US regulators suppressed safety concerns surrounding Boeing 737 Max 8

By Bryan Dyne
29 July 2019

A new investigative report on the Federal Aviation Administration (FAA) and aerospace giant Boeing reveals that high-level agency officials actively suppressed safety concerns surrounding the design and certification of the lethal Boeing 737 Max 8 aircraft. As explained by those interviewed, this was done at the behest of the company to maximize its profits over all other considerations.

The investigation, conducted by the New York Times, was reported on Sunday. The front-page article comes four and a half months after the airplane was grounded following two deadly crashes that killed a total of 346 people. Lion Air Flight 610 crashed shortly after takeoff in Indonesia on October 29, 2018, killing all 189 passengers and crew. Ethiopian Airlines Flight 302 crashed six minutes after takeoff on March 10, 2019, killing all 157 people aboard.

In both disasters, an automated anti-stall system repeatedly forced the nose of the plane down, overriding attempts of the pilots to stabilize the aircraft. Preliminary investigations have linked both crashes to the little-known system called MCAS (Maneuvering Characteristics Augmentation System), installed by Boeing to compensate for design problems in the new short- and medium-haul workhorse it introduced in 2017 to compete with its European-based rival Airbus.

Facing repeated delays on FAA certification to resume 737 Max 8 flights and billions of dollars in write-offs and lost sales, Boeing announced last week that it may suspend production of the aircraft to cut costs while the plane remains grounded. That move would trigger thousands of layoffs at Boeing and the company’s suppliers.

Different parts of the aviation industry are already suffering from the Max 8 grounding. Airlines have canceled thousands of flights and parts companies, including General Electric, reported reduced profits in the second quarter after Boeing slashed production of the 737 Max 8 from 52 to 42 per month in April.

A key figure cited in the Times report is Ali Bahrami, a former FAA official turned aviation industry lobbyist, who oversaw the creation of the Boeing Aviation Safety Oversight Office, the department within the agency that oversaw the development of the 737 Max 8. According to former FAA engineer Mike McRae, Bahrami “really wanted abdication” of any federal oversight of the new plane.

This assumed a new form when Bahrami left the FAA in 2013 to work for the Aerospace Industries Association, a lobbying group that advocates total deregulation of the airline industry. Bahrami himself told Congress on behalf of the industry group, “We urge the FAA to allow maximum use of delegation,” referring to the by now standard procedure that allows Boeing to conduct its own safety reviews, appointing its own employees to “regulate” itself.

The Times reports that the FAA handed over responsibility for approval of MCAS to Boeing, which was not required to inform FAA engineers of details of the system. Late in the development of the 737 Max 8, which was rushed by the company to avoid losing sales and market share to Airbus, Boeing expanded the impact of MCAS to trigger at slower speeds and shift the nose of the plane more sharply downward. It also potentially compromised safety by making the system rely on only one sensor, instead of two. The company was not required to submit its overhauled MCAS system for review by the FAA and did not do so.

The FAA also allowed Boeing to claim that virtually no additional pilot training was required on the new 737 aircraft for pilots who had flown previous versions of the 737. This was a major selling point against
Airbus because airlines would save time and money on pilot training by purchasing the Boeing plane. Additional pilot training was limited to a 60-minute course on an iPad. Prior to the Lion Air crash in Indonesia, pilots did not even know of the existence of MCAS.

The Times writes that the FAA “didn’t require Boeing to tell pilots about MCAS.” The article continues: “When the company asked to remove mention of MCAS from the pilot’s manual, the agency agreed. The FAA also did not mention the software in 30 pages of detailed descriptions noting differences between the Max and the previous iteration of the 737.”

The Times cites one FAA official as saying that by 2018, the agency was allowing Boeing to certify 96 percent of its own work.

It notes that in 2017, Bahrami left the Aerospace Industries Association and returned to the FAA as the head of safety.

Concealing MCAS from pilots and the general public was critical to the launch of the Max 8, because knowledge of it would have raised concerns about the viability of the aircraft. As Boeing admitted, the company’s engineers realized during the creation of the new airplane that it had a tendency to stall thanks to the new, bigger engines installed on the 737’s fifty-year-old airframe. Rather than redesign the plane with the new engines in mind, which would have hindered Boeing’s race for market share with Airbus, the company developed MCAS as a hidden software fix.

The Times report also notes that FAA engineers were concerned that the new engines would do more damage to the plane than the old ones in the event that an engine broke apart midair. They were particularly worried that shrapnel could sever the one cable that controls the plane’s rudder.

Internal agency documents show that most of the FAA engineers working on this issue insisted that some change be made to the plane, such as adding a backup rudder cable. They were overruled in 2015 by Bahrami’s successor at the FAA, Jeff Duven, who sided with Boeing’s analysis of the engines and allowed the company to proceed.

Rudder issues are not new to the Boeing 737 airframe. Two fatal crashes, one in 1991 and the other in 1994, were caused by a design flaw that could initiate rudder movements without pilot input. A total of 157 men, women and children were killed in those disasters.

Now, as then, there are no calls within the media or political establishment for Boeing executives to be criminally prosecuted for what were evidently avoidable tragedies. The particular cases of Bahrami and Duven notwithstanding, the crashes in the 1990s and today speak to the corrupt relationship between the US government and the aerospace giant—the biggest US exporter and second largest defense contractor—as well as Boeing’s critical role in the stock market surge and ever-expanding fortunes of major Wall Street investors.

Just as the imperatives of the capitalist market demand that Boeing place profits over people, it exposes the necessity of placing Boeing and the aerospace industry internationally in the hands of the working class. The technological advances that make it possible for travelers to move between any two points in the world in a single day must be freed from the constraints of giant corporations and transformed into publicly owned and democratically controlled utilities.

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