

Boeing defends 'fundamental safety' of 737 MAX after crash report

April 4 2019, by Chris Stein With Fran Blandy In Nairobi



Investigators say the crew of the crashed Ethiopian Airlines plane repeatedly followed procedures recommended by Boeing, but were unable to regain control of the jet

Embattled US aviation giant Boeing on Thursday insisted on the "fundamental safety" of its 737 MAX aircraft but pledged to take all

necessary steps to ensure the jets' airworthiness.

The statements came hours after Ethiopian officials said pilots of a doomed plane had crashed last month after following the company's recommendations, leaving 157 people dead.

The preliminary findings released Thursday by transportation authorities in Addis Ababa put the American aircraft giant under even greater pressure to restore public trust, with nearly 350 people dead in crashes involving its formerly top-selling 737 MAX aircraft in less than five months amid mounting signs the company's onboard anti-stall systems were fault.

"We remain confident in the fundamental safety of the 737 MAX," CEO Dennis Muilenburg said in a statement, adding that impending software fixes would make the aircraft "among the safest airplanes ever to fly."

Muilenburg also acknowledged, however, that an "erroneous activation" of Boeing's so-called Maneuvering Characteristics Augmentation System had occurred. The system is designed to prevent stalls but may have forced the Ethiopian and Indonesian jets into the ground.

In an earlier statement, the head of the company's commercial aircraft division had said Boeing was ready to perform "any and all additional steps" to enhance the safety of the 737 MAX.

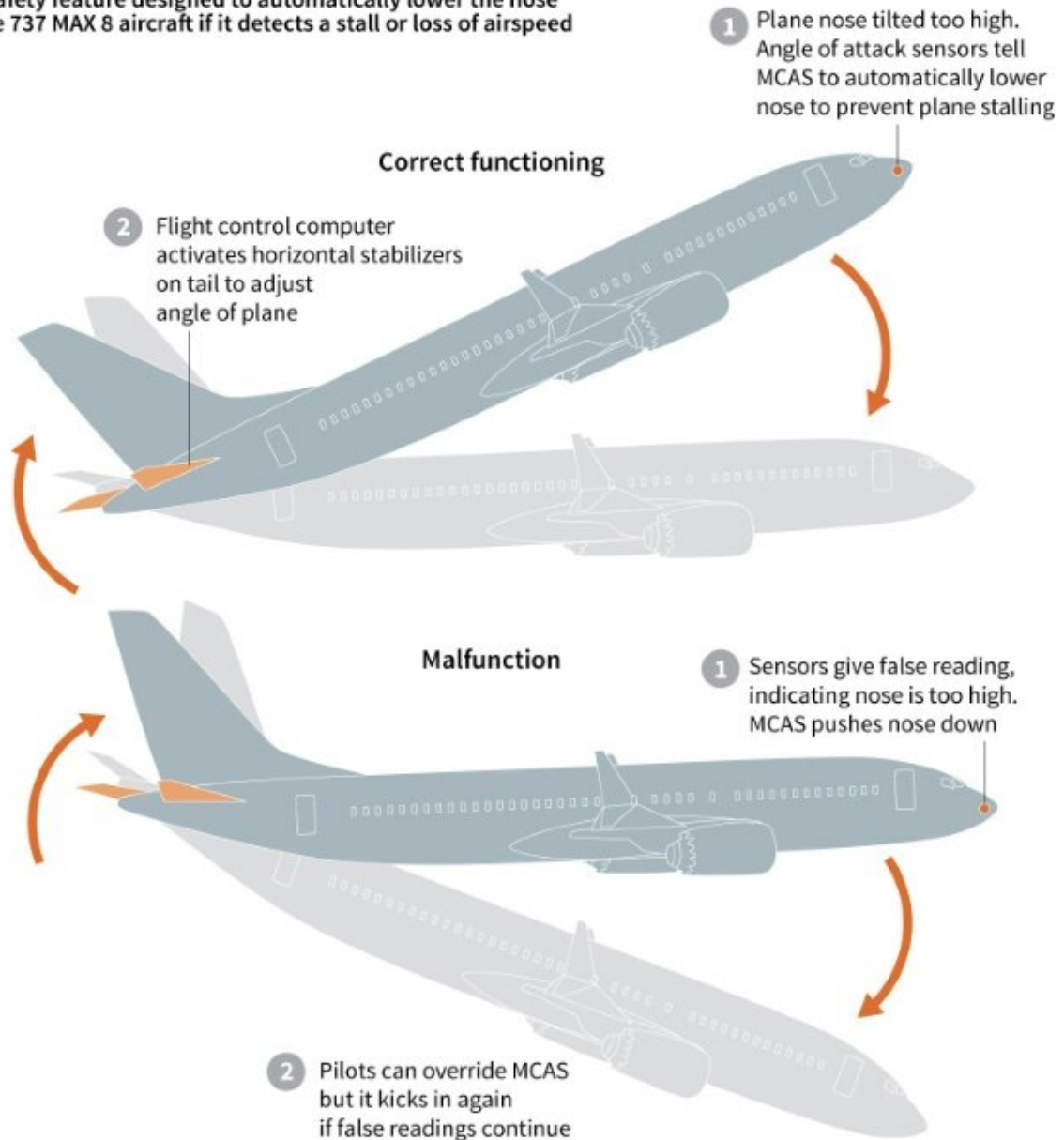
A report by Ethiopian investigators on Thursday said the crew of the Ethiopian Airlines plane that crashed last month, killing 157 people, repeatedly followed procedures recommended by Boeing, but were unable to regain control of the jet.

The initial probe appears to confirm concerns about MCAS, with data echoing that from the crash of the Indonesian Lion Air 737 MAX 8

flight in October last year which killed 189 people.

Boeing's MCAS anti-stall system

The Manoeuvring Characteristics Augmentation System (MCAS) is a safety feature designed to automatically lower the nose of the 737 MAX 8 aircraft if it detects a stall or loss of airspeed



Sources: Aviationweek.com, The Air Current

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How the MCAS anti-stall system on the Boeing 737 MAX 8 works and what can

happen if there is a malfunction

Ethiopian authorities' full report has not been publicly released, but according to a draft copy seen by AFP, shortly after take-off a sensor recording the level of the plane began transmitting faulty data, prompting the autopilot system to point the nose downwards.

"The crew performed all the procedures repeatedly provided by the manufacturer, but was not able to control the aircraft," said Ethiopian Transport Minister Dagmawit Moges, unveiling results of the preliminary probe into the crash.

'Not survivable'

The report recommends "the aircraft flight control system shall be reviewed by the manufacturer," Dagmawit said.

"Aviation authorities shall verify that the review of the aircraft flight control system has been adequately addressed by the manufacturer before the release of the aircraft for operations," she added.

Boeing now says it plans to release a software fix to the anti-stall system used aboard the 737 MAX aircraft in the coming weeks.

US regulators this week demanded further improvements to a proposed fix before it could be submitted for review and announced a review of the certification of the automated flight control system on the 737 MAX.

The Ethiopian Airlines flight was headed to Nairobi on a clear morning on March 10 when so-called Angle of Attack sensors on either side of the nose of the plane began sending conflicting information to the auto

pilot system shortly after take-off.



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According to report AFP saw, the nose of the plane pointed down four times without pilot input.

The autopilot was switched off at some point and the captain called out "pull up" three times to his first officer as the pair battled to gain control.

Three minutes after takeoff and three minutes before the crash, the captain asked the first officer to try the manual trim system, which changes the level of the plane. He replied that it was not working.

They asked to turn back, but it was too late. The plane pitched down at a 40-degree angle, smashing into a field outside Addis Ababa at about 500 knots (920 kilometers/575 miles per hour).

Both engines were buried at a depth of 10 meters (32 feet), in a crater 28 meters wide and 40 meters long, with fragments of debris found within a radius of about 300 meters.

"This accident was not survivable," said the report.

Citizens from over 30 countries were on board.

Shortly after the Lion Air crash last year, Boeing issued a bulletin reminding operators of emergency guidelines to override the anti-stall system, amid indications it had received erroneous information from Angle of Attack sensors during that disaster.

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