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STATEMENT OF
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HOUSE SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT
COMMITTEE ON PUBLIC WORKS
AND TRANSPORTATION
ON
SMALL AIR CARRIER AIRCRAFT SAFETY

Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to be here today to discuss small air carrier aircraft safety. My testimony is based on a review we have just completed. Our draft report was submitted last week to the Department of Transportation and the National Transportation Safety Board for their review and comment.

To place my discussion today in proper perspective, I do want to stress that statistics show that flying with this Nation's commercial air carriers is by far one of the safest means of transportation. Our analysis of air carrier accidents and accident rates for a 6-year period--1977-82--also shows that there has been an overall reduction in both the number and rate of accidents per 100,000 hours of flying. However, a closer look at these same statistics shows that there is a large difference in the accident rates among the three classes of air carriers--large scheduled, commuter, and unscheduled air taxis. Accident rate differences are also apparent when looking at the size of aircraft used by these carriers, that is, the seating capacity of the planes.

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The accident rate per 100,000 hours flown by commuters in 1982 was more than seven times higher than that of large scheduled air carriers. The unscheduled air taxi accident rate for 1982 was more than 18 times higher than the large scheduled air carriers and nearly 3 times higher than the commuters. We found that of the 300 commuter and air taxi passenger accidents recorded during the 3-year period 1980-82, 90 percent occurred in small aircraft--those with nine or fewer seats. These small aircraft make up about 44 percent of the commuter fleet and about 90 percent of the air taxi fleet.

Why do these small air carrier aircraft have an accident rate 18 times higher than larger air carrier aircraft? We found it difficult to answer this question since virtually every aspect of aviation from the design and construction of the aircraft, through the experience and qualifications of the aircrew, to the very environment in which these small planes fly influences safety. However, one point did become apparent, and that is: Passengers flying on aircraft with nine or fewer seats are not provided with the same level of safety as passengers flying on either intermediate or larger size aircraft. This situation, in our opinion, is occurring because FAA's airworthiness standards and operating rules differ by aircraft seating capacity. The airworthiness standards govern the design and construction of the aircraft; and, the operating rules set the experience, qualifications, and training requirements of the crews that fly and maintain the planes.

Since enactment of the Civil Aeronautics Act of 1938, the Congress has recognized the duty of all air carriers to operate with the highest degree of safety. The act made no exceptions to this policy regardless of the size or seating capacity of the aircraft. The Federal Aviation Act of 1958, which established the FAA, repeated this policy; and the Airline Deregulation Act of 1978 specifically required that the level of passenger safety would not be lowered when larger air carriers vacated a market and were replaced by commuters.

We found, however, that FAA's most stringent airworthiness standards apply to aircraft with 20 or more seats, and the most stringent operating rules apply to aircraft with 31 or more seats. An intermediate set of airworthiness standards apply to aircraft with 10-19 seats and an intermediate set of operating rules apply to aircraft with 10-30 seats. The least stringent airworthiness standards and operating rules apply to air carrier aircraft with nine or fewer seats.

In addition to these differences, we found that the environment in which small air carrier aircraft operate has a significant bearing on the level of safety they can achieve. For example, small commuter aircraft average twice as many take-offs and landings per hour flown as do large air carrier aircraft and most accidents occur during take-offs and landings. Also, commuter and air taxi aircraft serve a significantly larger number of remote airports with fewer navigational aids than do large aircraft. Finally, small aircraft spend considerably more time

operating at lower altitudes, where flying weather is often less than ideal.

The end result is that small aircraft are operating in general under the more hazardous conditions, and are being built and operated under FAA's least stringent airworthiness standards and operating rules.

We recognize that the FAA has little control over the environment in which the aircraft fly--such as weather and terrain. However, it does have control regarding the airworthiness standards under which the aircraft are designed and constructed and the operating rules which establish who can fly and maintain these planes. For example, one of the more significant differences we found in the airworthiness standards between large and small aircraft is aircraft take-off performance following an engine failure. FAA has stated that twin engine aircraft must be able to sustain an engine failure at any point in its take-off flight path and have sufficient capability in the remaining engine to clear obstacles and make a safe landing.

The airworthiness standards for twin engine aircraft with 20 or more seats provides this assurance. The standards for smaller twin-engine aircraft with nine or fewer seats do not.

Like the airworthiness standards, operating rules are also established according to aircraft seating capacity, with the least stringent rules applied to aircraft with nine or fewer seats. For

example, FAA operating rules permit commuter and air taxi aircraft with nine or fewer seats to be flown, in most circumstances, by only one pilot. Air carrier aircraft with 10 or more seats require two pilots. According to a 1980 NTSB special study on commuter safety, single-pilot flying is potentially more hazardous due to the effects of high pilot workload associated with high density air traffic and the aircraft's overall operating environment.

Over the years, FAA has taken several actions to upgrade air carrier airworthiness standards and operating rules. These actions, however, either specifically excluded or were not considered mandatory for air carrier aircraft with nine or fewer seats. For example, in 1977, FAA proposed separate airworthiness standards for aircraft with 60 seats or less. This proposal, however, was not intended for mandatory application to aircraft with nine or fewer seats. In 1978, FAA completed a major upgrading of operating rules for aircraft with 30 seats or less. However, the rule changes primarily applied to aircraft with 10 to 30 seats.

Currently, the FAA is studying airworthiness standards for aircraft with 19 seats or less. The changes, if approved in their present form, will not be mandatory for aircraft with nine or fewer seats.

Small air carrier manufacturers, operators, and the FAA generally gave us two basic reasons why small air carrier aircraft regulations have not been strengthened. First, the small aircraft

plays a relatively minor role in the transportation of passengers in this Nation--one to two percent of the annual enplanements--and second, economics. Imposing higher standards and rules on small aircraft would increase the cost of the aircraft and its operations to the point where it would virtually destroy the industry financially and thereby deprive the general public of needed transportation.

We agree that small aircraft contribute only one to two percent of the annual enplanements. However, this figure still represents more than 2 million passengers--a figure sufficiently high, in our opinion, to warrant attention. The fact that small aircraft represent about 90 percent of all commuter and air taxi passenger accidents is another reason why they should receive greater FAA attention.

We recognize that some changes in airworthiness standards and operating rules could be very costly and would provide varying degrees of safety benefits. Conversely, other changes could be made at acceptable costs with substantial safety benefits to be gained. Determining which standards and rules could or should be changed would require a cost/benefit analysis. We were unable to document that any such analysis had been or was being prepared by FAA with regard to modifying the airworthiness standards and operating rules as they would apply to air carrier aircraft with nine or fewer seats.

Mr. Chairman, this concludes my statement. We will be pleased to respond to your questions.