

COPY

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
FORT WORTH DIVISION

UNITED STATES OF AMERICA

v.

MARK A. FORKNER (01)

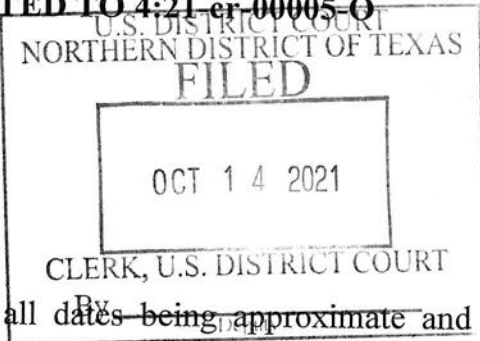
No. **4-21CR-268-0**

RELATED TO 4:21-cr-00005-O

INDICTMENT

The Grand Jury charges:

At all times relevant to this Indictment, with all dates ~~being approximate~~ and inclusive:



Relevant Entities and the Defendant

The Federal Aviation Administration Aircraft Evaluation Group

1. The Federal Aviation Administration ("FAA") was a United States government agency responsible for, among other things, evaluating and approving new versions of commercial airplanes before use by U.S.-based airlines.

2. The FAA's evaluation of a new version of a commercial airplane involved determining: (i) that the new version of the airplane met U.S. airworthiness standards; and (ii) the minimum level of training required for a pilot to fly the new version of the airplane for a U.S.-based airline. Separate groups with different personnel within the FAA made these distinct evaluations and determinations.

3. The FAA Aircraft Evaluation Group ("AEG") was responsible for the second of these evaluations and determinations, namely, the minimum level of training required for a pilot to fly the new version of the airplane for a U.S.-based airline. To do so, the FAA AEG compared the new version of the airplane to its prior version. After evaluating the differences between the two versions of the airplane, the FAA AEG mandated the minimum level of pilot training, known as "differences training," for the new version.

4. The FAA AEG determined the level of differences training for the new version of the airplane based on the nature and extent of the differences between the new version and its prior version. The levels ranged from Level A (the least intensive) through Level E (the most intensive). Level B differences training generally involved no more than computer-based training (which was less expensive for airlines to implement), whereas training levels above Level B could have required full-flight simulator training (which was more expensive for airlines to implement).

5. At the conclusion of its evaluation, the FAA AEG published a Flight Standardization Board Report ("FSB Report"). The FSB Report included, among other things, the FAA AEG's differences-training determination for the new version of the airplane, as well as information about differences between the new version of the airplane and its prior version.

6. All U.S.-based airlines were required to use the information in the FSB Report as the basis for training their pilots to fly the new version of the airplane. As such, the FAA AEG's differences-training determination affected how much money U.S.-based airlines would spend to train their pilots to fly the new version of the airplane and could

affect the total cost of the new version of the airplane for U.S.-based airlines. These airlines could seek to negotiate with the airplane manufacturer to lower the costs of purchasing and operating the new version of the airplane based on the amount of anticipated pilot-training costs, such that the FAA AEG's differences-training determination also could affect the profitability of the new version of the airplane for its manufacturer.

The Boeing Company, the 737 MAX, and MCAS

7. The Boeing Company ("Boeing") was a U.S.-based multinational corporation that designed, manufactured, and sold commercial airplanes to airlines worldwide.

8. Boeing's airline customers included Airline-1 and Airline-2, which were major U.S.-based airlines headquartered in the Northern District of Texas.

9. The Boeing 737 was a commercial airplane that could seat approximately 200 passengers and was one of Boeing's best-selling airplane models.

10. In and around June 2011, Boeing began developing and marketing a new version of the Boeing 737 called the 737 MAX, which was designed to be more fuel efficient than the prior version of the Boeing 737 called the 737 Next Generation ("737 NG").

11. To achieve this greater fuel efficiency, the 737 MAX was fitted with larger engines that were situated differently under the airplane's wings compared to the 737 NG, which altered the aerodynamics of the 737 MAX.

12. These different aerodynamics caused the 737 MAX's nose to pitch up during a flight maneuver called a high-speed, wind-up turn. A high-speed, wind-up turn generally involved sharply turning the airplane at high speed (approximately Mach 0.6-0.8) in a corkscrew-like pattern and was purely a "certification" maneuver and outside the limits of how a pilot would fly a 737 MAX during a normal commercial passenger flight. Nevertheless, if Boeing did not fix the 737 MAX's pitch-up characteristic in high-speed, wind-up turns, the FAA could determine that the 737 MAX did not meet U.S. airworthiness standards.

13. To fix this pitch-up characteristic during a high-speed, wind-up turn, Boeing installed the Maneuvering Characteristics Augmentation System ("MCAS")—which was not installed on the 737 NG—as a new part of the flight controls for the 737 MAX. When operating, MCAS caused the 737 MAX's nose to pitch down by adjusting the 737 MAX's horizontal stabilizer located near the airplane's tail. MCAS was an aircraft "part" as defined in Title 18, United States Code, Section 31(a)(7).

14. As originally designed, MCAS would operate during high-speed, wind-up turns, which meant that, among other limiting conditions, MCAS would operate only if the airplane was flying at high speed (approximately Mach 0.6-0.8).

The Defendant

15. In and around early 2012, the defendant, MARK A. FORKNER, joined Boeing as a Technical Pilot for the 737 MAX Flight Technical Team.

16. In and around early 2014, FORKNER became Boeing's 737 MAX Chief Technical Pilot. In that role, FORKNER led the 737 MAX Flight Technical Team until he left Boeing in and around July 2018.

General Allegations

What Forkner Knew about the FAA AEG and Boeing's U.S.-Based Airline Customers

17. FORKNER knew that it was his duty as Boeing's 737 MAX Chief Technical Pilot to provide the FAA AEG with true, accurate, and complete information about differences between the 737 MAX and the 737 NG for the FAA AEG's evaluation, preparation, and publication of the 737 MAX FSB Report and its differences-training determination. FORKNER also knew that the FAA AEG relied on him to provide such true, accurate, and complete information.

18. FORKNER also interacted with Boeing's U.S.-based airline customers, including Airline-1 and Airline-2, and knew that these airlines relied on Boeing's employees to provide the FAA AEG with true, accurate, and complete information regarding the 737 MAX, so as to ensure that their pilots similarly received true, accurate, and complete information to fly the 737 MAX.

19. FORKNER also knew that one of Boeing's key objectives in developing the 737 MAX was to secure a differences-training determination from the FAA AEG that was no greater than Level B. As FORKNER knew, differences training above Level B would be more costly for Boeing's U.S.-based airline customers to implement, which in turn could affect Boeing's 737 MAX sales and revenue. For example, FORKNER knew that at least one of these airline customers was entitled to financial compensation, or "penalties," from

Boeing if differences training for the 737 MAX exceeded Level B. Likewise, in an email sent in and around December 2014, FORKNER stated that “if we lose Level B [it] will be thrown squarely on my shoulders. It was Mark, yes Mark! Who cost Boeing tens of millions of dollars!”

20. Before Boeing delivered a 737 MAX to an airline customer, Boeing typically sent the airline customer an electronic invoice for payment. An airline typically was unable to take delivery of an airplane from Boeing until it had first paid Boeing the balance of money due for the airplane. These payments were often for tens of millions of dollars. FORKNER knew and could reasonably foresee that Boeing sold the 737 MAX to airlines worldwide, including Airline-1 and Airlines-2, and that Boeing electronically sent invoices to its airline customers, including Airline-1 and Airline-2, for these and other payments in the ordinary course of Boeing’s business.

What Forkner and Boeing Told the FAA AEG about MCAS

21. In and around June 2015, FORKNER attended a 737 MAX briefing for the FAA AEG during which Boeing employees told the FAA AEG that MCAS was designed to operate during high-speed, wind-up turns—including only at speeds of Mach 0.7-0.8. Following and on the same day of this briefing, FORKNER and another Boeing employee further discussed MCAS with an FAA AEG employee (“FAA AEG Employee-1”) and reiterated that MCAS was designed to operate during high-speed, wind-up turns. Thus, FORKNER knew that the FAA AEG was told that MCAS would operate, among other limiting conditions, only if the 737 MAX was flying at high speeds of Mach 0.7-0.8.

22. On or about August 16, 2016, FORKNER learned that, on or about that same day, the FAA AEG—still under the impression that MCAS was designed to operate during high-speed, wind-up turns and only at speeds of Mach 0.7-0.8—issued a provisional Level B differences-training determination for the 737 MAX.

The Scheme to Defraud

Shocker Alert: Forkner Discovered MCAS Expanded to Low Speed

23. On or about November 15, 2016, during a simulated test flight of the 737 MAX, FORKNER experienced MCAS operating at a significantly lower speed (Mach 0.2) than what FORKNER and Boeing had previously told the FAA AEG (Mach 0.7-0.8) in and around June 2015. As FORKNER knew, low speeds around Mach 0.2 in a typical 737 MAX commercial flight were common at lower altitudes in and around takeoff and landing.

24. On or about that same day—after the simulated test flight—FORKNER wrote to another Boeing 737 MAX Flight Technical Pilot (“Boeing Employee-1”) about FORKNER’s experience with MCAS operating at low speed:

FORKNER: Oh shocker alert! [sic] / MCAS is now active down to [Mach] .2 / It’s running rampant in the sim on me / at least that’s what [a Boeing simulator engineer] thinks is happening

Boeing Employee-1: Oh great, that means we have to update the speed trim description in vol 2

FORKNER: so I basically lied to the regulators (unknowingly)

Boeing Employee-1: it wasn’t a lie, no one told us that was the case

25. Around this time, FORKNER also contacted a Boeing senior engineer assigned to the 737 MAX program to inquire about MCAS's operational scope. The Boeing senior engineer confirmed to FORKNER that MCAS was no longer limited to operate only during high-speed, wind-up turns.

Forkner Deceived the FAA AEG, Ensuring MCAS Was Deleted from the 737 MAX FSB Report

26. Despite knowing that MCAS could now operate at low speed and was no longer limited to high-speed, wind-up turns and speeds of Mach 0.7-0.8, FORKNER withheld this material fact from the FAA AEG.

27. For example, shortly after the simulated test flight in which FORKNER learned about MCAS's low-speed expansion, FORKNER met with FAA AEG Employee-1. During this meeting, FAA AEG Employee-1 asked FORKNER about his experience in the simulated test flight. In this conversation, FORKNER withheld from FAA AEG Employee-1 the material fact that MCAS could now operate during nearly the entire speed range for the 737 MAX, including at speeds as low as Mach 0.2.

28. On or about November 17, 2016—two days after FORKNER's simulated test flight—FORKNER, Boeing Employee-1, and another Boeing employee received from the FAA AEG a draft of the FAA AEG's forthcoming 737 MAX FSB Report. Thereafter, FORKNER affirmatively deceived the FAA AEG about the need to include any reference to MCAS in the 737 MAX FSB Report.

29. For example, on or about November 22, 2016—just one week after the simulated test flight in which FORKNER experienced first-hand MCAS's operation at low speed—FORKNER caused Boeing to send to the FAA AEG proposed edits to the FAA AEG's draft 737 MAX FSB Report. In these edits, FORKNER proposed that the FAA AEG delete any reference to MCAS and stated that "[w]e agreed to not reference MCAS since it's outside [the] normal operating envelope." This representation was materially false because FORKNER knew that the FAA AEG had "agreed to not reference MCAS" based on outdated and incorrect information that MCAS was designed to operate during high-speed, wind-up turns. At the same time that he proposed that the FAA AEG delete MCAS from the 737 MAX FSB Report, FORKNER withheld the true, accurate, and complete information about MCAS's low-speed expansion from the FAA AEG.

30. On or about January 17, 2017, FORKNER again proposed that the FAA AEG delete any reference to MCAS from the forthcoming 737 MAX FSB Report. FORKNER wrote, "[d]elete MCAS, recall we decided we weren't going to cover it [. . .] since it's way outside the normal operating envelope." Again, this representation was materially false because FORKNER knew that the FAA AEG had "decided [they] weren't going to cover" MCAS based on outdated and incorrect information that MCAS was designed to operate during high-speed, wind-up turns. At the same time that he proposed that the FAA AEG delete MCAS from the 737 MAX FSB Report, FORKNER again withheld the true, accurate, and complete information about MCAS's low-speed expansion from the FAA AEG.

31. Relying on the materially false, inaccurate, and incomplete information and representations that FORKNER provided and caused Boeing to provide to the FAA AEG about MCAS, the FAA AEG deleted all reference to MCAS from the 737 MAX FSB Report.

The FAA AEG Published the 737 MAX FSB Report without Any Reference to MCAS

32. On or about July 5, 2017, the FAA AEG published the 737 MAX FSB Report, which lacked any reference to MCAS and included a Level B differences-training determination for the 737 MAX.

33. On or about July 7, 2017, FORKNER emailed a copy of the 737 MAX FSB Report to representatives of major U.S.-based airlines, including Airline-1 and Airline-2. In sending this email and in his other dealings with these airlines, FORKNER knowingly withheld material information about MCAS and the 737 MAX FSB Report evaluation process.

34. By withholding material information from the FAA AEG and Boeing's U.S.-based airline customers, FORKNER caused, among other things:

- a. The FAA AEG to publish a 737 MAX FSB Report that was materially false, inaccurate, and incomplete due to the lack of any reference to MCAS;
- b. The FAA AEG to issue a Level B differences-training determination in the 737 MAX FSB Report that was based on materially false, inaccurate, and incomplete information about MCAS;

- c. Airplane manuals and pilot-training materials for U.S.-based airlines, including Airline-1 and Airline-2, to lack any reference to MCAS; and
- d. Boeing's U.S.-based airline customers, including Airline-1 and Airline-2, to be deprived of economically material information—including the fact that FORKNER withheld material information about MCAS from the FAA AEG during the FAA AEG's preparation and publication of the 737 MAX FSB Report—when making and finalizing their respective decisions to purchase the 737 MAX, which allowed Boeing to obtain uninterrupted and undiminished 737 MAX sales and revenue from these customers.

737 MAX Crashes Exposed MCAS's Low-Speed Expansion to the FAA AEG

35. On or about October 29, 2018, after the FAA AEG learned that Lion Air Flight 610—a 737 MAX—had crashed near Jakarta, Indonesia, shortly after takeoff and that MCAS was operating in the moments before the crash, the FAA AEG discovered that MCAS was no longer limited to high-speed, wind-up turns and could operate at speeds lower than Mach 0.7. After the Lion Air crash, the FAA AEG began reviewing and evaluating MCAS's true operational scope.

36. On or about March 10, 2019, while the FAA AEG was still reviewing MCAS, the FAA AEG learned that Ethiopian Airlines Flight 302—a 737 MAX—had crashed near Ejere, Ethiopia, shortly after takeoff and that MCAS was operating in the moments before the crash. Shortly after the crash, all 737 MAX airplanes were grounded in the United States, and the FAA AEG's evaluation of the true operational scope of MCAS remained ongoing.

Counts One and Two
(Fraud Involving Aircraft Parts in Interstate Commerce)

37. Paragraphs 1 through 36 of this Indictment are realleged and incorporated by reference as though fully set forth here.

38. On two separate occasions, each on or about July 7, 2017, and each corresponding to a separate count of this Indictment, in the Northern District of Texas and elsewhere, the defendant,

MARK A. FORKNER,

in and affecting interstate commerce, knowingly and with the intent to defraud, made and used a materially false writing, entry, certification, document, record, data plate, label, and electronic communication concerning an aircraft part, namely MCAS, as set forth in the table below:

Count	Approximate Time	Description
1	7:39:24 a.m.	Copy of the 737 MAX FSB Report sent by FORKNER to Airline-1 in the Northern District of Texas
2	7:37:10 a.m.	Copy of the 737 MAX FSB Report sent by FORKNER to Airline-2 in the Northern District of Texas

In violation of Title 18, United States Code, Sections 38(a)(1)(C) and 2.

Counts Three through Six
(Wire Fraud)

39. Paragraphs 1 through 36 of this Indictment are realleged and incorporated by reference as though fully set forth herein.

40. From at least in and around November 2016 through at least in and around March 2019, including on or about the dates specified as to each count below, in the Northern District of Texas and elsewhere, the defendant,

MARK A. FORKNER,

knowingly, and with the intent to defraud, having devised and intended to devise a scheme and artifice to defraud, and to obtain money and property by means of materially false and fraudulent pretenses, representations, and promises, did transmit and cause to be transmitted, by means of wire communication in interstate commerce, writings, signs, signals, pictures, and sounds for the purpose of executing such scheme and artifice.

Use of Interstate Wires

41. On or about the dates set forth in the table below, for the purpose of executing and in furtherance of the aforementioned scheme and artifice to defraud, and to obtain money and property by means of materially false and fraudulent pretenses, representations, and promises, the defendant, MARK A. FORKNER, knowingly transmitted and caused to be transmitted certain interstate wire communications, with each transmission as set forth in the table below forming a separate count:

Count	Approximate Date	Description of Interstate Wire
3	September 28, 2017	Boeing 737 MAX invoice transmitted by interstate wire from Boeing to Airline-1 in the Northern District of Texas
4	May 11, 2018	Boeing 737 MAX invoice transmitted by interstate wire from Boeing to Airline-1 in the Northern District of Texas
5	August 28, 2017	Boeing 737 MAX invoice transmitted by interstate wire from Boeing to Airline-2 in the Northern District of Texas
6	June 19, 2018	Boeing 737 MAX invoice transmitted by interstate wire from Boeing to Airline-2 in the Northern District of Texas

In violation of Title 18, United States Code, Sections 1343 and 2.

Forfeiture Notice

(18 U.S.C. §§ 38(d) and 981(a)(1)(C) and 28 U.S.C. § 2461(c))

Upon a conviction for any offense alleged in Counts One through Two of this Indictment, the defendant, MARK A. FORKNER, shall forfeit to the United States any property constituting, or derived from, any proceeds that FORKNER obtained, directly or indirectly, as a result of the offense, pursuant to 18 U.S.C. § 38(d).

Upon a conviction for any offense alleged in Counts Three through Six of this Indictment, the defendant, MARK A. FORKNER, shall forfeit to the United States any property, real or personal, constituting or derived from proceeds traceable to the respective offense, pursuant to 18 U.S.C. § 981(a)(1)(C) and 28 U.S.C. § 2461(c).

Pursuant to 21 U.S.C. § 853(p), as incorporated by 18 U.S.C. § 982(b), if any of the above property subject to forfeiture, as a result of any act or omission of the defendant, MARK A. FORKNER, cannot be located upon the exercise of due diligence; has been transferred or sold to, or deposited with, a third person; has been placed beyond the jurisdiction of the Court; has been substantially diminished in value; or has been

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commingled with other property which cannot be subdivided without difficulty, it is the intention of the United States of America to seek forfeiture of any other property of FORKNER up to the value of the above-described property subject to forfeiture.

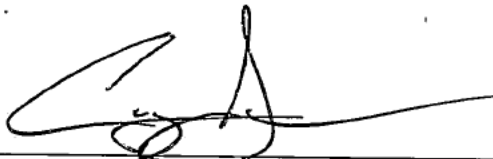
A TRUE BILL.



JOSEPH S. BEEMSTERBOER
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Criminal Division
United States Department of Justice

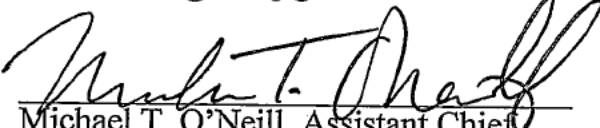
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By:

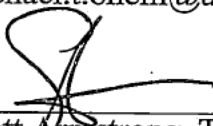

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