

National Transportation Safety Board

# PERFORMANCE AND ACCOUNTABILITY REPORT



FISCAL YEAR 2006 AND 2005

NTSB/SPC-06/02



**National  
Transportation  
Safety Board**

Transportation safety is the primary goal of the Board. The Board accomplishes this goal through the investigation of transportation accidents, and the issuance of safety studies and recommendations, and by advocating for the implementation of these recommendations with industry and at all levels of government.

## **NTSB AT-A-GLANCE**

**Established, April 1, 1967**

### **Headquarters**

490 L'Enfant Plaza, SW  
Washington, DC 20594  
[www.nts.gov](http://www.nts.gov)

**FY 2006 Budget \$75.9 million**

**FTE Employees, 387**

**Regional Offices, 10**

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## NTSB Vital Role in Transportation Safety

Since its inception in 1967, the National Transportation Safety Board (NTSB) has investigated more than 124,000 aviation accidents and over 10,000 surface transportation accidents. In so doing, it has become one of the world's premier accident investigation agencies. On call 24 hours a day, 365 days a year, NTSB investigators travel throughout the country and to every corner of the world to investigate significant accidents and develop factual records and safety recommendations.

The NTSB has issued more than 12,350 recommendations in all transportation modes to more than 2,200 recipients. Beginning in 1990, the Board published a "Most Wanted" list of safety improvements. Although the Board does not have authority to regulate transportation equipment, personnel or operations, or initiate enforcement action, based on its reputation for impartiality and thoroughness, the Board has achieved such success in shaping transportation safety improvements that more than 82 percent of its recommendations have been adopted by those in a position to effect change. Many safety features currently incorporated into airplanes, automobiles, trains, pipelines and marine vessels had their genesis in these recommendations.

In addition to the demands of overseeing the safety of the U.S. transportation system, the NTSB has been increasingly called upon to participate in foreign accident investigations especially where American equipment or operators are involved.

The globalization of the economy, as well as our acknowledged leadership in accident investigation, demands NTSB participation in these foreign investigations both to ensure the safety of U.S. aviation exports and to continue to demonstrate the need for one level of safety worldwide.

NTSB meets its important safety mission through several lines of business that work together to prevent future accidents. These lines of business are:

**The Office of Aviation Safety:** investigates, or causes to be investigated, all civil and some public use aviation accidents and selected incidents; prepares detailed reports; develops proposed probable cause(s) determinations; and formulates recommendations to minimize their recurrence for consideration and adoption by the Board and for use by other government agencies, the Congress, the transportation community, and the traveling public.

**The Office of Highway Safety:** investigates highway accidents involving issues with wide-ranging safety significance, such as bridge collapses, multiple fatalities on public transportation, and grade crossings. Safety recommendations may be issued to Federal, state, and local agencies, operators, manufacturers, and trade associations. This office also examines the safety programs of such agencies as the Federal Highway Administration and the National Highway Traffic Safety Administration.

**The Office of Marine Safety:** investigates marine accidents on the navigable waters or territorial seas of the United States and accidents involving U.S. merchant vessels worldwide, under regulations

prescribed jointly by the Board and the Department of Transportation. The Office of Marine Safety also investigates accidents involving U.S. public vessels and non-public vessels, and accidents that involve U.S. Coast Guard safety functions. Safety recommendations may be issued to agencies such as the U.S. Coast Guard, U.S. Army Corps of Engineers, shipping firms, and maritime trade organizations.

**Office of Railroad, Pipeline and Hazardous Materials Investigations:** is a multi-modal investigative office within the NTSB. The office's Railroad Division investigates accidents and incidents involving passenger and freight railroads as well as commuter rail transit systems. These accidents typically involve collisions or derailments, some of which lead to the release of hazardous-materials.

The Pipeline Division investigates accidents occurring during the transport of natural gas or other hazardous liquids, such as gasoline or propane, through underground pipeline systems. Pipeline accident investigations focus on accidents that involve fatalities or that result in substantial property or environmental-damage.

The Hazardous Materials Division investigates accidents in which public safety is threatened by the release of hazardous substances. Hazardous materials accident investigations may include analysis of the performance and integrity of hazardous materials containers, such as rail tank cars and highway cargo tanks.

**The Office of Research and Engineering:** provides technical support to accident investigations, and conducts safety studies that examine safety issues in all modes of transportation. The Board's Flight Data Recorder, Cockpit Voice Recorder, and Materials Laboratories are located in this office. The office maintains the Board's aviation accident database, providing periodic statistical reviews of aviation accidents, and responds to public inquiries for Board reports and safety studies.

**Safety Recommendations and Communications:** The Office of Safety Recommendations and Communications includes the offices of Public Affairs, Transportation Disaster Assistance, Government and Industry Affairs, and Safety Recommendations and Accomplishments for the purpose of communicating a focused, efficient, and effective message to the Board's customers. This team is responsible for coordinating strategies for implementing the safety recommendations, supporting victims of transportation disasters, keeping the media apprised of important safety developments, and ensuring that Congressional, Federal, and state government leaders are provided with timely and accurate information.

The Training Center provide comprehensive education and training for those who improve safety by conducting independent transportation accident investigations; to foster an environment that encourages transportation safety initiatives and technical research; and to promote uniform programs that ensure compassion, understanding, and assistance for those affected by transportation tragedies.

## A Message from the Chairman

I am pleased to present the National Transportation Safety Board's Performance and Accountability Report for FY 2006, prepared under the guidance of the Office of Management and Budget's (OMB) Bulletin No. 01-09. This Performance and Accountability Report contains the Board's financial statements, as required by the Accountability of Tax Dollars Act of 2002; a selection of performance information and a report on the Board's material weaknesses, as required by the Federal Managers' Financial Integrity Act (Integrity Act).

The information provided in this report serves as a mechanism for fiscal and programmatic accountability. It is an accounting to the American people on our stewardship of the funding we received from them in FY 2006 to fulfill our mission.

For nearly four decades the National Transportation Safety Board has been at the forefront of transportation safety issues, the conscience, if you will, of America's vital transportation network. The NTSB is not only our nation's premier accident investigation agency, but also enjoys an excellent reputation as the most authoritative independent safety investigative body in the world.

The Board dedicated staff has worked long and hard over the years to maintain its reputation as being the "best in the safety business".

The NTSB prepared financial statements for FY 2002 that marked the first time in the history of the Board that financial statements had been prepared. Building from this valuable experience and accomplishment in FY 2003, 2004 and 2005, we achieved unqualified (clean) opinions on our first, second and third audited Consolidated Financial Statements for fiscal year 2003, 2004 and 2005.

Leon Snead & Company, P.C. an Independent Public Accounting firm engaged by The Department of Transportation, Office of Inspector General (DOT-IG), has audited the Board's FY 2006 consolidated financial statements included in this report and has issued, once again, an unqualified (clean) opinion indicating that our statements present fairly the financial position of the National Transportation Safety Board. This is the best possible audit result and affirms our commitment to financial reporting excellence.

Along with this opinion, I am pleased to report on the National Transportation Safety Board's (NTSB) compliance with the *Federal Manager's Financial Integrity Act*, revised OMB Circular A-123, Management's Responsibility for Internal Control for June 30, 2006. The Integrity Act requires the Board to annually evaluate its management controls and identify any material weaknesses. This requirement covers all of the Board's programs and administrative functions. As we work to serve the American people, we must administer our programs as efficiently and economically as possible. To do this, we rely on our system of management controls to provide reasonable assurance that our financial activities comply with applicable laws, our items of value are safeguarded, and our operations are accounted for properly.

As of September 30, 2006, there is one new material weakness to report and only one prior year material weakness remaining to be corrected. The new material weakness, which was reported by the independent auditors during the fiscal years 2006 - 2005 Financial Statement Audit is: Internal Controls

Over Financial Reporting. While we do not believe that the issue regarding internal controls over financial reporting discussed in the report is a systemic problem, we do plan to strengthen our controls over the preparation of journal vouchers and topside adjustments. We believe that our additional emphasis in this area addresses the audit recommendation.

The one prior year material weakness, which has not yet been corrected and that was reported by the DOT-IG is: No Formal Agency-wide Information Security Program Established. Based on the DOT-IG Federal Information Security Management Act (FISMA) review, NTSB did not fully comply with the FISMA requirements. Over the past eight months the Board has made significant progress in addressing this weakness and has named an acting Chief Information Officer and Chief Information Security Officer. In addition, we have reorganized our Information Technology operation, developed a comprehensive suite of information security policies, conducted enterprise-wide security awareness training, reduced network vulnerabilities, tightly controlled desktop configurations and conducting ongoing intrusion detection.

In addition, the Department of Transportation, Office of the Inspector General, Acting Inspector General, Todd J. Zinser recently recognized the NTSB efforts in his October 13, 2006 Federal Information Security Management Act (FISMA) report by stating in his letter to the Chairman, that “In Fiscal Year 2006, NTSB made a concerted effort to correct security weaknesses identified in prior years, including establishing a new Chief Information Officer office, developing a system inventory and a timetable to complete system security certification reviews, implementing password lockouts on computers, and providing information security awareness training to NTSB employees. In addition, NTSB should be commended for having established capabilities to perform network vulnerability scans and monitor networks for possible intrusions”.

It's important to note that the FISMA material weakness was limited to the systems resident within NTSB and did not affect the agency's core financial management systems, which are located at the service provider. Therefore, these weaknesses have reduced impact on the financial management system maintained by its service center. In addition, the service provider received an unqualified (clean) Third Party Report on Controls Placed in Operation and Test of Operating Effectiveness (SAS 70) for the Period October 1, 2004 – July 31, 2005.

The performance goals contained in this report, taken as a whole, summarize our success in achieving the performance goals we established for FY 2005 and 2006. The Board continues to aggressively improve our performance planning practices to ensure that, in the future, our goals are results driven and oriented toward achieving desired outcomes.

Just as the NTSB is the world's premier accident investigation agency, it is our vision that the Board becomes a premier financial management agency in the Federal government. The submission of our Performance and Accountability Report is another step toward that vision.

Sincerely,

/s/

Mark V. Rosenker  
Chairman

## A Message from the Chief Financial Officer

In FY 2006, the National Transportation Safety Board (NTSB) continued its efforts toward organizational excellence, which is defined by results. Progress for much of our efforts toward excellence is captured in the NTSB FY 2006 and 2005 Performance and Accountability Report (PAR). The PAR provides the NTSB most important financial and performance information. It is also our principal publication and report to Congress and the American people on our program leadership and our stewardship and management of the public funds entrusted to us.

I am pleased to report that for the fourth consecutive year we have received an unqualified (“clean”) opinion on the NTSB consolidated financial statements for FY 2006 and 2005 from our independent public accounting firm, Leon Sned & Company, P.C.) selected by the Department of Transportation Office of the Inspector General. This is the best possible audit result and affirms our commitment to financial reporting excellence.

These financial statements fairly present the NTSB financial position and were prepared in accordance with generally accepted accounting principles (GAAP) in the United States of America and the Office of Management and Budget (OMB) Circular No. A-136, Financial Reporting Requirements.

Steven Goldberg

November 1, 2006

## Management's Discussion & Analysis

### Overview

The National Transportation Safety Board (NTSB) is an independent Federal agency charged by Congress to determine the cause(s) of every civil aviation accident in the United States, most public-use aircraft accidents, and significant accidents in other modes of transportation (highway, marine, rail, hazardous materials, and pipeline), and to conduct special investigations and safety studies. NTSB investigators also serve as U.S. accredited representatives as specified in international treaties for aviation accidents overseas involving U.S.-registered and -manufactured aircraft or major components.

The Safety Board determines the probable cause(s) of:

- All U.S. civil aviation accidents and certain public-use aircraft accidents;
- Selected highway accidents;
- railroad accidents involving passenger trains or any train accident that results in at least one fatality or major property damage;
- Major marine accidents and any marine accident involving a public and a nonpublic vessel;
- Pipeline accidents involving a fatality or substantial property damage;
- Releases of hazardous materials in all forms of transportation; and
- Selected transportation accidents that involve problems of a recurring nature.

The Independent Safety Board Act of 1974 authorized the Board to:

- Evaluate the effectiveness of government agencies involved in transportation safety;
- Evaluate the safeguards used in the transportation of hazardous materials;
- Evaluate the effectiveness of emergency responses to hazardous material accidents;
- Conduct special studies on safety problems;
- Lead U.S. teams on foreign airline accident investigations to assist foreign authorities under the provisions of the International Civil Aviation Organization (ICAO) agreements;
- Maintain official U.S. census of aviation accidents;
- Review appeals from airmen, mechanics, and repairmen who have been assessed civil penalties by the Federal Aviation Administration (FAA); and
- Review appeals from airmen and merchant seamen whose certificates have been revoked or suspended.

In 1996, the Aviation Disaster Family Assistance Act assigned to the Board the responsibility of coordinating the resources of the federal government and other organizations in order to support the efforts of local and state authorities and the airlines in assisting aviation disaster victims and their families following accidents. In addition, a Presidential memorandum directed Federal agencies to support the Board when it assumes those same responsibilities for major surface transportation accidents.

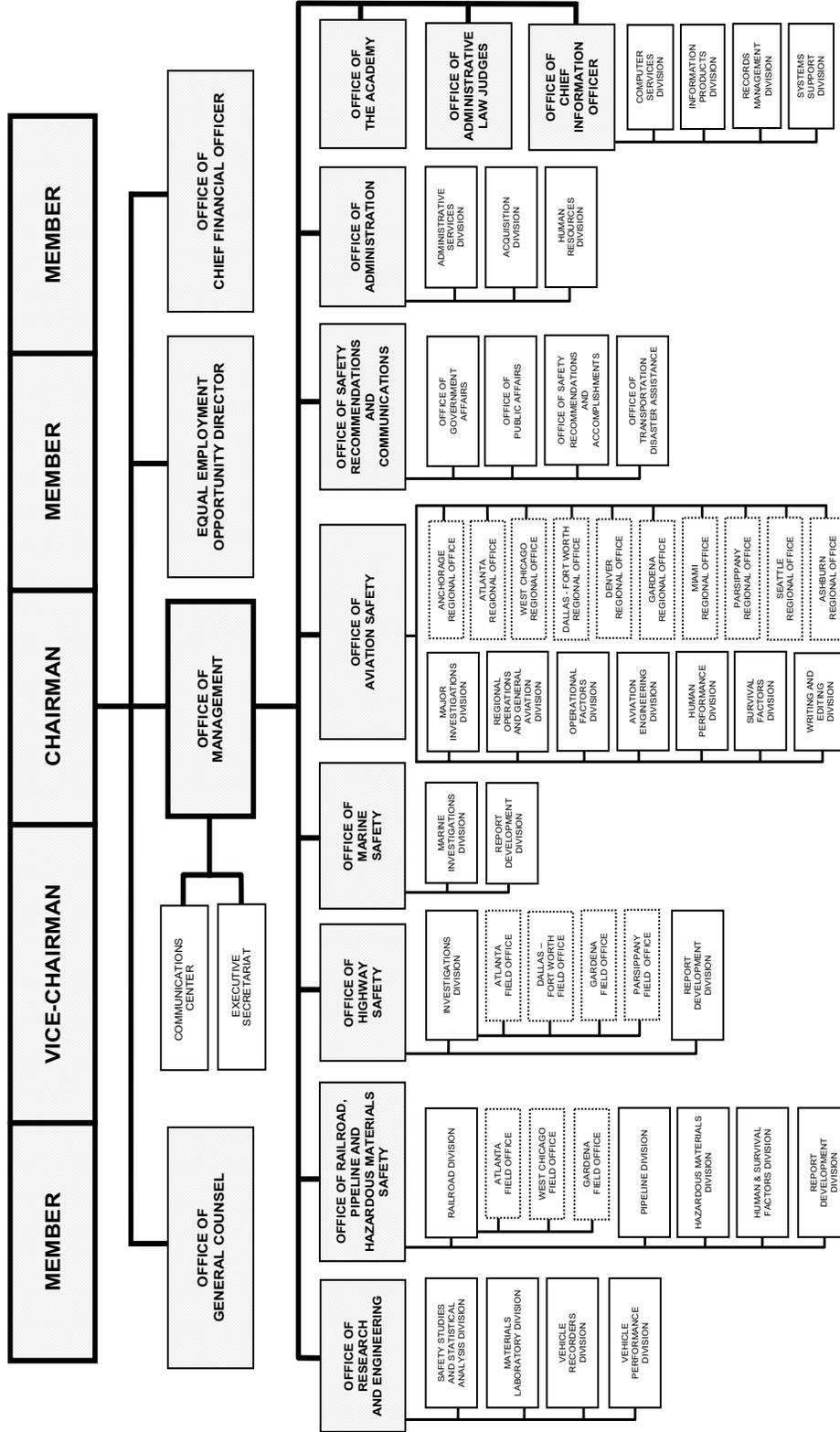
In aviation's earliest years, the Air Commerce Act of 1926 gave the Commerce Department the authority to determine the cause of airplane accidents. A small unit within the Commerce Department, known as the Aeronautics Branch, performed this function. The Aeronautics Branch became the Bureau of Air Commerce in 1933, which was replaced by the Independent Air Safety Board. In 1938, the Air Safety Board became the Civil Aeronautics Administration, which two years later became the Civil Aeronautics Board (CAB). The CAB's Bureau of Safety formed the nucleus of the NTSB, which was created in 1967 as an independent agency within the newly created U.S. Department of Transportation (DOT). Congress expanded the Board's authority to include accident investigation in four other modes: rail, highway, marine, and pipeline. In 1974, Congress passed the Independent Safety Board Act, which severed the Board's ties to DOT and gave the Board increased authority in accident investigations, per the Aviation Disaster Family Assistance Act.

Since its inception in 1967, the Board has investigated more than 124,000 aviation accidents and over 10,000 surface transportation accidents. It has become recognized as the world's premier accident investigation agencies. NTSB investigators are on call 24 hours a day, 365 days a year. They have traveled throughout the country and to every corner of the world to perform investigations.

## History and Structure of the Board

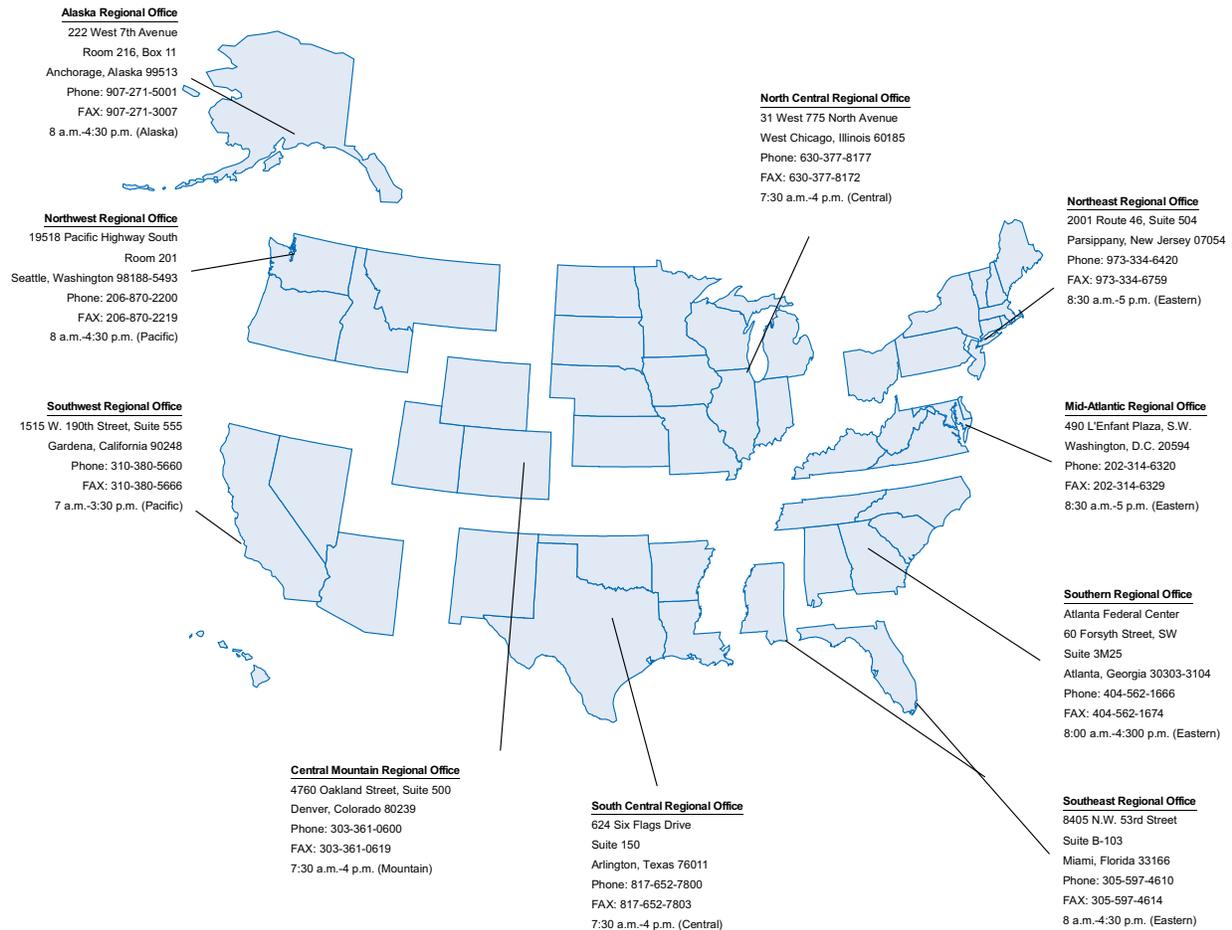
The NTSB opened its doors on April 1, 1967, initially relying on the U.S. Department of Transportation (DOT) for funding and administrative support. Although its charter is the Independent Safety Board Act of 1974, the origins of the Safety Board can be found in the Air Commerce Act of 1926, in which Congress charged the Commerce Department with investigating the causes of aircraft accidents. The rules of the Board are located in Chapter VIII, Title 49 of the Code of Federal Regulations (CFR). Since its inception, the Board has investigated more than 124,000 aviation accidents, and over 10,000 accidents in the surface transportation modes. In so doing, it has become one of the world's premier accident investigation agencies. On call 24 hours a day, 365 days a year, NTSB investigators travel throughout the country and to every corner of the world to investigate transportation accidents and to develop factual records and safety recommendations.

# National Transportation Safety Board



The Board consists of five Members appointed by the President with the advice and consent of the Senate. The President appoints the Chairman and Vice Chairman for 2-year terms. The Chairman is additionally confirmed by the Senate, and serves as the agency chief executive and administrative officer. The Board Members, in conjunction with the Chairman, establish policies on transportation safety issues; review and approve major accident reports, safety studies, and safety recommendations; and decide appeals of NTSB Administrative Law Judge initial decisions regarding Federal Aviation Administration and Coast Guard certificate actions. They also preside over accident or other transportation safety hearings, testify before Congressional committees, and participate in go-teams on major investigations.

## NTSB Regional Offices



## Mission

The basic components of the NTSB's mission are to:

- Maintain public confidence in the Nation's transportation systems by thoroughly and independently determining the probable cause(s) of transportation accidents and significant incidents and issuing timely and feasible safety recommendations to prevent future accidents, save lives, and reduce injuries and property damage.
- Ensure that survivors and families of victims of transportation accidents receive timely, compassionate assistance from the operator, other government agencies, and community service organizations.
- Provide aviators and mariners with fair, timely, independent appellate review of certificate actions taken by the FAA and the U.S. Coast Guard.
- Ensure effective stewardship of the resources provided.
- To provide comprehensive education and training for those who improve safety by conducting independent transportation accident investigations.

The Safety Board's proactive approach in preventing and/or reducing the severity of future transportation accidents is unique. It independently addresses real world tangible problems, allows full industry participation in its investigations, issues safety recommendations instead of regulations, and disseminates its reports and findings to as wide an audience as possible. It also provides oversight of the regulatory agencies in transportation and is the safety advocate for millions of Americans traveling through our nation's skies, roads, rails, and waterways each day. As a small, manageable organization, we react quickly to changes in the transportation environment to meet the public's needs. The NTSB is the model for a government agency that works better and costs less.

## Operation

Each year, the NTSB investigates about 2,000 aviation accidents and scores of accidents in the surface modes. The Board leverages its limited resources through the "party system" by which it designates government agencies, organizations, or corporations as parties to the investigation. By law, the FAA is a party to each aviation accident investigation. The NTSB has wide discretion over which other organizations it designates as parties. Only those entities that can provide expertise required for the investigation are granted party status and only those persons who can provide the Board with needed technical or specialized expertise are permitted to serve on the investigative team. Individuals representing organizations in legal or litigation positions are not assigned to the investigation. All party members report to the NTSB.

In a major investigation, the Board establishes investigative groups made up of specialists from the parties and led by a Safety Board investigator as group chairman. The groups formed vary depending on the mode of transportation and the nature of the accident, and examine areas such as company operations; aircraft structures; systems and power plants; rail and highway vehicle operations; rail track and signals; pipeline operations; vehicle, bridge, highway, and marine engineering; human factors;

survival factors; hazardous materials; radar and vehicle recorder data; meteorology; and regulatory oversight. Eventually, investigative group chairmen prepare a factual report that is verified for accuracy by each of the party representatives in the group. The factual reports are placed in the public docket, and, after the completion of a formal technical review by the team, they constitute the factual record of the investigation.

Safety recommendations may be issued at any time during an investigation, and the Board also may hold a public hearing as part of a major transportation accident investigation. The purpose of the hearing is two-fold: first, to gather sworn testimony from subpoenaed witnesses on issues identified by the Board during the course of the investigation and, second, to allow the public to observe the progress of the investigation.

Parties do not participate in the analytical or report-writing phases of NTSB investigations; however, they are invited to submit their proposed findings of probable cause and proposed safety recommendations directly to the Board. These submissions are made part of the public docket. The Board deliberates over reports during public “Sunshine Act” Board meetings in Washington, D.C. Non-Safety Board personnel, including parties and family members, may observe the proceedings, but they do not participate in these meetings.

## Performance Goals

### Primary Mission Activity Accomplishments

The NTSB seeks to accomplish its mission by careful use of the resources provided by Congress to create and maintain a motivated, knowledgeable workforce that is properly trained, equipped and supported; by intelligent selection of endeavor and masterful execution of function; through careful consideration and forceful communication of recommendations for change in the regulation and operation of the instrumentalities of transportation; and by the creation of a self-critical learning culture that strives for continued improvement in the services it provides.

However, the results of its efforts include the independent investigation of thousands of accidents in all modes of transportation and in the transportation of hazardous materials. Safety improvement recommendations emanating from these investigations ultimately produce the desired outcome for the Board's mission activities: safer transportation for our citizens.

The Office of Safety Recommendations and Advocacy includes the divisions of Safety Recommendations, Safety Advocacy, and Transportation Disaster Assistance. The office is responsible for coordinating strategies for implementing the safety recommendations and supporting victims of transportation disasters.

Safety recommendations are the Board's most important product. It is vital to the Board's basic role of accident prevention since it is the lever used to bring about safety changes to and improvements in the nation's transportation system. Timeliness is an essential part of the recommendation process. As a result, the Board may issue safety recommendations as soon as a problem is identified, without waiting for an accident investigation to be completed and the probable cause determined. Although the Board's recommendations are not mandatory, to emphasize their importance, Congress requires DOT to respond to recommendations made to it and its agencies within 90 days.

The Safety Board established its "Most Wanted" Safety Recommendations program to highlight recommendations that would have the greatest impact on transportation safety at the national level and represent the actions that the Board believes should be implemented as soon as possible because they have the most potential to improve safety, reduce accidents and injuries, and save lives. Although the Board actively advocates for the acceptance of all of its recommendations, follow-up efforts for those recommendations on the "Most Wanted" list are generally more aggressive.

### *Safety Recommendations*

- Coordinates with other Safety Board offices in analyzing and developing remedies for safety issues that are uncovered during accident investigations;
- Follows up on the implementation of appropriate, timely, and effective safety recommendations;
- Tracks the progress of all safety recommendations issued;
- Maintains the recommendations database;
- Tracks and publishes Safety Board transportation safety accomplishments; and
- Manages the Board's "Most Wanted" Transportation Safety Improvements Program and tracks transportation safety accomplishments through positive resolution of safety recommendations.

#### Safety Advocacy

- Develops and implements advocacy programs to highlight Safety Board issues;
- Obtains support for Safety Board programs and legislation at the Federal, state, and local levels consistent with Board recommendations;
- Works to improve the dissemination of safety information and increase public awareness of the Board's activities in transportation safety; and
- Supports the Board's involvement in the International Transportation Safety Association, an association of international independent accident investigation agencies.

### *Transportation Disaster Assistance*

The Office of Transportation Disaster Assistance was established in 1996 to carry out the Board's statutory responsibilities to coordinate Federal assistance to victims and family members affected by major aviation accidents. Following a major transportation accident, the Office of Transportation Disaster Assistance coordinates the provision of federal services to the survivors and the victims' families, including family counseling, victim identification and forensic services, communicating with foreign governments, and translation services. The office's staff also conducts family informational briefings at the accident scene, and provides periodic updates and answers families' questions during the ensuing investigation.

The office responds to all major aviation accidents and some regional aviation investigations and major accidents in other modes of transportation as resources permit. In addition to assisting victims and family members, the Transportation Disaster Assistance staff provides training and education to other government agencies; affected organizations; airline and airport personnel; and state and local governments to assist in their preparedness.

### *FY 2005 Activities*

The chart below depicts statistics related to the number of recommendations issued, closed and ongoing during fiscal year 2005.

Mode	Status of Open Recommendations as of <u>September 30, 2005</u>	Recommendations Closed with Acceptable <u>Implementation</u>	Issued <u>Recommendations</u>	Investigator- Inspired Safety <u>Improvements</u>
Aviation Safety	<u>336</u>	<u>29</u>	<u>41</u>	<u>49</u>
Surface Transportation	<u>440</u>	<u>82</u>	<u>83</u>	<u>1</u>
Highway	246	37	43	
Marine	80	10	16	
Railroad	86	27	16	1
Pipeline/Hazmat	28	8	8	
Intermodal	<u>22</u>			
<b>Total</b>	798	111	124	50

In addition to its specific safety accomplishments and new recommendations of the past fiscal year, the Office of Safety Recommendations and Accomplishments:

- Held more than 20 meetings and legislative briefings in 10 states;
- Issued more than a dozen written advocacy reports to 7 states to push legislation to promote Safety Board recommendations;
- Issued 84 safety recommendations; and
- Closed 142 recommendations, 111 of which were closed in an acceptable manner.

### *Closed Recommendations*

In fiscal year 2005, the Safety Board closed 111 safety recommendations that had been successfully implemented and were classified “Closed—Acceptable Action” and “Closed—Acceptable Alternate Action.” It often takes an average of 5 years from the time the Safety Board issues a recommendation until it is implemented to the Safety Board’s satisfaction. Below are some examples of NTSB-inspired safety improvements contained in those recommendations.

## *Aviation*

In the aviation mode, 29 recommendations were classified “Closed—Acceptable Action” and “Closed—Acceptable Alternate Action.” Some of the more pertinent recommendations that were successfully implemented are discussed below.

- Revised and improved lubrication procedures for horizontal stabilizer trim systems on DC-9, MD-80/90 and 717 aircraft, and revised pilot checklist procedures in the event of an inoperative or malfunctioning horizontal stabilizer trim control system.
- Tighter measurement, recording and reporting requirements when aircraft jackscrew assemblies are replaced.
- Additional examinations for corrosion, rust and pitting on Hamilton-Sundstrand aircraft propellers.
- Tougher FAA surveillance of training and operations for airline dispatchers and maintenance personnel to better prepare them to deal with in-flight emergencies.
- Preflight inspections of DC-8 right and left side elevators, control tabs and geared tabs; and periodic and post-rigging elevator calibration inspections.
- Enhanced FAA surveillance standards of air carriers based on rapid growth, change, complexity and incident and accident history.
- Revised FAA definition of “icing in precipitation” in aeronautical publications, emphasizing that the condition may exist both near the ground and at altitude.
- Upgraded sensors to improve the reliability of signals to flight data recorders on Embraer-120 aircraft; and an FAA bulletin alerting operators to problems with Loral Fairchild flight data recorders.
- Implementation of a computer based instructional refresher course for air traffic controllers and their supervisors to increase their situational awareness and coordination during aircraft emergencies.
- Distribution of safety bulletins to general aviation airports alerting firefighting and rescue crews to the hazards of ballistic parachute devices. The hazard is an unfired, rocket-deployed emergency parachute system.

## *Highway*

In the highway mode, 37 recommendations were classified “Closed—Acceptable Action,” and “Closed—Acceptable Alternate Action.” Some of the more pertinent recommendations that were successfully implemented are listed below.

- “Best practices” guidelines for pilot escort cars that lead large payloads, including: when pilot cars and police escorts are required; training, certification and testing of drivers involved in the movement of oversized loads; use of height poles and traffic controls; how to conduct surveys; maneuvering limitations; effects of human fatigue; need to assess dangers at rails crossings and requirement to notify railroads before large loads are escorted over tracks.

- State directors of pupil transportation encourage pretrip safety briefings for students, including location and operation of emergency exits; importance of keeping aisles clear and access to exits; awareness of hazardous road conditions and appropriate driver training.
- More stringent government testing of the performance of 15-passenger vans under various load conditions; evaluation of technological systems to assist drivers in maintaining van control; and new Federal regulations upgrading safety requirements for 9 to 15 passenger vans to standards similar to those for large motorcoaches.
- Improved commercial vehicle databases at the US DOT by consolidating information from highway accident databases to include driver history; carrier, vehicle and roadway characteristics; hazardous materials transportation; and alcohol and drug involvement.
- Federal requirement for the installation of center rear lap/shoulder belts in all newly manufactured passenger vehicles.
- Better information provided by motorcoach associations on the importance of pre-trip safety briefings for passengers, and alerts to motorcoach operators to the dangers on inverted duty and sleep periods, and need for well-rested relief drivers if the schedule requires alternate night driving.
- Improved information sharing between the US DOT and Department of Defense on motor carrier safety and compliance audits.
- Completion of three Federal studies that analyzed the effect of commercial truck driver fatigue on compliance with safety regulations and recommended best practices among shippers, dispatchers, receivers, carriers/brokers and drivers.
- Improved collection and analysis of incident and accident data from cargo tank equipment failures.
- Revised guidance to States emphasizing the need to weigh the likelihood and consequences of large truck crashes when State DOTs consider new road construction and reconstruction.
- Review by the Centers for Disease Control of vehicle air bag related injuries to stop any new injury trends.
- Updated inventories of highway-rail grade crossing in States.

### *Pipeline and Hazardous Materials*

In the pipeline and hazardous materials mode, 8 recommendations were classified “Closed—Acceptable Action” and “Closed—Acceptable Alternate Action.” Some of the more pertinent recommendations that were successfully implemented are listed below.

- New integrity management program required of hazardous liquid pipeline operators and natural gas transmission operators.
- Steel pipe used in constructing pipelines must have adequate toughness to prevent brittle fracture.
- Improved data collection through cooperation with the Common Ground Alliance and implementation of pipeline damage prevention best practices.
- Revised guidance for proper installation of plastic service pipeline connections to steel mains.

- Better monitoring of State pipeline safety programs.
- Improved pipeline operator internal corrosion and control programs by including the role of water and other contaminants.

### *Marine*

In the marine mode, 10 recommendations were classified “Closed—Acceptable Action” and “Closed – Acceptable Alternate Action.” Some of the more pertinent recommendations that were successfully implemented are listed below.

- Training in crowd management and emergency evacuation for permanently moored vessels.
- Improved voyage planning for towing vessels.
- Off-throttle steering capability for personal watercraft.
- Regular drills to exercise contingency plans for a variety of marine scenarios on the Mississippi River.
- Directive to small passenger vessel operators to review the distribution of lifejackets.
- Review of kill switch systems on Coast Guard small boats.
- Evaluation of the adequacy of the marine safety inspection program in the Miami area.
- Risk assessment guidelines for the deployment of surface search and rescue units.
- Review of boating safety agreements between the Coast Guard and the States.

### *Railroad*

In the railroad mode, 27 recommendations were classified “Closed—Acceptable Action” and “Closed—Acceptable Alternate Action.” Some of the more pertinent recommendations that were successfully implemented are listed below.

- Safety Advisory issued to shippers of hazardous materials regarding excess flow valves on tank cars.
- Railroad industry, in cooperation with the FRA, improves the design and maintenance requirements for bowl-shaped sumps.
- Inspections of track that haul hazardous materials.
- Improved fatigue awareness training and information for Union Pacific Railroad and Canadian National Railway employees.
- Improved procedures by the Chicago Transit Authority for performing and documenting management checks of operating personnel.
- Permanent engineering changes to improve grade crossing safety by the Northern Indiana Commuter Transportation District.
- Education of rail transit employees about the effects of prescription and over-the-counter medications.
- Alerts to railroad operating crews about the dangers of operating at or near maximum authorized speeds during periods of reduced visibility.
- Improved crew resource management training for railroad operating employees.

### *Investigator-Inspired Safety Improvements*

Safety improvements are often made without the need for formal safety recommendations. During fiscal year 2005, NTSB investigators generated 49 safety improvements through the Safety Proposal Review Board, a program to acknowledge and account for safety improvements that are brought about through direct interaction of NTSB technical staff with government and industry representatives without requiring formal NTSB recommendations. Here are a few examples of improvements that were initiated by NTSB investigators.

- The Memphis, Tennessee airport authority signed a mutual aid agreement with the Rural Metro Fire Department that outlines alert procedures, categories, protocol, equipment and Advocacy between the two entities following the crash of a FedEx MD-10
- The Alton and Southern Company abolished the practice of using the hump switching assignment for clearing errant cars while still coupled to heavy blocks of cars.
- The operator of a Bell/Agusta Aerospace helicopter used in emergency medical service, reviewed and revised its instrument flight and decision-making procedures, training, and safety programs following a crash near Salt Lake City, Utah. Following separate accident, the manufacturer of Bell/Agusta Aerospace helicopters began issuing Mandatory Service Bulletins requiring an inspection of the tail rotor hub and blade assemblies to check for correct installation and damage.
- Delta Air Lines developed and issued an Electronic Flight Control Bulletin that communicates to Delta flight crew members on Boeing 757 and 767 jets that abnormal fuel flow may be the only indication of a hot start and to monitor the fuel flow for abnormally high readings.
- The FAA issued two Special Airworthiness Information Bulletins and an Airworthiness Directive that require clamp replacement and compliance with a Mooney service bulletin regarding improvements to the exhaust system to prevent fires.
- A new Emergency Locator Transmitter (ELT) antenna with much better reception was installed at the Big Bear City Airport, California.

### **Office of Aviation Safety**

The mission of the Office of Aviation Safety is to:

- Investigate all air carrier, commuter and air taxi accidents, in-flight collisions, and fatal general aviation accidents.
- Participate in the investigation of major airline crashes in foreign countries that involve U.S. carriers, U.S.-manufactured or -designed equipment, in order to carryout U.S. obligations under International Civil Aviation Organization (ICAO).
- Conduct safety studies of aviation issues that allow it to go beyond single accident investigations to examine safety problems from a broader perspective.

The Office of Aviation Safety conducts activities through seven major divisions and ten regional offices. Additionally international aviation coordination is staffed within the immediate office of the Director of the Office of Aviation Safety.

### *Major Investigations*

- Provides investigators-in-charge (IICs) for major domestic aircraft accident investigations,
- Coordinates the preparation of the Board's comprehensive aviation accident reports, and manages aviation public hearings,
- Coordinates and supervises the efforts of accident investigation participants who are provided by industry, other government agencies, and foreign authorities (for investigations involving foreign-registered aircraft that were operating in U.S. territory or foreign-manufactured or -designed aircraft operated by U.S. carriers).
- The group chairmen are technical specialists from the Operational Factors, Aviation Engineering, Human Performance, and Survival Factors Divisions and from other NTSB organizational elements as appropriate. Each group conducts an objective and thorough technical investigation of the accident, and produces a factual report for their specialty area that is placed in the Board's public docket. The Board's technical specialists produce analytical reports that are used to develop the draft final report and proposed safety recommendations to correct deficiencies found and to prevent future accidents from similar causes.
- Provides accredited representatives to assist in the investigation of civil aviation accidents that occur in other countries. These representatives serve as the U.S. team leader and assist foreign governments in their accident investigations in accordance with the Chicago Convention. The accredited representative informs domestic aviation interests of the progress of an investigation, while providing needed technical expertise, as requested, to foreign government's accident investigative organization. Safety issues uncovered during such investigations that may affect U.S. aviation safety or the safety of aircraft or aircraft components manufactured in the United States are brought to the attention of the FAA and U.S. industry representatives.

### *Regional Operations and General Aviation*

- Provides program oversight for the 10 regional offices
- Conducts report review and analysis
- **Provides support for field investigations**

### *Operational Factors*

- **Air Traffic Control (ATC).** Examines ATC facilities, procedures, and flight handling, and develops flight histories from air route traffic control centers and terminal facility radar records.
- **Operations.** Examines the operations of the air carrier and the airport; the training, experience, and performance of the flight crews; and FAA surveillance of flight operations.

- **Meteorology.** Examines the meteorological/environmental conditions that may have caused or contributed to an accident and reviews the pertinent meteorological products, procedures, and services provided by government and industry.

### *Aviation Engineering*

- **Powerplants** - Examines the airworthiness of aircraft engines and propellers.
- **Structures** - Examines the integrity of aircraft structures and flight controls, including the adequacy of design and certification.
- **Systems** - Examines the airworthiness of aircraft flight controls, and electrical, pneumatic, hydraulic, and avionics systems.
- **Maintenance Records** - Examines the service history and maintenance of aircraft systems, structures, and powerplants.
- **Helicopters** - Examines the airworthiness of helicopters, including powerplant structures and control systems.

### *Human Performance*

The Human Performance Division examines the performance of persons, whose actions may have caused or contributed to an accident, and studies their knowledge, experience, training, and physical abilities; reviews the adequacy of established procedures; examines work habit patterns and interrelationships with management; and investigates the ergonomics of equipment design and the potential effects of that design on operator performance. A study of individuals' sleep and rest cycles and drug or alcohol use may also be a part of a human performance investigation.

### *Survival Factors*

The Survival Factors Division examines factors that affect the survival of persons involved in accidents, including the causes of injuries sustained by occupants of the aircraft or by other affected individuals. The division also examines safety procedures, search and rescue operations, crashworthiness, equipment design, emergency response and escape, crewmember emergency procedures training, and airport certification issues.

### *Writing and Editing*

The Writing and Editing Division is responsible for drafting major aviation reports and editing the office's written products, including safety recommendation letters, special investigation reports, and general correspondence.

## *Regional Offices*

The Office of Aviation Safety operates ten regional offices located in:

- Parsippany, New Jersey;
- Atlanta, Georgia;
- Miami, Florida;
- West Chicago, Illinois;
- Arlington, Texas;
- Denver, Colorado;
- Seattle, Washington;
- Los Angeles, California;
- Anchorage, Alaska; and
- Ashburn, Virginia

Many aviation accidents/incidents meeting the Board's accident selection criteria are investigated as field accident/incident investigations. These investigations are conducted in a manner similar to major investigations, but because they may be much smaller in scope, a single investigator who, working with representatives from other parties, gathers the detailed information pertinent to the accident often conducts them. During each investigation, investigators consider ways to prevent similar accidents from recurring through an informal on-scene solution (a safety accomplishment), or through the Board's formal safety recommendation process. In addition, field investigators often provide support to major aviation accident investigations.

## *FY 2005 Activities – Aviation Safety*

### **Completed Reports – Major Accidents**

#### **American Airlines Flight 587, Belle Harbor, New York on November 12, 2001**

##### **In-flight Breakup**

The National Transportation Board determined that the probable cause was the in-flight separation of the vertical stabilizer as a result of the loads beyond ultimate design that were created by the first officer's unnecessary and excessive rudder pedal inputs. Contributing to these rudder pedal inputs were characteristics of the A300-600 rudder system design and elements of the American Airlines Advanced Aircraft Maneuvering Program.

Board Meeting Date: October 26, 2004

Recommendations issued: 15

### **Federal Express, Memphis, Tennessee on December 18, 2003**

#### Hard Landing

The National Transportation Board determined that the probable causes of the accident were 1) the first officer's failure to properly apply crosswind landing techniques to align the airplane with the runway centerline and to properly arrest the airplane's descent rate (flare) before the airplane touched down; and 2) the captain's failure to adequately monitor the first officer's performance and command or initiate corrective action during the final approach and landing.

Board Meeting Date: May 17, 2005

Recommendations issued: 5

### **Executive Airlines ATR-72, San Juan, Puerto Rico on May 9, 2004**

#### Hard Landing

The National Transportation Board determined that the probable cause of the accident was the captain's failure to execute proper techniques to recover from the bounced landings and his subsequent failure to execute a go-around.

Board Meeting Date: September 7, 2005

Recommendations issued: 3

### ***On-going Major Investigations***

ERA Helicopter – S-76 Controlled Flight into Terrain (Water), Gulf of Mexico on March 23, 2004

Air Tahoma – Convair 880 Fuel Exhaustion, Florence, Kentucky on August 13, 2004

Pinnacle Airlines – Regional Jet Dual Engine Flameout, Jefferson City, Missouri on October 14, 2004

Corporate Airlines - Jetstream 32 Controlled Flight into Terrain, Kirksville, Missouri on October 19, 2004

Teterboro, New Jersey – Rejected Takeoff Overrun, Teterboro, New Jersey on February 2, 2005

Southwest – Midway – Landing Overrun, Chicago, Illinois on December 8, 2005

Chalk's Seaplane – In-flight Break-up, Miami, Florida on December 19, 2005

## *Regional Activity*

Ten regional offices participated in over 1900 new and on-going investigations during fiscal year 2005.

## **Office of Highway Safety**

The Office of Highway Safety (OHS) investigates those accidents that have a significant impact on the public's confidence in highway transportation safety, that generate high public interest and media attention, or highlight national safety issues. The limited OHS staff investigates accidents involving issues with wide-ranging safety significance such as collapses of highway bridge structures, fatalities on public transportation vehicles (such as buses), and collisions at grade crossings involving trains and public transportation or hazardous materials vehicles. In addition to these more catastrophic accident events, the OHS also conducts studies based on trends emerging from the accident investigations conducted by the Board and from other research and accident data in order to identify common underlying causes and make recommendations aimed at reducing such accidents in the future. The Office of Highway Safety is organized into two primary units, the Investigations Division and the Report Development Division that are overseen by the Director's Office.

### *Investigations Division*

The investigative team is usually composed of an automotive engineer, a civil engineer, a motor carrier specialist, a crashworthiness engineer, and a human factors specialist. As part of the Board's responsibilities, it also examines the safety programs of the DOT modal agencies. The Investigations Division:

- Investigates accidents. This includes identifying issues for all activities from launch to the preparation of the docket.
- Reviews draft reports.

Major accident investigations are conducted by one of 3 teams with 6 investigators on each team (18 investigators). Each team is lead by an Investigator-in-Charge (IIC) and has one investigator with expertise in Motor Carrier operations and regulations; Survival Factors, i.e. injury mechanisms, occupant protection and rescue; Highway Engineering; Vehicle mechanics and design; and Human Performance factors. Members of the 3 teams are distributed among five regional offices, Parsippany, New Jersey; Atlanta, Georgia; Arlington, Texas; Denver, Colorado and Los Angeles, California, to enhance geographic coverage and reduce response time.

### *Report Development Division*

The Report Development Division is responsible for researching and developing national highway safety issues, co-managing related safety studies, and preparing all highway accident investigation reports and presenting them to the Board. This division is also responsible for highway public hearings and forums. The division is comprised of Project managers responsible for producing highway accident investigation reports and writer editors responsible for managing and coordinating the report development process.

## *FY 2005 Activities – Highway Safety*

### **Completed Reports**

#### **Checkpoint Accidents, North Hudson, New York, February and September 2004**

##### New York Border Patrol Check Point Accidents

The U.S. Border Patrol (USBP) has conducted continuous immigration checkpoint operations on Interstate 87 near North Hudson, New York, about 74 miles south of the Canadian Border, since December 2003. Checkpoint operations require all vehicles in both southbound traffic lanes to stop for a brief driver interview and possible inspection. As a result, traffic sometimes becomes congested on I-87 southbound and backs up north of the checkpoint. The NTSB investigated two accidents that occurred at the North Hudson checkpoint. The first occurred in February 2004, the second in September 2004. In both cases traffic was backed up on the 65mph roadway and vehicles approaching the rear of the back-ups were unable to stop in time to avoid collisions. The first accident was precipitated by a motorcoach. Eight motorcoach passengers sustained serious injuries. The driver and 38 passengers of the bus plus 6 people from other vehicles sustained minor injuries. The second accident precipitated by a tractor semi trailer resulted in the deaths of three adults and a child. Three more adults sustained serious injuries. In October 2004, the NTSB issued urgent safety recommendations to the American Association of State Highway and Transportation Officials, the Federal Highway Administration and the USBP to together, immediately develop comprehensive traffic control guidelines specifically tailored to U.S. Border Patrol checkpoints located on high-speed arterial roadways.

Recommendations issued: 5

Urgent Recommendations Adopted: October 13, 2004

Report Adopted: October 17, 2005

#### **Medical Oversight of Noncommercial Drivers Special Study**

The NTSB's interest in the medical oversight of noncommercial drivers stems from its examination of six noncommercial vehicle accidents in which a driver's medical condition played a role. In March 2002, a driver with a history of seizure-related accidents failed to stop his vehicle at a signalized intersection in Frederick, Maryland, resulting in a multiple vehicle collision that claimed the lives of a father and three children. In November 2002, a driver with a history of epilepsy ran her vehicle through two intersections in Hagerstown, Maryland, and collided with two vehicles, resulting in one fatality. Evidence indicates that both drivers were suffering seizures at the time of the accidents. The Safety Board examined four other medical impairment-related accidents, one involving a diabetic driver and three involving drivers who experienced seizures. The Safety Board has also investigated a substantial number of commercial vehicle and school bus accidents involving drivers with impairing or potentially impairing medical conditions, such as cardiovascular disease, visual impairment, renal disease, and sleep disorders. In March 2003, the Safety Board also held a public hearing to discuss

the factors that contribute to medically related accidents. As a result of the investigations and public hearing, a number of issues were identified and recommendations were made to government and non-government organizations. Some of those recommendations include:

- Collecting better data on the extent to which medical conditions cause accidents;
- Determining the most effective reporting methods and licensing countermeasures for medically impaired drivers;
- Establishing immunity from liability for medical personal who report potentially medically impaired drivers;
- Training police to better identify common medical conditions that can impair driving; and
- Developing alternative forms of transportation.

Recommendations issued: 12

Report Adopted: November 9, 2004

### **Motorcoach Accident, Tallulah, Louisiana, October 2003**

#### Fatigued Motorcoach Driver Accident

The NTSB completed its investigation of an October 2003, collision between a motorcoach and a tractor-trailer parked on the shoulder of Interstate 20 near Tallulah, Louisiana. The 49-passenger motorcoach, owned and operated by the First Baptist Church of Eldorado, Texas, was carrying 14 passengers as part of a multi-city sightseeing tour. The motorcoach drifted rightward from the travel lanes and onto the shoulder, where it struck the rear of a tractor semi trailer, which was stopped on the shoulder due to brake problems. Eight motorcoach passengers sustained fatal injuries, and the motorcoach driver and six passengers received serious injuries. The truck driver was not injured. The Safety Board determined that the probable cause of the accident was the motorcoach driver's operation of the motorcoach in a reduced state of alertness due to fatigue as a result of his chronic insomnia and poor quality sleep. Further contributing to the accident was the failure of the trucking company to perform vehicle maintenance and to provide safety management controls, which resulted in the accident tractor semi trailer being parked on the interstate shoulder. Contributing to the severity of the injuries was the failure of the motorcoach seat anchorages.

Recommendations issued: 11

Report Adopted: May 19, 2005

### **Driver Education and Training**

The NTSB completed its review of information collected during its public forum in October 2003 on driver education and training. The purpose of the forum was to survey the state of novice driver

education and training, including the extent to which it is used, its effectiveness and shortcomings, and what can be done to improve it. The forum was prompted by a 4-fatal collision between a driver's education vehicle and a tractor-trailer that the Board investigated in Belgrade, Montana. The 29 presenters at the forum included the National Highway Traffic Safety Administration (NHTSA), state government representatives, safety and consumer associations, groups offering driver education, teachers, students and researchers. As a result, the Board made recommendations to the Department of Education and NHTSA to identify driver education and behind-the-wheel training that have led to reduced accidents and incorporate these best practices into a validated driver education and training curriculum.

Recommendations issued: 4

Report Adopted: June 2005

### **Motorcoach –SUV Head-on Collision, near Hewitt, Texas, February 203**

#### **Adequacy of Tire/Pavement Friction**

The Board completed its investigation of a February 2003 head-on collision between a motorcoach and an SUV near Hewitt, Texas in which five motorcoach passengers and two SUV occupants were killed and 31 others were injured. The motorcoach, occupied by a driver and 34 passengers was traveling north on Interstate 35 in heavy rain. As it approached the crest of a hill it encountered stopped traffic ahead. In attempting to stop and changing lanes, the driver lost control and crossed the grassy median, striking the southbound SUV occupied by a driver and 2 passengers. The Safety Board determined that the probable cause of the accident was the limited sight distance available to the bus driver and his inability to control the motorcoach because of the roadway's pavement friction; tread depth of the tires; water on the road; and speed of the motorcoach. Recommendations were made to the Federal Highway Administration, Federal Motor Carrier Safety Administration, the Commercial Vehicle Safety Alliance, and Texas DOT to address: Inadequate stopping sight distance,

- Low pavement friction,
- Pavement rut depths,
- Lack of median barrier,
- Commercial vehicle tire tread depth,
- Variable message signs,
- Motorcoach occupant protection, and
- Motor carrier safety ratings by FMCSA.

Recommendations issued: 12

Report Adopted: July 12, 2005

## **SUV/Tractor-trailer Accident, Fairfield, Connecticut on January 17, 2003**

### Median Crossover Accident

This report involved the investigation into two collisions on Interstate 95, the second of which killed four Yale University students. The accident sequence began about 4:50 a.m. on January 17, 2003, near Fairfield, CT., when a Freightliner tractor flatbed semitrailer slid out of control on a turn, entered the highway median, partially overrode a barrier, and collided with two oncoming vehicles. About 11 minutes later, an SUV carrying nine Yale University students crashed into the semitrailer that was encroaching into the travel lane. The driver and three passengers in the SUV were killed; the surviving occupants were seriously injured.

The Board determined that the probable cause of the first collision was the Freightliner's loss of lateral stability, probably due to the operator driving too fast for conditions and to the presence of black ice on the roadway. Contributing to the accident was the inadequate treatment of the roadway by the Connecticut Department of Transportation in response to inclement weather. The Board also cited the state's failure to install a median barrier capable of preventing crossovers by heavy vehicles.

The probable cause of the second collision was determined to be the SUV driver's failure to identify and avoid the flatbed semitrailer due to fatigue, in conjunction with the distraction from the median crossover accident in the opposite lanes.

Examination of the vehicles and toxicological testing of the drivers led the Board to conclude that neither mechanical conditions nor alcohol or drugs contributed to the cause of the accidents. However, fatigue in the early morning hours was judged to be a more likely contributor to the second accident involving the SUV, as the driver's sleep schedule during the week of the accident appeared to be determined largely by fraternity rush activities. Photometric tests indicated that reflective tape on the semitrailer should have been visible in sufficient time for the SUV driver to take evasive action. Consequently, the Board decided to take new steps to contact student organizations to emphasize the dangers of driver fatigue.

Finding that the condition of the road was a factor in the accident, the Board recommended that the Connecticut Department of Transportation develop a comprehensive program for treating highways in accord with prevailing weather conditions.

Further, noting that the semitrailer had collided with and overrode a 32-inch portable concrete barrier system, the Board recommended that the American Association of State Highway and Transportation Officials establish specifications for the use of high-performance barriers that are capable of redirecting the movement of heavy trucks.

The Board also found that the likelihood of survival would have been significantly improved if the SUV had been occupied by a maximum of five persons instead of nine, and if all occupants had

been wearing seatbelts. Only the driver and the front passenger were belted. The Board reiterated a recommendation to the Governor and legislative leaders of Connecticut urging the enactment of stricter laws governing primary enforcement of seatbelt use.

Recommendations issued: 12

Report Adopted: November 16, 2005

## Office of Marine Safety

The Office of Marine Safety (OMS) investigates major marine accidents on navigable waters of the United States, those involving U.S. merchant vessels in international waters, as well as collisions involving U.S. public and nonpublic vessels. In addition, it investigates selected marine accidents that involve public transportation or those of a recurring nature. The United States Coast Guard (USCG) conducts the preliminary investigations of all marine accidents and notifies the Board if an accident is a major marine accident using the following criteria

- Six or more fatalities;
- Involves the loss of a self-propelled vessel of 100 or more gross tons;
- Property damage estimated at more than \$500,000; or
- Involves a serious threat from hazardous materials

The NTSB conducts an independent investigation, participate in a joint Safety Board/USCG investigation, or request the USCG to conduct an investigation on behalf of the Board. As a result of its investigations, the Safety Board issues safety recommendations to agencies including the Coast Guard, the U.S. Army Corps of Engineers, shipping firms, and other maritime organizations.

The OMS is responsible for the overall management of the Safety Board's international marine safety program. Under the international program, the Board's participates in accident investigations involving foreign-flagged vessels in U.S. territorial seas and U.S.-flagged vessels involved in major marine accidents anywhere in the world. Accidents involving foreign-flagged vessels have accounted for about 30 percent of the Board's marine accident investigations in the past 5 years. Every year, more than 8 million U.S. passengers are carried aboard foreign-flagged ships, which represent 95 percent of all large passenger ships operating from U.S. ports.

The international program requires the review of all U. S. position papers related to marine accident investigation and participation at International Maritime Organization (IMO) meetings covering marine accident investigations. The program also involves coordination with other NTSB offices to ensure that the Board meets its obligations under IMO conventions (most notably, participation in joint-flag-state marine accident investigations). Further, the program involves coordination with other marine accident investigation organizations worldwide, such as the Marine Accident Investigators International Forum (MAIIF), representing 34 member states in Europe, North America, South America, Asia, and Africa. Finally, the OMS tracks developments in marine accident investigation and prevention worldwide.

The office is made up of two divisions, the Investigations Division and Report Development Division.

### *Investigations Division*

The Investigations Division provides IICs and group chairmen for marine accident investigations. The group chairmen, under the direction of the IIC, coordinate and supervise the efforts of accident investigation participants who are provided by industry, other government agencies, and foreign authorities (for investigations involving foreign-registered ships operating in U.S. territory). The group chairmen are marine technical specialists in disciplines including navigation and shiphandling, marine propulsion, naval architecture, safety, lifesaving and survival factors, emergency response and emergency management, marine human performance, and marine safety management systems.

Each group conducts an objective and thorough technical investigation of an accident and produces a factual report that is placed in the Board's public docket. The technical specialists then produce analytical reports that are used to develop the draft final report and proposed safety recommendations to correct deficiencies found and to prevent future accidents from similar causes. The Investigations Division also investigates smaller marine accidents. Such investigations are conducted similarly to major investigations, but because they are smaller in scope. A single investigator, working with representatives from other parties, gathers the detailed information pertinent to the accident. As part of the investigative process, investigators will consider ways to prevent similar accidents from recurring through an informal on-scene solution (a safety accomplishment) or through the Board's formal safety recommendation process.

### *Report Development Division*

The Report Development Division is responsible for developing major marine reports and editing the office's other written products, including safety recommendation letters, special investigation reports, and general correspondence.

### *FY 2005 Activities – Office of Marine Safety*

#### **Completed Reports**

#### **Allision of Staten Island Ferry *Andrew J. Barberi* with maintenance pier, St. George, Staten Island, New York on October 15, 2003**

The cause was determined to be the unexplained incapacitation of the assistant captain, and the failure of the New York City Department of Transportation to oversee safe and effective ferry operating procedures.

Adopted March 8, 2005

Recommendations issued: 8

### **Capsizing of small passenger vessel *Taki-Tooo*, outside Tillamook Bay Inlet, Oregon on June 14, 2003**

The cause of the capsizing was the decision by the vessel's master's to cross Tillamook Bay bar despite hazardous sea conditions that were present at the time.

Report adopted June 28, 2005

Recommendations issued: 7

### **Grounding of the Alaska Marine Highway System ferry *LeConte* near Sitka, Alaska on May 10, 2004**

The master and the mate failed to recognize that the course deviation they took would cause the vessel to pass on the wrong side of a navigation daymark, and over a reef.

Report adopted July 28, 2005

Recommendations issued: None

### **Collision between the U.S. Navy Submarine *USS Greenville* and Japanese motor vessel *Ebime Maru* near Oahu, Hawaii on February 9, 2001**

The cause of this accident was the *Greenville* crew's failure to adequately perform procedures necessary to ascend to periscope depth, due to inadequate interaction among senior members of the combat systems team.

Report adopted September 29, 2005

Recommendations issued: None

## **Office of Railroad, Pipeline and Hazardous Materials Safety**

The Office of Railroad, Pipeline and Hazardous Materials Safety (RPH) consists of four divisions.

- Railroad Division
- Pipeline and Hazardous Materials Division
- Human and Survival Factors Division
- Report Development Division

Two investigative divisions are staffed with investigative specialists dedicated to the specific transportation modes of the division. Two other divisions, the Human and Survival Factors Division and the Report Development Division, provide support across the modal divisions. The office also

investigates and evaluates the emergency response to accidents involving railroads, pipelines, and hazardous materials. On the basis of the investigations conducted by this office, the Safety Board may issue safety recommendations to Federal and State regulatory agencies, industry and safety standards organizations, carriers and pipeline operators, equipment and container manufacturers, producers and shippers of hazardous materials, and emergency response organizations.

### *Railroad Division*

The Railroad Division includes staff located at NTSB headquarters in Washington, D.C., and in regional offices located in Chicago, Illinois; Atlanta, Georgia; and Los Angeles, California. Since 1967, Congress has assigned the primary responsibility for railroad accident investigation to the NTSB. As in the other surface modes, the Board performs in-depth analyses of selected rail accidents, determines the probable causes, and issues recommendations to make changes to prevent similar accidents.

The office's Railroad Division investigates accidents and incidents involving passenger and freight railroads as well as commuter rail transit systems. These accidents typically involve collisions or derailments, some of which lead to the release of hazardous materials.

The small staff with limited resources of the Railroad Division does not investigate every rail accident reported to the Federal Railroad Administration (FRA). In order to use the Safety Board's resources most efficiently, the Board has established accident criteria to help highlight accidents that have significant safety issues for investigation. The Safety Board also conducts studies of significant railroad safety issues, often based on a set of accident investigations specifically undertaken as the basis for the study. In other cases, the studies may be based on analyses of regulations, railroad safety programs and procedures, audit reviews of management and operations practices, or other research. In addition, the Board investigates selected accidents involving specific life-saving issues.

### *Pipeline and Hazardous Materials Division*

The Pipeline and Hazardous Materials Division investigates accidents occurring during the transport of natural gas or other hazardous liquids, such as gasoline or propane, through underground pipeline systems and accidents in which public safety is threatened by the release of hazardous substances. Pipeline accident investigations focus on accidents that involve fatalities or that result in substantial property or environmental damage. The Safety Board is responsible for investigating all pipeline accidents in which there is a fatality, substantial property damage or significant environmental impact. The Board may also investigate additional selected accidents that highlight safety issues of national importance or that involve a selected accident prevention issue. Hazardous materials accident investigations may include analysis of the performance of hazardous materials containers, such as rail tank cars and highway cargo tanks.

## *FY 2006 Activities – Office of Railroad, Pipeline and Hazardous Materials Safety*

### **Railroad**

#### **Derailment of Amtrak Train No. 58, *City of New Orleans*, Near Flora, Mississippi on April 6, 2004**

On April 6, 2004, northbound National Railroad Passenger Corporation (Amtrak) train No. 58 (*City of New Orleans*) derailed on Canadian National Railway Company railroad track near Flora, Mississippi. The entire train, consisting of one locomotive, one baggage car, and eight passenger cars, derailed while traveling about 78 mph. The train was carrying 61 passengers and 12 Amtrak employees. The derailment resulted in 1 fatality, 3 serious injuries, and 43 minor injuries. The equipment costs associated with the accident totaled about \$7 million.

Report adopted on July 26, 2005

Recommendations issued: 4

#### **Collision of Union Pacific Railroad Train with a Crystal Cold Storage Warehouse Maintenance Building in San Antonio, Texas on November 10, 2004**

On November 10, 2004, Union Pacific Railroad train YEY55-10 collided with a track car mover and four refrigerated boxcars that were parked at Crystal Cold Storage track in San Antonio, Texas. The engineer lost radio communication with the conductor, who was controlling the train movement, and failed to stop the train in time to avoid the collision. An employee of a rental car company was killed as one of the parked cars was shoved over a pair of wheel stops and into the Crystal Cold Storage maintenance building. A Crystal Cold Storage employee was injured while he was unloading frozen food from one of the parked boxcars. Damages totaled \$308,637.

Report adopted on August 31, 2005

Recommendations issued: None

#### **Collision, Derailment, Hazardous Materials Release, and Fire in Alton and Southern Railway Company Classification Hump Yard in East St. Louis, Illinois on September 21, 2004**

On September 21, 2004, the Alton and Southern Railway Company remote control train derailed during switching operations at the east end of the Gateway Hump Yard in East St. Louis, Illinois. The remote control operator was unable to control the speed of the train as it crested the hump. As the train entered track 066, it collided at 9.6 mph with a tank car containing vinyl acetate. During the collision and subsequent derailment, vinyl acetate began to leak from two tank cars, and the cargo from both

cars caught on fire. About 140 people from the surrounding neighborhood were evacuated, and work at the hump yard was suspended. No injuries were reported.

Report adopted on June 27, 2005

Recommendations issued: None

### **Side Collision of Burlington Northern Santa Fe Railway Train and Union Pacific Railroad Train near Kelso, Washington on November 15, 2003**

On November 15, 2003, a Union Pacific Railroad (UP) northbound train consisting of 3 locomotives and 90 empty cars struck a southbound Burlington Northern Santa Fe Railway Company (BNSF) train consisting of 3 locomotives and 32 loaded cars. The BNSF train was struck about seven container platforms behind the locomotives, resulting in five derailed cars. The striking UP train had all 3 locomotives and 15 of its cars derail as a result of the collision. Both members of the UP crew were seriously injured. The two BNSF crewmembers did not sustain any injuries. The railroad in the area of the accident is owned by BNSF and is used jointly by the BNSF and the UP. The accident occurred near Kelso, Washington. About 2,800 gallons of fuel were released from the ruptured fuel tanks of the UP locomotives. A nearby train crew extinguished a minor fire. Estimated damages were \$2.7 million.

Report adopted on June 6, 2005

Recommendations issued: None

### **Railroad Accident Brief: Union Pacific Railroad freight train derailment near Pico Rivera, California on October 16, 2004**

On October 16, 2004, an eastbound Union Pacific Railroad freight train derailed 3 locomotives and 11 cars near Pico Rivera, California. Some of the derailed cars struck nearby residences. Small amounts of hazardous materials were released from transported cargo. An estimated 5,000 gallons of diesel fuel were released from the locomotive fuel tanks when they ruptured during the derailment. About 100 people were evacuated from the area. There were no injuries to area residents, the train crew, or emergency response personnel. The estimated monetary damage was \$2.7 million.

Report adopted on May 31, 2005

Recommendations issued: 2

### **Collision of Runaway Locomotive on Long Island Rail Road at Queens, New York on March 10, 2004**

On March 10, 2004, the crew of a Long Island Rail Road (LIRR) train, assigned to reposition equipment in various locations, left a locomotive unattended with only its air brakes applied. The locomotive was left on a descending grade in the Fresh Pond yard of the New York & Atlantic Railway (NYAR) in Queens, New York. The locomotive rolled away and traveled through the yard and onto the Bushwick Branch of the NYAR, where it passed over seven passive grade crossings and struck numerous vehicles before coming to a stop. Four occupants of three struck vehicles were seriously injured. A fire occurred when the locomotive came to a stop, after its collision with the last two vehicles. The LIRR estimated equipment damages of \$83,000; the NYAR estimated minimal damages.

Report adopted on April 18, 2005

Recommendations issued: None

### **Derailment of a Canadian National Freight Train and Subsequent Release of Hazardous Materials at Tamaroa, Illinois on February 9, 2003**

On February 9, 2003, a northbound Canadian National freight train, traveling about 40 mph, derailed 22 of its 108 cars in Tamaroa, Illinois. Four of the derailed cars released methanol, and the methanol from two of these four cars fueled a fire. Other derailed cars contained phosphoric acid, hydrochloric acid, formaldehyde, and vinyl chloride. Two cars containing hydrochloric acid, one car containing formaldehyde, and one car containing vinyl chloride released product but were not involved in the fire. About 850 residents were evacuated from the area within a 3-mile radius, which included the entire village of Tamaroa. No one was injured during the derailment, although one contract employee was injured during cleanup activities. Damages to track, signals, and equipment, and clearing costs associated with the accident totaled about \$1.9 million. The Board determined that the probable cause was Canadian National's placement of bond wire welds on the head of the rail just outside the joint bars, where untempered martensite associated with the welds led to fatigue and subsequent cracking that, because of increased stresses associated with known soft ballast conditions, rapidly progressed to rail failure. The safety issues addressed in the report are:

- The effect of bond wire welding on rail integrity, and
- Inconsistent instructions regarding the exothermic welding of bond wires.

Report adopted on January 25, 2005

Recommendations issued: 4

### **CSX Freight Train Derailment and Subsequent Fire in the Howard Street Tunnel, Baltimore, Maryland on July 18, 2001**

On July 18, 2001, an eastbound CSX freight train derailed 11 of its 60 cars while passing through the Howard Street Tunnel in Baltimore, Maryland. Four of the 11 derailed cars were tank cars: 1 contained tripropylene, a flammable liquid; 2 contained hydrochloric acid; and 1 contained di (2-ethylhexyl) phthalate, which are a plasticizer and an environmentally hazardous substance. The derailed tank car containing tripropylene was punctured, and the escaping tripropylene ignited. The fire spread to the contents of several adjacent cars, creating heat, smoke, and fumes that restricted access to the tunnel for several days. A 40-inch-diameter water main directly above the tunnel broke following the accident and flooded the tunnel with millions of gallons of water. Five emergency responders sustained minor injuries while they were involved with the on-site emergency. Total costs associated with the accident, including response and clean-up costs, were estimated at about \$12 million.

Report adopted on December 16, 2004  
Recommendations issued: 4

### **Hazardous Materials**

#### **Cargo Fire Involving Lithium-Ion Batteries, in Memphis, Tennessee on August 7, 2004**

On August 7, 2004, a fire destroyed some freight that included lithium-ion batteries. The freight was in a unit load device (ULD) at the Federal Express Corporation (FedEx Express) hub in Memphis, Tennessee. The ULD had been raised on loading equipment and pushed about halfway onto an airplane bound for Charles de Gaulle Airport, Paris, France, when the loading personnel smelled smoke. They returned the smoking ULD to the loading equipment and lowered the ULD to the ground. When Memphis fire department responders opened the ULD, a fire flared up inside. Damage to the ULD and the freight is estimated as \$20,000.

Report adopted on September 26, 2005  
Recommendations issued: None

#### **Rupture of a Railroad Tank Car Containing Hazardous Waste in Freeport, Texas, on September 13, 2002**

On September 13, 2002, a 24,000-gallon-capacity railroad tank car containing about 6,500 gallons of hazardous waste, catastrophically ruptured at a transfer station at the BASF Corporation chemical facility in Freeport, Texas. The tank car had been steam heated to permit the transfer of the waste to a highway cargo tank for subsequent disposal. The waste was a combination of cyclohexanone oxime, water, and cyclohexanone. As a result of the accident, 28 people received minor injuries, and residents

living within 1 mile of the accident site had to shelter in place for 5 1/2 hours. The tank car, highway cargo tank, and transfer station were destroyed. The force of the explosion propelled a 300-pound tank car dome housing about 1/3 mile away from the tank car. Two storage tanks near the transfer station were damaged releasing about 660 gallons of the hazardous material oleum (fuming sulfuric acid and sulfur trioxide). The probable cause of the rupture of railroad tank car was over pressurization resulting from a runaway exothermic decomposition reaction initiated by excessive heating of a hazardous waste material. Contributing to the accident was the BASF Corporation's failure to monitor the temperature and pressure inside the tank car during the heating of the hazardous waste. The Safety Board identified the adequacy of procedures for heating hazardous materials cargoes in railroad tank cars before transfer as a safety issue during this investigation.

Report adopted on December 1, 2004  
Recommendations issued: 3

## Pipeline

### Storage Tank Explosion and Fire at Glenpool, Oklahoma on April 7, 2003

On April 7, 2003, an 80,000-barrel storage tank at ConocoPhillips Company's Glenpool South tank farm in Glenpool, Oklahoma, exploded and burned as it was being filled with diesel. The tank had previously contained gasoline, which had been removed from the tank earlier in the day. The tank contained about 7,600 barrels of diesel at the time of the explosion. The resulting fire burned for about 21 hours and damaged two other storage tanks in the area. The cost of the accident, including emergency response, environmental remediation, evacuation, lost product, property damage, and claims, was \$2,357,483. There were no injuries or fatalities. Nearby residents were evacuated, and schools were closed for 2 days. The Safety Board determined that the probable cause was ignition of a flammable fuel-air mixture within the tank by a static electricity discharge due to the improper manner in which ConocoPhillips Company conducted tank operations. Contributing to the extent of the property damage and the magnitude of the impact on the local community was the failure of American Electric Power employees to recognize the risk the tank fire posed to the nearby power lines and take effective emergency action. The safety issues identified during the investigation of this accident are as follows:

- Tank operations, including switch loading, at the ConocoPhillips tank farm.
- The adequacy of emergency planning and emergency response by ConocoPhillips Company and American Electric Power.
- The adequacy of Federal regulations and industry standards for emergency planning.

Report adopted on October 13, 2004  
Recommendations issued: 8

## *Other Activities*

### **Positive Train Control Symposium**

On March 2–3, 2005, the Office of Railroad, Pipeline and Hazardous Materials Investigation, along with the NTSB Academy, sponsored a Positive Train Control (PTC) symposium at the NTSB Academy. The symposium was developed to encourage dialogue among suppliers, industry, and government regarding issues surrounding the use of automatic control systems to override mistakes made by human operators. Over 160 participants listened to presentations on test systems, operations efficiency, research and system development costs, operational and interoperability issues and alternative concepts. PTC has been on the NTSB Most Wanted list of safety improvements since the list was created in 1990.

### **Public Hearing on 2004 Macdona, Texas Train Accident**

On April 26–27, 2005, the Office of Railroad, Pipeline and Hazardous Materials Investigation held a two-day public hearing on the 2004 Macdona, Texas, accident involving a collision between a Union Pacific Railroad (UP) train and a Burlington Northern Santa Fe (BNSF) train. The hearing was held at the NTSB's Conference Center and Board Room. On June 28, 2004, a westbound UP freight train traveling about 45 mph, struck the side of the 63rd car of an eastbound BNSF Company freight train that was entering the west end of the Macdona siding. The BNSF train was traveling about 20 mph. The collision occurred on the UP's San Antonio Division, Del Rio Subdivision, near Macdona, Texas.

The collision resulted in the derailment of the 4 locomotives and 19 cars in the UP train and 16 cars in the BNSF train. A small fire resulted, and a loaded tank car (the 16th car in the UP consist) was breached, resulting in the release of chlorine, a toxic gas. The area within a two-mile radius was evacuated. Each train crew consisted of an engineer and conductor. There were three fatalities: the UP conductor and two near-by residents. More than 40 people, including the UP engineer, firefighters, and residents, were transported to area hospitals for treatment. Preliminary property damages and environmental clean-up costs exceed \$7 million.

The meeting focused on the following issues: crew and employee participation in fatigue management; crew management systems; assessing employees reporting for duty; supervising employee performance on duty; and drug and alcohol testing programs. Witnesses were from the Federal Railroad Administration, Union Pacific Railroad, Brotherhood of Locomotive Engineers and Trainmen, and United Transportation Union.

### **Office of Research and Engineering**

The Office of Research and Engineering provides technical support to accident investigations and conducts safety studies that examine safety issues in all modes of transportation. The Board's Flight Data Recorder, Cockpit Voice Recorder, and Materials Laboratories are located in this office. The office also provides periodic statistical reviews of aviation accidents. Four divisions carry out the work of

this office. Additionally, two functions, medical and toxicology support and fire and explosion analysis, are staffed in the immediate office of the director.

### *Safety Studies and Statistical Analysis Division*

The Safety Studies and Statistical Analysis Division prepares safety reports based on analyses of transportation accident data, which are used to determine factors common to a series of events and to identify safety improvements or evaluate the worth of transportation-related devices or policy. The division also provides statistical expertise to support the analytical projects of the Safety Board.

### *Vehicle Performance Division*

The Vehicle Performance Division provides specialized aeronautical and mechanical engineering, biomechanics, and accident reconstruction support for all modes. The division uses computational and visualization technology to provide accurate time-motion history of the sequence of events and determines vehicle and occupant motion and the underlying causes of that motion. The division also develops computer simulations of vehicle and occupant motion and video animations of accident scenarios, and participates and directs research into fluid and thermal sciences and other special projects as required.

### *Vehicle Recorder Division*

The Vehicle Recorder Division extracts, formats, and analyzes data from aircraft flight data and cockpit voice recorders and recorders installed in locomotives, large ships, and some highway vehicles; examines recorded electronic audio and video information from aircraft, ship, train, and support communication systems; provides electronic engineering support for all accident investigation modes in examining communication and control systems, including digital and analog formats; provides time synchronization to correlate voice and data recorder outputs; and uses advanced digital and analog filtering and signal representation techniques to facilitate extraction of critical information.

### *Materials Laboratory Investigations*

Materials engineers examine parts and wreckage from well over 100 accidents in a typical year, involving all transportation modes. Staff performs expert multi-disciplinary engineering and scientific analyses to determine if the performance of materials and structures in accident conditions is related to the cause or severity of an accident, photographically documenting their findings throughout the failure analysis process.

### *Fire and Explosion Support*

Fire and explosion specialists provide on-scene accident investigation of fire and explosion issues in all modes of transportation. In addition, staff provides technical advice and support in fire and explosion science and chemical and forensic science, as well as technical advice and support to experimental testing and research in most areas of the physical sciences.

## *Medical and Toxicological Analysis Status*

Medical staff advise the Board on all biomedical aspects of investigations, including pathology, toxicology, human performance, and biomechanics. Staff participates in over 100 Safety Board accident investigations in all transportation modes each year, evaluating and addressing medical issues through formal factual and analytical reports, safety recommendations, coordination with other agencies, and formal presentations to the Safety Board and external audiences.

## **FY 2005 Activities Completed**

### *Safety Studies and Statistical Analysis Division*

Safety Studies Completed:

- Risk Factors Associated with Weather-Related General Aviation Accidents (initiated in FY2003, adopted 9/7/2005), and
- Supervisory Control and Data Acquisition (SCADA) in Liquid Pipelines (initiated in FY 2003, adopted 11/29/2005)

Other division accomplishments:

- The causal coding structure for aviation accidents has been redesigned, the associated data dictionary has been updated, and instruction manuals appropriate for investigator training and for training public users have been developed.
- Field investigator training was delivered in preparation for release of the new database.

### *Vehicle Performance Division*

Staff completed 30 studies and animations for aviation, surface, railroad, and marine accident investigations.

Reports completed for major accident investigations:

- Corporate Airlines British Aerospace Jetstream 32 twin-engine turboprop airplane, operating as American Connection flight 5966, which crashed during an instrument approach to the Kirksville Regional Airport in Kirksville, Missouri (10/19/04).
- Pinnacle Airlines Bombardier RJ-200 that crashed in Jefferson City, Missouri (10/14/04).
- Beech 200 King Air accident in Martinsville, Virginia, that killed members of the Hendricks Motorsport racing team (10/24/04).
- Bombardier Challenger CL-600 corporate jet, N370V, operated by Platinum Jet Management, which impacted a fence, two cars, and a warehouse off the departure end of runway 6 during an aborted takeoff at Teterboro Airport (TEB), Teterboro, New Jersey (2-2-05).

- A specialty bus that was rear-ended by a tractor semitrailer near Hampshire, Illinois, as it was slowing or stopped for the Marengo tollbooth on Interstate 90 (10/1/03).
- The Lady D water taxi, which capsized during a squall while traversing Baltimore harbor (3/6/04).
- Foreign aviation accident investigations in Venezuela, Canada, Indonesia, and China.

### *Vehicle Recorders Division*

- Staff processed 55 cockpit voice recorders, including 11 that were foreign.
- Staff processed 62 flight data recorders (13 were foreign).
- Staff processed 8 rail recorders; staff also recovered data from 18 damaged global positioning system (GPS) units and 26 digital cameras.
- Staff participated in the FAA's proof-of-concept flight test to obtain more information about the feasibility of instrumenting smaller turbine aircraft with low-cost cockpit video recorders. Test results will be used by FAA to establish the basis for a technical standards order to be used by recorder manufacturers to build an on-board cockpit image recorder system.
- Staff completed the Cockpit Voice Recorder Transcription and Timing Tool, a 12-month effort totally funded by the Department of Defense Technical Support Working Group. This Windows-platform software will generate an automatic word recognition, speaker identification, and transcript for recorded audio information.

### *Materials Laboratory Investigations*

- Staff completed failure analyses on broken joint bars from a railroad accident in Pico Rivera, California (October 16, 2004), and the ruptured hazardous materials tank car from the railroad accident in Graniteville, South Carolina (January 6, 2005). As a result of the Graniteville accident, staff developed a recommendation to the Federal Railroad Administration to implement operating measures to minimize impact forces to tank cars carrying hazardous materials.
- As a result of its investigation of the derailment and anhydrous ammonia release in Minot, North Dakota, on January 18, 2002, staff developed a recommendation on the inspection of joint bars and on the use of older tank cars made from steel with low fracture toughness.
- Staff documented the presence of fatigue crack that caused the separation of a wing from an SNJ-6 military surplus aerobatic trainer airplane on May 9, 2005, in Kissimmee, Florida.
- Staff documented a very large fatigue crack in the wing of a Cessna 402C airplane that was found during an inspection on the ground in Hyannis, Massachusetts, on February 11, 2005.
- Staff performed structural evaluations of the motorcoaches involved in the Tallulah, Louisiana (October 13, 2003), and Turrell, Arkansas (October 9, 2004), accidents. As a result of the Tallulah accident, staff developed recommendations for the development of standards for seat attachment.

- For the Wilmer, Texas, motorcoach fire (September 23, 2005) investigation, staff analyzed portions of the structure and assisted in examining the wheel and bearing components that initiated the fire.
- Staff assisted the National Aeronautics and Space Administration in the failure analysis examination of a wiring harness and bolt catcher from the Genesis spacecraft that crash-landed near Dugway, Utah, on September 8, 2004.
- Staff assisted the U.S. Coast Guard in examining components from the M/V Athos I, whose hull was punctured, resulting in an oil spill in the Delaware River on November 26, 2004.
- Staff assisted the Federal Railroad Administration in evaluating a tank car manway cover from an accident in Creighton, Pennsylvania, on February 2, 2005.
- Staff assisted the following foreign governments: Colombia, Japan, China, Hungary, Ecuador, Singapore, the Netherlands, Estonia, Peru, the Bahamas, and Guyana.

### *Fire and Explosion Support*

Fire and explosion staff assisted with completion of the Glenpool, Oklahoma, tank farm explosion report. Pipeline accident report (PAR-04-02) was adopted on 10/13/2004.

### *Medical and Toxicological Analysis Status*

Staff investigated on medical issues in accident investigations including a motorcoach run-off-the-road highway accident that occurred near Tallulah, Louisiana (accident 10/1/03, report adopted 4/19/05), the allision of Staten Island Ferry Andrew J. Barberi (accident 10/15/03, report adopted 3/8/05), and the crash during landing of Executive Airlines Flight 5401, Avions de Transport Regional 72-212, N438AT, San Juan, Puerto Rico (accident 5/9/04, report adopted 9/7/05).

Staff made formal presentations in 2005 on medical issues in Safety Board investigations to professionals at the Governor's Highway Safety Association, the Aerospace Medical Association, the American Occupational Health Conference, the Wright State University residency program in Aerospace Medicine, the U.S. Air Force, and the Civil Aviation Administration of China.

## **Other Mission and Support Activity Accomplishments**

Although the NTSB's primary mission activities do not lend themselves to traditional performance goals, outputs, and outcomes, the following specific goals and accomplishments are provided for other areas:

### *Chief Financial Officer*

**Fourth Quarter CFO Metrics** - The CFO Metrics or standards of measurement is recommended by the US CFO Council and is intended to assist in improving Federal financial operations by tracking on

agency performance using a series of key financial management indicators. The CFO used the stop light (red-yellow-green) measuring system. Overall, the CFO has achieved green in all of the metrics for all of the quarters of FY 2006.

### FY 2006 CFO METRICS

DESCRIPTION	12/05	3/06	6/06	9/06
FUND BALANCE WITH TREASURY	G	G	G	G
SUSPENSE > 60 DAYS	G	G	G	G
A/R > 180 DAYS	G	G	G	G
EFT PYMT	G	G	G	G
INTEREST	G	G	G	G
ON TIME INVOICES	G	G	G	G
TRAVEL CARD DELINQUENCY	G	G	G	G
PURCHASE CARD DELINQUENCY	G	G	G	G

#### Description of CFO Metrics

Fund Balance with Treasury - Smaller reconciliation differences translate to greater integrity of financial reports and budget results. Green = >98% accuracy

Suspense Account Clearing > 60 Days - Less suspense clearing translates to greater integrity of budgetary balances. Green = <10% suspense account items are > 60 days

Delinquent Accounts Receivable > 180 Days - It shows how well the agency actively collects debt. Green = <10% debt older than 180 days

EFT Payments - A high use of electronic funds transfer saves money, reduces paperwork, and improves cash management. Green = > 96% if payments are by EFT

Interest Payments Paid - Low rates of interest paid shows that an agency is paying its bills in a timely manner. Green = <.02% was paid in interest.

Non-Credit Card Invoices Paid On Time Monthly - Timely payment reduces interest charges and reflects a high degree of accountability and integrity. Green = >95% of invoices paid on time.

Travel Card Delinquency Rate – Reducing outstanding travel card balances helps reduces interest payments on centrally billed accounts. Green = <2% of the travel card accounts are delinquent.

Purchase Card Delinquency Rate – Reducing outstanding purchase card balances helps reduces interest payments on centrally billed accounts. Green = 0%

## Office of Administration

### **Goal: Provide 100% response to Mission Support Requirements.**

The Office of Administration achieved 100% success in providing support to mission requirement. Several contracts were awarded in direct support of accident investigations including several aviation investigations, the capsizing of the Ethan Allen, and partial tunnel-ceiling collapse in Boston's Big-Dig. A new lease was negotiated and executed for the NJ Regional office, wireless devices were upgraded, and the support and operation and use of the Boardroom was expanded.

*Goal: Achieve negotiated savings of at least \$500,000 through better Planning & Resource Management.*

The Office of Administration achieved negotiated savings of over \$1 million through better planning, negotiation, competition, and multiple-year contracts. The Office of Administration worked with program offices to devise effective acquisition strategies on requirements.

*Goal: Achieve 98% training compliance under the NTSB's Purchase Card Program.*

The Office of Administration developed and implemented a new training program for all cardholders and approving officials, and achieved 100% training compliance. In addition, the Office of Administration completed a restructuring of NTSB's Purchase Card Program; revising hierarchy levels and realigning approving officials and cardholders within each office's organizational structure. Finally, the Office of Administration initiated a campaign to reduce the amount of sales tax inadvertently paid by cardholders. As a result, NTSB cardholders significantly reduced the amount of sales tax charged to the government.

*Goal: To implement an online employee orientation resource for new employees in FY 2006.*

The Office of Administration implemented "Get on Board!" which is the name of the Safety Board's online tool for new employees to utilize when they join the Board. This online resource is available on the Intranet and provides new employees with useful information to help them be acclimated to the Safety Board during those first few weeks on the job.

*Goal: Obtain SES provisional certification for the Board's SES performance appraisal system for 2006.*

For the first time, the NTSB's SES performance appraisal system received provisional certification from the Office of Personnel Management during FY 2006.

*Goal: Market the NTSB Conference Center and Training Center to achieve an increase of 50% revenue.*

During FY06, the Office of Administration developed a marketing strategy for the NTSB Conference Center, which resulted in a revenue increase of 98% from FY05. In addition, the Office of Administration marketed the Training Center, which resulted in a revenue increase of 68% from FY-05.

## Administrative Law Judges

The Safety Board serves as the “court of appeal” for airmen, mechanics or mariners whenever the FAA or the USCG takes a certificate action. The Board’s administrative law judges hear, consider, and issue initial decisions on appeals filed with the Board. Included are appeals of:

- Orders issued by the FAA’s Administrator amending, modifying, suspending or revoking, in whole or in part, certificates of airmen, air agencies and air carriers, for alleged violations of the Federal Aviation Regulations or for lack of qualification;
- FAA actions denying applications for the issuance or renewal of airmen certificates; and
- Appeals of certain FAA civil penalty orders issued by the FAA against pilots, flight engineers, mechanics or repairmen where the amount in dispute is less than \$50,000.

The judges also adjudicate claims for fees and expenses stemming from FAA certificate and civil penalty actions under the Equal Access to Justice Act.

The Board currently has four judges. Two are based in Washington, D.C., and hold hearings primarily in the eastern half of the United States. The other two are based in Arlington, Texas and Denver, Colorado and hear cases primarily in the western half of the country. Either the certificate holder or the FAA may appeal the judges’ decisions in these cases to the five-member Board. The Board’s review on appeal of its administrative law judges’ decisions is based on the record of the proceeding, which includes hearing testimony (transcript), exhibits, the judge’s decision, and appeal briefs submitted by the parties.

The FAA has the right to appeal the Board’s decisions to the U.S. Court of Appeals when that agency determines that the Board’s decision “will have a significant adverse impact” with respect to aviation safety duties and powers designated to be carried out by the FAA. Airmen and mechanics have the right to appeal all adverse Board decisions to the Court of Appeals. Upon review of the Board’s decision, the Court of Appeals has the power to affirm, modify or set aside the decision in whole or in part --or, if the need is determined, to order further proceedings by the Board. The decision of the Court of Appeals is subject to review by the U.S. Supreme Court on writ of certiorari. Section 716 of Aviation Investment and Reform Act for the 21st Century (Public Law 106-181) expanded the Board’s jurisdiction to include review of FAA designations of safety enforcement actions as emergencies, which require the order to be effective immediately, upon petition by the affected certificate holder. The Board has delegated this review authority to its administrative law judges. However, in the event of an appeal to the Board from a law judge’s decision on the merits of the emergency or other immediately effective order, the Board may, at its discretion, note in its order disposing of the appeal, its views on the law judge’s ruling on the petition, and such views shall serve as binding precedent in all future cases. There is no administrative review of the administrative law judges’ decisions in these cases.

Marine certificate actions are heard first by the Coast Guard’s administrative law judges, and may be appealed to the Commandant of the Coast Guard. The ruling of the Commandant may then be appealed to the NTSB. The Board follows the same appellate process for marine certificate actions as it does in aviation cases.

### *Activities Completed During FY 2005*

During fiscal year 2005, the Office of Administrative Law Judges:

- Met its goal to provide the notice of hearing at least 30 days prior to the hearing. A total of 275 notices were provided to appellants.
- Met its goal of conducting hearings and rendering decisions in emergency cases within 30 days of the filing of an appeal. The office rendered decisions on 130 emergency appeals and held 34 emergency hearings.
- Made rulings on 39 petitions challenging the Administrator's Determination that an Emergency Exists in Air Safety within the 5-day statutory timeframe.

### **NTSB Training Center**

*Goal: Provide courses to NTSB and non-NTSB transportation professionals.*

The NTSB Training Center is an organizational component of the Office of Management. Budget exhibits have historically shown these activities as program resources outside of the Policy and Direction line that incorporates the Office of Management. The Training Center is responsible for internal staff training, training plans and workforce development programs, general training and support for other training initiatives at the Board's facility in Ashburn, Virginia. The Training Center's primary mission is to train NTSB investigators and others in the transportation community in accident investigation techniques.

In the Senate Appropriations Committee report for the fiscal year 2006 appropriation, the Committee acknowledged the benefits of sharing accident investigation best practices with the broader transportation community. However, the committee report also indicated that these functions should be secondary to the Board's core accident investigation mission and directed the Board to reduce workforce hours used to provide training so that the investigative responsibilities would not be impacted by the staffing reductions needed to operate within the fiscal year 2006 appropriation levels. The report also encouraged the Board to be more aggressive in covering the cost of the program with offsetting collections.

As a result of the direction provided by the Appropriations Committee, NTSB management has significantly revised the philosophy for the Academy. Specifically, the Board plans to:

- Move investigators out of the instructor role to insure that the Board's primary investigative role receives the highest priority;
- Eliminate programs that not adequately produce the collections required to offset the cost of offering them;
- Rely on instructors from academia, other government agencies and the private sector;
- Focus on programs that educate, train, and share information of benefit to our investigators and to the safety world as a whole; and
- Centralize responsibilities for the coordination and management of all workforce development and investigator training within the Training Center division.

*FY 2005 Activities*

<b>Course Title</b>	<b>Participants</b>
Transportation Disaster Response-Family Assistance	77
Survival Factors in Aviation Accidents	49
Forensic Photography	21
Victim Assistance Rapid Deployment Team Training	24
Managing and Directing Safety Investigations	44
Aviation Industry Training for Airline Professionals	71
Aircraft Accident Investigations (for Chinese officials through Agreement)	23
Transportation Disaster Response-Family Assistance	66
Conducting Effective Technical Presentation (NTSB only)	21
Positive Train Control (Symposium)	152
Aircraft Accident Investigation	54
Transportation Disaster Response-A Course for Emergency Responders	28
Cognitive Interviewing for Accident Investigators	57
Investigating Human Fatigue Factors	72
Managing Communications During an Aircraft Disaster	81
Transportation Disaster Response-Airports	42
Transportation Disaster Response-Mass Fatality Incidents for Medicolegal Professionals	35
Major Investigation Protocol and Processes	38
Technical Photography	2
Photodocumentation Series	21
Advanced Accident Site Photography	2
Digital Image Processing	1
Aviation Industry Training for Airline Professionals	84
Media Training for Accident Investigators	18
FBI/ERT and NTSB Joint Training	40
Survival Factors in Aviation Accidents	28
Transportation Disaster Response-Family Assistance	102
National Capital Region Family Assistance & Reunification Center Orientation & Planning	96
FBI/ERT and NTSB Joint Training	60
Major Investigation Protocol and Processes	<u>16</u>
<b>Total</b>	<b><u>1,425</u></b>

## Office of the Chief Information Officer

The Office of Chief Information Officer (OCIO) was recently created during fiscal year 2006. Prior to this realignment, the functions of the office resided within the Office of Research and Engineering. A separate office was created to focus attention and resources on the Board's information management and technology support infrastructure.

The Office of Chief Information Officer provides strategic direction and operational support for the Board's information systems, and develops and distributes programs and products for use by the Board and the public. The Office is comprised of four divisions, as described below.

### *Computer Services Division*

The Computer Services Division provides computer and network services for headquarters and ten regional offices, including internet access, Web services (http and ftp), email, backup, and disaster recovery. The Help Desk staff performs a wide range of tasks that include desktop/laptop setup, repair and replacement, printer support, network connectivity, and software installation and upgrades.

### *Systems Support Division*

The Systems Support Division develops, distributes, and maintains agency-specific applications, and provides database administration services in support of program offices. Applications include accident data collection, storage, analysis, and dissemination for all modes, and management of systems for accident records (Docket Management System), safety recommendations, correspondence, FOIA requests, and general administration.

### *Information Products Division*

The Information Products Division defines electronic document standards and handling procedures for the agency's information products. It manages the final production and printing of accident reports and other documents adopted by the Board Members or issued by agency staff. It is responsible for developing and producing graphics for agency publications, websites, and presentations. Computer and graphic specialists assist agency engineering specialists in developing complex animations. The Information Products Division also produces specially issued CD-ROMs for Board meetings, public hearings, public forums, public symposiums, and annual compilations of Board reports.

### *Records Management Division*

The Records Management Division maintains the archives of accident investigation files, Safety Board reports, and other agency records. It is responsible for fulfilling public requests for information, including FOIA requests; providing training for Docket Management System and guidance on redaction policies and techniques; and monitoring privacy and confidentiality of data and information. This division also provides general records management oversight.

## Future Performance Challenges

In 2005, the Safety Board marked the 15th anniversary of its Most Wanted list of transportation safety improvements. Established in 1990, the list focuses attention on safety improvements the Board believes would significantly reduce deaths and injuries.

Over the past 15 years, more than 260 recommendations have been added to the Most Wanted list. The more than 200 that were removed have an 85% acceptance rate – higher than the Board’s overall recommendation acceptance rate of 82%.

Most Wanted list implemented recommendations have resulted in significant upgrades in safety on fishing vessels, large cruise ships, and smaller passenger vessels. Passenger safety devices and information have improved in rail cars, and rail tank cars that carry hazardous materials are stronger and more resistant to puncture. Aviation advances include installation of ground proximity warning systems, fire detection and suppression systems in airline cargo holds, structural metal fatigue testing and repairs, better safeguard against hazards of wake vortex turbulence, and a complete safety overhaul of commuter airline safety requirements so they are similar to large passenger aircraft standards. The Most Wanted list has inspired major improvements in school bus construction, safety standards and emergency exits, and stiffer alcohol and substance abuse standards in all transportation modes. Pipeline safety has improved because of better awareness of the hazards of excavation damage when digging near pipelines.

The 2005 list contains 56 recommendations: 47 to federal regulatory agencies and 9 to the states. The Safety Board reviewed the Most Wanted list at two separate public meetings, one focusing on federal issues and the other on state issues.

In 2005, the Safety Board again pressed for quicker action by the Federal Aviation Administration to reduce airport runway incursions and accidents. However, the NTSB also noted positive progress by the FAA in pursuing aircraft fuel tank and aircraft wing icing safety; by the Federal Railroad Administration in strengthening railroad recorder crashworthiness; and by the U.S. Coast Guard, in moving forward on rulemaking to strengthen marine drug and alcohol testing requirements.

The Safety Board removed from the list a recommendation for nighttime driving restrictions for young novice drivers because 43 states, the District of Columbia and Guam now have these restrictions. The Board also removed a recommendation regarding comprehensive minimum drinking age laws because 25 states and the District of Columbia have comprehensive laws and an additional 17 states have all but one element recommended by the Board. The Board added a recommendation to the list to restrict the use of wireless communications device use by young novice drivers because learning to drive requires all the concentration that a novice driver can muster.

The Safety Board continued to evaluate timeliness designations for the federal issues on the list. Since 2003, items on the list have been color-coded: green -- acceptable action, progressing in a timely manner; yellow -- acceptable action, progress slowly; and red -- unacceptable action or progress has stalled. The Federal agency items on the “Most Wanted” list that follows are color-coded to indicate their status.

## 2005 Most Wanted List

### Action Needed by the States

#### HIGHWAY

##### Improve Child Occupant Protection

- Enact state laws requiring booster seats for young children.

##### Enact Primary Seat Belt Enforcement Laws

- Increase the number of people who wear seat belts through stronger enforcement laws.

##### Promote Teen Highway Safety

- Enact graduated driver licensing legislation.
- Restrict the number of teen passengers traveling with young novice drivers.
- Restrict the use of wireless communications devices by young novice drivers

##### Eliminate Hardcore Drinking Driving

- Enact state legislation and take other actions that are proven to reduce crashes involving those who repeatedly drink large amounts of alcohol and drive including:
  - Frequent, statewide sobriety checkpoints;
  - Legislation to create stricter sanctions for those arrested for the first time with a high blood alcohol concentration ( $\geq 0.15$  BAC)
  - Zero blood alcohol requirement for convicted DWI offenders when they get their license back;
  - Administrative rather than court-based license revocation for refusing to take or failing the sobriety test; and
  - Vehicle sanctions for DWI offenders.
- Eliminate plea-bargaining DWI offenses and programs that divert offenders and purge the offense record.
- Retain DWI offense records (to identify and prosecute repeat offenders) for at least 10 years.
- Develop and operate special sanction (court-based) programs for hardcore DWI offenders.

### **Improve School Bus/Grade Crossing Safety**

- Install stop signs at passive crossings.
- Prioritize for upgrade to lights and gates, crossings that school buses traverse that now only have warning signs.
- Install noise-reducing switches on new buses.
- Enhance bus driver training and evaluation.
- Include grade-crossing questions on commercial driver's license exams.

## **MARINE**

### **Enhance Recreational Boating Safety**

- Require mandatory education of boat operators.
- Require use of life jackets for children.
- Require safety instruction prior to personal watercraft rental.

### **Actions Needed by Federal Agencies**

## **AVIATION**

The Federal Aviation Administration (FAA) should act to:

### **Reduce Dangers to Aircraft Flying in Icing Conditions (RED)**

- Use current research on freezing rain and large water droplets to revise the way aircraft are designed and approved for flight in icing conditions.
- Conduct additional research with NASA to identify realistic ice accumulation and incorporate new information into aircraft certification and pilot training requirements.

### **Eliminate Flammable Fuel/Air Vapors in Fuel Tanks on Transport Category Aircraft (YELLOW)**

- Implement design changes to eliminate the vulnerability of flammable fuel/air vapors in all transport category aircraft.

### **Stop Runway Incursions/Ground Collisions of Aircraft (RED)**

- Give immediate warnings of probable collisions/incursions directly to flight crews in the cockpit.

### Improve Audio and Data Recorders/Require Video Recorders (RED)

- Require cockpit voice recorders to retain at least 2 hours of audio.
- Require back-up power sources so cockpit voice recorders collect an extra 10 minutes of data when an aircraft's main power fails.
- Inspect and maintain data recorders yearly to make sure they operate properly.
- Install video recorders in cockpits to give investigators more information to solve complex accidents.

### Require Restraint Systems for Children under Age 2 (RED)

- Require restraints for infants and small children during takeoff, landing, and in turbulent conditions to provide them the same protection as other passengers.

## **RAILROAD**

The FRA should act to:

### Implement Positive Train Control Systems (YELLOW)

- Prevent train collisions and overspeed accidents by requiring automatic control systems to override mistakes by human operators.

## **MARINE**

The USCG should act to:

### Improve Drug and Alcohol Testing of Crews After Accidents (GREEN)

- Strengthen and clarify regulations to require that drug and alcohol testing be conducted quickly after serious marine accidents.

## **HIGHWAY**

The Federal Motor Carrier Safety Administration (FMCSA) should act to:

### Improve the Safety of Motor Carrier Operations (YELLOW)

- Prevent motor carriers from operating if they put vehicles with mechanical problems on the road or unqualified drivers behind the wheel.

### Prevent Medically-Unqualified Drivers from Operating Commercial Vehicles (YELLOW)

- Establish a comprehensive medical oversight program for interstate commercial drivers.
- Ensure that examiners are qualified and know what to look for.
- Track all medical certificate applications.
- Enhance oversight and enforcement of invalid certificates.
- Provide mechanisms for reporting medical conditions.

The National Highway Traffic Safety Administration (NHTSA) DOT should act to:

### Enhance Protection for Bus Passengers (YELLOW)

- Redesign motor coach window emergency exits so passengers can easily open them.
- Issue standards for stronger bus roofs and require them in new motorcoaches.
- Devise new standards to protect motor coach passengers from being thrown out of their seats or ejected when a bus sustains a front, side, or rear impact or rolls over.

## INTERMODAL

The DOT, FAA, U.S. Coast Guard, and Pipeline and Hazardous Materials Safety Administration should act to:

### Update Hours-of-Service Regulations in Aviation, Marine and Pipeline Industries (YELLOW)

- Set working hour limits for flight crews, aviation mechanics, pipeline controllers, mariners and other transportation operators, and provide predictable work and rest schedules based on current fatigue research, circadian rhythms, sleep and rest requirements.



**U.S. Department of  
Transportation**  
Office of the Secretary  
of Transportation

The Inspector General

Office of Inspector General  
Washington, DC 20590

November 13, 2006

The Honorable Mark V. Rosenker  
Chairman  
National Transportation Safety Board  
490 L'Enfant Plaza SW  
Washington, DC 20594

Dear Chairman Rosenker:

The audit of the National Transportation Safety Board's (NTSB) Financial Statements, as of and for the years ended September 30, 2006 and September 30, 2005, was completed by Leon Snead & Company, P.C., of Rockville, Maryland (see enclosure). We performed a quality control review of the audit work to ensure that it complied with applicable standards. These standards include the Accountability of Tax Dollars Act of 2002; Generally Accepted Government Auditing Standards; and Office of Management and Budget Bulletin 06-03, "Audit Requirements for Federal Financial Statements."

Snead & Company concluded that the financial statements presented fairly, in all material respects, the financial position, net cost, changes in net position, budgetary resources, and financing of the NTSB as of and for the years ended September 30, 2006 and September 30, 2005, in conformity with accounting principles generally accepted in the United States. The Snead & Company report presented two material internal control weaknesses related to implementation of an agencywide information security program and internal controls over financial reporting.

Snead & Company made no recommendations regarding the information security program weakness because the Office of Inspector General already issued recommendations to address the problems in a recent report (OIG Report Number FI-2007-001, "Information Security Program," October 13, 2006). Snead & Company made two recommendations regarding the financial reporting weakness; we agree with them and are, therefore, making no additional recommendations. NTSB concurred with the financial reporting weakness, agreed

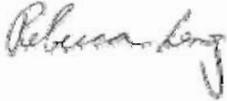
Report Number QC-2007-007

with the recommendations, and committed to strengthening controls over financial reporting.

In our opinion, the audit work performed by Snead & Company complied with applicable standards.

We appreciate the cooperation and assistance of NTSB and Snead & Company representatives. If we can answer questions or be of any further assistance, please call me at (202) 366-1496 or Earl C. Hedges, Program Director, at (410) 962-1729.

Sincerely,



Rebecca C. Leng  
Assistant Inspector General for Financial and  
Information Technology Audits

Enclosure

**LEON SNEAD  
& COMPANY, P.C.**

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leonsnead.companypc@erols.com

*Certified Public Accountants  
& Management Consultants*

Inspector General, Department of Transportation  
Chairman, National Transportation Safety Board

**Independent Auditor's Report**

We have audited the balance sheet of the National Transportation Safety Board (NTSB) as of September 30, 2006 and 2005, and the related statements of net cost, changes in net position, budgetary resources, and financing (the financial statements) for the years then ended. The objective of our audits was to express an opinion on the fair presentation of those financial statements. In connection with our audit, we also considered the NTSB's internal control over financial reporting and tested the NTSB's compliance with certain provisions of applicable laws and regulations that could have a direct and material effect on its financial statements.

**SUMMARY**

As stated in our opinion on the financial statements, we found that the NTSB's financial statements as of and for the years ended September 30, 2006 and 2005, are presented fairly, in all material respects, in conformity with accounting principles generally accepted in the United States of America. As discussed in our opinion, and in Note 11 to the financial statements, the NTSB restated its fiscal year 2005 financial statements to correct the reporting of internal use software. At the end of fiscal year 2005, approximately \$925,000 in costs, expended for the development of internal use software, were recorded as operating expenses rather than as equipment. As a result, Property and Equipment, Net, Cumulative Results of Operations and Program Costs were misstated. NTSB officials in response to the draft audit report advised that they concur with the facts and conclusions in the report.

Our consideration of internal control would not necessarily disclose all matters in the internal control over financial reporting that might be material weaknesses under standards issued by the American Institute of Certified Public Accountants. However, our testing of internal control, including NTSB management's reports filed pursuant to the Federal Manager's Financial Integrity Act (FMFIA) and our follow-up on prior audits, identified two material weaknesses relating to systems security in NTSB's non-financial systems, and internal controls over financial reporting.

The results of our tests of compliance with certain provisions of laws and regulations disclosed no instances of noncompliance that is required to be reported herein under *Government Auditing Standards*, issued by the Comptroller General of the United States and Office of Management and Budget (OMB) Bulletin No. 06-03, *Audit Requirements for Federal Financial Statements*.

The following sections discuss our opinion on the NTSB's financial statements, our consideration of the NTSB's internal control over financial reporting, our tests of the NTSB's compliance with certain provisions of applicable laws and regulations, and management's and our responsibilities.

#### **OPINION ON THE FINANCIAL STATEMENTS**

We have audited the accompanying balance sheet of the NTSB as of September 30, 2006 and 2005, and the related statements of net cost, changes in net position, budgetary resources, and financing for the years then ended.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position, net cost, changes in net position, budgetary resources, and financing of the NTSB as of and for the years ended September 30, 2006 and 2005, in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 11 to the financial statements, the NTSB restated its fiscal year 2005 financial statements. This restatement was necessary because of an accounting error that NTSB made when it processed an adjustment that reclassified the costs incurred to develop internal use software from an asset to an operating expense. The actions taken by NTSB concerning the handling of this internal use software for the 2005 financial statements were not in compliance with generally accepted accounting principles established by Statement of Federal Financial Accounting Standards (SFFAS) No. 10, *Accounting for Internal Use Software*, dated June 1998. This accounting error resulted in NTSB materially understating its assets and misstating cumulative results of operations on the Balance Sheet and Statement of Changes in Net Position, overstating its costs on the Statement of Net Costs, and Statement of Financing for 2005, and related footnotes.

The information in the Management's Discussion and Analysis section is not a required part of the financial statements but is supplementary information required by accounting principles generally accepted in the United States of America or OMB Bulletin No. 136, *Financial Reporting Requirements*. We have applied certain limited procedures, which consisted principally of inquiries of NTSB management regarding the methods of measurement and presentation of the supplementary information and analysis of the information for consistency with the financial statements. However, we did not audit the information and, accordingly, we express no opinion on it.

## **INTERNAL CONTROL OVER FINANCIAL REPORTING**

Our consideration of internal control would not necessarily disclose all matters in internal control that might be reportable conditions and, accordingly, would not necessarily disclose all reportable conditions that are also considered to be material weaknesses. Under standards issued by the American Institute of Certified Public Accountants, reportable conditions are matters coming to our attention relating to significant deficiencies in the design or operation of the internal control that, in our judgment, could adversely affect the agency's ability to record, process, summarize, and report financial data consistent with the assertions by management in the financial statements.

Material weaknesses are reportable conditions in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements caused by error or fraud in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. Because of inherent limitations in internal controls, misstatements, losses, or noncompliance may nevertheless occur and not be detected. However, we noted two matters, discussed in the following paragraphs, involving internal control and its operation that we consider to be material weaknesses.

### **Security over NTSB Systems**

The Department of Transportation (DOT), Office of the Inspector General (OIG) has reported that NTSB was not in compliance with the Federal Information Security Management Act (FISMA) requirements. The DOT OIG report, dated October 13, 2006, concluded that NTSB made a concerted effort to correct security weaknesses identified in prior years. DOT OIG noted, however, that continued management attention is needed in several areas, and the NTSB's information security program remains a material internal control weakness.

The weaknesses identified by the DOT OIG are applicable to the systems resident within NTSB, and did not directly affect the agency's core financial management systems that are provided by another Federal agency. In addition, the internal control policies and procedures that NTSB has implemented over its financial management operations are generally sound, and help to further ensure that accurate, timely and meaningful financial data is provided to agency managers.

Since the DOT OIG has issued recommendations to address the problems identified, we are making no recommendations in this report.

### **Internal Controls over Financial Reporting**

NTSB's internal controls over financial reporting need to be strengthened over the preparation, review and approval of journal vouchers processed to the general ledger, and

adjustments made for compilation of the financial statements. We attributed this problem to a control process that was not effectively implemented. As a result, we identified an accounting error on a journal voucher that reclassified approximately \$925,000 from an asset to an operating expense at the end of fiscal year 2005, and resulted in the 2005 financial statements being materially misstated.

For fiscal year (FY) 2005, and as of March 31, 2006, NTSB processed adjustments to reclassify approximately \$925,000 and \$1.1 million, respectively, from general ledger account 1750, Equipment, to general ledger account 6100, Operating Expenses. For FY 2005, NTSB made this entry through a journal voucher, dated September 29, 2005, and for subsequent interim financial statements through adjustments made for compilation of the financial statements.

These adjustments represented the total amounts paid for a contractor-developed internal use software application that NTSB was implementing for one of its program areas. As of the end of FY 2005, NTSB had paid this vendor approximately \$925,000. NTSB initially recorded these costs to its general plant, property, and equipment accounts since the software met its capitalization threshold of \$250,000. Records provided show that NTSB officials have accepted this software, and placed it into operation during January 2006. For the June 30, 2006, interim statements, NTSB properly recorded this software as PP&E, valued at approximately \$1.28 million.

In addition, as noted above, that the NTSB prepares compilation adjustments in order to prepare its financial statements. These adjustments are made to general ledger trial balances and not to the agency's general ledger. For example, for the June 30 2006, statements, we noted that approximately 30 general ledger accounts were adjusted, and in several instances by material amounts. We tested these adjustments and found no errors. However, we identified that these adjustments do not follow the same control process as that established for the processing of journal vouchers. We believe that these adjustments, which are frequently material to the financial statements, should follow a control process similar to that followed for the processing of journal vouchers.

SFFAS No.10 provides the accounting standards for internal use software. The statement provides that for COTS software, capitalized costs should include the amounts paid to the vendor for the software. For contractor-developed software, capitalized costs should include the amounts paid to a contractor to design, program, install, and implement the software. In addition, the standard provides that for each module or component of a software project, amortization should begin when that module or component has been successfully tested.

#### Recommendation

Enhance controls over financial reporting relating to the processing of journal vouchers and adjustments made for financial statement presentation purposes. Ensure that additional documentation and analysis are provided to supervisors so that more substantive analyses can be performed on these adjustments before approval.

### Agency Response

The Chief Financial Officer advised in a memorandum that the agency concurs with the facts and conclusions in the report, and that the agency will strengthen controls over this area.

### Auditor's Comments

The actions taken by the agency address the audit recommendations.

A summary of the status of prior year reportable conditions is included as Attachment 1.

## **COMPLIANCE WITH LAWS AND REGULATIONS**

The results of our tests of compliance with certain provisions of laws and regulations, as described in the Responsibilities section of this report, disclosed no instance of noncompliance with laws and regulations that is required to be reported under *Government Auditing Standards*, and OMB Bulletin No. 06-03, *Audit Requirements for Federal Financial Statements*.

The DOT OIG requested that we assess and report material weaknesses and reportable conditions regarding NTSB's financial management systems. In addition, the DOT OIG requested that we report on NTSB's compliance with the U.S. Standard General Ledger at the transaction level and applicable accounting principles. We noted no instances of noncompliance with the U.S. Standard General Ledger at the transaction level, applicable accounting principles, or other noncompliance with the FFMIA.

## **RESPONSIBILITIES**

### Management Responsibilities

Management of the NTSB is responsible for: (1) preparing the financial statements in conformity with generally accepted accounting principles; (2) establishing, maintaining, and assessing internal control to provide reasonable assurance that the broad control objectives of the FMFIA are met; and (3) complying with applicable laws and regulations. In fulfilling this responsibility, estimates and judgments by management are required to assess the expected benefits and related costs of internal control policies.

### Auditor Responsibilities

Our responsibility is to express an opinion on the fiscal year 2006 and 2005 financial statements based on our audits. We conducted our audit in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and OMB Bulletin No. 06-03. Those standards require that

we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit includes: (1) examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; (2) assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In planning and performing our audit, we considered the NTSB's internal control over financial reporting by obtaining an understanding of the agency's internal control, determining whether internal controls had been placed in operation, assessing control risk, and performing tests of controls in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements.

We limited our internal control testing to those controls necessary to achieve the objectives described in OMB Bulletin No. 06-03 and *Government Auditing Standards*. We did not test all internal controls relevant to operating objectives as broadly defined by FMFIA. Our procedures were not designed to provide assurance on internal control over financial reporting. Consequently, we do not express an opinion thereon.

As required by OMB Bulletin No. 06-03, with respect to internal control related to performance measures determined to be key, and reported in Management's Discussion and Analysis, we obtained an understanding of the design of significant internal controls relating to the existence and completeness assertions. Our procedures were not designed to provide assurance on internal control over reported performance measures, and, accordingly, we do not provide an opinion thereon.

As part of obtaining reasonable assurance about whether NTSB's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, and significant provisions of contracts, noncompliance with which could have a direct and material effect on the determination of financial statement amounts, and certain other laws and regulations specified in OMB Bulletin No. 06-03. We limited our tests of compliance to these provisions, and we did not test compliance with all laws and regulations applicable to the NTSB. Providing an opinion on compliance with certain provisions of laws, regulations, and significant contract provisions was not an objective of our audit and, accordingly, we do not express such an opinion.

Under OMB Bulletin No. 06-03, auditors are generally required to report whether the agency's financial management systems substantially comply with the Federal financial management systems requirements, applicable Federal accounting standards, and the United States Government Standard General Ledger at the transaction level specified in the Federal Financial Management Improvement Act (FFMIA) of 1996. The Accountability of Tax Dollars Act, which requires the NTSB to prepare and submit audited financial statements to Congress and the Director of OMB, did not extend to

NTSB the requirement to comply with FFMIA. However, the DOT OIG requested that we assess and report material weaknesses and reportable conditions regarding NTSB's financial management systems. In addition, the DOT OIG also requested that we report on NTSB's compliance with the U.S. Standard General Ledger at the transaction level and applicable accounting principles.

#### **AGENCY COMMENTS AND AUDITOR EVALUATION**

In commenting on the draft report, NTSB officials concurred with the report's facts and conclusions. The officials also provided actions to be taken to address the audit recommendation. A copy of management's response is attached, in its entirety, to this report.

#### **DISTRIBUTION**

This report is intended solely for the information and use of the management of NTSB, the Department of Transportation Office of Inspector General, OMB, and Congress, and is not intended to be and should not be used by anyone other than these specified parties.

*Leon Snead & Company, P.C.*  
Leon Snead & Company, P.C.  
October 23, 2006

## Attachment 1

**Status of Prior Year Reportable Conditions, and  
Non-compliance with Significant Laws and Regulations**

Prior Year Condition	As Reported At September 30, 2005	Status As Of September 30, 2006
<b>Significant deficiencies in NTSB's information security program</b>	<b>Material Weakness:</b> The DOT OIG in a report dated October 7, 2005, reported on a follow-up review of NTSB's information security program and network security. The OIG concluded that NTSB did not make a strong commitment to implement an agency-wide information security program as promised.	<b>Material weakness:</b> The DOT OIG report, dated October 13, 2006, concluded that NTSB made a concerted effort to correct security weaknesses identified in prior years. DOT OIG noted, however, that continued management attention is needed in several areas, and the NTSB's information security program remains a material internal control weakness.
<b>Non-compliance with the Anti-Deficiency Act</b>	<b>Non-compliance with laws and regulations:</b> In 2003, the agency determined that a 2001 lease should have been recorded as a capital lease. Capitalizing the full net present value of the lease created a deficiency in fiscal year 2001 funds, and the agency disclosed the resultant noncompliance with the Anti-Deficiency Act during fiscal year 2004.	Controls were implemented to prevent this problem from recurring. NTSB has cancelled the deficient expired 2001 appropriation, and OMB has approved transferring the capital lease liability to current year. In addition, NTSB has requested legislative authority, with OMB's concurrence, to make the annual lease payments from current authority even if the payments are in excess of one-percent limitations. This legislation is pending.



National Transportation  
Safety Board

## Memorandum

Office of the Chief Financial Officer

November 1, 2006

TO: Leon Snead, Partner

FROM: Steven E. Goldberg, Chief Financial Officer

SUBJECT: AUDIT REPORT, Fiscal Year 2006 - 2005 Financial Statement Audit Report

The National Transportation Safety Board (NTSB) has reviewed the draft fiscal years 2006 and 2005 Financial Statement Audit Report and we concur with the facts and conclusions in the report. While we do not believe that the issue regarding internal controls over financial reporting discussed in the report is a systemic problem, we do plan to strengthen our controls over the preparation of journal vouchers and topside adjustments. We believe that our additional emphasis in this area addresses your audit recommendation.

We will share the final audit report with senior officials, other interested program managers and staff. To address the one finding relating to internal controls over financial reporting and to mitigate the related internal control weakness we will study the problem and develop additional controls as necessary.

In addition, we will also monitor the one corrective action plan (Federal Information Security Management compliance) that was established to ensure correction of the reported deficiency noted in our Fiscal Year 2006 Federal Manager's Financial Integrity Act and in the Fiscal Year 2006 Financial Statement Audit Report.

The Department of Transportation, Office of the Inspector General, Acting Inspector General, Todd J. Zinser recently recognized the NTSB efforts in his October 13, 2006 Federal Information Security Management Act (FISMA) report by stating in his letter to the Chairman, that "In Fiscal Year 2006, NTSB made a concerted effort to correct security weaknesses identified in prior years, including establishing a new Chief Information Officer office, developing a system inventory and a timetable to complete system security certification reviews, implementing password lockouts on computers, and providing information security awareness training to NTSB employees. In addition, NTSB should be commended for having established capabilities to perform network vulnerability scans and monitor networks for possible intrusions".

Please convey my appreciation to everyone on your staff who worked diligently on our financial statement audit. If you have any questions or comments, please call me or Edward Benthall at (202) 314-6210.

Sincerely,

/s/

Steven E. Goldberg,  
Chief Financial Officer

cc: George Banks, Program Director,  
Financial Audits, DOT OIG

## Limitations of the Financial Statements

Responsibility for the integrity and objectivity of the financial information presented in the financial statements lies with NTSB management. The accompanying financial statements are prepared to report the financial policies and results of the operations of NTSB, pursuant to the requirements of Chapter 31, of the United States Code section 3515(b). While these statements have been prepared from the books and records of NTSB in accordance with formats prescribed in Office of Management and Budget guidance on *Financial Reporting Requirements*, these financial statements are in addition to the financial reports used to monitor and control budgetary resources which are prepared from the same books and records. The financial statements should be read with the realization that NTSB is an agency of the Executive Branch of the United States Government, a sovereign entity. Accordingly, unfunded liabilities reported in the statements cannot be liquidated without the enactment of an appropriation, and ongoing operations are subjected to enactment of appropriations.

## Management Integrity: Controls, Compliance and Challenges

NTSB conducts an annual review of the adequacy of the Board's management accountability and controls program in accordance with the *Federal Manager's Financial Integrity Act*, revised OMB Circular A-123, Management's Responsibility for Internal Control.

The results of this review are included in the Chairman's Statement of Assurance sent to the President on June 30, 2006. The Chairman's assurance is based on NTSB Office Director Management Control Assurance Memorandums and NTSB responses to *Office Directors, Division Chiefs, and other Program Managers Risk Assessments for An Accountability Unit* conducted in accordance with the Office of Management and Budget's guidance in Circular A-123, *Management Accountability and Control*.

In addition, in May 2006 the United States Government Accountability Office (GAO) testified before the Subcommittee on Aviation, Committee on Commerce, Science and Transportation, U.S. Senate on GAO "Preliminary Observations on the Value of Comprehensive Planning, and Greater Use of Leading Practices and the Training Academy" and GAO's testimony and preliminary report (*GAO-06-801T*) did not identify any material weaknesses. GAO performed this study at the request of Congress and examined various business areas such as strategic planning, performance management, human capital, financial management, communication, investigation process, report development, NTSB Academy, and prior year management studies. GAO began their review in January 2006 and plans to issue a final "Blue Book" report in November 2006.

NTSB also relies on the findings and results of audits and studies conducted by The Department of Transportation, Office of Inspector General (DOT-OIG) and the results of our financial statement audit conducted under the Chief Financial Officers Act of 1990 and the Accountability of Tax Dollars Act of 2002.

As of September 30, 2006, there is one new material weakness to report and only one prior year material weakness remaining to be corrected. The new material weakness, which was reported by Leon Snead & Company, P.C. an Independent Public Accounting firm engaged by The Department of Transportation, Office of Inspector General (DOT-IG) during the fiscal years 2006 - 2005 Financial Statement Audit is: Internal Controls Over Financial Reporting. While we do not believe that the issue regarding internal controls over financial reporting discussed in the report is a systemic problem, we do plan to strengthen our controls over the preparation of journal vouchers and topside adjustments. We believe that our additional emphasis in this area addresses the audit recommendation.

The one prior year material weakness, which has not yet been corrected and that was reported by the DOT-IG is: No Formal Agency-wide Information Security Program Established. Based on the DOT-IG Federal Information Security Management Act (FISMA) review, NTSB did not fully comply with the FISMA requirements. Over the past eight months the Board has made significant progress in addressing this weakness and has named an acting Chief Information Officer and Chief Information Security Officer. In addition, we have reorganized our Information Technology operation, developed a comprehensive suite of information security policies, conducted enterprise-wide security awareness training, reduced network vulnerabilities, tightly controlled desktop configurations and conducting ongoing intrusion detection.

In addition, the Department of Transportation, Office of the Inspector General, Acting Inspector General, Todd J. Zinser recently recognized the NTSB efforts in his October 13, 2006 Federal Information Security Management Act (FISMA) report by stating in his letter to the Chairman, that “In Fiscal Year 2006, NTSB made a concerted effort to correct security weaknesses identified in prior years, including establishing a new Chief Information Officer office, developing a system inventory and a timetable to complete system security certification reviews, implementing password lockouts on computers, and providing information security awareness training to NTSB employees. In addition, NTSB should be commended for having established capabilities to perform network vulnerability scans and monitor networks for possible intrusions”.

It’s important to note that the FISMA material weakness was limited to the systems resident within NTSB and did not affect the agency’s core financial management systems, which are located at the service provider. Therefore, these weaknesses have reduced impact on the financial management system maintained by its service center. In addition, the service provider received an unqualified (clean) Third Party Report on Controls Placed in Operation and Test of Operating Effectiveness (SAS 70) for the Period July 1, 2005 – September 30, 2006.

### *Discussion and Analysis of Financial Statements*

NTSB’s FY 2006 financial statements report the Agency’s financial position and results of operations on an accrual basis. These annual financial statements are comprised of a Balance Sheet, Statement of Net Costs, Statement of Changes in Net Position, Statement of Budgetary Resources, Statement of Financing, and related notes that provide a clear description of the Agency and its mission as well as the significant accounting policies used to develop the statements.

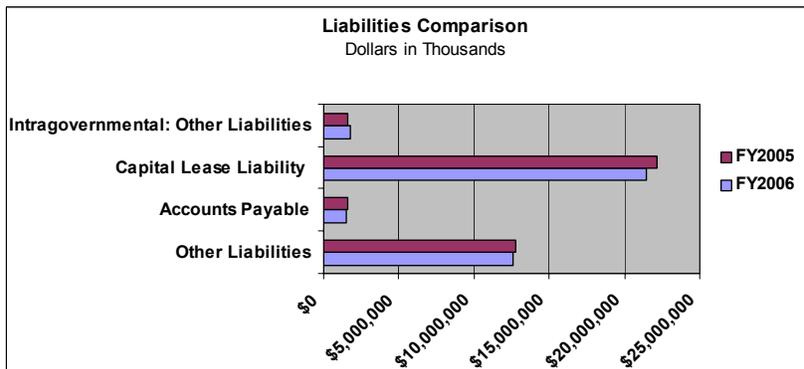
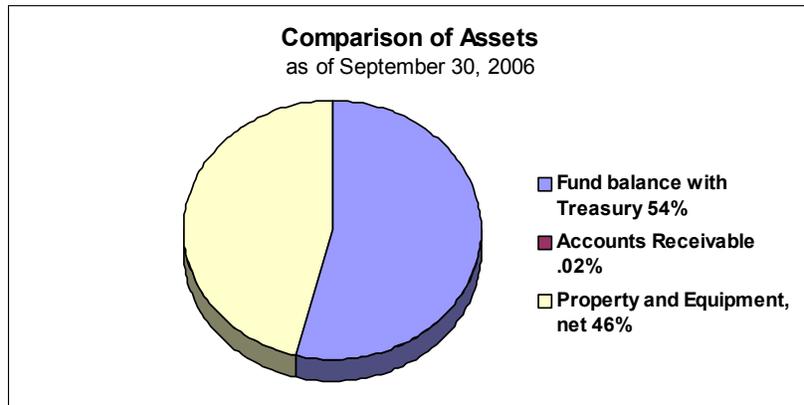
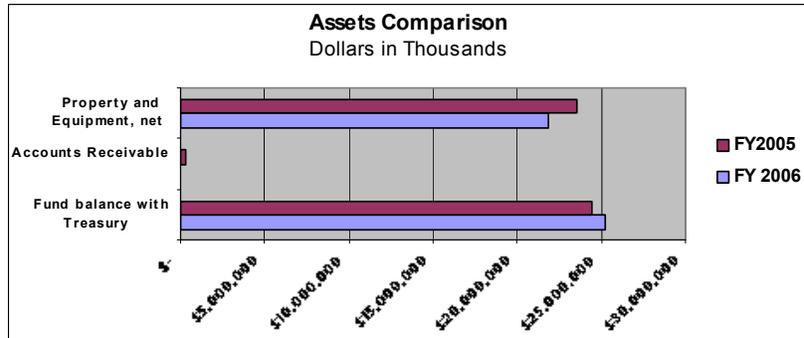
### Consolidated Balance Sheet

The major components of the Consolidated Balance Sheet are assets, liabilities, and net position.

**ASSETS.** Assets represent Agency resources that have future economic benefits.

NTSB’s assets totaled \$47.1 million in FY 2006. Fund balances with Treasury — mostly undisbursed cash balances from appropriated funds—comprised about 53% percent of the total assets. The remaining assets includes accounts receivable, which reflects funds owed to NTSB by other Federal agencies and the public, and the value of equipment less accumulated depreciation.

**LIABILITIES.** Liabilities are recognized when they are incurred regardless of whether or not they are carried by budgetary resources. In FY 2006, NTSB had total liabilities of \$37 million. The largest components of NTSB’s liabilities were a capital lease liability at \$21.4 million. Accounts payable reflect funds owed primarily for contracts and other services.

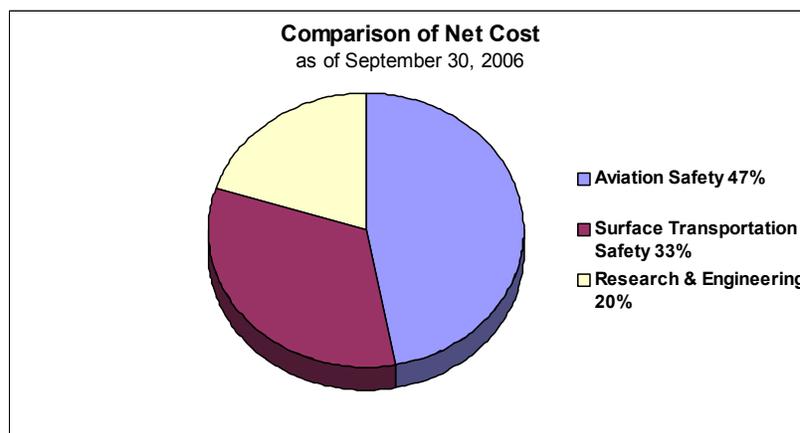
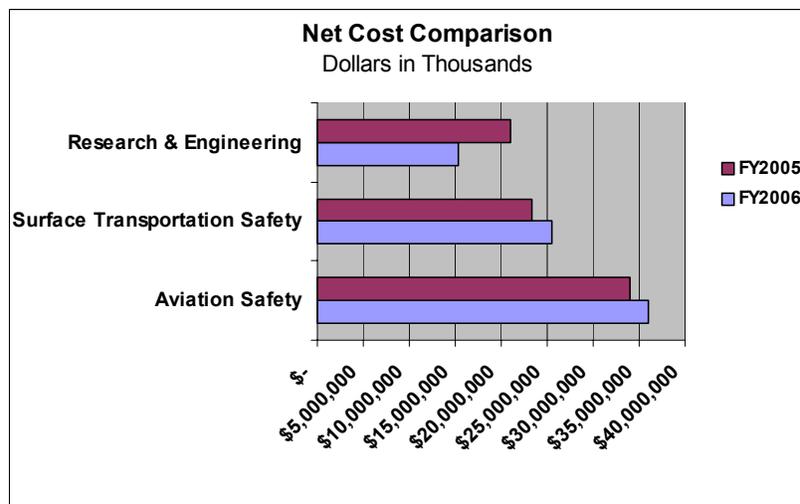
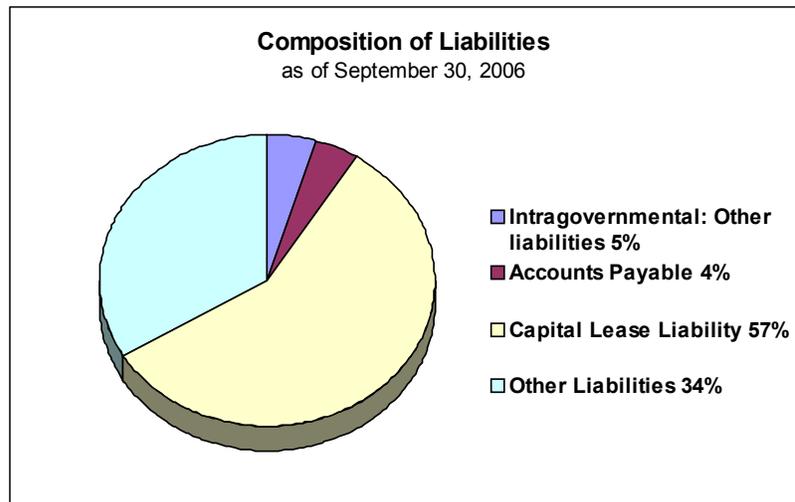


**NET POSITION.** NTSB’s net position, which reflects the difference between assets and liabilities and represents the Agency’s financial condition, totals \$9.8 million. This amount is broken into two categories: unexpended appropriations (amounts related to undelivered orders and unobligated balances) at \$17.8 million and cumulative results of operations (net results of operations since inception plus the cumulative amount of prior period adjustments) at \$8 million.

The downward amount in net position was primarily the result of the liabilities not covered by budgetary resources and other liabilities.

**Consolidated Statement of Net Cost**

The Consolidated Statement of Net Cost represents the net cost to operate the Agency. Net costs are comprised of gross costs less earned revenues, and are reported by the NTSB’s major programs. NTSB’s FY 2006 net cost of operations was \$76.9 million: \$76 million in gross costs less \$.9 million in earned revenues.



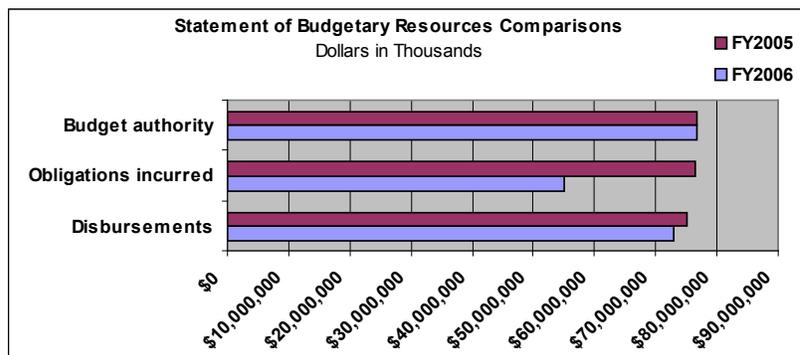
### *Consolidated Statement of Changes in Net Position*

The Consolidated Statement of Changes in Net Position reports the changes in net position during the reporting period. NTSB ended FY 2006 with a net position total of \$9.8 million. The negative change in net position was primarily the result of the liabilities not covered by budgetary resources and other liabilities.

### *Combined Statement of Budgetary Resources*

The Combined Statement of Budgetary Resources focuses on how budgetary resources (appropriations and reimbursables) were made available, the status of those resources (obligated or unobligated) at the end of the reporting period, and the relationship between the budgetary resources and outlays (collections and disbursements).

NTSB's FY 2006 budgetary resources totaled \$65.2 million and were primarily made up of budget authority funds \$76.7 million and unobligated balance \$11.5 million.



### *Consolidated Statement of Financing*

The Combined Consolidated Statement of Financing links proprietary and budgetary accounting information, and reconciles obligations incurred with the net cost of operations. While the budgetary accounting system tracks resources and the status of those resources on a cash basis, the financial accounting system facilitates the translation of the use of

#### **Accrual Basis of Accounting**

Method of accounting that recognizes revenue when earned rather than when collected, and recognizes expenses when incurred rather than when paid.

**When:** The order is placed.

**Then:** The obligation is recorded as an undelivered order.

**When:** The materials are received and accepted.

**Then:** The obligational authority is expended and an accounts payable is recorded.

**When:** The payment is made.

**Then:** An outlay occurs and the account payable is cleared.

budgetary resources into financial statements on an accrual basis. Resources that do not fund operations include changes in undelivered orders and assets purchased during the period, while costs that do not require resources include depreciation.

For FY 2006, the resources used to finance NTSB activities totaled \$55 million, which was comprised chiefly of budgetary resources (obligations incurred less offsetting collections) as well as non-budgetary resources (costs incurred by others for NTSB without reimbursement). The resources used to finance the net cost of operations totaled \$74.6 million, while the net cost of operations totaled \$76.9 million, which agrees with the amount displayed on the Consolidated Statement of Net Cost.

**National Transportation Safety Board**  
**Balance Sheet**  
**As of September 30, 2006 and 2005**

<b>Assets</b>	<b>FY 2006</b>	<b>FY 2005 Restated</b>
<b>Intragovernmental:</b>		
Fund balance with Treasury (Note 2)	\$ 25,268,427	\$ 24,469,905
<b>Total Intragovernmental Assets</b>	<b>\$ 25,268,427</b>	<b>\$ 24,469,905</b>
Accounts receivable (Note 3)	8,486	\$ 272,725
Property and equipment, net (Note 4, Note 11)	21,878,773	23,511,213
	<b>\$ 21,887,259</b>	<b>\$ 23,783,938</b>
<b>Total Assets</b>	<b>\$ 47,155,686</b>	<b>\$ 48,253,843</b>
<b>Liabilities</b>		
<b>Intragovernmental:</b>		
Other liabilities	1,784,908	1,630,240
<b>Total Intragovernmental</b>	<b>\$ 1,784,908</b>	<b>\$ 1,630,240</b>
Accounts payable	\$ 1,534,621	\$ 1,576,514
Capital lease liability	21,441,786	22,207,228
Other Liabilities	12,594,387	12,785,303
<b>Total Liabilities</b>	<b>\$ 37,355,702</b>	<b>\$ 38,199,285</b>
<b>Net Position</b>		
Unexpended appropriations	\$ 17,829,519	\$ 18,013,916
Cumulative results of operations	(8,029,535)	(7,959,358)
<b>Total Net Position</b>	<b>\$ 9,799,984</b>	<b>\$ 10,054,558</b>
<b>Total Liabilities and Net Position</b>	<b>\$ 47,155,686</b>	<b>\$ 48,253,843</b>

*The accompanying notes are an integral part of these statements.*

**National Transportation Safety Board**  
**Statement of Net Cost**  
**For the Period Ending September 30, 2006 and 2005**

	<b>FY 2006</b>	<b>FY 2005</b> Restated
	<b>Aviation Safety</b>	<b>Aviation Safety</b>
Gross costs	36,461,655	\$ 34,451,567
Less: Earned Revenue	(476,383)	(529,873)
Net Costs	\$ 35,985,272	\$ 33,921,694
	<b>Surface Transportation Safety</b>	<b>Surface Transportation Safety</b>
Gross costs	\$ 25,770,986	\$ 23,679,690
Less: Earned Revenue	(219,475)	(266,109)
Net Costs	\$ 25,551,511	\$ 23,413,581
	<b>Research &amp; Engineering</b>	<b>Research &amp; Engineering</b>
Gross costs	\$ 15,586,507	\$ 21,293,718
Less: Earned Revenue	(195,598)	(236,835)
Net Costs	\$ 15,390,909	\$ 21,056,883
<b>Net Cost of Operations</b>	<b>\$ 76,927,692</b>	<b>\$ 78,392,158</b>

*The accompanying notes are an integral part of these statements.*

**National Transportation Safety Board  
Statement of Changes in Net Position  
As of September 30, 2006 and 2005**

	<b>Cumulative Results of Operations 2006</b>	<b>Cumulative Results of Operations 2005</b>
		Restated
<b>Beginning Balances</b>	\$ (7,959,358)	\$ (8,128,844)
Beginning balances, as adjusted	\$ (7,959,358)	\$ (8,128,844)
<b>Budgetary Financing Sources:</b>		
Appropriations used	\$ 73,864,526	\$ 75,246,687
Nonexchange revenue		256,505
<b>Other Financing Sources:</b>		
Other Revenue		1,785
Imputed financing from costs absorbed by others	2,992,989	3,056,667
<b>Total Financing Sources</b>	\$ 76,857,515	\$ 78,561,644
<b>Net Cost of Operations, per accompanying statement</b>	\$ (76,927,692)	\$ (78,392,158)
<b>Net Change</b>	\$ (70,177)	\$ 169,486
<b>Cumulative Results of Operations</b>	<b>\$ (8,029,535)</b>	<b>\$ (7,959,358)</b>
	<b>Unexpended Appropriations 2006</b>	<b>Unexpended Appropriations 2005</b>
<b>Beginning Balances</b>	\$ 18,013,916	\$ 26,189,199
Beginning balances, as adjusted	\$ 18,013,916	\$ 26,189,199
<b>Budgetary Financing Sources:</b>		
Appropriations received	\$ 76,700,000	\$ 76,700,000
Other adjustments (rescissions, etc)	(3,019,871)	(9,628,596)
Appropriations used	(73,864,526)	(75,246,687)
<b>Total Budgetary Financing Sources</b>	\$ (184,397)	\$ (8,175,283)
<b>Total Unexpended Appropriations</b>	<b>\$ 17,829,519</b>	<b>\$ 18,013,916</b>
<b>Net Position</b>	<b>\$ 9,799,984</b>	<b>\$ 10,054,558</b>

*The accompanying notes are an integral part of these statements.*

**National Transportation Safety Board  
Statement of Budgetary Resources  
As of September 30, 2006 and 2005**

<b><u>Budgetary Resources:</u></b>	<b><u>FY 2006</u></b>	<b><u>FY 2005</u></b>
Unobligated balance:		
Unobligated Balance, Brought Forward, October 1	\$ (11,517,573)	\$ (5,579,886)
Recoveries of prior year obligations	1,739,197	1,837,167
Budget authority:		
Appropriation	76,700,000	76,700,000
Spending from Offsetting Collections		
Earned		
Collected	1,288,741	1,012,978
Change in Receivables from Federal sources	2,401	-
Permanently not available	(3,019,892)	(9,153,598)
<b>Total Budgetary Resources</b>	<b>\$ 65,192,874</b>	<b>\$ 64,816,661</b>
<b><u>Status of Budgetary Resources:</u></b>		
Obligations Incurred:		
Direct		
Category A	\$ 54,531,501	\$ 76,282,343
Reimbursable: Category B	514,659	51,891
	<u>\$ 55,046,160</u>	<u>\$ 76,334,234</u>
Unobligated Balance		
Apportioned	\$ 5,180,588	\$ 5,771,172
Unobligated balance not available	4,966,126	(17,288,745)
Total Unobligated Balances	<u>\$ 10,146,714</u>	<u>\$ (11,517,573)</u>
<b>Total Status of Budgetary Resources</b>	<b>\$ 65,192,874</b>	<b>\$ 64,816,661</b>
<b><u>Change in Obligated Balance:</u></b>		
Obligated Balance, net:		
Unpaid Obligations, Brought Forward, October 1	\$ 35,987,478	\$ 37,583,198
Obligations Incurred	55,046,160	76,334,234
Less: Gross Outlays	(74,179,068)	(76,092,787)
Less: Recoveries of prior year unpaid obligations, actual	(1,739,197)	(1,837,167)
Change in uncollected customer payments from Federal sources	(2,401)	-
Obligated Balance, net, end of period:		
Unpaid obligations	15,115,373	35,987,478
Uncollected customer payments from Federal sources	(2,401)	-
Total, unpaid obligated balance, net, end of period	15,112,972	35,987,478
Net Outlays:		
Gross Outlays	74,179,068	76,092,787
Less: Offsetting Collections	(1,288,741)	(1,012,978)
<b>Net Outlays:</b>	<b>72,890,327</b>	<b>75,079,809</b>

*The accompanying notes are an integral part of these statements.*

**National Transportation Safety Board  
Consolidated Statement of Financing  
As of September 30, 2006 and 2005**

<b><i>Resources Used to Finance Activities</i></b>	<b><u>FY 2006</u></b>	<b><u>FY 2005</u></b> <u>Restated</u>
Budgetary Resources Obligated		
Obligations Incurred	\$ 55,046,160	\$ 76,334,234
Less: Spending authority from offsetting collections and recoveries	(3,030,339)	(2,850,144)
Obligations net of offsetting collections and recoveries	<u>\$ 52,015,821</u>	<u>\$ 73,484,090</u>
Less: Offsetting receipts		-
Net obligations	\$ 52,015,821	\$ 73,484,090
Other Revenue		1,785
Transfers in without reimbursement		
Imputed financing from costs absorbed by others	<u>2,992,989</u>	<u>3,056,667</u>
<i>Total resources used to finance activities</i>	<u>\$ 55,008,810</u>	<u>\$ 76,542,542</u>
 <b><i>Resources Used to Finance Items not Part of the Net cost of Operations</i></b>		
Change in budgetary resources obligated for goods, services and benefits ordered but not yet provided	\$ (1,551,556)	\$ 1,091,609
Resources that fund expenses recognized in prior periods	21,441,793	-
Budgetary offsetting collections and receipts that do not affect net cost of operations	145,563	112,508
Resources that finance the acquisition of assets	<u>(357,539)</u>	<u>(1,267,214)</u>
<i>Total resources used to finance items not part of the net cost of operations</i>	<u>\$ 19,678,261</u>	<u>\$ (63,097)</u>
<i>Total resources used to finance the net cost of operations</i>	<u>\$ 74,687,071</u>	<u>\$ 76,479,445</u>
 <b><i>Components of the Net Cost of Operations that will not require or Generate Resources in the Current Period</i></b>		
Components Requiring or Generating Resources in Future Periods:		
Increase in annual leave liability	\$ 76,657	\$ 86,052
Other	161,444	188,712
Total components of Net Cost of Operations that will require or generate resources in future periods	<u>\$ 238,101</u>	<u>\$ 274,764</u>
Components not Requiring or Generating Resources:		
Depreciation and amortization	\$ 1,989,979	\$ 1,635,168
Other	12,541	2,781
<i>Total components of net cost of operations that will not require or generate resources in the current periods</i>	<u>\$ 2,240,621</u>	<u>\$ 1,912,713</u>
 <b><i>Net Cost of Operations</i></b>	<u>\$ 76,927,692</u>	<u>\$ 78,392,158</u>

*The accompanying notes are an integral part of these statements.*

## Note 1

# Summary Of Significant Accounting Policies

## Reporting Entity

The accompanying financial statements present the financial position, net cost of operations, changes in net position, budgetary resources, and financing of the National Transportation Safety Board (NTSB). The NTSB is an independent agency charged with determining the probable cause(s) of transportation accidents and promoting transportation safety. The financial activity presented relates primarily to the execution of the NTSB's congressionally approved budget. The NTSB began operations in 1967 and, although independent, it relied on the U.S. Department of Transportation (DOT) for funding and administrative support. In 1975, under the Independent Safety Board Act, all organizational ties to DOT were severed. The NTSB is not part of DOT, or affiliated with any of its modal agencies. The laws specific to the Board are located in Chapter VIII, Title 49 of the Code of Federal Regulations.

## Basis of Accounting and Presentation

These financial statements reflect both accrual and budgetary accounting transactions. Under the accrual method of accounting, revenues are recognized when earned and expenses are recognized as incurred, without regard to receipt or payment of cash. Budgetary accounting is designed to recognize the obligation of funds according to legal requirements. Budgetary accounting is essential for compliance with legal constraints and controls over the use of Federal funds.

These financial statements have been prepared from the books and reports of NTSB in accordance with U.S. generally accepted accounting principles (GAAP) for the Federal government and the Office of Management and Budget (OMB) Circular A-136.

## Assets

Intragovernmental assets are those assets that arise from transactions with other Federal entities. Entity assets are available for use by the entity in its operations while nonentity assets are assets held by the entity but not available for use by the entity in its operations.

## Fund Balance with U.S. Treasury

The NTSB does not maintain cash in commercial bank accounts. The U.S. Treasury processes cash receipts and disbursements. Funds with the U.S. Treasury consist of appropriated and deposited funds that are available to pay current liabilities and finance authorized purchase commitments.

## Accounts Receivable

NTSB's accounts receivable represent amounts due from overpayments to current and non-current employees and from vendors. NTSB maintains an allowance for doubtful accounts for public receivables based on past collection experience. The allowance for doubtful accounts is reviewed and adjusted quarterly. End of the year analysis of outstanding receivables may result in write off of a receivable although it has not aged over 360 days.

## Property and Equipment

### *General Property and Equipment*

The Office of the Chief Financial Officer has established a capitalization policy for general property and equipment (P&E). General P&E is reported at acquisition cost. The capitalization threshold is established at \$25,000. General P&E consists of items that are used by NTSB to support its mission. Depreciation on these assets is calculated using the straight-line method.

The land and buildings in which the NTSB operates are primarily leased from commercial entities. The General Services Administration (GSA) provides some of the facilities occupied by the NTSB. GSA charges the NTSB a Standard Level Users Charge (SLUC) that approximates the commercial rental rates for similar properties.

### *Leasehold Improvements*

The NTSB capitalization policy for leasehold improvements has established a capitalization threshold of \$100,000. A leasehold improvement is an improvement of a leased asset that increases the asset's value. Depreciation on these assets is calculated using the straight-line method with ten years as the estimated useful life of the improvements or the remaining term of the lease, whichever is less.

### *Capital Lease Assets*

Any Lease-to-Ownership Plans (LTOP) leases are classified as capital leases. The NTSB has one capital lease, for space rental on the building that houses the NTSB Training Center. This is a twenty-year lease. Depreciation on the capital lease is calculated using the straight-line method with twenty years, the term of the lease, as the estimated useful life of the capital lease.

### *Internal Use Software*

The capitalization threshold of internal use software is established at \$250,000. Only the costs associated with the software development phase including labor are subject to capitalization. Software development phase activities generally include the design of chosen path, including software configuration and software interfaces, coding, installation to hardware and testing, including the parallel processing phase. Internal use software includes software to operate NTSB programs and software used to produce NTSB goods and services. Depreciation on these assets is calculated using the straight-line method with three years as the estimated useful life of the asset.

### **Liabilities**

Liabilities represent amounts that are likely to be paid by the NTSB as the result of transactions or events that have already occurred; however, no liabilities are paid by the NTSB without an appropriation. Intragovernmental liabilities arise from transactions with other Federal entities.

### **Accounts payable**

Accounts payable consist of amounts owed for goods, services and other expenses received but not yet paid.

### **Accrued Payroll and Benefits**

Accrued Payroll and Benefits represents salaries, wages and benefits earned by employees, but not disbursed as of September 30, 2006. Accrued payroll and benefits are payable to employees and are therefore not classified as intragovernmental.

### **Annual, Sick, and Other Leave**

Annual leave is recognized as an expense and as a liability as it is earned; the liability is reduced as leave is taken. Each year, the balance in the accrued annual, restored, and compensatory leave account is adjusted to reflect current leave balances and pay rates. Sick leave and other types of non-vested leave are expensed as taken.

## Employee Retirement Plans

### *Civil Service Retirement System (CSRS) and Federal Employees Retirement System (FERS)*

NTSB employees participate in one of two retirement programs, either the CSRS or the FERS, which became effective on January 1, 1987. Most NTSB employees hired after December 31, 1983, are automatically covered by FERS and Social Security.

For CSRS covered employees, the NTSB withheld 7.0% of gross earnings. The NTSB matches the withholding, and the sum of the withholding and the matching funds is transferred to the Civil Service Retirement System.

For each fiscal year the Office of Personnel Management (OPM) calculates the U.S. Government's service costs for covered employees, which is an estimate of the amount of funds that, if accumulated annually and invested over an employee's career, would be enough to pay that employee's future benefits. Since the U.S. Government's estimated FY 2006 service cost exceeds contributions made by employer agencies and covered employees, this plan is not fully funded by the NTSB and its employees. As of September 30, 2006, NTSB recognized \$2,992,989 as an imputed cost and as an imputed financing source for the difference between the estimated service cost and the contributions made by NTSB and its employees.

FERS contributions made by employer agencies and covered employees exceed the U.S. Government's estimated FY 2006 service cost. For FERS covered employees the NTSB made contributions of 10.7% of basic pay. Employees contributed .80% of gross earnings. Employees participating in FERS are covered under the Federal Insurance Contribution Act (FICA) for which the NTSB contributes a matching amount to the Social Security Administration.

### *Thrift Savings Plan (TSP)*

Employees covered by CSRS and FERS are eligible to contribute to the U.S. Government's TSP, administered by the Federal Retirement Thrift Investment Board. The NTSB makes a mandatory contribution of 1% of basic pay for FERS-covered employees. FERS employees are eligible to contribute up to 15% of basic pay to their TSP account. In addition, NTSB makes matching contributions, of up to 5% of basic pay, for employees who contribute to the Thrift Savings Plan. Contributions are matched dollar for dollar for the first 3 percent of pay contributed each pay period and 50 cents on the dollar for the next 2 percent of pay. CSRS participants may contribute up to 10% of their gross pay, but there is no governmental matching contribution. The maximum amounts that either FERS or CSRS employees may contribute to the plan in calendar year 2006 is \$15,000.

The NTSB financial statements do not report CSRS or FERS assets, accumulated plan benefits, or unfunded liabilities, if any, which may be applicable to NTSB employees and funded by NTSB. Such reporting is the responsibility of OPM.

## Contingencies

A contingency is an existing condition, situation, or set of circumstances involving uncertainty as to possible gain or loss. The uncertainty will ultimately be resolved when one or more future events occur or fail to occur. A contingent liability is recognized when a past event or exchange transaction has occurred, and a future outflow or other sacrifice of resources is measurable and probable. A contingency is not disclosed in the Notes to the Financial Statements when any of the conditions for liability recognition are met but the chance of the future event or events occurring is remote. A contingency is disclosed in the Notes to the Financial Statements when any of the conditions for liability recognition are not met and the chance of the future confirming event or events occurring is more than remote but less than probable.

The NTSB is not a party to any legal actions that are likely to result in a material liability. Accordingly, no provision for loss is included in the financial statements.

## Revenues and Other Financing Sources

### *Appropriations*

Most of NTSB's operating funds are provided by congressional appropriations of budget authority. The NTSB receives appropriations on annual, multi-year and no-year bases. NTSB receives financial resources from the following appropriations:

#### *Annual Salaries and Expenses Appropriation*

Annual one-year appropriations are provided by Congress and are available for obligation in the fiscal year for which it was provided to fund the overall operation of the NTSB.

#### *Supplemental Salaries and Expenses Appropriation*

Supplemental appropriations provided by Congress to fund extraordinary investigations.

#### *No Year Emergency Fund Appropriation*

A no-year Emergency Fund appropriation was provided by the Congress to fund extraordinary accident investigation costs. Emergency Fund disbursements are made at the discretion of the NTSB, but must be reported to the Congress. A no-year appropriation is available for obligation without fiscal year limitation. The NTSB's Emergency Fund currently is appropriated at \$2,000,000.

### *Imputed Financing Sources*

In accordance with OMB Bulletin No. A-136, all expenses should be reported by agencies whether or not these expenses would be paid by the agency that incurs the expense. The amounts for certain

expenses of the NTSB, which will be paid by other Federal agencies, are recorded in the “Statement of Net Cost.” A corresponding amount is recognized in the “Statement of Changes in Net Position” as an “Imputed Financing Source.” These imputed financing sources primarily represent unfunded pension costs of NTSB employees.

## Statement of Net Cost

### *Sub-Organization Program Costs*

The NTSB Statement of Net Cost is presented by Responsibility Segment. These Responsibility Segments are based on the NTSB’s mission and funding sources. The major programs that comprise the Responsibility Segments are: Aviation Safety, Surface Transportation Safety, and Research and Engineering.

### *Earned Revenue*

Earned revenues collected by NTSB include amounts collected for training center programs, rental of conference room space, and for investigative related services.

## Net Position

Net position is the residual difference between assets and liabilities and comprises Unexpended Appropriations and Cumulative Results of Operations.

Unexpended appropriations include appropriations not yet obligated or expended, represented by the unobligated balances and undelivered orders of NTSB’s appropriated funds. Multi-year appropriations remain available to NTSB for obligation in future periods. Unobligated balances associated with appropriations that expire at the end of the fiscal year remain available for obligation adjustments, but not for new obligations, until that account is closed, five years after the appropriations expire. Cumulative Results of Operations is the Net Result of NTSB’s operations since inception.

## Use of Estimates

The preparation of financial statements in accordance with the accounting principles described above requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying footnotes. Actual results could differ from those estimates.

*Note 2***Fund Balances with the U.S. Treasury**

U.S. Treasury processes NTSB cash receipts and disbursements. Non-Federal receipts are deposited in commercial banks, which transfer the receipts to the U.S. Treasury. Funds with the U.S. Treasury represent appropriated funds and funds received in exchange for providing services. These funds are available to finance expenditures.

**Fund Balance with the U.S. Treasury**

Funds	Entity FY 2006	Non-Entity FY 2006	Total FY 2006	Entity FY 2005	Non-Entity FY 2005	Total FY 2005
Intragovernmental:						
Appropriated Funds	\$25,268,427		\$25,268,427	\$24,469,905	-	\$24,469,905
Unavailable Receipt	\$-		\$-	\$-	-	\$-
<b>Total</b>	\$25,268,427		\$25,268,427	\$24,469,905	-	\$24,469,905

Status of Fund Balance with Treasury	FY 2006	FY 2005
Unobligated Balance		
Available	\$5,180,588	\$5,771,172
Unavailable	4,966,126	(17,288,745)
Obligated Balance Not Yet Disbursed	15,115,374	35,987,478
Non-Budgetary FBWT	6,339	-
<b>Total</b>	<b>\$25,268,427</b>	<b>\$24,469,905</b>

*Note 3***Accounts Receivable**

NTSB's accounts receivable represent amounts due from overpayments to current and non-current employees and from vendors. NTSB maintains an allowance for doubtful accounts for public receivables based on past collection experience. NTSB estimates the allowance for doubtful accounts based on the following agency schedule.

Days	Percentage
61-90 Days	0%
91-180 Days	15%
181-360 Days	35%
Over 360 Days	100%

The allowance for doubtful accounts is reviewed and adjusted quarterly. End of the year analysis of outstanding receivables may result in write off of a receivable although it has not aged over 360 days.

	Interagency FY 2006	Public FY 2006	Total FY 2006	Interagency FY 2005	Public FY 2005	Total FY 2005
Gross Receivables	\$-	117,524	\$117,524	\$-	369,235	\$369,235
Allowance for Loss	-	109,038	109,038	-	96,510	96,510
Net Receivables	\$-	8,486	\$8,486	\$-	272,725	\$272,725

*Note 4***Property and Equipment, Net**

Property and equipment consisted of the following as of September 30, 2006:

**Property and Equipment**

Classes of Fixed Assets	Service Life (Years)	Acquisition Value FY 2006	Accumulated Depreciation FY 2006	Net Book Value FY 2006	Acquisition Value FY 2005 Restated	Accumulated Depreciation FY 2005 Restated	Net Book Value FY 2005 Restated
Desktop and laptop computers and peripherals	3	\$862,734	\$855,161	7,573	\$862,734	752,709	\$110,025
Other ADP and Tele-comm equipment (servers, routers)	5	\$366,286	296,817	69,469	\$366,286	232,076	\$134,210
Furniture	5	\$731,128	576,433	154,695	\$731,128	430,207	\$300,921
Investigative equipment	5	\$359,127	148,080	211,047	\$359,127	84,156	\$274,971
Office Equipment	3	\$88,721	44,730	43,991	\$88,721	26,986	\$61,735
Internal Use Software	3	\$1,283,305	318,557	964,748	\$925,766	-	\$925,766
Leasehold Improvements	10	\$628,163	275,601	352,562	\$628,163	185,863	\$442,300
Capital lease	20	\$23,731,941	3,657,253	20,074,688	\$23,731,941	2,470,656	\$21,261,285
<b>Totals</b>		<b>\$28,051,405</b>	<b>6,172,632</b>	<b>\$21,878,773</b>	<b>\$27,693,866</b>	<b>4,182,653</b>	<b>\$23,511,213</b>

## Note 5

### Accrued FECA Liability

The Federal Employees' Compensation Act (FECA) provides income and medical cost protection to covered Federal civilian employees injured on the job, employees who have incurred a work-related occupational disease, and beneficiaries of employees whose death is attributable to a job-related injury or occupational disease. Claims incurred for benefits for NTSB employees under FECA are administered by the Department of Labor (DOL) and are ultimately paid by the NTSB.

FECA liability includes two components: (1) the accrued liability which represents money owed for claims paid by the DOL through the current fiscal year, for which billing to and payment by the NTSB will occur in a subsequent fiscal year, and (2) the liability for future costs which represents the expected liability for approved compensation cases beyond the current fiscal year. Estimated future costs have been actuarially determined, and are regarded as a liability to the public because neither the costs nor reimbursement have been recognized by DOL. FECA liability is included in Liabilities Not Covered by Budgetary Resources, as described in Note 7.

The NTSB accrues liabilities based on estimates of funds owed to other Federal government entities for services provided, but not yet billed. The accruals for Workers Compensation and Unemployment Compensation represent the estimated liability for the current fiscal year; for money owed, but not billed; and for claims, which were paid by the Department of Labor, but not yet billed to the NTSB.

*Note 6***Accrued Annual Leave**

Accrued annual leave consists of employees' unpaid leave balances at September 30, 2006 and reflects wage rates in effect at fiscal year end. Accrued annual leave is included in Liabilities Not Covered by Budgetary Resources, as covered in Note 7.

*Note 7***Liabilities Covered And Not Covered By Budgetary Resources**

Liabilities Not Covered by Budgetary Resources result from the receipt of goods and services, or the occurrence of events, for which appropriations, revenues, or other financing sources necessary to pay the liabilities have not yet been made available through Congressional appropriation. These include FECA and annual leave liability. Liabilities Covered by Budgetary Resources are those for which budgetary resources are available in the current fiscal year. NTSB's liabilities covered and not covered by budgetary resources are as follows:

**Liabilities Covered and Not Covered by Budgetary Resources**

<b>Liabilities Covered by Budgetary Resources</b>	<b>FY 2006</b>	<b>FY 2005</b>
Employer Contribution and Payroll Taxes Payable	\$ 360,710	\$ 356,415
Other Liabilities	8,760	-
Accounts Payable	1,534,621	1,576,514
Accrued Payroll	2,054,154	2,178,598
	<b>\$3,958,245</b>	<b>\$4,111,527</b>
<b>Liabilities Not Covered by Budgetary Resources</b>		
Capital Lease Liability	21,441,786	22,207,228
Accrued Unfunded Annual Leave	4,052,331	3,975,674
Actuarial FECA Liability	6,399,401	6,631,031
Accrued Unfunded FECA Liability	1,415,439	1,273,825
Unearned Revenue	88,500	-
<b>Total Liabilities Covered and Not Covered by Budgetary Resources</b>	<b>\$37,355,702</b>	<b>\$38,199,285</b>

**Liabilities Covered and Not Covered by Budgetary Resources  
Intragovernmental and Governmental**

Intragovernmental	FY 2006	FY 2005
Employer Contribution and Payroll Taxes Payable	\$360,710	\$356,415
Accrued Unfunded FECA Liability	1,415,439	1,273,825
Other Liabilities	8,760	-
<b>Total Intragovernmental</b>	<b>\$1,784,909</b>	<b>\$1,630,240</b>
Accounts Payable	1,534,621	1,576,514
Accrued Payroll	2,054,154	2,178,598
Capital Lease Liability	21,441,786	22,207,228
Accrued Unfunded Annual Leave	4,052,331	3,975,674
Actuarial FECA Liability	6,399,401	6,631,031
Unearned Revenue	88,500	-
<b>Total Liabilities Covered and Not Covered by Budgetary Resources</b>	<b>\$37,355,702</b>	<b>\$38,199,285</b>

*Note 8***Leases**

The NTSB has commitments under cancelable leases for office space. These leases have terms that extend up to 10 years. The majority of buildings in which the NTSB operates are leased from commercial companies. Under their lease agreement with the General Services Administration (GSA), the NTSB is charged rent that is intended to approximate commercial rental rates.

The NTSB has a 20-year capital lease for training center space which was entered into in 2001. The total future payments disclosed for the training center include estimates for services and utilities.

**Future Capital Lease Payments**

Fiscal Year	Space Rental FY 2006	Space Rental FY 2005
2006	\$-	\$2,521,440
2007	2,521,440	2,521,440
2008	2,521,440	2,521,440
2009	2,521,440	2,521,440
2010	2,521,440	2,521,440
2011	2,521,440	2,521,440
2012 and beyond	29,837,040	29,837,040
<b>Total Future Lease Payments</b>	<b>\$42,444,240</b>	<b>\$44,965,680</b>
Less: Imputed Interest	(11,135,808)	(12,305,307)
Less: Executory Costs (Maintenance)	(9,866,646)	(10,453,145)
<b>Net Capital Lease Liability</b>	<b>\$21,441,786</b>	<b>\$22,207,228</b>

In 2003 NTSB determined that this lease should be recorded as a capital lease. Capitalizing the full net present value of the Training center lease created a deficiency in 2001 funds. This deficiency was reported to OMB and Congress. OMB has provided guidance on future funding and reporting of this liability. In the FY 2007 budget request, OMB will include a general provision stating that the amounts made available in this or any other act to NTSB through FY 2020 may be used to liquidate obligations incurred for the capital lease. With the cancellation of the FY 2001 appropriation at September 30, 2006, the budgetary accounts no longer reflect a deficiency situation. The related asset, liability, and amortization will remain on the general ledger until the lease is fully liquidated.

The presentation of the FY 2005 costs has been revised and prepared in accordance with OMB Circular A-136.

The lease liability not covered by budgetary resources at September 30, 2006 is \$21,441,786.

The NTSB has operating leases for copiers, postage meters and vehicles. Copiers and postage meters are leased on an annual basis. These leases are cancelable or renewable on an annual basis at the option of NTSB. They do not impose binding commitments on NTSB for future rental payments on leases with terms longer than one year.

Future operating payments due are as follows:

### Future Operating Lease Payments

Fiscal Year	Space Rental- Headquarters and Regional Offices FY 2006	Copiers FY 2006	Totals FY 2006	Space Rental- Headquarters and Regional Offices FY 2005	Copiers FY 2005	Totals FY 2005
2006	\$-	-	\$-	\$7,244,891	1,014	\$7,245,905
2007	7,322,145	1,014	7,323,159	7,024,683	1,014	7,025,697
2008	7,113,446	676	7,114,122	7,038,123	676	7,038,799
2009	7,059,254		7,059,254	7,059,254		7,059,254
2010	6,917,410		6,917,410	6,917,410		6,917,410
2011	293,504		293,504	293,504		293,504
2012 and beyond	218,784		218,784	218,784		218,784
<b>Total Future Lease payments</b>	<b>\$28,924,543</b>	<b>\$1,690</b>	<b>\$28,926,233</b>	<b>\$35,796,649</b>	<b>\$2,704</b>	<b>\$35,799,353</b>

GSA vehicle leases are cancelable at any time without penalty and are not included in Future Operating Lease Payments information.

*Note 9***Statement of Net Cost****Intragovernmental and Public Costs**

<b>Fiscal Year 2006</b>	<b>Aviation Safety</b>	<b>Surface Safety</b>	<b>Research &amp; Engineering</b>	<b>Consolidated Totals</b>
Intragovernmental Gross Costs	\$6,963,784	\$4,768,294	\$2,756,876	\$14,488,954
Less: Intragovernmental Earned Revenue	(237,049)	(58,542)	(49,198)	(344,789)
<b>Intragovernmental Net Costs</b>	<b>\$6,726,735</b>	<b>\$4,709,752</b>	<b>\$2,707,678</b>	<b>\$14,144,165</b>
Gross Costs with the Public	\$29,497,871	\$21,002,692	\$12,829,631	\$63,330,194
Less: Earned Revenues from the Public	(239,334)	(160,933)	(146,400)	(546,667)
<b>Net Costs with the Public</b>	<b>\$29,258,537</b>	<b>\$20,841,759</b>	<b>\$12,683,231</b>	<b>\$62,783,527</b>
<b>Net Cost of Operations</b>	<b>\$35,985,272</b>	<b>\$25,551,511</b>	<b>\$15,390,909</b>	<b>\$76,927,692</b>

<b>Fiscal Year 2005 Restated</b>	<b>Aviation Safety</b>	<b>Surface Safety</b>	<b>Research &amp; Engineering</b>	<b>Consolidated Totals</b>
Intragovernmental Gross Costs	\$7,374,352	\$4,955,276	\$4,164,346	\$16,493,974
Less: Intragovernmental Earned Revenue	(264,643)	(88,761)	(74,594)	(427,998)
<b>Intragovernmental Net Costs</b>	<b>\$7,109,709</b>	<b>\$4,866,515</b>	<b>\$4,089,752</b>	<b>\$16,065,976</b>
Gross Costs with the Public	\$27,077,215	\$18,724,414	\$17,129,372	\$62,931,001
Less: Earned Revenues from the Public	(265,230)	(177,348)	(162,241)	(604,819)
<b>Net Costs with the Public</b>	<b>\$26,811,985</b>	<b>\$18,547,066</b>	<b>\$16,967,131</b>	<b>\$62,326,182</b>
<b>Net Cost of Operations</b>	<b>\$33,921,694</b>	<b>\$23,413,581</b>	<b>\$21,056,883</b>	<b>\$78,392,158</b>

*Note 10***Statement of Budgetary Resources**

The Statement of Budgetary Resources compares budgetary resources with the status of those resources. For September 30, 2006, and September 30, 2005, respectively, budgetary resources were \$ 65.2 million and \$ 64.8 million; net outlays for the year were \$ 72.9 million and \$ 75.0 million; direct obligations incurred against amounts apportioned under Category A were \$ 54.5 million and \$ 76.3 million; and the amount of direct obligations incurred against amounts apportioned under Category B were \$ .5 million and \$ 0.1 million.

	FY 2006	FY 2005
Budgetary Resources	\$65,192,874	\$64,816,661
Net Outlays	\$72,890,327	\$75,079,809
Category A Apportionments	\$54,531,501	\$76,282,343
Reimbursable Category B	\$514,659	\$51,891

The total of undelivered orders at September 30, 2006 and 2005 were \$15.1million and \$36.0 million.

*Note 11***Restatement**

NTSB's FY 2005 Balance Sheet, Statement of Net cost, Statement of changes in Net Position, and Statement of Financing have been restated to correct the reporting of internal use software that had been incorrectly reported as an expense. At the end of FY 2005, \$925,767 used to develop and install Internal use Software was recorded as Operating Expenses rather than as Equipment. NTSB subsequently determined that this treatment was not in accordance with the Statement of Federal Financial Accounting Standards (SFFAS) No. 10, Accounting for Internal Use Software, dated June 1998. As a result, Property and Equipment, Net, Cumulative Results of Operations and Program Costs were misstated. Controls have been strengthened by institution of additional review of potentially capitalized purchases. The effect of the restatement on the FY 2005 financial statements is summarized below:

Financial Statement/Line Item	FY 2005 Reported	Effect of Restatement	FY 2005 Restated
Balance Sheet			
Property and equipment, net	\$22,585,447	\$925,766	\$23,511,213
Cumulative Results of Operations	(8,885,124)	925,766	(7,959,358)
Statement of Net Costs: Program Costs	79,317,924	(925,766)	78,392,158
Statement of Net Position			
Net Costs of Operations	79,317,924	(925,766)	78,392,158
Ending Balances	(8,885,124)	925,766	(7,959,358)
Statement of Financing			
Resources that Finance Acquisition of Assets	(341,448)	(925,766)	(1,267,214)
Net Costs of Operations	\$79,317,924	\$(925,766)	\$78,392,158

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