

**Submission on Pilot Training and Airline Safety Including Consideration of the  
Transport Safety Investigation Amendment (Incident Reports) Bill 2010**

November 5, 2011

Committee Secretary  
Senate Standing Committee on Rural Affairs and Transport  
PO Box 6100  
Parliament House  
Canberra ACT 2600  
Australia

Submitted: As MS Word file with enclosures attached to email to [rat.sen@aph.gov.au](mailto:rat.sen@aph.gov.au)  
and also via the Senate Online System

Subject: Commentary on "Pilot Training and Airline Safety Including Consideration of  
the Transport Safety Investigation Amendment (Incident Reports) Bill 2010"

Gentlemen:

The Boeing Company Training and Flight Services organization respectfully provides the following submission on the Subject Amendment Bill 2010. Our comments are organized in accordance with the outline (a) through (j) found on your web page [http://www.aph.gov.au/Senate/committee/rat\\_ctte/pilots\\_2010/info.htm](http://www.aph.gov.au/Senate/committee/rat_ctte/pilots_2010/info.htm), supplemented by material that provides research, facts, and data related to our comments. *(a) through (j) are repeated in italics*, our comments are shown in normal type.

*(a) pilot experience requirements and the consequence of any reduction in flight hour requirements on safety;*

Boeing supports the idea that experience and training methodologies have an affect on safety. The former as measured in the quantity of flight hours may or may not include flying that has relevance to operation by first officers in public transport services. The latter can be specifically designed to prepare a first officer for operation in public transport services. There is some rational minimum number of flight hours that result from a scientifically designed training curriculum that may be specified; our advocacy is to emphasize a high quality, scenario-based, crew-oriented training program, rather than quantity of flight hours in the determination of experience necessary for public transport service operations.

*(b) the United States of America's Federal Aviation Administration Extension Act of 2010 which requires a minimum of 1 500 flight hours before a pilot is able to operate on regular public transport services and whether a similar mandatory requirement should be applied in Australia;*

The Amendment Bill 2010 contains references to the "United States of America's Federal Aviation Administration Extension Act of 2010" which, in turn, contains references to "1500 flight hours" and the "Air Transport Pilot certificate" before a pilot is able to operate on regular public transport services. This bill, referred to as HR 5900 and/or as Public Law 111-216, also contains provisions as follows: "(d) CREDIT

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TOWARD FLIGHT HOURS.—The Administrator may allow specific academic training courses, beyond those required under subsection (b)(2), to be credited toward the total flight hours required under subsection (c). The Administrator may allow such credit based on a determination by the Administrator that allowing a pilot to take specific academic training courses will enhance safety more than requiring the pilot to fully comply with the flight hours requirement.” This important legislative provision permits the FAA to implement the legislation through rule(s) that allow a reduction of logged actual flight time from the referenced 1500 hours as a function of the type of education and training received by the pilot student.

Just prior to the passage of Public Law 111-216, the FAA convened a First Officer Aviation Qualifications Advisory Committee (FOQ ARC) to address the specifics of the anticipated legislation. The following nine organizations provided subject matter experts for the FOQ ARC: Aviation Accreditation Board International (AABI), Aircraft Owners and Pilots Association (AOPA), Airline Pilots Association (ALPA), Air Transport Association of America (ATA), Coalition of Airline Pilots Associations (CAPA), National Air Disaster Alliance/Foundation (NADA/F), National Business Aviation Association (NBAA), Pilot Career Initiative (PCI), and Regional Airline Association (RAA).

During the deliberations of the FOQ ARC, a research study known as the “Pilot Source Study” was considered along with additional data on first officer qualification competency demonstrated during indoctrination of pilot candidates. A consortium of seven universities prepared the Pilot Source Study with access to human resource data on the performance of more than 2000 first officer candidates at six airlines. A further, more detailed, research project called Pilot Source Study 2 is underway at this time.

The FAA has not released the FOQ ARC report, however we anticipate it will be released about January 2011 concurrent with a Notice of Proposed Rulemaking (NPRM) that will ask for public comment on proposed rulemaking regarding first officer qualifications. **Given the provisions for aviation education credit in the legislation enacted as Public Law 111-216, it is premature for any national legislation or rulemaking concerning pilot qualification to cite precedent actions by the FAA until such a NPRM is released.** Here is the expected schedule leading to new rules for first officer qualification (*italics refer to ancillary events*):

- 2010 07 20 Formation of the FOQ ARC
- 2010 08 01 Passage of HR5900
- 2010 09 20 FOQ ARC report submission
- 2011 01 15 NPRM released (estimated; HR5900 specifies 180 days)
- *2011 03 01 Completion of Pilot Source Study 2*
- *2011 03 20 NTAS 2011, an event convened by Embry-Riddle Aeronautical University at which the training industry will consider and comment on the NPRM*
- 2011 04 15 Responses to NPRM (estimated 90 day NPRM response)
- 2011 08 01 New rule published (one-year time period built in to HR5900)
- 2013 08 01 New rule in effect (three-year time period built in to HR5900)

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The above affects training of pilots in the US. In current practice, the number of hours that a new first officer may have logged prior to employment varies widely, both in the US and worldwide. Some examples:

- In Europe, a number of airlines recruit young first officer candidates and train them exclusively for airline operations in company-designed and sponsored programs. These programs start trainee orientation for crew-based airline operations from the first day of training and graduate first officers into 737 or equivalent aircraft with less than 300 flight hours.
- ICAO and a number of member nations are pioneering a Multi-crew Pilot License (MPL) concept that employs scientifically designed high quality, scenario-based, crew-oriented training; it also can graduate first officers into 737 or equivalent aircraft with less than 300 flight hours. These programs may involve acquisition of flight training in both the member nation and at “foreign” locations that have favorable flight training conditions and infrastructure. **Australia is one such location. EASA includes MPL in their new rules regarding Flight Crew Licensing. It is reasonable to forecast that MPL will become a significant if not dominant means of preparing first officers for public transport services in the future. Therefore ICAO member states should not create regulations that legislate arbitrary minimum flight hour requirements that provide no safety benefit to the public.**
- In the US, university and structured academy programs graduate students with between 250 and 400 flight hours; they typically are employed by regional airlines and begin their professional careers in Embraer or Canadair regional jets. When demand is low, many of these pilot candidates instruct for their institutions or at large, and acquire more flight hours while waiting for employment opportunity. The new first officer rules to be enacted as a result of recent legislation may have an impact on both the training programs and flight hours for initial employment; the exact parameters are yet to be known as per above.
- Retired military pilots, an increasingly scarce commodity in this market, may be engaged as first officers with as little as 300 hours.

In spite of the above variability, safety of operations all over the world has been excellent, and no accidents of which we are aware have been attributed to the pre-employment experience. The fact is, airlines around the world, including in Australia, do an excellent job of assessing candidate pilot capability and through selection processes, supplementary indoctrination training, and supervised flying, provide the public with the safest mode of transportation available.

*(c) current industry practices to recruit pilots, including pay-for-training schemes and the impact such schemes may have on safety;*

Recruiting of new pilots by industry is fundamentally a labor market practice. As new airplanes are introduced and older pilots retire, a demand emerges for pilots to serve as first officers while the more experienced first officers in any particular operation are

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promoted to captain status. **The reference to “pay-for-training” implying a relationship to safety is inappropriate.** The cost of training new pilots must be born by some entity, and the practice varies widely across the globe. In the examples cited above, the European practice involves airline sponsorship, usually associated with a bonded obligation for the pilot to remain with the airline for a specified period of time. In the US, the cost of initial training is usually born by the student or her/his families, often supported by discounted through scholarships or supported by personal/family loans. There is no evidence that the method of financing flight training bears any effect on flight safety. The MPL model might have any number of training cost coverage financial models, none of which will impact the quality of the training, the preparation of the first officer candidates, or the safety of the public.

*(d) through (j)*

Boeing has experience and can offer expert opinion that bears on many elements in these questions; however, they do not relate to the issue we consider most urgent for consideration in this Amendment, which is the arbitrary legislation of a flight hour requirement for preparation of first officer candidates. Some of these additional issues were addressed in the FOQ ARC, and in other contemporary Aviation Rulemaking Committee activity currently occurring in the US. When these ARCs report out, either as public reports or through consequential NPRMs, there may be insights of interest and value to the Australian government.

Thank you for the opportunity to comment on the Amendment Bill 2010, we hope our input has been of value in your deliberations. Should you require more information, or request direct testimony to any governmental body, please do not hesitate to contact us. Our primary contact for additional information would be to Ian Q. Thomas, President, Boeing Australia and South Pacific.

Sincerely,

Tom Pryde  
Director, Regulatory Affairs  
Boeing Training and Flight Services