



**Hearing of the House Subcommittee on Aviation  
June 19, 2019**

Good morning, Chairman Larsen and Ranking Member Mr. Graves of Louisiana. Good morning, Chairman DeFazio and Ranking Member Mr. Graves of Missouri. Good morning to you, Honorable Members of the Committee.

My name is Daniel Carey. I am a 35-year career captain with American Airlines and president of the Allied Pilots Association. The Allied Pilots Association is the largest independent pilot union in the world. I am not just privileged, but honored to represent the 15,000 professional men and women pilots of American Airlines. I can tell you that they are an outstanding group of professional pilots dedicated to ensuring the safe passage of all people who fly on American Airlines in our country and around the world. I am also a member of the board of the Coalition of Airline Pilots Associations, a trade association representing 32,000 professional pilots dedicated to airline safety and security.

The piloting profession is in my DNA. My father and two uncles were distinguished World War II fighter pilots who served our nation, one of whom gave his life. My father was also an early pilot pioneer for Trans World Airlines. My daughter, his granddaughter, continues the family tradition as a commercial pilot.

Mr. Chairman and Members of the Committee, what brings us together today are the tragic accidents involving two Boeing 737 MAX aircraft. The hearts of all our 15,000 American Airlines pilots go out to the families, friends and associates of the 346 souls lost in the Lion Air and Ethiopian Air crashes. We owe it to those lost souls and to the flying public, worldwide, to make sure these kinds of events never happen again.

In my 35-year career at American Airlines, I have flown as Captain in five models of American's aircraft with more than 28 years on Boeing aircraft. My professional view is that the Boeing Corporation has manufactured superbly engineered and designed aircraft over many decades. Unfortunately, in the matter of the 737 MAX, I completely agree with the Boeing CEO's assessment that the company let down the public with catastrophic consequences.

As professional pilots, we understand that the ultimate conclusion regarding the causes of these accidents must await the final findings of the exhaustive investigations underway.

There are certain facts we know:

1. The 737 MAX was designed to provide the same aircraft feel to the pilots as the 737.



This was intended to minimize the operating cost to Boeing's customers by allowing the MAX to be certified by the FAA as a 737. The point was to provide Boeing's customers with a new advanced aircraft while minimizing the training cost associated with a different aircraft certification. This led Boeing's engineers to add the MCAS system. Many mistakes were subsequently made by Boeing engineers as MCAS was designed as a "federated" not "integrated" system. As a single-point-of-failure design, this meant that any redundancy to the system, if it failed, was completely dependent on the Captain and First Officer of the aircraft.

2. The huge error of omission is that Boeing failed to disclose the existence of MCAS to the pilot community.
3. The final fatal mistake was, therefore, the absence of robust pilot training in the event that the MCAS failed.

I can tell you that the members of APA are offended by remarks made by those who seem to blame the pilots killed in those two crashes. Some negative aspersions have appeared in the press relating to the quality of pilots trained in Africa. I am here to tell you that I worked in Africa and trained African pilots to fly large aircraft. I am very familiar with Ethiopian Air's pilot training program and facilities, and I can tell you that they are world-class. In fact, while not one U.S. airline has a MAX simulator, one non-U.S. airline does – Ethiopian Air. To make the claim that these accidents would not happen to U.S.-trained pilots is presumptuous and not supported by fact. Vilifying non-U.S. pilots is disrespectful and not solution-based, nor is it in line with a sorely needed global safety culture that delivers one standard of safety and training. Simply put, Boeing does not produce aircraft for U.S. pilots vs. pilots from the rest of the world.

The most important issue now is the question of the airworthiness of the 737 MAX fleet. I believe that the Boeing engineers have indeed made significant positive changes with the new software fixes, many of which our pilots demanded when we met with Boeing officials in November 2018. There are now redundancies embedded in the aircraft in the event of the "firing" of MCAS. However, at APA we remained concerned about whether the new training protocol, materials and method of instruction suggested by Boeing are adequate to ensure that pilots across the globe flying the MAX fleet can do so in absolute complete safety.

In fact, during a meeting with the FAA on April 12, 2019, with U.S. airlines and pilot unions, FAA officials highlighted a critical checklist that Boeing directed pilots to use to recover the MAX after an MCAS misfire. The FAA official stated that this critical checklist had not been validated since 1967, noting that the 737 has been dramatically modified many times since. The FAA official cited potential issues with pilot "manual trim effort" required and challenging "elevator loads" confronting pilots when this checklist is executed. This is an example of why APA's comments to the Flight Standardization Board include calling for a review, improvement and training of critical MCAS misfire recovery checklists.



With regard to the public policy issues generated by the fatal MAX crashes, the foremost and most urgent, in my view, is assessment of the adequacy of the FAA aircraft certification

process. This is a complex subject because the certification process is extremely sophisticated. So, I do not have all the answers about ways to improve the FAA aircraft certification process, but I do have some questions:

1. First, is the FAA sufficiently independent of the manufacturers so as to provide a legitimately rigorous audit of the manufacturers' design and engineering?
2. Second, should a "federated" system, which may lead to an unrecoverable event, ever be certified by the FAA?
3. Third, should an FAA aircraft certification — such as a 737 designation from 1967 — have a date for termination or sunset?
4. Finally, is the FAA sufficiently equipped to ensure that pilot training protocols are vigorous and robust as aircraft are becoming more and more technologically sophisticated?

Mr. Chairman, these are among the questions that I respectfully hope this committee examines. Of course, there are many others as well. Unfortunately, as pilots know, improvements in aviation are often written in the blood of the unfortunate victims of airplane accidents. But all of us — the pilots, flight attendants, airline companies, manufacturers, the executive branch of our government, and Congress — owe those victims the highest level of diligence to make sure these kinds of accidents never happen again.

This is a global aviation crisis of trust and will require global solutions to restore and bolster aviation's global safety culture and reputation. As sad and grim as these crashes were, there is an opportunity to lead and bring something positive out of this darkness. As the last line of defense for our passengers, the members of the Allied Pilots Association are humbled and proud to be a part of this noble cause.

Thank you and I look forward to your questions.



Captain Daniel F. Carey  
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