

STATEMENT OF THE HONORABLE RANDOLPH BABBITT, ADMINISTRATOR,
FEDERAL AVIATION ADMINISTRATION, BEFORE THE SENATE COMMITTEE
ON COMMERCE, SCIENCE, AND TRANSPORTATION, SUBCOMMITTEE ON
AVIATION OPERATIONS, SAFETY, AND SECURITY, ON AVIATION SAFETY:
FAA'S ROLE IN THE OVERSIGHT OF AIR CARRIERS. JUNE 10, 2009.

Chairman Dorgan, Senator DeMint, Members of the Subcommittee:

Thank you for inviting me here today to discuss the Federal Aviation Administration's (FAA's) role in the oversight of air carriers. Let me begin by saying that we at the FAA mourn the tragic loss of Colgan Air Flight 3407 deeply. This is an agency dedicated to aviation safety; any loss is felt keenly by us all. Likewise, our sympathies go out to the families and loved ones of the passengers and crew of Air France Flight 447.

The National Transportation Safety Board (NTSB) conducted a public hearing May 12-14, 2009 on the Colgan Air crash. Several issues came to light regarding pilot training and qualifications, flight crew fatigue, and consistency of safety standards and compliance between air transportation operators. Given that the NTSB has not yet concluded its investigation, I cannot speak today to any of the potential findings. I can, however, outline for you the FAA's oversight responsibility with regard to safety oversight of operators, pilot training and qualifications, and flight and duty times for flight crew, and my focus on aviation safety as my top priority.

One Level of Safety

In the mid-1990s, the FAA revised its regulations on air carrier safety standards to reflect “one level of safety,” requiring regional air carriers to operate under the same rules and at the same level of safety as their major airlines counterparts. I am proud to say that while I was president of the Air Line Pilots Association, I led the efforts on working with the FAA to make these changes.

Now, all air carriers that operate aircraft with 10 or more seats are required to meet the same safety standards and are subject to the same level of safety oversight across the board. Specifically, the air carriers are required to comply with the regulations embodied in Part 121 of Title 14, Code of Federal Regulations (Part 121).

FAA safety oversight for these carriers is conducted through the comprehensive Air Transportation Oversight System (ATOS). ATOS has three fundamental elements: design assessment, performance assessment, and risk management.

- Design assessment ensures an air carrier’s operating systems meet regulatory and safety standards.
- Performance assessments confirm that an air carrier’s operating systems produce intended results, including mitigation or control of hazards and associated risks.
- Risk management process identifies and controls hazards and allocates FAA resources according to risk-based priorities.

Under ATOS, FAA’s primary responsibilities are: (1) to verify that an air carrier is capable of operating safely and complies with the regulations and standards prescribed by the Administrator before issuing an air carrier operating certificate and before approving or accepting air carrier safety programs; (2) to re-verify that an air carrier continues to

meet regulatory requirements when changes occur by conducting periodic safety reviews; and (3) to continually validate the performance of an air carrier's approved and accepted programs for the purpose of continued operational safety.

Pilot Training and Qualifications

The FAA offers several types of pilot certification. The typical FAA certification progression for an airline pilot is Private Pilot (a license to fly oneself and others, without charge, under Visual Flight Rules), Commercial Pilot (a license needed to fly for compensation or hire as a second in command), and Airline Transport Pilot (a license to fly as a captain for an airline), with an Instrument Rating (a rating that one is proficient at using instrument navigational aids and other avionics) usually added to the Private Pilot certificate. For each level of pilot certification, the individual must demonstrate aeronautical knowledge as well as flight proficiency. Each new level of certification requires the satisfactory completion of the previous rating. In other words, it is not permissible for an individual to receive a Commercial Pilot certificate without first completing the requirements of the Private Pilot Certificate. For airline pilots to be captains of aircraft larger than 12,500 pounds, or any jet aircraft, they must complete specialized training for the specific aircraft and test for a type rating in that aircraft.

The requirements for each of these pilot certifications, including the Instrument Rating, are summarized below:

1. Private Pilot

(Minimum of 40 hours at certification)

- a. Aeronautical knowledge Complete a comprehensive ground school and pass a written test composed of at least the following: aircraft systems, weight and balance, aeronautical charts, Federal Aviation Regulations (FARs), airport operations, national air space, emergency procedures, communications, and navigation requirements. The ground school must be conducted by an authorized instructor.
- b. Flight proficiency Minimum of 40 hours, composed of at least 20 hrs from an approved instructor, 10 hrs of solo, 3 hrs of night time, and 5 solo hrs of cross country. Pass a flight check administrated by the FAA or designated evaluator.

2. Commercial Pilot

(Minimum of 250 Hours)

- a. Aeronautical knowledge FARs, accident reporting procedures, aerodynamics, meteorology, weather reports and forecast, safe operations of the aircraft, weight and balance, performance charts, aircraft limitations, aeronautical charts, navigation, aeronautical decision making, aircraft systems, maneuvers procedures and emergency operations, night and high altitude operations, and operations in the national airspace system.
- b. Flight proficiency Minimum of 250 hours to include day, night and flight by reference to aircraft instruments. Pass a flight check administrated by the FAA or designated evaluator.

3. Instrument Rating

- a. Aeronautical knowledge Must complete ground training on instrument flight conditions and procedures. Pass an aeronautical test composed of the following: FARs, Air Traffic Control (ATC) system, instrument procedures, Instrument Flight Rules (IFR) navigation, instrument approach procedures, use of IFR charts, weather reports and for casts, recognition of critical weather situations, aeronautical decision making, and crew resource management.
- b. Flight proficiency Minimum of 50 hrs cross country as Pilot in Command (PIC). 40 hours of actual or simulated flight time, 15 hrs with an authorized instrument instructor. Pass a flight check administrated by the FAA or designated evaluator.

4. Airline Transport Pilot

(Minimum of 1,500 Hours)

- a. Aeronautical knowledge FARs, meteorology, Knowledge of effects of weather, general weather and Notices to Airmen (NOTAM) use, interpretation of weather charts, maps and forecasts, operations in the national airspace system, wind sheer and micro burst awareness, air navigation, ATC procedures, instrument departure and approach procedures, enroute operations, airport operations, weight and

balance, aircraft loading, aerodynamics , aircraft performance, human factors, aeronautical decision making, and Crew Resource Management (CRM). Must pass an FAA test on these subjects.

- b. Flight proficiency 1500 hours total time. 500 hrs cross country, 400 hours night time. Pass a flight check administrated by the FAA or designated evaluator on the maneuvers required by the FAA's Airline Transport Pilots Practical Test Standards.

In addition to these FAA certifications, airline pilots receive initial and additional recurrent training through the air carriers for whom they work. These training programs are evaluated and approved by the FAA. An air carrier training program contains curricula, facilities, instructors, courseware, instructional delivery methods, and testing and checking procedures. These training programs must meet the requirements of Part 121, the regulations for commercial air carriers, to ensure that each crewmember is adequately trained for each aircraft, duty position, and kind of operation in which the person serves. An air carrier or operator's training program is divided into several categories of training that are specific to the operator, and which may include initial training for new hires, initial training on equipment, transition training, upgrade training, recurrent training, and requalification training.

Training programs are approved by the FAA in two stages: initial training approval and final approval. Initial approval consists of a thorough review by the Principal Operations Inspector (POI) for that carrier of the training program to ensure that all applicable requirements of Part 121 have been met and are covered in the training program. Once initial approval is granted by the POI, the POI will observe several training classes, which include ground training and flight (simulator) training.

The quality of the training is determined by an evaluation of passing scores of the pilots. Direct observation by the POI of testing and checking is an effective method for determining whether learning has occurred. Examining the results of tests, such as oral or written tests or flight checks, provides a quantifiable method for measuring training effectiveness. The POI must examine and determine the causal factors of significant failure trends. The POI periodically monitors the training and evaluates failure rates to determine whether the training program continues to comply with FAA standards, and also evaluates the program.

On January 12, 2009, the FAA issued a Notice of Proposed Rulemaking (NPRM) regarding upgraded training standards for pilots, flight attendants and dispatchers. This proposal is the most comprehensive upgrade to FAA training requirements in 20 years and was drafted working with an Aviation Rulemaking Committee (ARC) that included pilots, flight attendants, airlines, training centers, FAA, and others.

While aviation has incorporated many technologies over the years to prevent accidents by addressing findings from NTSB accident investigations, human factors remain a source of risk. Improving human performance is a central element to improving safety. Thus, the FAA proposal is aimed at using best practices and tools to help pilots, flight attendants, and dispatchers (1) avoid the mistake and (2) respond better if there is a mistake made.

The aviation industry has moved to performance-based training rather than prescriptive training to reflect that the way people learn has changed. New technology, particularly simulators, allows high-fidelity training for events that we never could have trained to in the past using an aircraft, e.g., stall recovery. We now have qualitative measures to measure actual transfer of knowledge. We can determine proficiency based on performance, not just on the number of hours of training. While the major airlines are already doing this type of training, our proposed rule incorporates best practices and tools so that all operators will use the upgraded standards.

One of the pilot training issues that has arisen in the wake of the Colgan Air investigation is that of failed check rides and whether air carriers are informed of a pilot-applicant's failures. A check ride is a practical examination given by an FAA check airman or airline employer that checks or tests the proficiency of the pilot to perform certain skills. Under the Pilot Records Improvement Act of 1996 (PRIA), air carriers must obtain the last five years' performance and disciplinary records for a prospective pilot from their previous employer. These records would include information regarding initial and recurrent training, qualifications, proficiency, or professional competence including comments and evaluations made by a check airman.

PRIA also requires carriers to obtain records for a pilot from the FAA. FAA records regarding pilot certification are protected by the Privacy Act of 1974. However, PRIA requires carriers to obtain a limited waiver from prospective pilots allowing for the release of information concerning their current airman certificate and associated type

ratings and limitations, current airman medical certificates, including any limitations, and summaries of closed FAA legal enforcement actions resulting in a finding by the Administrator of a violation that was not subsequently overturned. Although PRIA does not require carriers to obtain a release from prospective pilots for the entirety of the pilot's airman certification file, including Notices of Disapproval for flight checks for certificates and ratings, FAA guidance suggests to potential employers that they may find this additional information helpful in evaluating the pilot. In order to obtain this additional information, a carrier must obtain a Privacy Act waiver from the pilot-applicant.

Pilot Fatigue

Another one of the concerns that has come out of the NTSB's investigation is the issue of pilot fatigue and what factors may contribute to pilot fatigue. This is an area of particular interest to me. The FAA regulates flight and duty limitations for all Part 121 pilots conducting domestic operations. The "crew rest" elements of the regulation are designed to mitigate chronic and acute fatigue, primarily through limitations on flight hours and defined hours of rest relative to flight hours. For example, the regulation outlines:

- No more than 30 flight hours in any 7 consecutive days
- At least 24 hours of consecutive rest during any 7 consecutive days
- Varying rest requirements relative to hours flown in any 24 hour period

The rule also defines rest period activities and prohibitions, and provides provisions for circumstances under which flight time limitations can be exceeded, such as in adverse weather operations. As of late 2000, an FAA legal interpretation clarified that under

these rules a pilot crew member, flying under domestic flight rules, must “look back” 24 hours and find eight hours of uninterrupted rest before beginning any flight segment.

Pilots also have a regulatory responsibility to not fly when they are not fit, including being fatigued. Thus, while the carrier schedules and manages pilots within these limitations and requirements, the pilot has the responsibility to rest during the periods provided by the regulations. The FAA has long held that it is the responsibility of both the operator and the flight crewmember to prevent fatigue, not only by following the regulations, but also by acting intelligently and conscientiously while serving the traveling public. This means taking into consideration weather conditions, air traffic, health of each flight crewmember, or any other circumstances (personal problems, etc.) that might affect the flight crewmember’s alertness or judgment on a particular flight.

The FAA has initiated a number of fatigue mitigation efforts in recent years:

- The FAA took steps in 2006 to address fatigue mitigations for Ultra-Long Range flights (more than 16 hours of flight time) and associated extended duty times.
- The FAA held the 2008 Aviation Fatigue Management Symposium to provide the industry the latest information on fatigue science, mitigation, and management. (Symposium proceedings are available on www.faa.gov.)
- The FAA is in the process of writing an Advisory Circular regarding fatigue that incorporates information from the Symposium.

However, because piloting is a highly mobile profession, one of the persistent challenges is that pilots are often domiciled in places that are hundred of miles from the airlines’ bases of operations, e.g., the pilot lives in Los Angeles but is based out of the airline employer’s Atlanta operations. This means that the pilot’s “commute” is a five hour plane ride. Though the commuting pilot is riding in the jump seat or in a passenger seat,

she is not technically considered to be on duty during that time. Whether this has an impact on pilot fatigue is something that the FAA continues to monitor and examine to determine whether it is an appropriate area for regulation.

As the NTSB moves forward on its investigation and presents its findings, the FAA continues to examine the facts that are coming to light. We continue our vigilance in assessing the safety of our system and taking the appropriate steps to improve that.

While we are in an extremely safe period in aviation history, the Colgan Air accident and the loss of Air France 447 remind us that we cannot rest on our laurels, that we must remain alert and aware of the challenges in our aviation system, and that we must continue to work to enhance the safety of the system. This is a business where one mistake is one too many.

Chairman Dorgan, Senator DeMint, Members of the Subcommittee, this concludes my prepared remarks. Thank you again for inviting me here today to discuss the FAA's role in the oversight of air carriers. I would be happy to answer any questions that you might have.