Statement of J. Randolph Babbitt

before the Subcommittee on Aviation Safety, Operations and Innovation

Hearing Entitled "Addressing Close Calls to Improve Aviation Safety."

Thursday, November 9, 2023

Introduction and Background

Chair Duckworth, Vice Chair Moran, and members of the Commerce Committee, thank you for inviting me here today to review current safety issues and the state of aviation safety today.

I am pleased to be here today alongside individuals from the FAA, NTSB, and representatives from organized labor. I am here today as a private citizen and safety consultant, and as a frequent user of a system that has become as safe as it has today thanks to the tireless work of thousands of professionals from air carriers, labor representatives and frontline employees, as well as the FAA and the NTSB, in advancing safety. As I have noted before, history has shown that we are able to implement safety improvements far more quickly and effectively when the FAA, industry, and labor work together on agreed upon solutions.

Throughout my career, including my years as a commercial airline pilot, I had the pleasure of experiencing this work up close and personal. For example, when I served as the President of the Air Line Pilots Association (ALPA) for eight years in the 1990's, I worked with then FAA Administrator David Henson on what would become known as the Aviation Safety Action Program ("ASAP".) Working together, we saw ASAP developed by the FAA and implemented nationwide. Later in my tenure at ALPA, I pressed for "One Level of Safety," bringing Part 135 operator standards for commuter carriers up to Part 121 standards. Achieving this marked a major step forward in aviation safety. During my time at ALPA, we pressed forward internally and required all ALPA pilot groups to have Professional Standards Committees. I was also a member of the FAA's Management Advisory Council (MAC) for a decade, chairing the MAC for two years. I joined more than a dozen aviation professionals from public and private sectors on the MAC serving in a voluntary capacity to help ensure our airspace remains one of the safest and most efficient in the world.

Later, I was appointed and confirmed as the FAA Administrator, and I was honored to serve the Agency and the public for 2 ½ years. There I joined a group of dedicated safety professionals who were doing impressive work. Together, we achieved some very important safety milestones, including critically needed updates to Flight & Duty time regulations, something that had been on the NTSB's Most Wanted list for nearly two decades at that time. Working with our air carriers, we also refined and implemented the Aviation Safety Information Analysis and Sharing ("ASIAS") system.

A Call to Action

In 2009, in my role as FAA Administrator, I came before this Committee to discuss a "call to action" in the face of a crisis following a tragic accident. We issued a "call to action" and brought in the heads of all the major pilot unions to instill the need for increasing professionalism. We urged better utilization of each air carrier's Safety Committee and Professional Standards Committee. The response was excellent, and carriers responded with helpful feedback and worked with their committees to support the initiatives. We built on earlier work of the FAA, labor, and industry including the Commercial Aviation Safety Team ("CAST".) Developed in 1997, CAST created an integrated, data-driven strategy to reduce the commercial aviation fatality risk in the United States and promote new government and industry safety initiatives throughout the world. By 2008, CAST was proud to report the risk in fatal commercial accidents had been reduced by 83 percent.

I'm proud of the progress we have continued to make in the years since the 2009 "call to action." I am even more proud of the work my colleagues at the FAA, and the professionals at every FAA since, have made on the principals that matter most to aviation safety: the sharing of information and data without fear; whether that is from front line employees to management, or management to the FAA or airline to airline. It is data, when shared and acted upon without fear, that makes us safer.

This work is critical because it is clear to every aviation safety professional that what got us to today's unprecedented level of safety will not get us where we need to go. Today's system is very safe, but we cannot measure safety by a lack of accidents. The lack of an accident today is simply not a predictor of a future accident or lack thereof tomorrow.

Today, the increasing amount of traffic from drones and the forecast for autonomous operations adds volume and complexity to the air traffic control system. Rapid changes in our aviation system are taking place, even as there are signs, in the form of incidents and incursions, that show the system may be straining under its existing traffic.

This presents a different kind of crisis and a different "call to action" is needed. While programs like free flight have the potential to vastly modernize the system and significantly reduce delays and traffic conflicts, a review of recent incidents and near collisions puts a bright light on the need for additional focus on professionalism, eliminating complacency and a renewed focus on Crew Resource Management ("CRM") at our carriers.

A current state "call to action" would be perfectly in order for the new FAA Administrator, the Honorable Michael Whitaker. This "call to action" would ideally bring together leadership from our pilot and controller unions along with safety committees from the various carriers and the FAA, taking additional input from the NTSB, to review a range of areas where improvements can be made to aviation safety.

Modern Training for a Modern System

Modernizing the overall aviation operating environment and the training of its professionals is critical for sustaining and advancing aviation systems and is a crucial component of this needed "call to action." Today's sophisticated flight simulators, when used as part of a structured training program, can play an important role in advancing safety.

Broadly, the aviation industry is moving to performance-based training rather than prescriptive training. This reflects that the way people learn has changed as well as the increasing sophistication of modern tools and technology. New technology, particularly simulators, allows high-fidelity training for events that we never could have trained to in the past using an aircraft, for example, stall recovery. Flight simulators can be used as part of a structured training course to accurately recreate the experience of flight operations in a fully immersive experience, forcing pilots to encounter aircraft malfunctions, including rare events like rapid decompressions, emergency descents, high-speed rejected takeoffs, dual engine failures, severe icing conditions, flight control malfunctions and full stalls, all without placing any lives in danger. Simulators also present the opportunity to incorporate actual accident and incident scenarios into pilot training.

Furthermore, the newest simulators have advanced in quality yet are much less expensive to purchase and operate. Use of simulators and structured training could therefore lower barriers to entry into the profession and open up high quality training to a wider group of aspiring pilots. Incorporating this type of realistic training and experience in a structured and controlled way will add to the existing margin of safety in commercial operations.

We now have qualitative methods to measure actual transfer of knowledge. We can determine proficiency based on performance, not just on the number of hours of training. In 2009, the FAA advanced an ANPRM aiming to incorporate training best practices and tools so that all operators could use the upgraded standards.

Simulators also present the opportunity to incorporate actual accident and incident scenarios into training. Pilots should experience the factors that led to accidents and successfully recover, so that such accidents can never happen again. There should be a continuous feedback loop so that as new errors, whether they be mechanical, environmental, or pilot-induced, from FAA and NTSB investigations and recommendations, are rapidly incorporated back into training. As a current example, we could now require updated training on the kinds of scenarios that have led to recent runway incursions and close calls.

The tools are here--supported by substantial data. However, there has been a hesitancy to move, in some cases borne of fear that advancing pilot training would conflict with the FAA's 2013 First Officer Qualification rule (FOQ), or the *Airline Safety Act of 2010* which mandated the rule. However, direction from and language in the developed in the *Safety Act* clearly provides that proper "Supplemental Training" could be used to offset flight time requirements, where that training offers a higher level of safety than accumulating flight time. Additionally, that rule was not meant to be static. As knowledge and training techniques progress, new training providers should be considered, and additional training credits should be allowed when they can be demonstrated to improve safety.

The FAA has indeed followed up and chartered two Aviation Rulemaking Committees ("ARC") in 2013 & 2021. The ARCs in both cases were well-staffed and represented with input across the industry, including the Air Line Pilots Association. The results received unanimous support from the members of the ARCs of both timeframes and both acknowledged the value of supplemental training.

Both ARCs laid out a draft curriculum that effectively substitutes advanced training and mentoring to replace simple, single-engine flight hours. Notably, the FOQ does not focus on training but simply adds an arbitrary level of flight hours required to enter Part 121 Operations as a pilot. Further, neither the FAA nor the NTSB found any value in the FOQ hour mandates and have so stated.

Aviation has a long history of well qualified people and organizations seeking changes to improve training and better use of simulation. I'm pleased to note that one of those well-qualified people is the Honorable Michael Whitaker, our current FAA Administrator. In his paper on "The Evolving Role of Training in Aviation Safety" written April 21, 2015, he highlights the need to adopt more modern training techniques and embrace the advantages of modern simulation to supplement traditional training. I believe that is even more important and pertinent today.

Military and Global Gold Standards

More than a decade has passed from the date the *Safety Act* was passed and far better programs and training equipment are now available to produce better trained pilots.

Pilot training and simulation technology advances have prompted the U.S. Air Force to more than triple the amount of simulator training for its new pilots. Policymakers and the FAA hold military pilot training and fight experience in such high regard that a pilot leaving the military for an airline pilot job needs only 750 hours of total military time instead of the 1,500 hours required for an Air Transport Pilot certificate. In effect, credit is given for the superior training provided by the military, which includes significant emphasis on simulator training.

Looking abroad to the European Union, where air carriers have excellent safety records and currently operate in and out of dozens of U.S. airports, I have had recent communications with flight operations and training people from Lufthansa and have reviewed their Ab Initio training program. Their current system has fully trained pilots going on the line with around 400 total flight hours.

Modern instructional methods and equipment being embraced by our military as well as international air carriers with enviable safety records, allow them to train pilots in far less time and with lower carbon footprints through better use of simulation and training curriculum. The result is better trained pilots. Aviation experts, both domestic and international, know that little is learned in flying solo in a single engine light aircraft when compared against a robust curriculum with a syllabus that includes simulation of emergencies, weather, and crew resource management in a multicrew environment.

I am not alone in saying this. Earlier this fall, I joined a letter to this Committee that was authored by a total of eight former FAA Administrators and two former Presidents of the Air Line Pilots Association (I count myself twice because I'm in both of those buckets). We share the view that the adoption of tested and trusted new technologies will strengthen American airspace safety.

Quoting from that letter[1], we said "Simulators also present the opportunity to incorporate actual accident and incident scenarios into training…There should be a continuous feedback loop so that new errors, whether they be mechanical, environmental or pilot-induced, from FAA and NTSB investigations and recommendations, are rapidly incorporated back into training. For example, if such scenario-based simulator training was a routine part of gaining the 1,500 hours required for the ATP, we could now require updated training on the kinds of scenarios that have led to the recent rash of runway incursion near-misses."

We also emphasized: "as pilot training technology evolves, it is the responsibility of the FAA and policy makers to evolve with it."

Conclusion

Aviation is a business where one mistake is one too many. The United States continues to enjoy an extremely high level of aviation safety, and the continuation of that level of safety relies on each of us setting aside differences and coming together to make changes that allow us to constantly stay ahead in a changing environment. Incorporating modern tools, technologies and training, and continuously advancing each, is an important component of that work.

Chair Duckworth, Vice Chair Moran, Members of the Committee, this concludes my prepared remarks. Thank you again for inviting me to discuss the state of aviation safety today, and my views on areas where we can improve it together. I look forward to discussing and answering any questions you may have.

---

[1] A copy of the full letter is attached as an addendum to my testimony.