

IDEA SEARCH

The FAA seeks comments on proposals to enhance training and certification requirements for airline pilots.



BY LINDA WERFELMAN

In the aftermath of the fatal February 2009 crash of a Colgan Air Bombardier DHC-8-400 and a subsequent call for enhanced airline safety, the U.S. Federal Aviation Administration (FAA) is seeking recommendations on how to improve requirements for pilot qualification and training.

The FAA published an advance notice of proposed rulemaking (ANPRM) on Feb. 8 to request public comment on possible regulatory changes.¹ The FAA said the notice was intended to “gather information on whether current eligibility, training and qualification requirements for commercial pilot certification are adequate.”

The comments filed in response to the ANPRM will be used “to determine the necessity of establishing additional pilot certification requirements and to

determine what those new requirements might include,” the FAA said. Comments must be submitted by April 9.

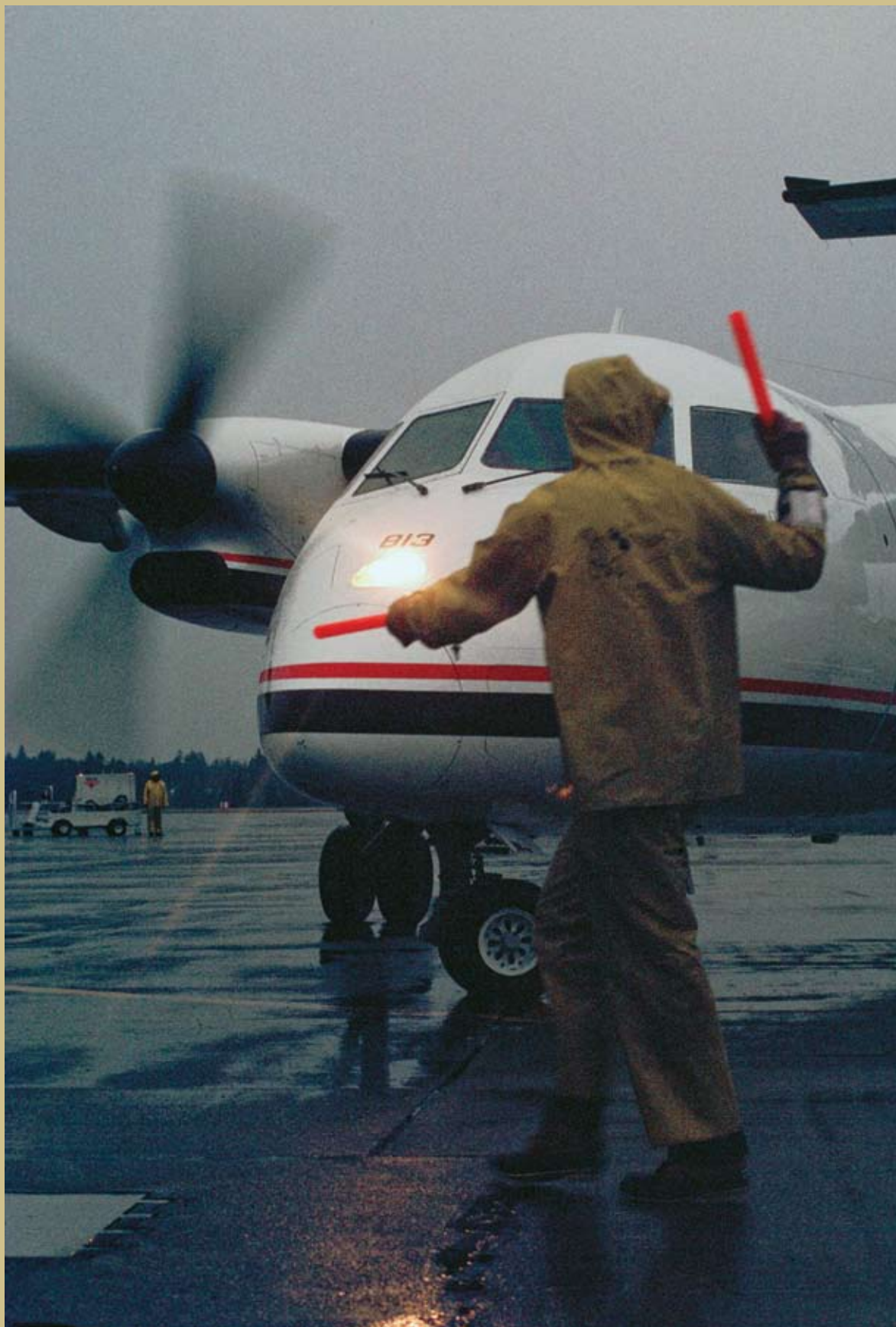
In the ANPRM, the FAA said that the Colgan crash “focused attention on whether a commercially rated copilot in [U.S. Federal Aviation Regulations] Part 121 [air carrier] operations receives adequate training. Specifically, does a copilot’s training include enough hours of training in various weather conditions to be able to recognize a potentially dangerous situation and respond in a safe and timely manner?”

FAA Administrator Randy Babbitt, in testimony delivered before the aviation subcommittee of the U.S. House Committee on Transportation and Infrastructure, said that the agency is working to identify methods of enhancing the pilot certification process to

“identify discrete areas where an individual pilot receives and successfully completes training, thus establishing operational experience in areas such as the multi-pilot environment, exposure to icing, high altitude operations and other areas common to commercial air carrier operations.”²

Babbitt criticized proposals by some outside the FAA to increase the minimum hours required for a pilot to operate a commercial aircraft, reasoning that increasing the required flight time total is not, in itself, an adequate response to the problem.

“There is a difference between knowing a pilot has been exposed to all critical situations during training versus assuming that simply flying more hours automatically provides that exposure,” he said.



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Specific Questions

In the ANPRM, the FAA noted that it already is reviewing public comments on a January 2009 NPRM that proposed to require use of flight simulation training devices to enhance existing training programs for air carrier crewmembers. However, the 2009 NPRM did not address basic pilot certification.

The ANPRM requested comments on specific questions, including whether the FAA should require all pilots in Part 121 operations to hold an airline transport pilot (ATP) certificate, which is issued only to pilots with at least 1,500 flight hours. Alternatively, the ANPRM asked whether, if a Part 121 pilot does not have an ATP, he or she should be required to have the same aeronautical knowledge and experience that is required for an ATP.

The ANPRM also asked if graduates of accredited aviation university degree programs are likely to have “a more solid academic knowledge base than other pilots hired for air carrier operations.” Related questions were whether these graduates should receive credit from the FAA for their academic experience in place of flight time experience, and whether, if the FAA decides to give credit for academic study, the agency should maintain a minimum flight hour requirement for Part 121 operations.

“Some have suggested that, regardless of academic training, the FAA should require a minimum of 750 hours for a commercial pilot to serve as SIC [second in command] in Part 121

operations,” the ANPRM said. “Is this number too high or too low, and why?”

Other questions focused on the advisability of creating a new commercial pilot certificate endorsement that would be required before a pilot could serve as SIC for a Part 121 air carrier, and what types of ground and flight training would be required before the endorsement would be issued.

“The FAA believes that an endorsement approach would target specific skill sets needed for Part 121 operations, and establish the associated standards for content and quality of training,” the ANPRM said. “The endorsement option would also eliminate the time-based requirements that aviation universities argue is not a reasonable requirement for graduates of their four-year aviation degree programs.”

The FAA said in the ANPRM that “although the flight hours required to qualify for an ATP certificate can benefit pilots, experience is not measured in flight time alone. Other factors, such as certain types of academic training, practical training/experience, and experience in a crew environment, are also important. A pilot’s skills and abilities may also be enhanced by exposure to specific operational conditions.”

Comments

At press time, many organizations had not yet filed comments on the FAA’s ANPRM. Among the early responders was Stephen H. Bradford of the U.S. Airline Pilots Association, a captain with US Airways, who said that the FAA “should not be relaxing standards in any way.”

Bradford said that he and many other U.S. air carrier pilots accumulated experience in jobs as flight instructors and as pilots in night freight operations, commuter airlines and/or corporate aviation.

“Successful candidates to the major airlines have all followed a long career path to gain the experience required to be in this profession,” Bradford said. “This knowledge ... cannot be gained in a classroom; it must be gained the hard way, by actually doing it. There may be some room for replacing some of the flight

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time requirement with the use of full, three-axis simulators, but only to a limited extent.”

He said that the FAA should require Part 121 pilots to hold an ATP — “or at a minimum, [demonstrate] the necessary aeronautical skill level as required by an ATP” — to “maintain the confidence of the traveling public.”

FlyRight, a North Carolina firm that provides training in full-motion simulators, endorsed the proposal to create a new commercial pilot certificate endorsement that would be required before a pilot could work as a required pilot in Part 121 air carrier operations.

“There are certain skill sets unique to [Part] 121 flight operations that are essential for pilots to possess in order to obtain the highest level of ongoing air safety,” the company said. “Pilots must be taught how to manage a cockpit in both normal and abnormal situations using all available tools. ... The specific training required to receive a type rating provides a good outline for this proposed ... endorsement.”

The Air Transport Association of America, which, at press time, had not submitted comments on the ANPRM, said it would comment “in due course” and added, “As a general matter, however, the airlines are always interested in exploring measures that will improve the safety performance by utilizing training resources more effectively and efficiently.”

During congressional hearings in late 2009, other organizations discussed some of the proposals that ultimately were addressed in the ANPRM.

During a September hearing before the aviation subcommittee of the U.S. House of Representatives Committee on Transportation and Infrastructure, John Prater, president of the Air Line Pilots Association, International (ALPA), discussed his organization’s support for legislation — subsequently approved by the House — to require all airline pilots to hold an ATP and a minimum of 1,500 flight hours.³

“The bill contains numerous provisions, which, if enacted, will make a profound difference in the selection, training, education and safety of future airline pilot professionals,” Prater told the subcommittee.

Some of those provisions would require every Part 121 airline to establish a flight crew-member mentoring program and to provide stall avoidance and recognition training for its pilots.

In a subsequent letter to lawmakers, Prater said, “Many pilots in the current pool of applicants lack the level of experience that generations of pilots ahead of them had when they came into the airlines. Pilot qualification requirements and regulator oversight of airline pilot training have not kept pace with these industry changes.”

Call to Action

The ANPRM developed from the FAA Call to Action initiative that followed the Feb. 12, 2009, crash of the Colgan DHC-8, operating as a Continental Connection flight from Newark, New Jersey, U.S., to Buffalo–Niagara International Airport in Buffalo, New York. The airplane crashed in night visual meteorological conditions about 5 nm (9 km) northeast of the airport during an instrument approach to Runway 23. All 50 people in the airplane and one person on the ground were killed, and the airplane was destroyed.

The U.S. National Transportation Safety Board (NTSB) attributed the crash to “flight crew failures,” including the captain’s inappropriate response to activation of the stick shaker, which resulted in an aerodynamic stall.⁴

The captain’s response to the activation of the stick shaker “should have been automatic,” the NTSB said, “but his improper flight control inputs were inconsistent with his training and were instead consistent with startle and confusion.”

As a result of the accident investigation, the NTSB issued a number of safety recommendations to the



FAA, among them several that dealt with pilot training, including specific recommendations for stall training and remedial training.

“As pilots transition to larger transport category airplanes, they do not have an opportunity to experience stalls in flight or in a simulator, because air carrier training does not require pilots to practice recoveries from fully developed stalls,” NTSB Chairman Deborah A.P. Hersman said later, in testimony to the aviation subcommittee of the U.S. Senate Committee on Commerce, Science and Transportation.⁵

In the Colgan accident, approach-to-stall training did not prepare the crew for the unexpected stall and “did not address the actions that are needed to recover from a fully developed stall,” Hersman said.

The NTSB’s stall training recommendations included calls for the FAA to require Part 121, Part 135 (commuter and on-demand) and Part 91K (fractional ownership) operators, and Part 141 flight schools to “develop and conduct training that incorporates stalls that are fully developed; are unexpected; involve autopilot disengagement; and include airplane-specific features, such as a reference speeds switch.” Another recommendation said the FAA should require Part 121, Part 135 and Part 91K operators of airplanes with stick pushers to “provide their pilots with pusher familiarization simulator training.”

The NTSB said that the captain’s “continued weaknesses in basic aircraft control and attitude instrument flying,” as demonstrated in several check rides, should have made him a candidate for remedial training. At the time, however, Colgan did not have a formal remedial training program.

The NTSB recommended that the FAA require all Part 121 air carrier

operators to establish remedial programs for flight crewmembers with demonstrated performance deficiencies.

The Call to Action that followed the Colgan crash included goals in several areas, including pilot training, and the FAA said in a January report that progress has been made in completing a number of objectives.⁶

For example, the agency said it has inspected 85 air carriers; 14 other carriers were not subject to the same inspection because they had implemented FAA-approved advanced qualification programs (AQPs) — voluntary programs designed to increase safety by improving training and evaluation. Of these 99 carriers, 76 — including all 14 AQP carriers — had systems in place for remedial training requirements.

The FAA also said it had developed guidance for the industry and for FAA inspectors on “how to review training in the context of a safety management system.” In addition, the agency plans to publish an NPRM this year on flight and duty time limitations and rest requirements for flight crewmembers.

The FAA has received written commitments from 82 percent of U.S. Part 121 air carriers — which represent 98 percent of all Part 121 aircraft — to implement specific safety practices outlined by the agency. Of the Part 121 aircraft, 98 percent are operated by carriers that either have implemented, or are planning to implement, an aviation safety action plan (ASAP), a voluntary, self-disclosure reporting program; and 94 percent are operated by carriers that have implemented or are planning to implement both an ASAP and a flight operational quality assurance (FOQA) program, sometimes known as a flight data monitoring program.

“Also,” the FAA said, “the largest passenger airlines have taken steps to

increase communication, data sharing and cooperation with their partner airlines on implementation of effective safety practices.”

All seven labor organizations contacted by the FAA have provided written commitments to support professional standards committees in the development of peer audit and review procedures and formal codes of ethics, the agency said. The FAA plans to host a meeting of these organizations this year to develop guidelines on cockpit discipline and professionalism.

The FAA already has held 12 regional safety forums to discuss pilot fatigue, labor-management issues and other safety issues. ➔

Notes

1. FAA. *New Pilot Certification Requirements for Air Carrier Operations*. Docket No. FAA-2010-0100. <www.regulations.gov/search/Regs/home.html#docketDetail?R=FAA-2010-0100>.
2. Babbitt, J. Randolph. Testimony before the U.S. House Committee on Transportation and Infrastructure, subcommittee on aviation. Feb. 4, 2010.
3. Prater, John. Testimony before the U.S. House Committee on Transportation and Infrastructure, subcommittee on aviation. Sept. 23, 2009. Also, an Oct. 13, 2009, letter to members of the House.
4. NTSB. *Loss of Control on Approach, Colgan Air Inc., Operating as Continental Connection Flight 3407, Bombardier DHC-8-400, N200WQ, Clarence Center, New York, February 12, 2009*, NTSB/AAR-10/01. Also, safety recommendation letter to FAA Administrator J. Randolph Babbitt, Feb. 23, 2010.
5. Hersman, Deborah A.P. Testimony before the U.S. Senate Committee on Commerce, Science and Transportation, aviation subcommittee. Feb. 25, 2010.
6. FAA. *Answering the Call to Action on Airline Safety and Pilot Training*. January 2010.