

TESTIMONY OF WILLIAM R. VOSS

PRESIDENT AND CEO, FLIGHT SAFETY FOUNDATION

**UNITED STATES SENATE COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION'S
SUBCOMMITTEE ON AVIATION OPERATIONS, SAFETY, AND SECURITY HEARING ON**

IMPLEMENTATION OF HR5900

MARCH 20, 2012

Chairman Cantwell, Ranking Member Thune, and distinguished members of the Subcommittee: My name is William Voss and I am the President and Chief Executive Officer of the Flight Safety Foundation.

The Flight Safety Foundation is an independent, nonprofit, international organization engaged in research, education, advocacy, and publishing. Its mission is to be the leading voice of safety for the global aerospace/aviation community. We have members all around the world representing every facet of the aviation industry. On behalf of the Foundation, I appreciate this opportunity to testify about the implementation of HR 5900, the Airline Safety and Federal Aviation Administration Extension Act of 2010.

The short answer is that the implementation of HR 5900 is progressing well. The more complicated answer is that there is still work to be done and parts of this law that ought to be reconsidered.

The Fatigue Rule

My background in aviation is diverse. I've been a pilot, an air traffic controller, a certified aviation mechanic, and a regulator and standard-setter, both at the FAA and the International Civil Aviation Organization (ICAO). I know firsthand how the issue of fatigue can affect every aspect of this industry. We all know that fatigue affects our performance, but normally our own drowsiness or lack of sleep does not have the potential for catastrophic consequences, unlike the airline pilot who is responsible for dozens or hundreds of lives. While some may not be entirely satisfied with all aspects of the fatigue rule mandated under HR 5900, I have to say that the overall result is indeed historic. More than 20 years of political gridlock has been broken. What we have today are a set of rules that reflect our modern understanding of fatigue and target operational risks based on science rather than just political horse-trading. The new rule gives the industry the flexibility to respond to new operational risks as they emerge and to embrace new advances in science as appropriate. The world has taken note, and to a great extent is following this positive example.

Pilot Certification and Qualification Requirements for Air Carrier Operations

There is still a great deal of work to be done to address the issues of experience and training requirements called for under HR 5900. Congress and family groups were right to call for action in this area. The training standards for airline operations have been relatively static for decades, while incremental implementation of new technology and wholesale restructuring of the industry has caused those training requirements to become dangerously outdated and we are seeing some tragic consequences. This problem is not unique to the United States. It is a world-wide problem that must be dealt with now and the world will be watching to see how the FAA addresses it.

Since the initial proposal of the 1,500 hour rule, the Flight Safety Foundation expressed reservations regarding the focus that HR 5900 places on mandatory flight hours. Our position has been that if a flight crew needs to know, understand or have a specific skill set in order to protect the lives of their passengers, then steps should be taken to ensure the knowledge is obtained through training or previous experience. Mandating an arbitrary number of hours experience required to be in a cockpit makes the dangerous assumption that specific knowledge will be obtained simply due to hours in the air. This leaves too much to chance.

There are countless examples of pilots with many thousands of hours, who lacked the critical knowledge to avert a tragedy. The Air Florida pilots who crashed at Washington National more than 20 years ago had 8,300 hours and 3,500 hours respectively, yet still lacked critical knowledge of cold weather and de-icing operations. While the final report has not been issued, it is clear that there were gaps in the knowledge of the crew of Air France 447, which crashed in the Atlantic Ocean several years ago, that lost control of the aircraft following a brief failure of an airspeed sensor.

While the purpose of a 1,500 hour rule is understood, the Flight Safety Foundation strongly supports the notion that a structured training program can allow this requirement to be reduced, since that training program would reduce risk by leaving less to chance. The Foundation believes the real effectiveness of the new rule will be more a result of mandating critical training that targets risk in the real world, rather than simply increasing the number of hours.

The Notice of Proposed Rule Making (NPRM) calls for several changes that are very important. The requirements for an Airline Transport Pilot (ATP) Certification Training Program and the development of a revised ATP Knowledge are positive. These changes will help ensure that the basic knowledge of air carrier operations are provided and will open the door to a modernization of the existing knowledge test.

The Flight Operations and Qualifications Aviation Rulemaking Committee (ARC) also recommended a requirement for an Advanced Jet Training Course. The Foundation supports this recommendation since it would ensure specific practical training that addresses many of the highest-risk areas, and would meeting many of the requirements spelled out in Section 216 of HR 5900.

The NPRM also includes two new experience requirements that institutionalize common practice and make a great deal of sense. One is the requirement for 50 hours of multi-engine experience for a second in command. This requirement is a de facto industry standard already. The other requirement is for 1,000 hours of airline operational experience before assuming the role of captain. This amounts to a requirement for one to two years of line experience as a first officer before assuming command. Most responsible airlines already have a similar requirement.

It is vitally important to ensure that Captains are promoted in a thoughtful and deliberate manner. Captains become mentors and trainers for first officers. They also set the limits of what is acceptable and the types of risks that may or may not be taken. The professionalism and maturity of the Captains drive the safety culture of an airline. I hope to see additional work that focuses on the important area of mentoring.

Looking Forward

The progress in the area of fatigue and pilot training is impressive. However I would like to offer some suggestions and cautions as we move forward with further implementation.

First of all I would like to suggest that while external forces have provided an essential push, it is important at this junction that the experts are allowed to focus on the issues that pose a risk rather than just the issues that resonate politically. For example, HR 5900 Section 207 directs the FAA to, "...conduct a study on aviation industry best practices with regard to flight crewmember pairing, crew resource management techniques, and pilot commuting." I have heard a lot of controversy about pilot commuting but I have heard very little about crew pairing. As a safety professional I will tell you crew pairing techniques are a powerful tool to mitigate risk. We are at a juncture where the things that capture the public's imagination may not be the same things that need to be addressed to avert the next tragedy.

Secondly, progress against the objectives of HR 5900 must be made with a sense of urgency, but without overreaching. The myriad of working groups, studies and deadlines, specified by HR 5900 had the desired effect. They created a flurry of activity that unfroze the system that had and drove overdue action on key issues. However, this flurry of activity generated as much heat as it did light. The breadth of activity clearly exceeded the resources and capability of the FAA to manage. From this point on, it would be best if the sense of urgency could be maintained and a schedule agreed to that allows for the thoughtful implementation of some difficult changes.

Finally, it should be acknowledged that HR 5900, and specifically the requirement for an ATP for the second –in– command in an air carrier, will have significant international implications. Since the close of World War II, the United States has been a leader in the field of aviation, and the FAA has served as a model for regulatory authorities around the world. For the first time, the FAA will promulgate a rule that the rest of the world will have to universally dismiss. Given the structure of the global airline industry and the demand for aviation professionals around the world, it will be impossible for foreign regulators to follow the FAA's lead and implement an ATP requirement for the second-in-command of an air carrier.

In addition, there will be challenges for foreign regulators who are confronted with an Airline Transport Pilot Certificate that was issued with less than 1,500 hours. While the Flight Safety Foundation strongly supports the FAA proposal to issue an ATP Certificate with restricted privileges at 1,000 hours, such a proposal does fall outside the framework of international standards and will require some thoughtful adjustments to accommodate international operations.

These are not inconsequential concerns. Our actions reverberate throughout the world and it is important that our lawmakers and regulators at the FAA consider the impact new regulations have on international operators flying into the US as well as the impact some of these regulations may have on the US's position as the standard-bearer for aviation regulation. We are encouraged by many of the advances we have seen during the implementation of HR 5900, but still see some areas that need more work.

For the traveling public, the tragedy of an aviation accident is magnified by the rarity. We've achieved levels of safety that are the envy of other industries and can make all of us proud. But we must stay vigilant and understand that safety is an ongoing effort. As we get deeper into the implementation of HR 5900, it is our hope that the FAA continues to increase its work with safety professionals and other experts in order to make our safe skies even safer.

Thank you very much for this opportunity to testify this afternoon.