Disasters and Emergencies—Assisting Citizens and Facilitating Transportation Infrastructure Reconstruction 	<ul style="list-style-type: none"> Working With Other Agencies To Respond to Disasters and Address Transportation Security
<ul style="list-style-type: none"> Strengthening Efforts To Save Lives by Improving Surface Safety Programs 	<ul style="list-style-type: none"> Building on Recent Initiatives To Further Strengthen Surface Safety Programs
<ul style="list-style-type: none"> Aviation Safety—Performing Oversight That Effectively Utilizes Inspection Resources and Maintaining Aviation System Safety 	<ul style="list-style-type: none"> Aviation Safety—Developing Effective Oversight Programs for Air Carrier Operations, Repair Station Maintenance, and Operational Errors
<ul style="list-style-type: none"> Making the Most of the Federal Resources That Sustain Surface Transportation Infrastructure Improvements by Continuing To Emphasize Project Oversight 	<ul style="list-style-type: none"> Getting the Most for Every Taxpayer Dollar Invested in Highway and Transit Projects
<ul style="list-style-type: none"> Achieving Reform of Intercity Passenger Rail 	<ul style="list-style-type: none"> Reforming Intercity Passenger Rail To Improve Performance
<ul style="list-style-type: none"> Improving Acquisition and Contract Management To Reduce Costs and Eliminate Improper Payments 	—
<ul style="list-style-type: none"> Protecting, Monitoring, and Streamlining Information Technology Resources 	<ul style="list-style-type: none"> Improving Information Technology Investment and Computer Security
<ul style="list-style-type: none"> Strengthening DOT's Coordination of Research, Development, and Technology Activities and Funding 	—
—	<ul style="list-style-type: none"> Ensuring That Reforms Are Implemented in the Maritime Administration's Title XI Loan Guarantee Program
—	<ul style="list-style-type: none"> Mitigating Flight Delays and Relieving Congestion—Actions Needed To Meet Demand

APPENDIX. OST COMMENTS
**U.S. Department of
Transportation**

 Office of the Secretary
of Transportation

Memorandum

ACTION: Departmental Comments on the OIG Draft Report – Top Management Challenges, Department of Transportation

Subject: Departmental Comments on the OIG Draft Report – Top Management Challenges, Department of Transportation

Date: October 31, 2006

From: Phyllis F. Scheinberg *Phyllis Scheinberg*
Assistant Secretary for Budget and Programs/Chief Financial Officer

Reply to
Attn. of:

To: Calvin L. Scovel III
Inspector General

We appreciate the opportunity to review and comment on the Office of Inspector General's (OIG) Top Management Challenges Report for the Department of Transportation (DOT). We value the perspective offered by the OIG and your efforts to help the Department's management ensure DOT's programs are on track and its operations are effective, efficient and financially sound. We are pleased that the issues identified in this report largely coincide with Secretary Peter's goals of continued improvement in transportation safety with particular effort directed at groups experiencing disproportionate crashes and fatalities, improving transportation system performance and reducing congestion. The Secretary has made clear that we need to seek 21st century solutions to the 21st century issues we face. We are also pleased to note that DOT is taking meaningful actions relating to each of the management challenges identified in this report.

We provide the following discussion, which offers some highlights of those actions, to be included in the final OIG Top Management Challenges report. Separately we provided OIG with detailed comments related to specific and technical issues in the draft report.

Seeking New Solutions to Relieve Congested Transportation Systems

Recognizing the burden that congestion places on our economy, environment, and public welfare, DOT launched a National Strategy to Reduce Congestion on America's Transportation Network during the past year. Congestion in the Nation's ports, rail systems and highways pose an increasingly significant threat to our economic vitality.

The Nation's transportation systems must adjust to changing trade flows to enable the efficient flow of goods throughout the economy. Congestion is also affecting the quality of Americans lives by robbing them of time that could be spent with families and friends. Under the Congestion Initiative, the Department is conducting intermodal efforts to relieve urban congestion, unleash private sector investment resources, promote operational and technological improvements, establish a "Corridors of the Future" competition, target major freight bottlenecks and expand freight policy outreach, and accelerate major aviation capacity projects. The Department recognizes the challenges ahead and has issued its strategic plan for Fiscal Year (FY) 2007 and beyond that weaves together a cooperative intermodal approach to improve transportation system efficiency and enable the efficient flow of both passengers and freight.

Working to Identify Equitable Funding Mechanisms for FAA Reauthorization

The Department is working aggressively to explore possible alternative funding mechanisms for the Federal Aviation Administration (FAA) in an effort to help to keep this Nation's aviation system second to none. FAA is conducting extensive outreach to its stakeholders in order to understand the implications of alternative funding options. FAA is refining its Cost Accounting System to clearly identify the cost of providing its wide range of services to the various users of the National Airspace System (NAS). We seek a funding mechanism that provides a more rational, equitable and stable system along with appropriate incentives for system users and FAA to operate efficiently. The increasing demands being placed on the NAS and evolving technologies with potential application to air traffic control have brought about the need to focus on new approaches to NAS management in the future. Through the Joint Planning and Development Office, the Department, together with stakeholders, is working to bring future demands and capabilities into focus in a Next Generation Air Transportation System.

Expeditious, Effective Transportation Services for Natural Disasters and Emergencies

The Department's role in responding to natural disasters and other emergencies is to maintain readiness and provide the capability to quickly move the people and goods necessary for emergency response and recovery, and over time to assist with reconstruction. In addition, this year the President expanded the Department's role during times of emergency to include movement of the general population away from danger. In response to an emergency, speed and efficiency of movement are the first and most critical concerns. Nonetheless we recognize that effective stewardship also requires that the Department provide transportation services in a manner that is economic and derives the maximum benefit from each dollar expended. The Gulf Coast hurricanes of 2005 provided the largest test of the Department's capabilities to date. The results of these efforts were extensively reviewed and changes were implemented to improve future performance. Additional work is continuing to ensure that prices charged during the emergency conditions, were reasonable.

Departmental Programs Continue to Focus on Improving Surface Transportation Safety

Transportation safety is the primary focus of the Secretary and the Department. Thanks to the efforts of organizations including the National Highway Traffic Safety Administration (NHTSA), the Federal Motor Carrier Safety Administration (FMCSA), and the Federal Railroad Administration (FRA) and others throughout the Department continued progress has been achieved in reducing traffic fatalities related to alcohol consumption and large truck crashes. Safety belt usage in private vehicles has risen to record levels, and NHTSA continues to evaluate the efficacy of new active safety devices such as vehicle stability control systems which offer significant potential for saving additional lives. The Department continues to set aggressive targets for reducing fatalities associated with surface transportation. Our detailed data analyses provide information on both success and failure in meeting those goals, but also pinpoints new trends, opportunities, and challenges. For example, analysis of motorcycle-related fatalities pinpointed the need to address the trend of increased motorcycle use by older populations. DOT is using such data and analyses to identify initiatives that will better focus scarce Federal resources on emerging trends and identify opportunities for significant safety improvement. Finally, the Department recognizes the need to establish tunnel management systems addressing the various features of highway and rail transportation tunnels. The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) jointly developed the "Highway and Rail Transit Tunnel Inspection Manual," to provide highway and rail transit tunnel owners guidance in developing a comprehensive inspection and maintenance program.

FAA Efforts Continue to Improve Aviation Safety Oversight

FAA continued to oversee one of the safest aviation systems in the world during the past year. While FAA continues to make progress on its system safety indicators, some accidents did occur. As part of its efforts to ensure that the Nation maintains the exceptionally high level of safety we have grown to expect in the face of new and expanding system challenges, FAA continues to implement and refine its data-driven, analytically based system to focus inspector resources on those areas of greatest risk. In the operational environment, the latest available data show an improvement in FY 2006 compared to FY 2005. For example, the data show a 20 percent decrease in accidents for the first 9 months of the FY for commercial air carriers and similar improvement for general aviation. While these findings are encouraging, they represent a snapshot in time and continued diligence will be required to achieve further improvement.

Efforts in Place to Maintain and Enhance Federal Funds Stewardship

The Department continues to expect and demand nothing less than full accountability over the use of Federal funds and works hard to ensure that its expenditures are effective and efficient. The Department recognizes that it must function effectively in a world where there is increasing competition for scarce Federal resources. As recognized in the management challenges report, the FHWA continued to strengthen its oversight of

inactive obligations. As a result, it was able to utilize nearly three-quarters of a billion dollars in funds for current transportation priorities. FTA also continues its strong oversight of Federal funds for the construction of major new transit projects under its New Starts Program and the replacement of transit infrastructure destroyed in the attacks of September 2001.

DOT is a Proponent of Amtrak Reform and Effective Oversight

DOT, by working with the Congress and through its membership on the Amtrak Board of Directors, has been a vocal proponent of effective Amtrak reform to increase management accountability and encourage response to market forces. During the past year, FRA enhanced the grant agreements it completes each year with Amtrak, to improve oversight and provide meaningful requirements intended to improve management of the railroad. We also note that Amtrak has implemented important reforms in key areas, such as procurement, that offer the potential for continuing improvement in the future. Overall, Amtrak must focus on those services and markets with the greatest return on investment to achieve long-term success. The type and extent of future Federal support should be commensurate with a 21st century national passenger rail system. We are continuing to work with Amtrak and the Congress to bring about effective intercity passenger rail reform.

DOT Maintains Effective Acquisition and Contracting Policies

The Department appreciates the OIG report's recognition of FHWA's improved oversight of inactive highway funds and agrees that heightened oversight would benefit the overall effectiveness of acquisition and procurement programs. DOT management has taken initiative to implement improved systems. For example, the Office of the Senior Procurement Executive has implemented new purchase card systems and processes to enable the Department to continue to enjoy the purchase card program's benefits while improving internal controls. Also, the Office of Senior Procurement Executive is working to strengthen controls over cooperative agreements, to improve planning for contract audits, and to improve internal DOT suspension and debarment processes. Further improvement must be set against a continuing outlook for constrained resources available to implement additional or expanded controls. As a result, we must rely on creative solutions, and the continued effective efforts by the both the audit and investigative teams within the OIG.

Actions Continue to Address Information Technology Security, Investment and Enterprise Architecture

DOT continues to strengthen its information technology (IT) infrastructure by addressing computer security issues, improving IT acquisition oversight, and updating its enterprise architecture. DOT has certified and accredited over 99 percent of its IT systems and improved its Plan of Action and Milestone Process. Taken together, these steps assure management that agency systems meet a minimum level of baseline requirements, and where there are risks, a plan of action and milestones process is in place to mitigate those

risks. In support of improving management controls, DOT exercised increased oversight of at-risk major IT programs. Building on plans developed over the past year, and with the support of the Office of Management and Budget, the Department continues to reduce the risks associated with FAA Air Traffic Control Modernization. Finally, the coming year brings a particularly challenging IT environment in which the Department must continue to fulfill the high standards established for Federal IT systems while consolidating its IT environment and moving to a new headquarters building.

New Departmental Focal Point for Coordinating Research, Development and Technology

The Research and Innovative Technology Administration (RITA) offers the Department a single, focused entity to coordinate, facilitate and evaluate its research, development and technology (RD&T) activities. RITA's efforts include advancing innovative technologies and providing comprehensive transportation statistics research, analysis, and reporting. RITA is striving to excel in its RD&T coordination role while facing the administrative challenges of standing up a new organization amid pervasive resource challenges. In the face of these issues it is gratifying to see that a recent Government Accountability Office (GAO) report noted the significant progress RITA has achieved since GAO last reviewed the Department's RD&T coordination activities. While much has been achieved, we recognize that RITA has just embarked on a journey that will require much work and sufficient resources to meet the Mineta Act mandates.

In conclusion, we appreciate and benefit from perspective offered by the OIG and seek to make the best use of information from its reports in improving the Department's programs. The issues identified in this report align well with the Department's efforts to enable the Nation to benefit from a safe, efficient, and effective transportation system. Finally, we look forward to a constructive exchange of ideas and information with you in each of these areas.

The following pages contain textual versions of the graphs and charts found in this document. These pages were not in the original document but have been added here to assist screenreaders.

Report on Top Management Challenges (FY 2007)

Section 508 Compliant Presentation

Table 1-1. Status of Major New Runway Projects, September 2006

Airport	Initial OEP (June 2001) Estimated Completion Date	Current Estimated Completion Date	Phase	Current Cost Estimate* (in Millions)
Boston Logan	Dec 2005	Nov 2006	Construction	\$87
Philadelphia	Not in initial OEP	Dec 2007	Construction	\$65
Seattle-Tacoma	Nov 2006	Nov 2008	Construction	\$1,129
Los Angeles	Not in initial OEP	Jun 2008	Construction	\$333
Washington-Dulles	Not in initial OEP	Nov 2008	Construction	\$243
Chicago O'Hare (Phase I)	Not in initial OEP	Nov 2008	Construction	\$619

* Estimated cost data for Boston Logan, Philadelphia, Seattle-Tacoma, Los Angeles, and Washington-Dulles were obtained from airport sponsors. Estimated cost data for Chicago O'Hare were obtained from an FAA update to its quarterly report.

Figure 3-1: Departmental Disaster Involvement

Year	2001	2002	2003	2004	2005
Incidents	1	2	1	4	8
Mission Assignments	8	4	19	55	56

Source: Office of the Secretary

Figure 4-1: Actual Highway Fatality Rates Lag Targeted Rates

(Fatality rates are shown as the number of fatalities per 100 million vehicle-miles traveled.)

Year	2001	2002	2003	2004	2005	2006	2007	2008
Actual Fatality Rate	1.51	1.51	1.48	1.45	1.47	0	0	0
Target Rate	1.50	1.40	1.40	1.38	1.38	1.38	1.38	1.00
Projected Rate	0	0	0	0	0	1.44	1.42	1.41

Source: National Highway Traffic Safety Administration budget information for actual fatality rates and target rates

Projected rates for 2006, 2007, and 2008 were calculated using the National Highway Traffic Safety Administration's forecasting methodology.

Figure 4-2: Trends in the Number and Rate of Train Accidents

Year	Number of Train Accidents	Rate of Train Accidents per Million Train Miles Traveled
1995	2,459	3.67
1996	2,443	3.64
1997	2,397	3.54
1998	2,575	3.77
1999	2,768	3.89
2000	2,983	4.13
2001	3,023	4.25
2002	2,738	3.76
2003	3,007	4.04
2004	3,366	4.37
2005	3,169	4.01

Source: Federal Railroad Administration

Figure 5-1: Runway Incursions FY 1999 to FY 2005

Fiscal Year	Runway Incursions
1999	329
2000	405
2001	407
2002	339
2003	323
2004	326
2005	327
2006*	305

Source: Federal Aviation Administration

* FY 2006 preliminary data for 11 months

Figure 5-2: Serious Runway Incursions FY 1999 to FY 2005

Fiscal Year	Serious Runway Incursions
1999	69
2000	67
2001	53
2002	37
2003	32
2004	28
2005	29
2006*	27

Source: Federal Aviation Administration

* FY 2006 preliminary data for 11 months

Figure 9-1: DOT Information Systems Estimated To Require Certification and Accreditation Reviews, Fiscal Years 2005-2009

Fiscal Year	Number of Systems Reviewed
2009*	109
2008*	87
2007*	230
2006	142
2005	104

* DOT estimates are as of September 28, 2006.

Table 10-1: RD&T Budget Request by Operating Administration
FY 2007 Actual (\$000)

FHWA	\$586,079
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NHTSA	\$84,502
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Total	\$1,072,026