



Committee on Transportation and Infrastructure  
U.S. House of Representatives  
Washington DC 20515

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November 29, 2021

The Honorable Stephen M. Dickson  
Administrator  
Federal Aviation Administration  
800 Independence Avenue S.W.  
Washington, D.C. 20591

Dear Administrator Dickson:

Thank you for testifying before the House Committee on Transportation and Infrastructure's Subcommittee on Aviation last month. We appreciate the FAA's ongoing work to implement the *Aircraft Certification, Safety, and Accountability Act* (ACSAA) to hold Boeing and other aviation manufacturers accountable and to ensure the agency has the expertise and processes in place to perform effective safety regulation and oversight. However, during the hearing, two issues arose regarding your recollection of Boeing's past actions in which we would like to receive a more complete account from FAA.

### **Angle of Attack Disagree Alert**

The first issue, as raised by Rep. Sharice Davids, concerns Boeing's actions regarding the Angle of Attack (AOA) Disagree alert. As documented in our September 2020 investigative report, in August 2017 when Boeing first discovered that this alert was inoperable on more than 80 percent of 737 MAX aircraft, Boeing decided to wait nearly three years to fix the problem so it could execute the fix as a part of its then-planned rollout of the 737 MAX-10 in 2020.<sup>1</sup> Boeing also did not notify the FAA, its MAX customers, or MAX pilots that the alert was not working and continued to manufacture hundreds of more 737 MAX aircraft with the same non-functioning alert.<sup>2</sup> Boeing failed to divulge the fact that the alert was not functioning until October 2018, only **after** the fatal Lion Air crash.<sup>3</sup>

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<sup>1</sup> House Transportation & Infrastructure Committee, *Final Committee Report on the Design, Development & Certification of the Boeing 737 MAX*, September 16, 2020, pp. 122 – 137, accessed here: <https://transportation.house.gov/imo/media/doc/2020.09.15%20FINAL%20737%20MAX%20Report%20for%20Public%20Release.pdf>

<sup>2</sup> Id. See also testimony of Dennis Muilenburg and John Hamilton at hearing titled, "The Boeing 737 MAX: Examining the Design Development, and Marketing of the Aircraft," House Committee on Transportation and Infrastructure, U.S. House of Representatives, 116th Congress, First Session, October 30, 2019, pp. 108-109, accessed here: <https://www.govinfo.gov/content/pkg/CHRG-116hhrg38282/pdf/CHRG-116hhrg38282.pdf>

<sup>3</sup> Id.

Boeing defended its actions by saying this was not a safety issue, and they highlighted the fact that a Boeing Authorized Representative, an individual authorized to perform work on behalf of the FAA, concurred with Boeing's decision to delay the fix.<sup>4</sup> However, the nonfunctioning AOA Disagree alert appears to have violated the 737 MAX type design. As then-Acting Administrator Dan Elwell said in a letter to our committee in July 2019:

Once certified by the FAA, *all* features included on the airplane become part of the certified type design or approved type design. These features are **mandatory** in each airplane produced to that type design thereafter, whether or not they are required for safety . . . **Although an AOA disagree message was not necessary to meet FAA safety regulations, once it was made part of the approved type design, it was required to be installed and functional on all 737 MAX airplanes Boeing produced.**<sup>5</sup> [Emphasis added.]

Our committee highlighted this issue, and Boeing's action, in our investigative report on the 737 MAX not because we believed it was a safety issue, but because it was clearly a glaring issue of lax accountability and oversight. Yet, to date, we are unaware of **any** actions the FAA has taken to hold Boeing accountable for violating the approved type design of the 737 MAX, knowingly continuing to manufacture the aircraft regardless of this known defect and failing to inform your agency—or 737 MAX customers—of this nonfunctioning component on the aircraft until after the Lion Air crash.

Boeing has claimed its senior leadership was unaware of these issues at the time. However, our report showed that multiple individuals across the company were aware of this issue. If Boeing's senior management was unaware of these issues impacting more than 80 percent of the 737 MAX fleet that rolled off its assembly line, then that should have raised serious questions within the company about its ability to manage the production of its commercial aircraft fleet effectively and safely.

Boeing's actions showed an utter disregard for the FAA's regulatory process. We acknowledge that in your testimony you mentioned that you are taking steps to implement and improve your oversight of Boeing. However, our direct questions are:

- What specifically has the FAA done to hold Boeing accountable for deceiving its customers and violating the FAA's regulations by knowingly producing 737 MAX aircraft with nonfunctioning AOA Disagree alerts that resulted in the production of nonconforming aircraft **prior to** the Lion Air crash?

Please be specific in your response and provide all records that indicate **any** actions the FAA took against Boeing in regard to the issues outlined above. As part of your response, please also inform the committee of whether the Boeing Authorized Representative who concurred with Boeing's decision to delay fixing the AOA Disagree alert for three years is still authorized to conduct work on behalf of the FAA.

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<sup>4</sup> Id.

<sup>5</sup> Letter from then-Acting FAA Administrator Dan Elwell to Chair DeFazio, July 11, 2019

## **Boeing Efforts to Downplay MCAS**

The second issue raised at the October 21, 2021 hearing, by Rep. Greg Stanton, concerns the degree of FAA's awareness about efforts within Boeing to downplay MCAS.

As you know, in January 2021, the U.S. Department of Justice (DOJ) entered into a deferred prosecution agreement with Boeing in which Boeing admitted that, "through two of its 737 MAX Flight Technical Pilots," Boeing deceived the FAA AEG about MCAS,<sup>6</sup> and more recently DOJ announced an indictment against former Boeing Chief Technical Pilot Mark Forkner for deceiving the FAA about MCAS.<sup>7</sup> The DOJ determined that an independent compliance monitor was unnecessary for its deferred prosecution agreement for several reasons, including their conclusion that, "the misconduct was neither pervasive across the organization, nor undertaken by a large number of employees, nor facilitated by senior management..."<sup>8</sup>

At the hearing last month, Rep. Stanton referenced a Boeing internal document from 2013 uncovered as part of our committee's investigation, a copy of which is enclosed for your convenience. This document, which summarizes the minutes of an internal Boeing meeting, details an explicit plan by multiple Boeing employees to downplay MCAS externally, including to regulators. The rationale for doing so was laid out explicitly in the document, which said, "[i]f we emphasize MCAS is a new function, there may be a greater certification and training impact."<sup>9</sup> This set a plan in motion to limit the use of the MCAS nomenclature externally and to downplay the system as "new," by describing it as "an addition to Speed Trim." A Boeing Authorized Representative signed off on the plan.

The document shows that multiple individuals were involved in this plan and does not identify any of them as technical pilots, which was the job description of those identified in recent DOJ filings. In addition, we know from our committee's investigation that the Chief Project Engineer on the 737 MAX acknowledged that achieving "Level B" (non-flight simulator) training requirements for pilots or less was a "design objective" of the 737 MAX program.<sup>10</sup> This was a directive designed and enforced by Boeing's senior most management and, as our report showed, it had ripple effects throughout the MAX program. This "design objective" combined with the 2013 meeting minutes help to highlight the fact that there were multiple efforts at Boeing from the top of the company on down that emphasized both the critical importance of avoiding flight simulator training as an FAA requirement and the fact that full and clear knowledge of MCAS by external parties, including regulators, could jeopardize that corporate goal.

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<sup>6</sup> DOJ press release, January 7, 2021, accessed here: <https://www.justice.gov/opa/pr/boeing-charged-737-max-fraud-conspiracy-and-agrees-pay-over-25-billion>

<sup>7</sup> DOJ press release, October 14, 2021, accessed here: <https://www.justice.gov/opa/pr/former-boeing-737-max-chief-technical-pilot-indicted-fraud>

<sup>8</sup> DOJ press release, January 7, 2021, accessed here: <https://www.justice.gov/opa/pr/boeing-charged-737-max-fraud-conspiracy-and-agrees-pay-over-25-billion>

<sup>9</sup> See enclosed document, which can also be found on p. 96 of House Transportation & Infrastructure Committee, *Final Committee Report on the Design, Development & Certification of the Boeing 737 MAX*, September 16, 2020, accessed here: <https://transportation.house.gov/imo/media/doc/2020.09.15%20FINAL%20737%20MAX%20Report%20for%20Public%20Release.pdf>

<sup>10</sup> Transcribed Interview of Michael Teal, May 11, 2010, p. 19, accessed here: [https://transportation.house.gov/imo/media/doc/FINAL%20Michael%20Teal%20\(Boeing\)%20Transcript%20and%200Exhibits%20and%20Attachment%20\(9.9.20\).pdf](https://transportation.house.gov/imo/media/doc/FINAL%20Michael%20Teal%20(Boeing)%20Transcript%20and%200Exhibits%20and%20Attachment%20(9.9.20).pdf)

After describing the 2013 document, Rep. Stanton asked if you were aware of anyone at Boeing, other than the two technical pilots referenced in DOJ's deferred prosecution agreement, who tried to downplay the significance of MCAS to regulators. You responded, "I am not aware of any particular individuals." When Rep. Stanton followed up to ask you whether you believe there were more than two Boeing employees who tried to downplay the significance of MCAS, you said, "I believe that MCAS should have been included in the materials and that it was a safety critical system. Whether there was any intentionality on the part of others I can't speak to."<sup>11</sup> We believe the attached document makes it abundantly clear that there was an intentional plan to downplay the significance of MCAS to regulators by multiple individuals at Boeing.

As you recall, the issue was not just *whether* FAA was aware of MCAS, but how MCAS was presented to the FAA. According to the Joint Authorities Technical Review (JATR), which was convened by your agency to review the 737 MAX crashes:

The FAA was not completely unaware of MCAS; however, because the information and discussions about MCAS were so fragmented and were delivered to disconnected groups within the process, it was difficult to recognize the impacts and implications of this system. If the FAA technical staff had been fully aware of the details of the MCAS function, the JATR team believes the agency likely would have required an issue paper for using the stabilizer in a way that it had not previously been used. MCAS used the stabilizer to change the column force feel, not trim the aircraft. This is a case of using the control surface in a new way that the regulations never accounted for and should have required an issue paper for further analysis by the FAA. If an issue paper had been required, the JATR team believes it likely would have identified the potential for the stabilizer to overpower the elevator.<sup>12</sup>

While we appreciate FAA's current efforts to implement the ACSAA and the recommendations of the JATR, which will help to enhance FAA's oversight of Boeing and will improve the accountability of Boeing employees or others who endanger the safety of the flying public in the future, we are deeply troubled by the absence of rigorous accountability for Boeing's past transgressions related to the 737 MAX and the FAA's failure to hold those who violated the public's trust accountable. We must continue to move forward on improving the safety of our nation's aviation certification process, while at the same time not losing sight of past missteps or misdeeds.

We would like to know what, if any, actions FAA has taken to evaluate and investigate the efforts by Boeing to downplay MCAS, particularly to U.S. and foreign regulators. We are not asking you to rehash the efforts FAA has taken to establish JATR or other bodies to review the certification process or the MAX accidents, or what Boeing ultimately disclosed to FAA about

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<sup>11</sup> Video of Rep. Stanton's exchange with Administrator Dickson can be found beginning at 1:55:55 here: <https://transportation.house.gov/committee-activity/hearings/three-years-after-lion-air-610-faa-implementation-of-the-2020-aircraft-certification-safety-and-accountability-act>

<sup>12</sup> Joint Authorities Technical Review, pp. 13-14, accessed here: [https://www.faa.gov/sites/faa.gov/files/2021-08/Final\\_JATR\\_Submittal\\_to\\_FAA\\_Oct\\_2019.pdf](https://www.faa.gov/sites/faa.gov/files/2021-08/Final_JATR_Submittal_to_FAA_Oct_2019.pdf)

MCAS. We are interested in any actions by the FAA to hold individuals accountable for their actions.

- Has the FAA identified the Authorized Representative who concurred with the plan to downplay MCAS?
  - If so, has the FAA interviewed this individual and/or requested related documents?
  - Is this Authorized Representative still authorized to conduct work as a Boeing ODA Unit Member on behalf of the FAA?
  - Please provide the committee with copies of all records related to the FAA's efforts, if any, regarding the above questions.
  
- Did the FAA ever investigate the circumstances or individuals involved in Boeing's 2013 plan to downplay MCAS?
  - Please provide the committee with copies of all records related to the FAA's efforts, if any, regarding the above question.
  - What, if anything, has FAA done to hold any of the individuals at Boeing accountable who took part in Boeing's 2013 efforts to downplay MCAS?
  - Please provide the committee with copies of all records related to the FAA's efforts, if any, regarding the above question.
  
- Does FAA regard the actions memorialized in the enclosed Boeing document as acceptable?

Thank you for your time in addressing these important matters. Please provide a response to this letter by Monday, December 13, 2021. We look forward to continuing to work with the FAA to implement the ACSAA to improve safety, oversight, and accountability. With continuing issues with the Boeing 737 MAX and the 787, and the ongoing certification of the Boeing 777X, it is more critical than ever that the FAA takes its role as regulator seriously. FAA must fully investigate actions by Boeing or others that jeopardize the public's safety or disregard FAA's regulations, and hold responsible parties accountable. Our hope is that with continued implementation of the ACSAA, issues like those discussed above do not arise in the future.

The Hon. Stephen M. Dickson

November 29, 2021

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Sincerely,



PETER A. DeFAZIO  
Chair



RICK LARSEN  
Chair  
Subcommittee on Aviation



GREG STANTON  
Member  
Subcommittee on Aviation

Encl.

cc: The Honorable Sam Graves, Ranking Member  
Committee on Transportation & Infrastructure

The Honorable Garret Graves, Ranking Member  
Subcommittee on Aviation

View Item:

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6-FEB-2020 14:33:39

[37MAXFCI-PDR AI22](#)

Item Header:

Title: MCAS/Speed Trim  
Primary Resp Person:   
Secondary Resp Person:   
  
Fix Need Date: 01-JUL-2013  
ECD:  
Phase: CLOSED Item is resolved, no further action required  
Model: 737 MAX -8

Information Last Modified: 27-JUN-2013 10:46:49 US(Pacific)

Item Progress:

Date	Resp Person	Type	Attachments	Last Updt (USPac)
21-MAY-2013	<input type="text"/>	ORIG	N	24-MAY-2013 08:38:21

Problem Statement: Every new buzzword represents a company and airline cost via changed manuals, changed training, changed maintenance manuals.

Recommended Action: Investigate deletion of MCAS nomenclature and cover under the umbrella of 'revised speed trim'.

07-JUN-2013	<input type="text"/>	ANALYSIS	N	07-JUN-2013 08:29:23
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6/7/13 Meeting Minutes:

- 1) GTTA left the name as MCAS but treated as analogous function as a speed trim type function.
- 2) If we emphasize MCAS is a new function there may be a greater certification and training impact.
- 3) Treat as an addition to Speed Trim.
- 4) Externally we would communicate it is an addition to Speed Trim.
- 5) Internally continue using the acronym MCAS (within variable names etc).
- 6) Work with AR on certification perspective to ensure this strategy is acceptable.
- 7) Make sure EASA Fam Tech presentation is consistent with intent that MCAS is an addition to Speed Trim.

07-JUN-2013	<input type="text"/>	PROP_RES	N	21-JUN-2013 09:25:42
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After speaking with the Autoflight AR, concurrence was provided that we can continue to use the MCAS nomenclature internally (variable names, etc) while still considering MCAS to be an addition to the Speed Trim function. This will allow us to maintain the MCAS nomenclature while not driving additional work due to training impacts and maintenance manuals.

27-JUN-2013	<input type="text"/>	PROP_RES	N	27-JUN-2013 10:37:24
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Accepting team analysis on keeping MCAS nomenclature. Item can be closed.

27-JUN-2013	<input type="text"/>	CLOSURE	N	27-JUN-2013 10:46:49
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Action Item is complete and is closed.

Cross Reference:

View Item:

Code	Item Type	Ref Item ID	Version
PRG_NTFY	PERSON	<input type="text"/>	
PRG_NTFY	PERSON		
ONE_NTFY	PERSON		
PRG_NTFY	PERSON		
PRG_NTFY	PERSON		
CHG_NTFY	PERSON		
ONE_NTFY	PERSON		