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Committee on Public Works and Transportation
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AVIATION SAFETY

Better Oversight Would Reduce the Risk of Air Taxi Accidents

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Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to testify on the oversight of air taxis by the Office of the Secretary of Transportation (OST) and the Federal Aviation Administration (FAA). As defined by FAA regulations, air taxis provide unscheduled, on-demand commercial service using aircraft that have 30 or fewer seats.¹ From January 1990 through July 1991, National Transportation Safety Board (NTSB) data show that 88 people died in air taxi accidents--the same number who died in air carrier accidents and 31 more than the number killed in commuter accidents.

Our testimony today presents information from our recent reports to you on oversight of air taxis and FAA's actions leading to the emergency revocation of airline operating certificates.² We will also discuss the problems with FAA's overall inspection program that affect FAA's oversight of air taxis. Appendix I provides a list of relevant reports.

In summary, we found the following:

- FAA cannot ascertain whether all air taxis operate safely and comply with regulations for two principal reasons. First, in fiscal year 1990, FAA did not perform required inspections on all air taxis. Second, FAA's routine

¹The other basic types of commercial airlines include air carriers and commuters. Air carriers operate aircraft having more than 30 seats, while commuters operate aircraft having 30 or fewer seats and provide scheduled passenger service of at least 5 round-trips per week. For purposes of OST oversight, air carriers operate aircraft having more than 60 seats, while commuters and air taxis operate aircraft having 60 seats or fewer.

²Aviation Safety: Air Taxis--The Most Accident-Prone Airlines--Need Better Oversight (GAO/RCED-92-60, Jan. 21, 1992) and Aviation Safety: Emergency Revocation Orders of Air Carrier Certificates (GAO/RCED-92-10, Oct. 17, 1991).

inspections have had limited effectiveness in discovering safety violations.

- Air taxis must register with OST but are statutorily exempt from OST's certification and the related economic fitness standards, such as having sufficient financial resources to operate and a satisfactory compliance attitude. According to our limited review of air taxis that had their operating certificates revoked, some air taxi operators' financial distress and poor compliance attitude contributed to safety violations.
- Several systemic problems with FAA's overall inspection program affect oversight of air taxis as well as of other airlines. FAA does not know if inspectors are carrying out their inspection duties or if airlines take corrective action on identified safety problems. Also, FAA does not target its limited resources on the basis of airline safety performance.
- FAA has taken steps to improve its inspection program, such as increasing the number of inspectors and developing guidance to ensure consistency of inspections by district offices. Clearly, these are positive and significant actions. However, much more needs to be done. Now is the time for FAA to act to strengthen its inspection program before newer challenges, such as monitoring aging aircraft repairs, affect its safety oversight role.

Before discussing these issues in more depth, let me provide some information on OST's and FAA's oversight responsibilities.

BACKGROUND

About 3,200 air taxis operated in the United States in 1990 and carried about 5 million passengers. To conduct operations, air taxis must meet both OST and FAA requirements. Air taxis must register with OST and satisfy liability insurance requirements. Subsequently, OST relies on the insurance company or the air taxi operator to notify it of any change in insurance coverage. OST has three analysts in Washington, D.C., and two analysts in Anchorage, Alaska, to confirm and monitor air taxi insurance coverage.

FAA is responsible for certifying that air taxis' equipment, facilities, personnel, and manuals meet safety requirements. Subsequently, FAA is to perform routine inspections to ensure that air taxis continue to comply with aviation regulations and operate safely. Generally, routine inspections are spot checks performed by individual inspectors. FAA also conducts special inspections that are usually performed by a team of inspectors and provide a more comprehensive review. As of September 30, 1991, FAA had about 2,600 field inspectors in 90 district offices located throughout the United States to oversee more than 6,500 scheduled commercial aircraft, 4,439 repair stations, 547 pilot training schools, 177 maintenance schools, 641,477 active pilots, and 274,834 general aviation aircraft.

When FAA finds violations, it can take enforcement action, including an emergency order revoking an airlines' operating certificate. This is the most severe action that FAA can take against a domestic airline. FAA issues an emergency revocation order when it determines that an immediate safety need exists to prevent an airline from conducting flight operations. An emergency order takes effect immediately on issuance.

SOME AIR TAXIS DID NOT RECEIVE
REQUIRED INSPECTIONS

According to FAA, inspection oversight is the most important function performed by inspectors. FAA headquarters develops annual program requirements to ensure that inspectors give priority attention to inspections. FAA requires district offices to perform annual routine inspections for all airlines, including air taxis, in each of three categories--avionics, maintenance, and operations.³

FAA had not analyzed data from its management system for inspections--the Program Tracking and Reporting System (PTRS)--to determine if its district offices had performed required annual inspections. Therefore, we analyzed the data for fiscal year 1990. Although PTRS has reliability problems, such as inaccurate and incomplete data, it provides the only information available to assess whether FAA is meeting program priorities. According to our analysis, 855 of about 3,200 air taxis (27 percent), did not receive at least one required avionics, maintenance, or operations inspection. In contrast, 31 of about 400 air carrier and commuter airlines (8 percent) did not receive at least one of these required inspections. According to inspectors, a heavy work load sometimes affected their ability to perform inspections.

Adequate FAA oversight is critical to ensuring the safety of the almost 5 million people who annually fly on air taxis. A NTSB report of an April 1991 midair collision between an air taxi and another aircraft illustrates the importance of performing inspections. This accident resulted in the deaths of those on board--Senator John Heinz and four pilots--as well as two children who were playing in a schoolyard. NTSB's accident investigation

³Air taxis that operate aircraft under visual flight rules are not required to receive avionics inspections.

found that because of a heavy work load, FAA's inspector's oversight of the air taxi pilots' training and proficiency checks was inadequate and contributed to the accident. NTSB has recommended that FAA study the adequacy of its inspector staffing. FAA plans to complete this study in May 1992.

FAA'S ROUTINE INSPECTIONS HAVE
MISSED MANY SAFETY VIOLATIONS

FAA's routine inspections have had limited effectiveness in discovering air taxi operators' safety violations that led to emergency revocation of a company's operating certificate. From January 1987 through May 1991, FAA issued 52 emergency revocation orders against airlines--38 of which were against air taxi operators. Our analysis of the 38 cases showed that, despite periodic inspections, in 7 cases (18 percent) the violations occurred a year or more before FAA inspectors discovered them. In 23 cases (61 percent) FAA became aware of the safety violations that led to the revocations as the result of tips from company employees, competitors, and consumers or from investigations initiated as a result of air taxi accidents, rather than through inspections.

Inspectors told us that some violations, such as falsifying records and using unauthorized aircraft and pilots, are difficult to detect. For example, in one case an air taxi crashed into a residential area on approach to Logan International Airport in Boston, Massachusetts. The pilot was killed and three people on the ground were severely injured. NTSB's accident investigation found that the pilot was not qualified to fly the aircraft. Prior to the accident, FAA had not found any problems with the air taxi operator. However, as a result of the accident, FAA conducted a special inspection of the company. The inspection revealed numerous serious safety violations that led to the emergency revocation order, including using unqualified pilots, falsifying

maintenance records, and flying with improperly secured cargo. In another case, an air taxi employee provided a tip to FAA that the owner had falsified an airplane's maintenance records and used an aircraft for air ambulance service when not authorized to do so. Following the tip, FAA performed an investigation that provided evidence supporting the allegations and that resulted in an emergency revocation order.

Although it is sometimes difficult to detect safety violations, special inspections are more likely to identify and resolve long-standing safety problems sooner than routine inspections. For example, a 1985 industry-wide special inspection by FAA of 843 air taxi operators found more than 6,200 adverse safety findings, such as failure to adequately maintain emergency equipment and train flight crews and pilots. FAA concluded that its air taxi oversight was inadequate because the safety violations had not been discovered by routine inspections. However, FAA has not conducted an air taxi industry-wide special inspection since 1985.

Also, special inspections of four emergency medical service air taxis, conducted in fiscal year 1988 as part of FAA's National Aviation Safety Inspection Program, resulted in 257 findings of regulatory violations, including inadequate maintenance programs and pilots exceeding flying time limitations. FAA has not included other air taxi operators in the National Aviation Safety Inspection Program because it considers air carriers, commuters, and other aviation-related activities to have a higher inspection priority.

OST ECONOMIC FITNESS STANDARDS APPLIED TO SOME AIR TAXI SAFETY PROBLEMS

Although air taxis are required to register with OST and meet liability insurance requirements, they are statutorily exempt from certification and the related economic fitness reviews that all air

carriers and some commuters must undergo. Airlines that have to meet OST economic fitness standards must demonstrate, among other things, that they have (1) sufficient financial resources to operate and (2) a satisfactory compliance attitude. Subsequently, OST is required to conduct periodic reviews to ensure that these airlines continue to meet the economic fitness standards. Airlines under financial distress, including bankruptcy, are subject to increased monitoring but do not lose their operating authority unless they are unable to operate safely.

According to OST officials, imposing economic fitness requirements on air taxis would present several problems. First, OST would have to significantly increase its staff to review the large number of air taxis. Second, OST believes that air taxis would incur significant costs to meet fitness requirements and many companies might go out of business. Third, some individuals may be discouraged from starting air taxi companies if required to meet economic fitness standards. OST believes that requiring air taxis to meet economic fitness standards would not provide a cost-effective safety benefit. However, OST could not provide documentation supporting this position.

The results of several studies that we reviewed of the relationship between financial conditions and safety are mixed--some found a weak relationship and others found none. As a result, the research has not demonstrated a clear relationship between finances and safety. However, all but one study used accidents, incidents, or maintenance expenditures, but not safety violations, as the measure of safety. Furthermore, because of limited data, none of these studies focused on air taxis.

Despite the lack of strong evidence from these studies, according to FAA inspectors and the documents we reviewed, in 18 of the 38 air taxi emergency revocation cases (47 percent), financial distress adversely affected how the companies operated. For

example, one air taxi was in financial distress following a breakup of the company's partnership and the loss of customers. The partner who remained with the company had his pilot's license suspended because, to save money, he had disconnected equipment on an aircraft, which had the effect of delaying a required engine overhaul. In addition, to save the costs of paying another pilot, the partner flew with a suspended license and falsified pilot flight and duty time records to show that the other pilot was making the flights that he made.

Also, in 1988 NTSB determined that a commuter airline's financial distress contributed to a fatal accident and recommended that FAA provide inspectors with indicators of airlines', including air taxis', financial distress that suggest when increased oversight is warranted. However, FAA's inspection handbook provides only for special oversight of airlines that are undergoing bankruptcy, mergers, acquisitions, or ownership changes. An airline may not meet these specific circumstances but still be in financial distress that could result in safety problems.

Our analysis of air taxi revocation cases also showed that a poor compliance attitude was a factor in committing safety violations. In 32 of the 38 cases we reviewed (84 percent), the air taxi owners or managers intentionally violated safety regulations that led to emergency revocations. For example, in one case, despite repeated requests by FAA inspectors to make repairs, a company's president flew an aircraft with a faulty wing component that could have caused loss of control during flight. In another case, managers coerced pilots into operating aircraft in unsafe weather conditions and with improperly loaded and secured cargo. The company fired pilots who refused to accede to its demands to violate safety regulations.

FAA HAS TAKEN POSITIVE STEPS, BUT SOME FUNDAMENTAL PROBLEMS REMAIN THAT IMPAIR ITS INSPECTION PROGRAM

To its credit, FAA has taken positive steps to solve its inspection program problems. FAA increased its inspector work force from 1,300 in fiscal year 1983 to 2,600 today; developed and is now updating a staffing standard to determine the number of inspectors needed; improved hiring and training processes; instituted a program for in-depth inspections of selected airlines; and defined annual inspection requirements for each airline. Clearly, these are positive and significant accomplishments critical to rebuilding FAA's program. Despite these improvements, FAA has not corrected some fundamental problems with its overall inspection program that affect its ability to provide adequate oversight of the airlines, including air taxis.

FAA cannot effectively manage its inspection program for several reasons. First, FAA has not determined whether program priorities were achieved. To determine if FAA met its overall program priorities, we analyzed fiscal year 1990 PTRS data. We found that inspectors spent, on average, only about 23 percent of their time performing inspections rather than the 35 percent required by headquarters. Our analysis also showed that 30 of FAA's 90 district offices did not conduct over 5,200 required inspections, or about 28 percent of the total required. FAA plans to assign staff to analyze inspection data to assess performance against stated requirements. However, FAA could not estimate when these analyses would occur.

Second, PTRS contains incomplete and inaccurate data. For example, inspectors have not entered inspection results; field offices have not had adequate computer support; and inspectors have not received adequate guidance or been sufficiently trained in data entry. To improve PTRS data quality and facilitate program management, FAA is now replacing outdated computer hardware and

software. FAA officials said they plan to complete this effort by the end of fiscal year 1994--7 years after we first reported this as a problem.⁴

Third, FAA inspectors generally do not evaluate the severity of the safety problems that they discover, making it difficult to determine which problems pose the greatest safety risk. FAA has not provided inspectors with guidance to distinguish the level of severity for problems found. Also, FAA does not know whether inspectors follow up on identified safety problems to determine if airlines take corrective action. In fiscal year 1990, FAA inspectors identified over 9,000 problems that were, or had the potential to be, in noncompliance with either regulations or safe operating practices. Because inspectors are not required to account for the disposition of identified problems, FAA headquarters did not know how many were corrected. NTSB has criticized FAA for not ensuring that airlines correct identified problems. NTSB's report of a 1988 airline accident that killed 14 people stated that contributing to the accident was a lack of aggressive action by FAA to have the airline correct known safety deficiencies.

Fourth, FAA does not have a system for targeting its limited inspection resources to airlines on the basis of safety performance. FAA assigns its inspection resources largely on the basis of the size of an airline's fleet. Targeting is important because FAA may never have enough resources to inspect all airlines all the time. The Department of Defense (DOD) has developed the Air Carrier Analysis Support System--a system it uses to assess the performance of the about 130 airlines with which it contracts. We examined the hours that FAA spent inspecting 97 airlines in fiscal year 1990 and compared them with DOD's performance rating. We

⁴Aviation Safety: Needed Improvements in FAA's Airline Inspection Program Are Underway (GAO/RCED-87-62, May 19, 1987).

placed the 97 airlines into four groups using the Department of Transportation's criteria and compared the airlines within their group. Our analysis showed that 34 airlines--including 12 air taxis--did not receive inspection coverage consistent with DOD's performance rating relative to other airlines within their group. FAA has recently begun developing a Safety Performance Analysis Subsystem that would assess airlines', including air taxis', safety risk and help it better target its inspection resources. FAA plans to evaluate a prototype system by fiscal year 1993.

Finally, FAA does not have a formal system to track individuals who were key managers or owners of airlines that were subject to emergency revocation orders. According to FAA inspectors, key managers and owners who committed violations that led to 9 of the 52 emergency revocation orders returned to, or remained in, a similar position with an airline. Some of these individuals then committed additional safety violations leading to another emergency revocation. To track these individuals, inspectors communicate informally among themselves. FAA plans to issue guidance by the end of fiscal year 1992 to inspectors on using an existing computer data base to determine if individuals who apply for an airline operating certificate had been owners or key managers of airlines subject to emergency revocation orders.

Besides the current problems FAA faces, its inspection program faces new challenges with no significant growth expected in its inspector work force. These challenges include (1) monitoring aging aircraft repairs, (2) developing inspectors' skills to properly oversee aircraft that use new technology, such as composite materials and advanced avionics systems, and (3) assessing foreign government oversight of airlines that fly into the United States.

CONCLUSIONS

Millions of people fly on air taxis and deserve the highest possible level of safety. In our opinion, FAA could improve its detection of safety problems and reduce the potential risk of air taxi accidents by more effectively allocating the inspection resources that it dedicates to the air taxi industry. It could do so by targeting inspection resources on the basis of performance data and conducting additional special inspections. Also, given that air taxi operators' financial distress and poor compliance attitudes led to serious safety violations, the costs and safety benefits of economic oversight deserve additional scrutiny and consideration.

Although FAA is taking some positive steps to improve its overall inspection program, fundamental problems remain. Because FAA does not track identified problems to determine if corrective action is taken, serious problems may remain uncorrected. Also, since some airlines can operate under financial distress that may result in safety problems, FAA's inspector handbook should be revised to provide for special oversight of all such airlines. Additionally, FAA's oversight is hampered because the agency does not have a formal process to track those who commit violations resulting in emergency revocation of an operating certificate and who want to return to the airline industry as key managers and owners.

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To improve oversight of air taxis, we have recommended that the Secretary of Transportation require FAA to perform (1) a minimum level of required inspections and (2) industry-wide special inspections periodically. We have also recommended that the Secretary determine the extent to which air taxi operators' financial distress and poor compliance attitude contribute to

safety violations and report this information to the Congress for consideration of whether air taxis should be subject to economic oversight. To correct problems with FAA's overall inspection program, we have recommended that FAA (1) improve its inspection reporting system, (2) give priority to developing a risk-assessment system, (3) revise its inspector handbook to allow for extra oversight effort for any financially distressed airline, and (4) develop a formal system to track individuals who commit violations that result in emergency revocations.

This concludes my prepared statement. We will be happy to respond to any questions at this time.

RELATED GAO PRODUCTS

Aviation Safety: Air Taxis--The Most Accident-Prone Airlines--Need Better Oversight (GAO/RCED-92-60, Jan. 21, 1992)

Aviation Safety: Problems Persist in FAA's Inspection Program (GAO/RCED-92-14, Nov. 20, 1991)

Aviation Safety: Emergency Revocation Orders of Air Carrier Certificates (GAO/RCED-92-10, Oct. 17, 1991)

FAA Information Resources: Agency Needs to Correct Widespread Deficiencies (GAO/IMTEC-91-43, June 18, 1991)

Aircraft Maintenance: Additional FAA Oversight Needed of Aging Aircraft Repairs (Volumes I and II) (GAO/RCED-91-91A and B, May 24, 1991)

Aviation Safety: Limited Success Rebuilding Staff and Finalizing Aging Aircraft Plan (GAO/RCED-91-119, Apr. 15, 1991)

Aviation Safety: Changes Needed in FAA's Service Difficulty Reporting Program (GAO/RCED-91-24, Mar. 21, 1991)

Aviation Safety: Management Improvement Needed in FAA's Airworthiness Directive Program (GAO/RCED-90-94, Feb. 16, 1990)

Aging Aircraft: FAA Needs Comprehensive Plan to Coordinate Government and Industry Actions (GAO/RCED-90-75, Dec. 22, 1989)

Aviation Safety: FAA's Safety Inspection Management System Lacks Adequate Oversight (GAO/RCED-90-36, Nov. 13, 1989)

Aviation Training: FAA Aviation Safety Inspectors Are Not Receiving Needed Training (GAO/RCED-89-168, Sept. 14, 1989)

Aviation Safety: FAA Has Improved Its Removal Procedures for Pilot Examiners (GAO/RCED-89-199, Sept. 8, 1989)

FAA Staffing: Recruitment, Hiring, and Initial Training of Safety-Related Personnel (GAO/RCED-88-189, Sept. 2, 1988)

Aviation Safety: Measuring How Safely Individual Airlines Operate (GAO/RCED-88-61, Mar. 18, 1988)

Aviation Safety: Needed Improvements in FAA's Airline Inspection Program Are Underway (GAO/RCED-87-62, May 19, 1987)

Department of Transportation: Enhancing Policy and Program Effectiveness Through Improved Management (GAO/RCED-87-3, Apr. 13, 1987)

Compilation and Analysis of the Federal Aviation Administration's Inspection of a Sample of Commercial Air Carriers (GAO/RCED-85-157, Aug. 2, 1985)

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