

CAUSE NO.

**SOUTHWEST AIRLINES PILOTS
ASSOCIATION (SWAPA) on behalf of
itself and its members,**

Plaintiff,

VS.

The Boeing Company,

Defendant.

IN THE DISTRICT COURT
____TH JUDICIAL DISTRICT
DALLAS COUNTY, TEXAS

PLAINTIFF'S ORIGINAL PETITION

1. Plaintiff Southwest Airlines Pilots Association (“SWAPA”), on behalf of itself and its members, by and through its attorneys, for its Petition against The Boeing Company (hereinafter “Boeing” or “Defendant”), respectfully alleges as follows:

DISCOVERY CONTROL PLAN

2. Plaintiff intends that discovery be conducted under Discovery Level 3 in accordance with Texas Rule of Civil Procedure 190.4, and requests that the court enter a discovery control plan order tailored to the circumstances of this suit.

INTRODUCTION

3. This Petition seeks damages on behalf of SWAPA and almost 10,000 SWAPA pilots who have collectively lost, and are continuing to lose, millions of dollars in compensation as a result of Boeing's false representations concerning its 737 MAX aircraft—namely, that the 737 MAX aircraft was safe, airworthy, and was essentially the same as the time-tested 737 aircraft that SWAPA pilots already were flying.

4. Boeing made a calculated decision to rush a re-engined aircraft to market to secure its single-aisle market share and prioritize its bottom line. In doing so, Boeing abandoned sound design and engineering practices, withheld safety critical information from regulators and deliberately mislead its customers, pilots and the public about the true scope of design changes to the 737 MAX.

5. Boeing's misrepresentations caused SWAPA to believe that the 737 MAX aircraft was safe, and that it was to SWAPA pilots' economic advantage to agree to fly the 737 MAX aircraft for their employer, Southwest Airlines ("Southwest").

6. Those representations proved to be false. The 737 MAX now is grounded worldwide because it is unsafe, unairworthy, and contrary to Boeing's representations, distinct from the 737 family of aircraft that preceded it, which SWAPA pilots have flown for years.

7. Boeing's false representations, made directly to SWAPA, caused SWAPA to agree, despite its initial reluctance, to include the 737 MAX as a term in its collective bargaining agreement ("CBA") with Southwest. The aircraft's grounding is now causing SWAPA pilots to lose millions of dollars each month because the 737 MAX was removed from Southwest's flight schedule, and from SWAPA pilots' paychecks as well.

8. Tragically, the economic losses sustained by SWAPA and its pilots are not the only results of Boeing's misrepresentations about the 737 MAX aircraft. Boeing's rushed certification and introduction of the 737 MAX aircraft into the hands of trusting pilots who, like SWAPA pilots, believed that Boeing carefully designed a safe and airworthy aircraft, and had disclosed all of the information needed to safely operate the aircraft, caused two fatal crashes within a five-month period: the Lion Air Flight 610 crash on October 29, 2018 that killed 189 individuals; and, the Ethiopian Airlines Flight 302 crash on March 10, 2019 that killed 154

individuals.

9. Since those tragic and preventable accidents it has become clear that Boeing's representations concerning the 737 MAX aircraft were false and that, contrary to what Boeing told SWAPA pilots prior to SWAPA agreeing to fly the 737 MAX aircraft in 2016, Boeing concealed the fact that the 737 MAX aircraft was not airworthy because, *inter alia*, it incorporated a single-point failure condition—a software/flight control logic called the Maneuvering Characteristics Augmentation System (“MCAS”)—that, if fed erroneous data from a single angle-of-attack sensor, would command the aircraft nose-down and into an unrecoverable dive without pilot input or knowledge.

10. After the 737 MAX aircraft crashed for the second time within a five-month period and the death toll attributable to Boeing's defective design of MCAS nearly doubled, the world could no longer trust Boeing's representations that the 737 MAX aircraft was safe. On March 13, 2019, the Federal Aviation Administration (“FAA”) grounded the 737 MAX aircraft for an indefinite period. In light of the FAA's grounding order, Southwest, the largest operator of the 737 MAX aircraft with thirty four (34) 737 MAX aircraft in scheduled flight, and more than twenty (20) additional scheduled to be delivered and incorporated into scheduled flight by the end of 2019, has had to cancel thousands of flights, thus limiting SWAPA pilots' ability to fly and terminating the economic benefit that SWAPA believed its pilots would gain by agreeing to add the 737 MAX aircraft as a term of the pilots' CBA with Southwest in 2016, and operating the aircraft.

11. Had SWAPA known the truth about the 737 MAX aircraft in 2016, it never would have approved the inclusion of the 737 MAX aircraft as a term in its CBA, and agreed to operate the aircraft for Southwest. Worse still, had SWAPA known the truth about the 737 MAX aircraft

in 2016, it would have demanded that Boeing rectify the aircraft's fatal flaws before agreeing to include the aircraft in its CBA, and to provide its pilots, and all pilots, with the necessary information and training needed to respond to the circumstances that the Lion Air Flight 610 and Ethiopian Airlines Flight 302 pilots encountered nearly three years later.

12. Boeing is liable to SWAPA for the damages it and its pilots have sustained, and continue to sustain, as the result of: Boeing's false representations concerning the 737 MAX aircraft; Boeing's interference in SWAPA's contract and business relationship with Southwest that led to SWAPA agreeing to include the 737 MAX aircraft as a term of the CBA and to operate the aircraft; and Boeing's negligence in self-certifying an aircraft that Boeing knew would be subject to a grounding order if the truth were discovered because it did not meet—and, to this day, does not meet—federal airworthiness requirements.

PARTIES

13. Plaintiff SWAPA was at all relevant times referenced herein, and still is, a non-profit labor organization and employee association representing the pilots of Southwest. SWAPA is headquartered in Dallas, Texas. Formed in 1978, SWAPA has acted as the sole bargaining unit for pilots employed by Southwest, currently numbering nearly 10,000 pilots, and has negotiated nine CBAs that govern the pilots' employment with Southwest.

14. Upon information and belief, and at all times referenced herein, Defendant Boeing was, and still is, a corporation organized and existing under the laws of Delaware. Boeing maintains its corporate headquarters in Chicago, Illinois, and its principal places of business in Chicago, Illinois, and Washington State. Boeing is an aerospace company involved in the design, manufacture, and sale of commercial aircraft and business jets. Boeing may be served by its registered agent in Texas at Corporation Service Company, 211 East 7th Street Suite

620, Austin, Texas 78701.

JURISDICTION AND VENUE

15. The subject matter in controversy is within the jurisdictional limits of this Court pursuant to Texas Rule of Civil Procedure 47 as Plaintiff SWAPA seeks monetary relief over \$1,000,000.

16. This Court has *in personam* jurisdiction over Defendant Boeing pursuant to Texas' long-arm statute Tex. Civ. Prac. & Rem. Code § 17.041 *et seq* (WEST). Boeing conducts business in the State of Texas, communicated with SWAPA in Texas and committed torts in Texas. Boeing made most of the misrepresentations at issue in this action in Texas, fraudulently concealed the information at issue in this action in Texas, and aimed its communications to Texas.

17. Venue is proper in this Judicial District pursuant to Tex. Civ. Prac. & Rem. Code Ann. § 15.002 (WEST) because a substantial part of the events and omissions giving rise to the claims asserted herein took place within Dallas County. Boeing made the communications at issue in part in this County, made the misrepresentations at issue in this action in this County, and fraudulently concealed the information at issue in this action in this County.

18. At all relevant times, Defendant Boeing has conducted business within this County.

FACTUAL ALLEGATIONS

19. Plaintiff repeats, reiterates, and realleges each and every allegation in paragraphs 1 through 18 above with the same force and effect as if set forth herein in full.

20. At all times mentioned herein, Boeing, and each of its employees, agents, and servants named herein were operating and acting within the scope of their employment, agency

and service, and Boeing was aware of, and ratified and approved the acts of and statements made by each named employee, agent or servant. Each act or statement made by each named employee, agent or servant of Boeing was done in furtherance of Boeing's interest and substantially assisted Boeing's commission and omission of the wrongful acts alleged herein.

I. THE DEVELOPMENT OF THE 737 MAX AND ITS INHERENT, UNDISCLOSED RISKS

A. The Boeing 737 MAX Aircraft is Introduced to the Public

21. Boeing has been manufacturing and selling the 737, a narrow-body single aisle aircraft, for over 60 years.

22. Boeing's main competitor in the narrow-body market is, and at all relevant times herein has been, Airbus. Airbus manufactures the A320 family of narrow-body aircraft.

23. In 2010, Airbus announced the introduction of the Airbus A320 NEO ("A320 NEO") aircraft, a new engine variant of its popular A320 aircraft, which offered greater fuel efficiency than Airbus's prior generations of A320 aircraft and Boeing's 737 Next Generation ("NG") aircraft, which was Boeing's most recent 737 iteration at the time.

24. Following Airbus's announcement, Boeing considered but rejected the idea of introducing a new engine variant of its 737, and believed that it could wait to produce an aircraft to compete with the A320 NEO.

25. At a meeting in January 2011, Jim Albaugh, then the president of Boeing Commercial Airplanes, told Boeing employees that Boeing could wait until the end of the decade to produce a new plane from scratch rather than refit the most recent 737 NG with new engines. He further explained that the A320 NEO's use of a bigger, more fuel-efficient engine would be a

“design change that will ripple through the airplane.”¹

26. Subsequently, Boeing learned that American Airlines, which was an exclusive Boeing customer for more than a decade, was considering the purchase of 200 Airbus A320 NEOs.

27. Rather than designing a new aircraft, Boeing immediately reversed course and launched its own new engine variant of the existing, widely flown and time-tested 737 NG. To make the new 737 more fuel efficient, and therefore competitive with the new A320 NEO, the 737 NG’s engines were to be replaced with the larger, more fuel-efficient CFM International LEAP1-B (the “LEAP1-B”) engine.²

28. A former senior Boeing official stated that the company opted to mount the new LEAP1-B engines on Boeing’s existing 737 NG airframe rather than an entirely new airframe because it would be “far quicker, easier and cheaper than starting from scratch, and would provide almost as much fuel savings for airlines.”³

29. In August 2011, Boeing’s Board of Directors authorized the launch of a new

¹ David Gelles et al., *Boeing Was ‘Go, Go, Go’ to Beat Airbus With the 737 Max*, The New York Times (2019), <https://www.nytimes.com/2019/03/23/business/boeing-737-max-crash.html>.

² *Id.*; see also Andy Pasztor, et al., *How Boeing’s 737 MAX Failed*, The Wall Street Journal, March 27, 2019, <https://www.wsj.com/articles/how-boeings-737-max-failed-11553699239>; Andrew Tangel, et al., *The Four-Second Catastrophe: How Boeing Doomed the 737 Max*, The Wall Street Journal, August 16, 2019, <https://www.wsj.com/articles/the-four-second-catastrophe-how-boeing-doomed-the-737-max-11565966629>.

³ David Gelles et al., *Boeing Was ‘Go, Go, Go’ to Beat Airbus With the 737 Max*, The New York Times (2019), <https://www.nytimes.com/2019/03/23/business/boeing-737-max-crash.html>; see also *How Boeing’s 737 MAX Failed*, The Wall Street Journal, March 27, 2019, <https://www.wsj.com/articles/how-boeings-737-max-failed-11553699239>; Andrew Tangel, et al., *The Four-Second Catastrophe: How Boeing Doomed the 737 Max*, The Wall Street Journal, August 16, 2019, <https://www.wsj.com/articles/the-four-second-catastrophe-how-boeing-doomed-the-737-max-11565966629>.

iteration of 737 aircraft to compete with the A320 NEO—the “MAX” Series.

30. On August 30, 2011, Boeing announced the launch of the 737 MAX family of aircraft.⁴ In its launch announcement, Boeing emphasized the 737 MAX’s connection to the 737 product line’s service history explaining that “[w]e call it the 737 MAX because it optimizes everything we and our customers have learned about designing, building, maintaining and operating the world’s best single-aisle airplane.”⁵

31. In its launch announcement Boeing asserted, *inter alia*, that:⁶

- a. “The 737 MAX will deliver big fuel savings that airlines will need to successfully compete in the future. Airlines will benefit from a 7 percent advantage in operating costs over future competing airplanes as a result of optimized CFM International LEAP-1B engines, more efficient structural design and lower maintenance requirements”; and
- b. “Airlines will continue to benefit from maximum reliability. The 737 MAX will build upon the Next-Generation 737’s highest reliability performance of any airplane in the world – 99.7 percent on-time departure rate.”

32. Boeing’s 737 MAX launch announcement did not disclose that as compared to the most recent 737 NG, the addition of the LEAP1-B engines would, *inter alia*:

- a. Change the aircraft’s center of gravity;
- b. Decrease aircraft stability;
- c. Negatively affect flight handling characteristics to make the aircraft more susceptible to the catastrophic risk of aerodynamic stall; and
- d. Create inherent safety risks.

33. When an airframe is designed, engineers consider the specifications of the engine

⁴ The Boeing Company, *Boeing Introduces 737 MAX With Launch of New Aircraft Family*, August 30, 2011, <https://boeing.mediaroom.com/2011-08-30-Boeing-Introduces-737-MAX-With-Launch-of-New-Aircraft-Family>.

⁵ *Id.*

⁶ *Id.*

that will be used, take that engine's weight and size into account, and determine the ideal mounting point and placement to assure that the aircraft has a stable aerodynamic center of gravity.

34. But Boeing's announcement did not mention the inherent risks created by adding the LEAP1-B engines to an existing airframe designed to accommodate smaller, less powerful engines.

35. Here, Boeing eschewed the opportunity to properly engineer the 737 MAX and instead found a way to fit the new, larger engine on an existing airframe, thereby creating inherent risks that Boeing would later attempt and fail to mitigate.

B. Boeing Marketed the 737 MAX Based on the 737 Family Legacy

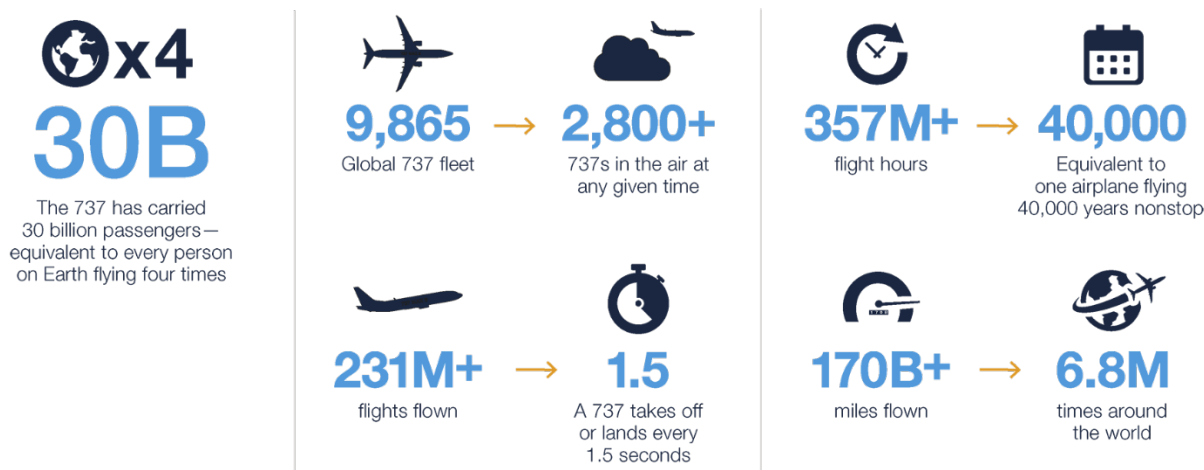
36. From its inception, Boeing marketed the 737 MAX family as the newest variant of its 737 family of aircraft, specifically a new version of what was then the latest 737 model, the 737 NG.

37. Boeing's website featured a page marketing the 737 MAX entitled "The Legacy and Strength of the Boeing 737 Family," which boasted that reliability, safety, and simplicity of design had been the hallmarks of the 737 family since its inception in 1967 and would continue with the 737 MAX.⁷

38. Boeing presented the following infographic to highlight the 737's extensive in-service history:⁸

⁷ The Boeing Company, *737 MAX Updates*, <https://www.boeing.com/commercial/737max/737max-legacy.page>.

⁸ *See id.*



39. In other words, Boeing was specifically marketing the 737 MAX based on the 737 family’s long track-record for safety without disclosing the safety critical changes that made the MAX a fundamentally different aircraft from prior generations of the 737 family.

40. Boeing’s 737 family legacy messaging appeared throughout Boeing’s press releases and public statements upon which existing and potential future 737 MAX operators, as well as the public, relied.

41. For example, a November 3, 2011 Boeing press release announcing 737 MAX design changes described the MAX as a “new-engine variant” and reminded the public and potential customers and operators that “[t]he Boeing 737 is the world’s most popular and reliable commercial jet transport.”⁹

42. A February 12, 2012 press release discussing the final phase of 737 MAX wind tunnel testing described the MAX as “a new engine variant of the world’s best-selling airplane

⁹ The Boeing Company, *Boeing Updates 737 MAX Engine Configuration Status and Customer Commitments*, November 3, 2011, <https://boeing.mediaroom.com/2011-11-03-Boeing-Updates-737-MAX-Engine-Configuration-Status-and-Customer-Commitments>.

[that] builds on the strengths of today's NEXT-Generation 737.”¹⁰

43. An April 11, 2012 press release disclosed the changes from the 737 NG to the 737 MAX, including an extension of the tail cone; integration of the LEAP1-B engines with the wing; a new pylon and strut, nose gear extension; and flight control and system updates such as fly-by-wire spoilers and an electronic bleed air system.¹¹

44. In this same statement, Boeing's 737 MAX Chief Project Engineer characterized the allegedly limited changes to the MAX, and assured the public that “[a]ny new technology incorporated into the MAX design must offer substantial benefit to our customers with minimal risk for the team to pursue it.”¹²

45. But in disclosing the minor differences, Boeing concealed that the use of LEAP1-B engines, and their placement on the airframe rendered the 737 MAX distinct from its 737 predecessors, and that the design changes advertised did not disclose the full scope of differences between the 737 NG and the 737 MAX.

46. In an October 29, 2013 press release, Boeing echoed its prior marketing efforts, stating “we are being very deliberate about any changes we make to airplane systems on the 737 MAX to make the airplane even easier to operate.”¹³

¹⁰ The Boeing Company, *Boeing to Begin Final Phase of 737 MAX Wind Tunnel Testing*, February 12, 2012, <https://boeing.mediaroom.com/2012-02-12-Boeing-to-Begin-Final-Phase-of-737-MAX-Wind-Tunnel-Testing>.

¹¹ The Boeing Company, *Boeing Makes 737 MAX Design Decisions*, April 11, 2012, <https://boeing.mediaroom.com/2012-04-11-Boeing-Makes-737-MAX-Design-Decisions>.

¹² *Id.*

¹³ The Boeing Company, *Boeing Continues to Improve 737 MAX Performance*, October 29, 2013, <https://boeing.mediaroom.com/2013-10-29-Boeing-Continues-to-Improve-737-MAX-Performance>.

47. Yet again, Boeing concealed the truth.

C. Boeing Purposefully Downplayed Changes to the 737 MAX as Compared to the 737 NG to Maximize its Profit and Ensure Speedy Certification

48. Boeing purported to ensure that the disclosed changes from the 737 NG to the 737 MAX were minor, would not drive additional costs, and would not require additional pilot training.

49. Rick Ludtke, an employee at Boeing for 19 years and an engineer who helped design the 737 MAX cockpit, explained that “[a]ny designs we created could not drive any new [pilot] training that required a simulator.”¹⁴

50. As Ludtke described: “The company was trying to avoid costs and trying to contain the level of change. They wanted the minimum change to simplify the training differences, minimum change to reduce costs, and to get it done quickly.”¹⁵

51. He described this difficult process, based on an existing airframe, to be “such a kludge,” that he and other engineers working on the MAX wondered during the design process

¹⁴ David Gelles et al., *Boeing Was ‘Go, Go, Go’ to Beat Airbus With the 737 Max*, The New York Times (2019), <https://www.nytimes.com/2019/03/23/business/boeing-737-max-crash.html>; see also Andy Pasztor, et al., *How Boeing’s 737 MAX Failed*, The Wall Street Journal, March 27, 2019, Andrew Tangel, et al., *The Four-Second Catastrophe: How Boeing Doomed the 737 Max*, The Wall Street Journal, August 16, 2019, <https://www.wsj.com/articles/the-four-second-catastrophe-how-boeing-doomed-the-737-max-11565966629>.

¹⁵ David Gelles et al., *Boeing Was ‘Go, Go, Go’ to Beat Airbus With the 737 Max*, The New York Times (2019), <https://www.nytimes.com/2019/03/23/business/boeing-737-max-crash.html>; see also Andrew Tangel, et al. *Prosecutors, Transportation Department Scrutinize Development of Boeing’s 737 MAX*, The Wall Street Journal, March 18, 2019, Andrew Tangel, et al., *The Four-Second Catastrophe: How Boeing Doomed the 737 Max*, The Wall Street Journal, August 16, 2019, <https://www.wsj.com/articles/the-four-second-catastrophe-how-boeing-doomed-the-737-max-11565966629>.

whether it was safe to create the 737 MAX.¹⁶

52. He further wondered whether the 737 MAX, with its new engine but existing airframe was “a bridge too far.”¹⁷

53. The need to downplay the design changes made to the 737 MAX served at least two important business needs for Boeing.

54. First, Boeing was able to convince regulators and airline customers that costly and time-consuming training was not required because the 737 MAX was merely an update to the familiar 737 NG. This would make the 737 MAX more competitive relative to the Airbus A320 NEO, more profitable for Boeing and cheaper for customers to operate.

55. Indeed, according to Ludtke, Boeing agreed to rebate Southwest \$1 million per 737 MAX aircraft if the FAA required simulator training for the 737 MAX that airlines themselves typically pay for when introducing new models of aircraft.¹⁸

56. With Southwest’s eventual order of over 100 737 MAX aircraft, any new simulator training could have cost Boeing \$100 million from Southwest alone.

57. Second, presenting the 737 MAX merely as an update to the 737 NG made it possible for Boeing to pursue an amendment to its FAA Type Certificate No. A16WE for the 737, which was issued in 1967. Applying for a new type certificate would have taken years

¹⁶ Mike Baker & Dominic Gates, *Lack of Redundancies on Boeing 737 MAX System Baffles Some Involved in Developing the Jet*, The Seattle Times, March 26, 2019, <https://www.seattletimes.com/business/boeing-aerospace/a-lack-of-redundancies-on-737-max-system-has-baffled-even-those-who-worked-on-the-jet/>.

¹⁷ *Id.*

¹⁸ Maureen Tkacik, *Crash Course: How Boeing’s Managerial Revolution Created the 737 MAX Disaster*, The New Republic, September 18, 2019, <https://newrepublic.com/article/154944/boeing-737-max-investigation-indonesia-lion-air-ethiopian-airlines-managerial-revolution>.

longer than amending the original 737 type certificate, would have cost Boeing far more, and would have garnered more intense FAA scrutiny.

58. Thus, on January 27, 2012, Boeing petitioned the FAA for certification of the 737 MAX as an amendment to Type Certificate No. A16WE.¹⁹

59. The FAA reviewed Boeing's application in February 2012, and based on the now known to be false representations in Boeing's application – namely that the 737 MAX would be sufficiently similar to prior generations of 737 aircraft already included on the same type certificate – determined that the MAX project qualified for an amended type certificate rather than a new type certificate.

60. The FAA also determined that the 737 MAX certification could be managed by Boeing under the FAA's Organization Designation Authorization ("ODA") program, which delegates certification authority from the FAA to the manufacturer, in this case, Boeing.

61. From the FAA's then-mistaken point of view, and Boeing's widely disseminated point of view, the 737 MAX design "had minor changes to the 737 Next Generation design,"²⁰ meaning that the use of a type certificate amendment and the ODA program were appropriate given the purported similarities between the 737 NG and 737 MAX. Boeing had misrepresented to the FAA (and thereby to the public as a whole) that the 737 MAX was a variant of the prior versions of the 737 family of aircraft, including the 737 NG, when in fact it was a different aircraft altogether.

¹⁹ The Boeing Company, Models 737-700, -700C, -800, -900ER, -7, -8, and -9 Series Airplanes; Airplane Electronic Systems Security Protection From Unauthorized External Access. 79 Fed. Reg. 32,640 (proposed June 6, 2014).

²⁰ *Airworthiness Certification*, https://www.faa.gov/licenses_certificates/aircraft_certification/airworthiness_certification/.

D. Boeing's Efforts to Rush the 737 MAX Launch Created Catastrophic, Undisclosed Risks

62. Boeing claims that it is “committed to being the leader in commercial aviation by offering airplanes and services that deliver superior design, efficiency and value to customers around the world.”²¹

63. However, in the rush to get the 737 MAX certified and to market on a timeline that could compete with the A320 NEO, Boeing leadership placed exceptional pressure on its engineers to produce a finished product quickly.

64. Several of the engineers and designers working on the 737 MAX later described the artificially accelerated pace of the MAX's development, stating that it was “was extremely compressed ... It was go, go, go.”²²

65. A former designer working on the 737 MAX's flight controls described how the design team had at times produced 16 technical drawings a week, double the normal rate. The designer understood the message from management to be: “We need something now.”²³

66. A technician who assembled wiring on the 737 MAX stated that he received sloppy blueprints in the first few months of development and was told that the instructions for the wiring would be corrected later. He disclosed that internal assembly designs for the MAX

²¹ The Boeing Company, *Our Company*, <https://www.boeing.com/company/>.

²² David Gelles et al., *Boeing Was ‘Go, Go, Go’ to Beat Airbus With the 737 Max*, The New York Times (2019), <https://www.nytimes.com/2019/03/23/business/boeing-737-max-crash.html>; see also Andrew Tangel, et al. *Prosecutors, Transportation Department Scrutinize Development of Boeing's 737 MAX*, The Wall Street Journal, March 18, 2019, <https://www.wsj.com/articles/faas-737-max-approval-is-probed-11552868400>.

²³ David Gelles et al., *Boeing Was ‘Go, Go, Go’ to Beat Airbus With the 737 Max*, The New York Times (2019), <https://www.nytimes.com/2019/03/23/business/boeing-737-max-crash.html>.

included omissions.²⁴

67. This process was different from standard procedures because normally such blueprints include intricate instructions.²⁵

68. Upon information and belief, the unreasonable expectations placed on engineers and designers by Boeing's corporate business leadership created an environment ripe for mistakes, and one wherein employees were reluctant to raise concerns that could have delayed certification and production of the 737 MAX.

69. Boeing's rushed time frame and its use of the FAA's ODA program authority enabled Boeing to hide from the FAA, operators, the public, and potential customers the safety critical design changes on the 737 MAX that did not exist in prior 737 generations.

70. One of these safety critical design changes, MCAS, did not come to light until the aircraft entered passenger service, and caused the Lion Air 610 crash on October 29, 2018.

71. Other safety critical design changes may remain hidden until tested in service after potential re-certification.

E. Boeing Employed a Novel, Undisclosed Flight Control Logic to Mitigate the Catastrophic Risk of Stall

72. As set forth above, to compete with the A320 NEO, Boeing decided to add the new LEAP1-B engine to its existing 737 NG airframe.

73. Adding these larger, heavier engines triggered design and engineering changes for the aircraft, the same ripple effect that James Albaugh, Boeing's then commercial airplanes chief executive, had predicted back in 2011, when criticizing Airbus' A320 NEO.

74. Unlike with Airbus' addition of a new, more fuel efficient engine on the A320

²⁴ *Id.*

²⁵ *Id.*

NEO, Boeing was not able to mount the new, larger LEAP1-B engines in the same location as the 737 NG engines because the airframe was too close to the ground.

75. To accommodate the new, larger engines Boeing mounted them higher up and farther forward on the wing than the existing 737 NG engines. The weight and placement of the new engines, *inter alia*:

- a. Changed the 737 MAX's aerodynamic center of gravity;
- b. Decreased aircraft stability;
- c. Created a greater pitch-up tendency at elevated angles of attack; and
- d. Negatively affected the flight handling characteristics, making the 737 MAX more susceptible to the catastrophic risk of stall.

76. When the 737 MAX is in full thrust, such as during takeoff, the aircraft nose tends to point too far upward, which creates a risk of aerodynamic stall.

77. An aerodynamic stall occurs when an aircraft experiences a sudden reduction in lift as the pilot increases the wing's angle of attack and exceeds its critical angle of attack. If not quickly corrected, a stall can lead to a loss of controlled flight and crash of the aircraft.

78. The 737 NG did not have the same risk of aerodynamic stall.

79. Boeing started to become aware of the 737 MAX's new handling characteristics, and the problems they created, in early 2012.

80. The center of gravity change and the red flags it raised were first noticed on a model 737 MAX that was the size of an eagle and was being tested in a wind tunnel.²⁶

81. Boeing's Chief Test Pilot, Ray Craig, also discovered an issue with the 737

²⁶ Maureen Tkacik, *Crash Course: How Boeing's Managerial Revolution Created the 737 MAX Disaster*, The New Republic, September 18, 2019, <https://newrepublic.com/article/154944/boeing-737-max-investigation-indonesia-lion-air-ethiopian-airlines-managerial-revolution>.

MAX's high-speed handling qualities while conducting FAA-required evasive maneuvers in a simulator.

82. In other words, Boeing knew years ago, at the infancy of 737 MAX development, that the aircraft was not going to work as intended.²⁷

83. To address the issue, Boeing developed a software solution, MCAS, which is a flight control logic unique to the 737 MAX aircraft.²⁸

84. According to the New York Times, Mr. Craig disliked automatic systems such as MCAS that take control from pilots and would have preferred a structural aerodynamic fix. But Craig relented because the need for such high-speed maneuvers was so rare that he believed that MCAS would rarely engage.²⁹

85. The problems with Boeing's use of a software rather than structural fix became exacerbated when later, as described below, the software could not sufficiently correct for the problems the changes to the aircraft's center of gravity caused.

86. In the meantime, Boeing kept MCAS a secret.

²⁷ Jack Nicas et al., *Boeing Built Deadly Assumptions Into 737 Max, Blind to a Late Design Change*, The New York Times, June 1, 2019, <https://www.nytimes.com/2019/06/01/business/boeing-737-max-crash.html>.

²⁸ *Id.*; see also Andrew Tangel & Andy Pasztor, *Regulators Found High Risk of Emergency After First Boeing MAX Crash*, The Wall Street Journal, July 31, 2019, <https://www.wsj.com/articles/regulators-found-high-risk-of-emergency-after-first-boeing-max-crash-11564565521>; Douglas MacMillan & Aaron Gregg, *Boeing's 737 Max Design Contains Fingerprints of Hundreds of Suppliers*, The Washington Post, April 5, 2019, https://www.washingtonpost.com/steps-for-disabling-firefoxs-native-adblocker/2018/05/21/fb95bf4e-5d37-11e8-b2b808a538d9dbd6_story.html?utm_term=.8c5fedae8660; Anurag Kotoky & Kyunghye Park, *When Will Boeing 737 Max Fly Again and More Questions*, Bloomberg, June 16, 2019, <https://www.bloomberg.com/news/articles/2019-06-17/boeing-s-grounded-737-max-the-story-so-far-quicktake>.

²⁹ Jack Nicas et al., *Boeing Built Deadly Assumptions Into 737 Max, Blind to a Late Design Change*, The New York Times, June 1, 2019, <https://www.nytimes.com/2019/06/01/business/boeing-737-max-crash.html>.

87. Indeed, Boeing did not disclose its addition of MCAS to the 737 MAX to anyone, including existing 737 operators, those with 737 MAX aircraft on order, potential customers or the public until 2018, after the crash of Lion Air Flight 610.

88. With MCAS in place, the 737 MAX program forged ahead toward its design milestones:

- a. Boeing began final wind tunnel testing in February 2012;
- b. Boeing achieved firm concept in October 2012;
- c. Boeing achieved firm configuration in July 2013;
- d. Boeing initiated ground testing of the LEAP1-B engine in June 2014;
- e. Boeing began engine flight testing in May 2015;
- f. Boeing debuted the first assembled 737 MAX in December 2015; and
- g. Boeing began the flight next testing phase in January 2016.

89. During this time, Boeing continued to market the 737 MAX as if it was but a more fuel efficient version of the 737 NG, as opposed to the different aircraft it really is, and it continued to conceal the existence of MCAS.

90. On December 8, 2015, following the assembly of the first 737 MAX aircraft, Boeing Commercial Airplanes Vice President and General Manager Keith Leverkuhn stated “... our team is upholding an incredible legacy while taking the 737 to the next level of performance.”³⁰

91. After a successful first flight, Boeing’s Chief Production Pilot, Ed Wilson, stated, “[t]he 737 Max just felt right in flight giving us complete confidence that this airplane will meet

³⁰ The Boeing Company, *Boeing Debuts First 737 MAX* 8, December 8, 2015, <https://boeing.mediaroom.com/Boeing-Debuts-First-737-MAX-8>.

our customers' expectations."³¹

92. But as flight testing continued, Mr. Wilson and his co-pilot, Craig Bomben, began to notice that the 737 MAX was not handling like the 737 NG when nearing aerodynamic stalls at low air speeds.

93. Specifically, the control forces required to pull the column (yoke) back were too low and could cause the airplane to stall, and the forces required to push the column forward to increase speed and recover from a stall were too high.³²

94. In other words, the 737 MAX did not handle like, and was dissimilar to, prior 737 generations, including the 737 NG, despite what Boeing was telling its operators, customers, potential customers, and the public, and despite what Boeing had told the FAA since 2012 in order to certify the 737 MAX as a new variant of the 737 rather than seek a new type certificate as would be required for a new aircraft.

95. The 737 MAX was more susceptible to an aerodynamic stall at low speeds than prior generations of 737s.

96. However, the technology on the older generations of 737 aircraft that enabled pilots to manually control the aircraft by pulling back on the control column was disabled in the 737 MAX when MCAS activated.

97. Notwithstanding its growing awareness of the inherent risks introduced by its

³¹ The Boeing Company, *Boeing Completes Successful 737 MAX First Flight*, January 29, 2016, <https://boeing.mediaroom.com/2016-01-29-Boeing-Completes-Successful-737-MAX-First-Flight>.

³² Jack Nicas et al., *Boeing Built Deadly Assumptions Into 737 Max, Blind to a Late Design Change*, The New York Times, June 1, 2019, <https://www.nytimes.com/2019/06/01/business/boeing-737-max-crash.html>; see Scott McCartney, *Inside the Effort to Fix the Troubled Boeing 737 MAX*, The Wall Street Journal, June 5, 2019, <https://www.wsj.com/articles/testing-the-fix-for-the-troubled-737-max-11559772634>.

design of the 737 MAX, Boeing continued to conceal this necessary safety information from everyone. For example, on July 26, 2016, Boeing presented a flight demonstration video at an Air Show in Oshkosh, Wisconsin. In connection with that demonstration, Boeing again touted the MAX's LEAP1-B engines without mentioning their unintended side-effects, stating "The 737 MAX incorporates the latest technology CFM International LEAP-1B engines . . . to deliver the highest efficiency, reliability and passenger comfort in the single-aisle market."³³

98. Meanwhile, Boeing engineers scrambled to find a fix for the 737 MAX's dangerous low-speed handling characteristics.³⁴

99. By March 2016, Boeing settled on a revision of the MCAS flight control logic.

100. However, Boeing chose to omit key safeguards that had previously been included in earlier iterations of MCAS used on the Boeing KC-46A Pegasus, a military tanker derivative of the Boeing 767 aircraft.³⁵

101. The engineers who created MCAS for the military tanker designed the system to rely on inputs from multiple sensors and with limited power to move the tanker's nose. These deliberate checks sought to ensure that the system could not act erroneously or cause a pilot to lose control. Those familiar with the tanker's design explained that these checks were

³³ The Boeing Company, *Boeing Debuts 737 MAX Flight Demonstration Video at Oshkosh Air Show*, July 26, 2016, <https://boeing.mediaroom.com/news-releases-statements?item=129746>.

³⁴ Jack Nicas et al., *Boeing Built Deadly Assumptions Into 737 Max, Blind to a Late Design Change*, The New York Times, June 1, 2019, <https://www.nytimes.com/2019/06/01/business/boeing-737-max-crash.html>.

³⁵ Alison Sider et al., *Before 737 MAX, Boeing's Flight-Control System Included Key Safeguards*, The Wall Street Journal, September 29, 2019, <https://www.wsj.com/articles/before-737-max-boeings-flight-control-system-included-key-safeguards-11569754800>.

incorporated because “[y]ou don’t want the solution to be worse than the initial problem.”³⁶

102. The 737 MAX version of MCAS abandoned the safeguards previously relied upon. As discussed below, the 737 MAX MCAS had greater control authority than its predecessor, activated repeatedly upon activation, and relied on input from just one of the plane’s two sensors that measure the angle of the plane’s nose.

103. While the single-sensor version of MCAS was being developed, Boeing’s Chief Test Pilot, Ray Craig and other engineers urged the company to study a backup system known as synthetic airspeed.³⁷ The synthetic airspeed system is used on Boeing’s 787 Dreamliner and draws on several data sources to measure how fast an aircraft is flying. In doing so, it can detect when an angle of attack sensors is malfunctioning and prevent other systems, such as MCAS, from relying on that faulty information.

104. Curtis Ewbank, an engineer who worked on the development of the 737 MAX explained that Boeing decided not to look into the use of a synthetic airspeed system because of its potential cost and effect on training requirements for pilots.³⁸

105. Boeing’s failure to implement a structural fix to the 737 MAX four years prior when the aircraft’s instability was first discovered began to exacerbate the problem.

106. In its second iteration of MCAS, Boeing gave MCAS enough authority to autonomously move the aircraft tail’s horizontal stabilizer to the full nose-down limit if MCAS

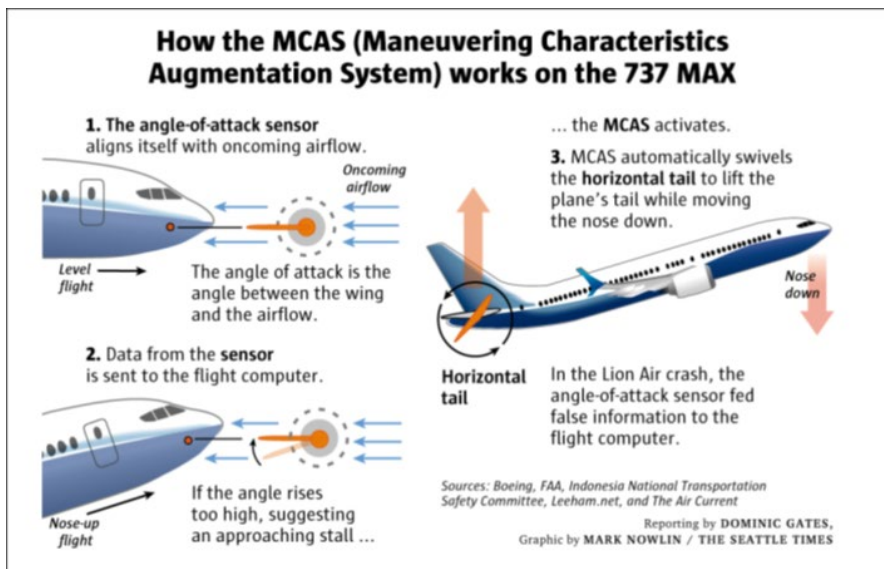
³⁶ *Id.*

³⁷ Natalie Kitroeff et al., *Boeing Engineer, in Official Complaint, Cites Focus on Profit Over Safety on 737 Max*, The New York Times, October 2, 2019, <https://www.nytimes.com/2019/10/02/business/boeing-737-max-crashes.html>.

³⁸ *Id.*

determined a stall may be oncoming.³⁹

107. Although this fix was intended to conform the 737 MAX's handling characteristics to the 737 NG, it introduced the risk that the stabilizer would overpower the pilots' ability to counter MCAS' nose-down command with nose-up movement to stop an uncontrollable dive toward the ground. The graphic below demonstrates the problem.⁴⁰



108. Further compounding its mistakes, Boeing submitted documentation to the FAA indicating that MCAS could move the horizontal tail a maximum of 0.6 degrees, which described the first iteration of MCAS.

109. However, at the time of certification in 2017, when Boeing was presenting the

³⁹ Dominic Gates, *Flawed analysis, failed oversight: How Boeing, FAA certified the suspect 737 MAX flight control system*, The Seattle Times, March 17, 2019, <https://www.seattletimes.com/business/boeing-aerospace/failed-certification-faa-missed-safety-issues-in-the-737-max-system-implicated-in-the-lion-air-crash/>; see also Andy Pasztor & Andrew Tangel, *Boeing's Latest 737 MAX Concern: Pilots' Physical Strength*, The Wall Street Journal, June 19, 2019, <https://www.wsj.com/articles/physical-strength-of-pilots-emerges-as-issue-in-returning-737-max-to-flight-11560937879>.

⁴⁰ Dominic Gates, *Flawed analysis, failed oversight: How Boeing, FAA certified the suspect 737 MAX flight control system*, The Seattle Times, March 17, 2019, <https://www.seattletimes.com/business/boeing-aerospace/failed-certification-faa-missed-safety-issues-in-the-737-max-system-implicated-in-the-lion-air-crash/>.

aircraft that would actually be delivered to customers, MCAS actually was capable of moving the tail 2.5 degrees, more than four times the 0.6 degrees stated in the initial safety analysis provided to the FAA.

110. Because Boeing had ODA authority to self-certify this aspect of the 737 MAX, Boeing was able to conceal this change from the FAA and never updated its documentation on this point.

111. Boeing's FAA-mandated System Safety Analysis for MCAS also failed to account for how MCAS could reset itself after each time a pilot responded to its nose-down command. This means that when MCAS malfunctioned, it would not just cause a single downward movement of 2.5 degrees, but would nose-down command the aircraft 2.5 degrees lower several times in succession as the pilot tried to regain control. Without correction, two cycles of MCAS at the 2.5 degree limit could cause the aircraft to reach its maximum nose-down trim position, which could cause the pilot to lose control of the aircraft, and a crash into the ground.

112. Peter Lemme, a former Boeing flight controls engineer, explained that since MCAS can reset each time it is used, "it effectively has unlimited authority."⁴¹

113. Based on the false representation that MCAS's maximum authority was .6 degrees, Boeing's System Safety Analysis submitted to the FAA incorrectly classified the MCAS as a "major failure" risk in normal flight and a "hazardous failure" risk in the event of an extreme maneuver, such as a banked descending spiral.

114. A "major failure" indicates that the system's failure could cause physical distress to passengers, but not death. A "hazardous failure" could cause serious or fatal injuries to a

⁴¹ *Id.*

small number of passengers. By contrast, a “catastrophic failure” risk, which is what MCAS really is, represents the potential for loss of the plane with multiple fatalities.

115. The fact that MCAS is a catastrophic failure risk was tragically demonstrated when both Lion Air Flight 610 and Ethiopian Airlines Flight 302 crashed, killing scores of people.

116. Yet Boeing’s website, press releases, annual reports, public statements and statements to operators and customers, submissions to the FAA and other civil aviation authorities, and 737 MAX flight manuals made no mention of the increased stall hazard or MCAS itself.

117. In fact, Boeing 737 Chief Technical Pilot, Mark Forkner asked the FAA to delete any mention of MCAS from the pilot manual so as to further hide its existence from the public and pilots.⁴²

118. Further, Boeing did not inform the FAA that a second iteration of MCAS existed.

119. Accordingly, Boeing failed to inform the FAA that, unlike the first iteration of MCAS, which likely only would operate in the event of a rare high-speed maneuver, the second iteration would operate to prevent potential low altitude, low speed stalls, which could occur far more frequently.

120. The risk profile and required risk assessment of the second iteration of MCAS was completely different from the first, and yet Boeing neither assessed that increased risk nor

⁴² Maureen Tkacik, *Crash Course: How Boeing’s Managerial Revolution Created the 737 MAX Disaster*, The New Republic, September 18, 2019, <https://newrepublic.com/article/154944/boeing-737-max-investigation-indonesia-lion-air-ethiopian-airlines-managerial-revolution>.

even attempted to mitigate it. Instead, Boeing used its ODA authority to hide this information.⁴³

121. No such system existed in the 737 NG to which Boeing had so frequently compared the 737 MAX.

122. Further, Boeing designed MCAS to rely on data from only one angle of attack sensor instead of two or more. If data from that single angle of attack sensor was wrong, it could activate MCAS and force the aircraft into a dive when one is unnecessary, and potentially at altitudes that could – and did – result in a catastrophic crash.⁴⁴

123. The reason for using only one angle of attack sensor is obvious: using two angle of attack sensors may have created a disagree alert when one sensor was feeding false data, a problem which may have required the additional pilot training Boeing so desperately was seeking to avoid.⁴⁵

124. The problem with using only one angle of attack sensor was compounded by the fact that the angle of attack sensor was mounted on the aircraft fuselage, just behind the nose, where it is vulnerable to damage from jetbridges, ground equipment and birds.

125. According to a review by Bloomberg, there have been at least 140 instances over

⁴³ Troy Wolverton, *Boeing reportedly kept the FAA in the dark about big changes it made to the 737 Max's flight-control software late in its development*, Business Insider, July 27, 2019, <https://www.businessinsider.com/boeing-737-max-flight-system-faa-oversight-2019-7>.

⁴⁴ Dominic Gates, *FAA Cautions Airlines on Maintenance of Sensors that were Key to 737 Max Crashes*, The Seattle Times, August 20, 2019, <https://www.seattletimes.com/business/boeing-aerospace/faa-cautions-airlines-on-maintenance-of-sensors-that-were-key-to-737-max-crashes/>.

⁴⁵ Maureen Tkacik, *Crash Course: How Boeing's Managerial Revolution Created the 737 MAX Disaster*, The New Republic, September 18, 2019, <https://newrepublic.com/article/154944/boeing-737-max-investigation-indonesia-lion-air-ethiopian-airlines-managerial-revolution>.

the past 30 years wherein angle of attack sensors mounted in the same area were damaged.⁴⁶ By relying on data from only one angle of attack sensor, Boeing unreasonably risked a data feed from a damaged sensor.

126. Boeing's implementation of MCAS – a new flight control logic with a single input that takes control away from the pilot, and had no in-service history to address a potentially deadly stall hazard stem – marked a profound departure from the time-tested 737 family of aircraft.

127. Notwithstanding Boeing's failure to disclose MCAS to the FAA, operators, the public, customers and potential customers or correctly describe MCAS's nose-down trim command to the FAA, the MAX was added to Boeing's FAA 737 type certificate and approved for operations on March 9, 2017.

128. Despite its knowledge concerning the 737 MAX's stall risk, and of the risks associated with the incorporation of MCAS, when Boeing announced the 737 MAX's FAA certification on the same date, it again stated that "The 737 MAX incorporates the latest technology CFM International LEAP-1B engines . . . to deliver the highest efficiency, reliability and passenger comfort in the single-aisle market."⁴⁷

129. Boeing failed to note any of the problems associated with the addition of the new engines.

130. Specifically, Boeing failed to note, *inter alia*, the:

⁴⁶ Alan Levin & Ryan Beene, *Sensors Linked to Boeing 737 Crashes Vulnerable to Failure*, Bloomberg, April 10, 2019, <https://www.bloomberg.com/news/articles/2019-04-11/sensors-linked-to-737-crashes-vulnerable-to-failure-data-show>.

⁴⁷ The Boeing Company, *Boeing 737 MAX 8 Earns FAA Certification*, March 9, 2017, <https://boeing.mediaroom.com/2017-03-09-Boeing-737-MAX-8-Earns-FAA-Certification>.

- a. Change in the aircraft's aerodynamic center of gravity;
- b. Decrease in aircraft stability;
- c. Greater pitch-up tendency at elevated angles of attack;
- d. Negative change in aircraft handling characteristics;
- e. Increase in susceptibility to the risk of catastrophic stall; and
- f. Reliance on MCAS, a novel yet safety critical flight control logic with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

131. In fact, it was so important to Boeing that the public and customers believe that the 737 MAX was the same as prior generations of 737s that Boeing provided only a two-hour iPad training course to pilots before they entered the 737 MAX cockpit for the first time.⁴⁸

132. But as the spokesperson for the American Airlines' pilots union noted after the first MCAS-caused crash noted, MCAS created a "huge difference" between the 737 MAX and prior generations of 737s.⁴⁹

133. This was Boeing's strategy with its other customers. Brian Lesko, the Chair of the Air Safety Organization Aircraft Design/Operations Group for the Air Line Pilots Association International, another pilots union, who also is a pilot for United Airlines, repeatedly asked Boeing if there were any new major systems on the 737 MAX in connection with an article that he was writing on changes between the 737 NG and the 737 MAX. Boeing

⁴⁸ Natalie Kitroeff et al., *After 2 Crashes of New Boeing Jet, Pilot Training Now a Focus*, The New York Times, March 16, 2019, <https://www.nytimes.com/2019/03/16/business/boeing-max-flight-simulator-ethiopia-lion-air.html>.

⁴⁹ Jack Nicas, David Gelles & James Glanz, *Changes to Flight Software on 737 Max Escaped F.A.A. Scrutiny*, The New York Times, April 11, 2019, <https://www.nytimes.com/2019/04/11/business/boeing-faa-mcas.html>.

repeatedly told him that there were no major changes.⁵⁰ Boeing's misrepresentations and concealments of MCAS thus were repeated throughout the industry.

F. Boeing's Misrepresentations Continued After it Launched the 737 Max

134. After Boeing delivered the first 737 MAX in May 2017, its misrepresentations concerning the 737 MAX continued.

135. On its website, Boeing represented that "millions of dollars will be saved because of [the 737 MAX's] commonality with the Next Generation 737."⁵¹ Boeing's website failed to mention, *inter alia*, the 737 MAX's:

- a. Change in the aircraft's aerodynamic center of gravity;
- b. Decrease in aircraft stability;
- c. Greater pitch-up tendency at elevated angles of attack;
- d. Negative change in handling characteristics;
- e. Increase in susceptibility to the risk of catastrophic stall; and
- f. Relied on MCAS, a novel yet safety critical flight control logic with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

136. None of these problems existed on prior 737 generation aircraft.

II. BOEING'S SPECIFIC RELATIONSHIP WITH, AND REPRESENTATIONS TO, SOUTHWEST AND SWAPA

A. SWAPA and its Relationship with Southwest

137. SWAPA is a non-profit employee association authorized under federal law to represent the approximately 9,900 Southwest pilots members.

⁵⁰ Andy Pasztor, et al., *How Boeing's 737 MAX Failed*, The Wall Street Journal, March 27, 2019, <https://www.wsj.com/articles/how-boeings-737-max-failed-11553699239>.

⁵¹ The Boeing Company, *737 MAX By Design*, <https://www.boeing.com/commercial/737max/by-design/#/operational-commonality>.

138. Formed in 1978, part of SWAPA's mission is "to provide a secure and rewarding career for [Southwest] pilots and their families by equitably enhancing compensation and quality of life issues through contract negotiations, faithfully defending individual and collective contractual rights via administration and enforcement procedures, and actively promoting professionalism and safety through effective organizational communications."

139. In its representative capacity, SWAPA has entered into nine CBAs with Southwest, which govern the terms of SWAPA pilots' employment. The CBA between SWAPA and Southwest sets forth, among other things, the list of approved aircraft that the pilots agree to fly.

140. SWAPA has represented Southwest's pilots for over 40 years, and its existence, as well as its CBAs with Southwest, are known to Boeing, and are common knowledge in the aviation industry.

B. SWAPA's Reliance on Boeing's Public Representations Regarding the 737 MAX

141. Southwest flies only Boeing 737 aircraft.⁵²

142. In 2011, almost all of Southwest's fleet was 737 NGs or 737 "Classics," the generation that preceded the NG.

143. SWAPA learned of Southwest's intent to revitalize its 737 fleet with 737 MAX aircraft in late 2011.

144. Boeing announced that Southwest would be a 737 MAX launch customer and had

⁵² The Economist, *The Secrets of Southwest's Continued Success*, June 18, 2012, <https://www.economist.com/gulliver/2012/06/18/the-secrets-of-southwests-continued-success>; see also Southwest Airlines Newsroom, <https://www.swamedia.com/pages/corporate-fact-sheet#fleet>.

placed an order for 150 737 MAX aircraft.⁵³

145. Southwest was the first airline to place a firm 737 MAX order.⁵⁴

146. From that point forward, SWAPA followed Boeing's public statements regarding the development, design and certification of the 737 MAX.

147. As described above, those statements consistently:

- a. Emphasized the 737 MAX's connection to the 737 family of aircraft;
- b. Touted its increased efficiency;
- c. Articulated only limited design changes;
- d. Made no mention of the aerodynamic changes associated with the addition of larger, more powerful engines; and
- e. Failed to disclose the existence or implementation of MCAS.

148. Boeing's public statements thus failed to disclose the aircraft's:

- a. Decrease in aircraft stability;
- b. Greater pitch-up tendency at elevated angles of attack;
- c. Negative change in handling characteristics;
- d. Increase in susceptibility to the risk of catastrophic stall; and
- e. Reliance on MCAS, a novel yet safety critical flight control logic with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

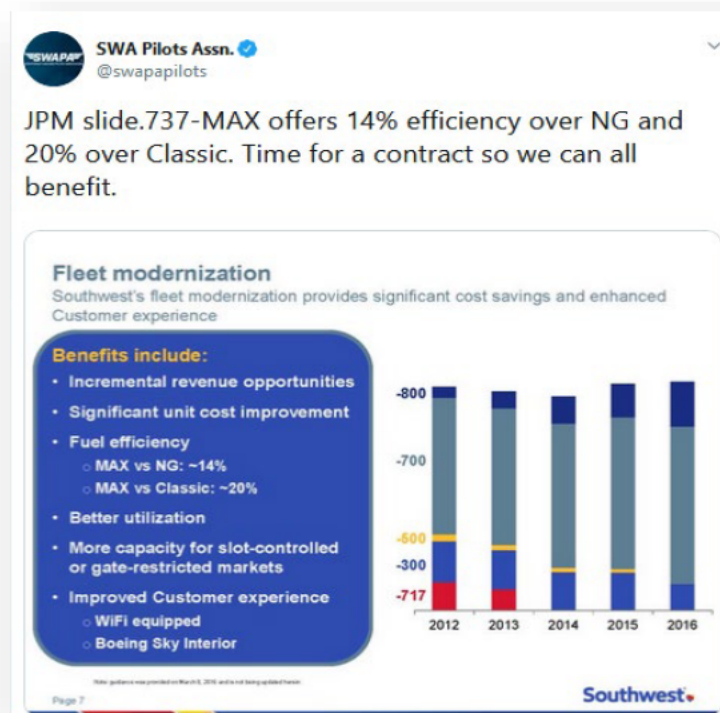
149. Boeing's misleading messaging also informed Southwest's statements to SWAPA, Southwest pilots and to the public regarding the 737 MAX.⁵⁵

⁵³ The Boeing Company, *Boeing 737 MAX Logs First Firm Order from Launch Customer Southwest Airlines*, December 13, 2011, <https://boeing.mediaroom.com/2011-12-13-Boeing-737-MAX-Logs-First-Firm-Order-from-Launch-Customer-Southwest-Airlines>.

⁵⁴ *Id.*

⁵⁵ *See, e.g.*, Southwest 2011 Form 10-K, <https://www.sec.gov/Archives/edgar/data/92380/000119312512049647/d293991d10k.htm>.

150. As an example, Southwest presented the below slide when discussing the benefits of the 737 MAX at the March 8, 2016 J.P. Morgan Aviation, Transportation and Industrials Conference.



151. SWAPA responded to the above statement by acknowledging the stated 737 MAX benefits and raising the issue that Southwest's fleet modernization required re-negotiating the terms of the then-existing CBA.

C. SWAPA's Role With Boeing in the 737 MAX Development

152. As a launch customer, Southwest, and by extension SWAPA pilots participating in Southwest's 737 MAX Development Committee, played an important role in evaluating the training procedures and manuals that Boeing was developing for the 737 MAX before it was put into service.

153. As Mr. Albaugh explained in a December 13, 2011 press release, "Southwest is a

special Boeing customer and has been a true partner in the evolution of the 737.”⁵⁶

154. Boeing consistently noted that Southwest would be its launch customer and also consistently noted that (with what we now know was its improperly compressed timeframe) it was on track to deliver the first 737 MAX to Southwest in the third quarter of 2017.

155. For example, at the Paris Airshow in June 2013, Boeing announced that it had accelerated the delivery of Southwest’s first 737 MAX from the fourth quarter 2017 to the third quarter 2017.⁵⁷

156. Boeing repeated that it was on track for a Q3 2017 delivery of the 737 MAX to Southwest in May 2014,⁵⁸ July 2014,⁵⁹ September 2015,⁶⁰ December 2015,⁶¹ in its January 2016 annual report for 2015,⁶² its January 2017 annual report for 2016,⁶³ and again in March 2017.⁶⁴

⁵⁶ The Boeing Company, *Boeing 737 MAX Logs First Firm Order from Launch Customer Southwest Airlines*, December 13, 2011, <https://boeing.mediaroom.com/2011-12-13-Boeing-737-MAX-Logs-First-Firm-Order-from-Launch-Customer-Southwest-Airlines>.

⁵⁷ The Boeing Company, *Boeing Accelerates First Delivery of 737 MAX*, June 19, 2013, <https://boeing.mediaroom.com/2013-06-19-Boeing-Accelerates-First-Delivery-of-737-MAX>.

⁵⁸ The Boeing Company, *Boeing 737 MAX Surpasses 2,000 Orders*, May 20, 2014, <https://boeing.mediaroom.com/2014-05-20-Boeing-737-MAX-Surpasses-2-000-Orders>.

⁵⁹ The Boeing Company, *Boeing Selects Supplier for 737 MAX Full-Flight Simulator*, July 11, 2014, <https://boeing.mediaroom.com/2014-07-11-Boeing-Selects-Supplier-for-737-MAX-Full-Flight-Simulator>.

⁶⁰ The Boeing Company, *Boeing Begins Final Assembly of First 727 MAX*, September 15, 2015, <https://boeing.mediaroom.com/news-releases-statements?item=129519>.

⁶¹ The Boeing Company, *Boeing Debuts First 737 MAX 8*, December 8, 2015, <https://boeing.mediaroom.com/Boeing-Debuts-First-737-MAX-8>.

⁶² The Boeing Company, *Launching Our Second Century The Boeing Company 2015 Annual Report 3* (2015) http://s2.q4cdn.com/661678649/files/doc_financials/annual/2015/2015-Annual-Report.pdf.

157. In the course of these communications concerning the Southwest delivery, Boeing failed to disclose to Southwest and SWAPA the 737 MAX's rushed delivery schedule had left the aircraft with a:

- a. Decrease in aircraft stability;
- b. Greater pitch-up tendency at elevated angles of attack;
- c. Negative change in handling characteristics;
- d. Increase in susceptibility to the risk of catastrophic stall; and
- e. Reliance on MCAS, a novel yet safety critical flight control logic with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

158. Further, in the course of Boeing's partnership and collaboration with SWAPA and Southwest, which took place along the same timeline, Boeing made direct misrepresentations concerning the 737 MAX to Southwest and SWAPA.

159. Although the differences between the 737 MAX and the 737 NG were discussed when SWAPA pilots participated in Boeing-organized 737 MAX testing and development events, Boeing actively concealed the true differences between the aircraft, including MCAS and its effects, from SWAPA.

160. From 2014 through 2015, Boeing worked with Southwest's training curriculum developers, including SWAPA pilots, to establish a training program for the 737 MAX.

161. During these meetings, Boeing provided Southwest with its draft Flight Crew Operations Manual for the 737 MAX to serve as a basis for the training program in development.

⁶³ The Boeing Company, Creating Breakthroughs, Expanding Opportunities, The Boeing Company 2016 Annual Report 4 (2016)
http://s2.q4cdn.com/661678649/files/doc_financials/annual/2016/2016-Annual-Report.pdf.

⁶⁴ The Boeing Company, *Boeing 737 MAX 8 Earns FAA Certification*, March 9, 2017,
<https://boeing.mediaroom.com/2017-03-09-Boeing-737-MAX-8-Earns-FAA-Certification>.

162. SWAPA Committee members provided input throughout the process and attended meetings with Southwest and Boeing in the fall of 2014, and later, during which the 737 MAX performance, operation and systems were discussed.

163. Although the need for training to handle MCAS was or should have been obvious to Boeing, Boeing never discussed or even revealed the existence of MCAS during its meetings with Southwest and SWAPA. Rather, during this time, Boeing continued its pattern of misrepresenting the similarities between the 737 NG and the 737 MAX and misrepresenting and concealing the differences and design shortcuts that Boeing was taking to avoid a lengthy certification process.

164. In the midst of SWAPA's contractual dispute with Southwest about 737 MAX in 2016 (discussed in greater detail below), Boeing made a concerted effort to persuade SWAPA pilots to agree to fly the 737 MAX.

165. In July 2016, Boeing's 737 Chief Technical Pilot, Mark Forkner, invited Southwest and SWAPA pilots to participate in 737 MAX differences training and validation exercises.

166. Boeing 737 Technical Pilot, Patrick Gustavsson, Boeing 737 Procedures Coordinator, Ross Chamberlain, and approximately 50 Southwest and SWAPA pilots participated in the exercises including SWAPA Safety Committee Chairman, David Eiser, and SWAPA Training and Standards Committee member, Greg Bowen.

167. David Eiser was invited to evaluate the 737 MAX pilot differences training, consisting of a two-hour computer-based course that Boeing was developing. Boeing's differences training did not include instructions on MCAS and at no point during Boeing's presentation did Boeing disclose the existence of MCAS or its associated risks. In fact, based on

Boeing's representations, Captain Eiser reported back to SWAPA members that the 737 MAX handled similarly to the 737 NG.

168. As before, Boeing continued its pattern of misrepresenting and concealing the similarities and differences between the 737 NG and the 737 MAX.

169. Around September 23-27, 2016, Boeing ferried a 737 MAX to Dallas's Love Field, and Southwest employees, including SWAPA pilots, were given the opportunity to tour and learn about the aircraft.

170. Boeing Vice-President and General Manager of 737 Programs, Keith Leverkuhn, was on hand and provided comments to the media.⁶⁵

171. In Leverkuhn's words: "We're gonna be putting this aircraft through its paces just as if an airline were gonna be operating it. We are going to be taking it to the airplane ports they fly into. We are going to be turning the airplane like they would if they were carrying passengers we are going to be using the equipment they do at their airports."⁶⁶

172. He further stated: "There have been times when the reliability of an aircraft going into service has not been what the airline has expected. Our mission here is to make sure that there are no surprises, no secrets. And that we know exactly how this airplane is going to operate."

173. Moreover, Southwest itself was so convinced by Boeing that the 737 MAX was so similar to the 737 NG that its Director of Compliance & Operations instructed SWAPA to call the 737 MAX the 737-8 because it allegedly was just another variant of the rest of Southwest's 737s, without enough of a difference to distinguish between the MAX and any other 737.

174. In short, Boeing had wrongfully persuaded SWAPA and Southwest that the 737

⁶⁵ See <https://www.youtube.com/watch?v=19bDH-gb9m4>.

⁶⁶ *Id.*

MAX was just another 737. That was not the case.

175. Despite Boeing's representations that: (1) the 737 MAX had no surprises; (2) that SWAPA pilots would know exactly how the MAX would operate; (3) the 737 MAX was the latest iteration of the time-tested, well-known 737 that SWAPA was then piloting; and (4) operating the 737 MAX required no additional training; Boeing was actively misrepresenting and concealing key differences, including MCAS, that made the 737 MAX distinct from its 737 predecessors.

176. Indeed, Boeing's public statements reinforced the misrepresentations that Boeing made to SWAPA in each of the foregoing specific encounters.

177. Accordingly, SWAPA pilots believed Boeing's 737 MAX representations, and were unaware of the significant safety and grounding risks introduced by Boeing's design choices, and Boeing's dire need to adhere to a compressed development and certification schedule.

178. The SWAPA pilots to whom these representations were made relayed Boeing's claims to the negotiating team and other relevant portions of SWAPA's membership. Further, because Boeing omitted key information from its discussions with a subset of SWAPA pilots, such omissions filtered down to the membership and their decisions. Boeing knew or should have known that its representations would filter down to the SWAPA membership and affect their decisions.

D. Boeing's Interference in SWAPA's Collective Bargaining Agreement

179. SWAPA has successfully negotiated nine labor contracts or CBAs on behalf of Southwest pilots, including the most recent contract in November 2016, in which SWAPA ultimately agreed to operate the 737 MAX.

180. When Southwest's 2011 firm order of 737 MAX aircraft was announced, Southwest and SWAPA were parties to a CBA negotiated for the period September 1, 2006 – August 31, 2012.

181. Under federal law, pilot contracts do not expire, but rather become amendable on a certain date.

182. In this case, as Boeing was aware, the CBA was reopened in 2012 and actively negotiated without resolution for several years.

183. Southwest's and SWAPA's inability to reach a consensus on the CBA came to a head in 2016 when Boeing advanced Southwest's 737 MAX delivery date, and Southwest asserted that SWAPA's pilots had to fly the 737 MAX under the terms of the then-current CBA.

184. SWAPA sought assurance that Southwest would continue to operate under the "status quo," as required by federal law, which, in SWAPA's opinion, precluded Southwest's ability to force SWAPA pilots to fly the 737 MAX because the 737 MAX was not enumerated in the then-existing CBA list of aircraft types.

185. Based on Boeing's systematic marketing of the 737 MAX as an extension of the 737 family of aircraft with minimal design changes, Southwest claimed that it had the right to insist that SWAPA pilots operate the 737 MAX under the then-existing CBA because it was not a distinct aircraft type but merely a variant of the already-enumerated 737.

186. The dispute played out publicly and over social media as seen below.



187. As the dispute intensified, approximately 800 SWAPA pilots picketed Southwest's 2016 shareholder meeting to make clear that they would not fly the 737 MAX without mutual agreement on the CBA as seen below.⁶⁷

⁶⁷ Conor Shine, *Southwest Airlines bumps dividend and share buyback while union pickets over contracts*, The Dallas Morning News, May 18, 2016, <https://www.dallasnews.com/business/airlines/2016/05/18/southwest-airlines-bumps-dividend-and-share-buyback-while-unions-picket-over-contracts/>.



188. Boeing was aware of the dispute and the parties' differing positions concerning whether the 737 MAX was distinct from other 737s.⁶⁸

189. Upon information and belief, there would have been catastrophic consequences to Boeing if Southwest, its launch customer, could not deploy the 737 MAX because of a labor

⁶⁸ Gregory Polek, *Boeing, Southwest, Engage in 737 MAX Trials*, AINonline, September 26, 2016, <https://www.ainonline.com/aviation-news/air-transport/2016-09-26/boeing-southwest-engage-737-max-trials>.

dispute.

190. SWAPA and Southwest's CBA dispute continued as delivery of Southwest's 737 MAX approached.

191. SWAPA then filed a lawsuit in May 2016 seeking declaratory judgment.⁶⁹

192. As can be discerned from the 2016 SWAPA complaint, the primary dispute between SWAPA and Southwest was whether the 737 MAX was a sufficiently different aircraft from prior generations of 737 aircraft, which were enumerated in the CBA, such that SWAPA pilots were not required to operate 737 MAX aircraft under the then-existing CBA.⁷⁰

193. Consistent with its prior position, SWAPA contended in its complaint that the 737 MAX was distinct from prior generations of 737 aircraft that SWAPA pilots were flying at that time, and which were addressed by the then-existing CBA.⁷¹

194. As discussed above, shortly after SWAPA filed its complaint, Boeing invited 50 Southwest and SWAPA pilots, including David Eiser and Greg Bowen, to participate in 737 MAX training validation exercises and to evaluate Boeing's differences training in July 2016. Based on Boeing's representations about the 737 MAX, Captain Eiser reported back to SWAPA members that the 737 MAX handled similarly to the 737 NG.

195. Upon information and belief, Boeing purposefully continued to interfere in the dispute to ensure that SWAPA pilots would agree to operate the 737 MAX and include it as a term of the new CBA.

⁶⁹ Plaintiffs' First Amended Complaint for Damages and Jury Demand, Case No. 3:16-cv-01346-O, Dkt. No. 6 (N.D. Tex. May 19, 2016).

⁷⁰ See *id.* at ¶¶ 8; 10.e; 13 15; 34; 36; 41; p 17, ¶ (e).

⁷¹ See *id.*

196. Doing so would ensure a smooth 737 MAX rollout from Boeing's 737 MAX launch customer.

197. More pointed negotiations between SWAPA and Southwest followed over the next six months, and a new CBA, which added 737 MAX as a term, was executed by November 2016.

198. In agreeing to execute the CBA, SWAPA relied on Boeing's public representations and private assurances – including a formal differences training program with SWAPA pilots – that the 737 MAX was designed and certified to be safe and airworthy, and that the 737 MAX was essentially a more fuel efficient 737 NG as opposed to the distinct aircraft that it really is.

199. Based on Boeing's direct representations and assurances to SWAPA (which later proved to be false and include material omissions), SWAPA altered its bargaining position from what is set forth in its complaint against Southwest, and which it advocated during negotiations with Southwest, *i.e.*, that the 737 MAX was distinct from prior generations of 737 aircraft.

200. As SWAPA and the public later learned after the Ethiopian Airlines Flight 302 accident on March 10, 2019, Boeing's deliberate 737 MAX design shortcuts and questionable decisions resulted in a different aircraft that was not safe and should not have been certified as airworthy.⁷²

201. Boeing's systematic and concerted efforts to minimize the differences between the 737 NG and 737 MAX thus deprived SWAPA of information critical to the contract

⁷² Sinead Baker, *Airlines Have Been Flying Empty Boeing 737 Max Planes Around the World as They Scramble to Get Ready for its Return to Service*, Business Insider, August 30, 2019, <https://www.businessinsider.com/boeing-737-max-scattered-airlines-wait-grounding-end-2019-8>.

negotiation process.

202. Indeed, as set forth below, the material differences between the 737 MAX and prior generations of 737 aircraft resulted in the grounding of all 737 MAX aircraft, and inhibited SWAPA pilots' ability to receive the economic advantages they believed they would gain by agreeing to fly the 737 MAX.

203. Had SWAPA been aware of MCAS and the true extent of differences between the 737 NG and the 737 MAX, it never would have agreed to pilot the 737 MAX and include it as a term in its CBA with Southwest.

204. Upon information and belief, Boeing knew or should have known that SWAPA was altering its contract negotiating position based on Boeing's representations and omissions concerning the 737 MAX.

E. Boeing Set SWAPA Pilots Up to Fail

205. As SWAPA President Jon Weaks, publicly stated, SWAPA pilots "were kept in the dark" by Boeing.⁷³

206. Boeing did not tell SWAPA pilots that MCAS existed and there was no description or mention of MCAS in the Boeing Flight Crew Operations Manual.

207. There was therefore no way for commercial airline pilots, including SWAPA pilots, to know that MCAS would work in the background to override pilot inputs.

208. There was no way for them to know that MCAS drew on only one of two angle of attack sensors on the aircraft.

⁷³ Dominic Gates, *U.S. Pilots Flying 737 MAX Weren't Told About New Automatic Systems Change Linked to Lion Air Crash*, The Seattle Times, November 13, 2018, <https://www.seattletimes.com/business/boeing-aerospace/u-s-pilots-flying-737-max-werent-told-about-new-automatic-systems-change-linked-to-lion-air-crash/>.

209. And there was no way for them to know of the terrifying consequences that would follow from a malfunction.

210. When asked why Boeing did not alert pilots to the existence of the MCAS, Boeing responded that the company decided against disclosing more details due to concerns about “inundate[ing] average pilots with too much information—and significantly more technical data—than [they] needed or could realistically digest.”⁷⁴

211. SWAPA’s pilots, like their counterparts all over the world, were set up for failure.

III. THE 737 MAX’S ENTRY INTO SERVICE REVEALED A CRITICAL DESIGN DEFECT THAT TOOK 346 LIVES AND LEAD TO A WORLDWIDE GROUNDING AND LOSS OF CONFIDENCE IN THE 737 MAX

A. The Lion Air Crash

212. After just one year of in-service history, on October 29, 2018, a 737 MAX, operated as Lion Air Flight 610, crashed into the Java Sea killing all 189 people onboard.⁷⁵

213. A preliminary report issued by Indonesia’s National Transportation Safety Committee indicated that erroneous angle of attack data caused the MCAS system to repeatedly command automatic nose-down trim.⁷⁶ This was the first time that Boeing disclosed the existence of MCAS to the public, SWAPA, or to other pilots.

⁷⁴ Andy Pasztor, et al., *How Boeing’s 737 MAX Failed*, The Wall Street Journal, March 27, 2019, <https://www.wsj.com/articles/how-boeings-737-max-failed-11553699239>.

⁷⁵ Hannah Beech & Mukti Suhartono, *Confusion, Then Prayer, in Cockpit of Doomed Lion Air Jet*, The New York Times, March 20, 2019, <https://www.nytimes.com/2019/03/20/world/asia/lion-air-crash-boeing.html>; see also Ben Otto & Gaurav Raghuvanshi, *Indonesian Plane With 189 People on Board Crashes Near Jakarta*, The Wall Street Journal, October 29, 2018, <https://www.wsj.com/articles/plane-with-188-people-on-board-crashes-off-indonesia-1540784983>.

⁷⁶ *Preliminary Aircraft Accident Investigation Report* (2018), [https://www.aviation24be-q41r3jh.stackpathdns.com/wp-content/uploads/2018/11/2018-035-PK-LQP-Preliminary-Report.pdf](https://www.aviation24.be-q41r3jh.stackpathdns.com/wp-content/uploads/2018/11/2018-035-PK-LQP-Preliminary-Report.pdf).

214. Like SWAPA pilots prior to the Lion Air crash, the Lion Air pilots were not aware of the presence of MCAS, did not understand how it operated, and had no training on how to manage an MCAS activation caused by erroneous data.⁷⁷

215. After the crash, pilots all over the world were outraged by Boeing's failure to disclose the presence of MCAS before the Lion Air crash.

216. At that time, Boeing maintained that the 737 MAX was a safe aircraft and instead focused on alleged pilot error and maintenance issues rather than the flight safety hazard posed by the activation of MCAS at low altitude, and the 737 MAX's need for MCAS in the first place.

217. On November 20, 2018, Boeing conducted a conference call with 737 MAX operators, including SWAPA.

218. During that conference call, Boeing insisted that the cause of the Lion Air crash was pilot error, and that MCAS problems already were covered and could be remedied by the ordinary runaway stabilizer correction procedure described in paragraph 227, *infra*.

219. Three days later, Boeing conducted a separate individual meeting with SWAPA, attended by its President Jon Weeks, SWAPA's Training and Standards Chair Greg Bowen, SWAPA Safety Committee Chair Matthew Cain, and incoming Second Vice President Brian Fitting. From Boeing, Michael Sinnett, Craig Bottom, and John Maloney attended.

220. During this meeting SWAPA thought that Boeing finally was being honest and forthright. It was mistaken.

221. During the meeting, Boeing continued to maintain that the 737 MAX was airworthy and safe.

222. Boeing continued to maintain that the Lion Air crash was caused by pilot error,

⁷⁷ *Id.*

and that the circumstances that lead to the crash would not repeat.

223. Boeing misleadingly and incorrectly continued to minimize the differences between the 737 MAX and prior generations of 737 aircraft.

224. Boeing's representatives knew or should have known that the unintended activation of MCAS by faulty data coming from a single angle of attack sensor was responsible for the Lion Air crash.

225. In fact, in the week after the Lion Air crash, Boeing published a flight crew operations manual update warning of a possible fault in the angle of attack system.

226. Then, on November 7, 2018, the FAA issued an "Emergency Airworthiness Directive (AD) 2018-23-51," warning that an unsafe condition likely could exist or develop on 737 MAX aircraft.⁷⁸

227. Relying on Boeing's description of the problem, the AD directed that in the event of un-commanded nose-down stabilizer trim such as what happened during the Lion Air crash, the flight crew should comply with the Runaway Stabilizer procedure in the Operating Procedures of the 737 MAX manual.

228. But the AD did not provide a complete description of MCAS or the problem in 737 MAX aircraft that led to the Lion Air crash, and would lead to another crash and the 737 MAX's grounding just months later.

229. An MCAS failure is not like a runaway stabilizer. A runaway stabilizer has continuous un-commanded movement of the tail, whereas MCAS is not continuous and pilots

⁷⁸ Federal Aviation Administration, *Emergency Airworthiness Directive 2018-53-21*, November 7, 2018, [https://rgl.faa.gov/Regulatory_and_Guidance_Library/rgad.nsf/0/83ec7f95f3e5bfbd8625833e0070a070/\\$FILE/2018-23-51_Emergency.pdf](https://rgl.faa.gov/Regulatory_and_Guidance_Library/rgad.nsf/0/83ec7f95f3e5bfbd8625833e0070a070/$FILE/2018-23-51_Emergency.pdf).

(theoretically) can counter the nose-down movement, after which MCAS would move the aircraft tail down again.

230. Moreover, unlike runaway stabilizer, MCAS disables the control column response that 737 pilots have grown accustomed to and relied upon in earlier generations of 737 aircraft.

231. Even after the Lion Air crash, Boeing's description of MCAS was still insufficient to put correct its lack of disclosure as demonstrated by a second MCAS-caused crash.

B. The Ethiopian Airlines Crash

232. On March 10, 2019, a second 737 MAX, this one operated as Ethiopian Airlines Flight 302, crashed near Addis Ababa killing all 157 people onboard.⁷⁹

233. According to a Preliminary Report, one minute into the flight, the pilots noticed flight-control problems. MCAS activated and pushed the nose of the aircraft down. The pilots fought to pull the nose of the plane up, and were briefly able to resume climbing. Then MCAS pushed the nose down again. The pilots then flipped two switches and temporarily disconnected MCAS, then tried to regain control. They asked to return to the airport but were continuing to struggle gaining altitude. MCAS engaged again, pushing the plane into a dive. Thirty seconds later the aircraft crashed.⁸⁰

⁷⁹ Hadra Ahmed, *et al.* *Ethiopian Airlines Plane Is the 2nd Boeing Max 8 to Crash in Months*, The New York Times, March 10, 2019, <https://www.nytimes.com/2019/03/10/world/africa/ethiopian-airlines-plane-crash.html>; see also Matina Stevis-Gridneff, *Ethiopian Airlines Jet Crashes En Route to Nairobi*, The Wall Street Journal, March 11, 2019, https://www.wsj.com/articles/ethiopian-airlines-flight-crashes-en-route-to-nairobi-11552207841?mod=hp_lead_pos1&mod=article_inline.

⁸⁰ Aircraft Accident Investigation Bureau, <https://flightsafety.org/wp-content/uploads/2019/04/Preliminary-Report-B737-800MAX-ET-AVJ.pdf>; <https://flightsafety.org/wp-content/uploads/2019/04/Preliminary-Report-B737-800MAX-ET-AVJ.pdf> (2019).

C. The 737 MAX is Grounded Because it is Unsafe

234. On March 11, 2019, Boeing finally acknowledged MCAS and its effects to the public in a press release stating, “[a] pitch augmentation control law (MCAS) was implemented on the 737 MAX to improve aircraft handling characteristics and decrease pitch-up tendency at elevated angles of attack.”⁸¹

235. In the days following the Ethiopian Airlines crash, aviation authorities in China, Indonesia, Australia, Honk Kong, Oman, the United Arab Emirates, Vietnam, the United Kingdom, South Korea, Singapore, Argentina, the European Union, Mexico, Brazil, Canada, India, Fiji, New Zealand, and Malaysia suspended 737 MAX operations.⁸²

236. The U.S. Federal Aviation Administration did so as well.⁸³

237. Airlines operating the 737 MAX including 9 Air, Aeromexico, Air China, Cayman Airways, China Eastern Airlines, China Southern Airlines, Comair, Easter Jet, Ethiopian Airlines, Fozhou Airlines, Garuda, GOL Airlines, Hainan Airlines, Kuming Airlines, Lucky Air, MIAT Mongolian Airlines, Okay Airways, Royal Air Maroc, Shandong Airlines, Shanghai Airlines and Xiamen Airlines also voluntarily suspended MAX operations.⁸⁴

⁸¹ The Boeing Company, *Boeing Statement on 737 MAX Software Enhancement*, March 11, 2019, <https://boeing.mediaroom.com/news-releases-statements?item=130402>.

⁸² *Which countries have grounded the Boeing 737 MAX jets*, PBS, March 14, 2019, <https://www.pbs.org/newshour/world/which-countries-have-grounded-the-boeing-737-max-jets>; see also Nigel Chiwaya & Jiachuan Wu, *MAP: These are the countries that have grounded the Boeing 737 MAX 8*, NBC NEWS, March 13, 2019, <https://www.nbcnews.com/news/world/country-banned-boeing-737-max-airplanes-list-n982776>.

⁸³ Emergency Order of Prohibition (2019), https://www.faa.gov/news/updates/media/Emergency_Order.pdf.

⁸⁴ Nigel Chiwaya & Jiachuan Wu, *MAP: These are the countries that have grounded the Boeing 737 MAX 8*, NBC NEWS, March 13, 2019, <https://www.nbcnews.com/news/world/country-banned-boeing-737-max-airplanes-list-n982776>.

238. As of the date of this Petition, the 737 MAX fleet remains grounded worldwide and the National Transportation Safety Board (“NTSB”) has identified numerous errors that Boeing made during the design and certification process for the 737 MAX.

239. The Ethiopian Airlines crash demonstrated conclusively that even after the Lion Air crash, Boeing continued its pattern of misrepresentations by telling SWAPA and the public that the 737 MAX was safe and similar to prior generations of 737 aircraft. That was untrue.

240. As a result, SWAPA learned for the first time in late 2018 the truth of the matter.

241. As compared to the 737 NG, Boeing’s use of the new LEAP1-B engines on 737 MAX aircraft, the primary selling point for MAX aircraft:

- a. Changed the aircraft’s aerodynamic center of gravity;
- b. Decreased the aircraft’s stability;
- c. Created greater pitch-up tendency at elevated angles of attack;
- d. Negatively changed the aircraft’s handling characteristics;
- e. Increased the aircraft’s susceptibility to the risk of catastrophic stall; and
- f. Relied on MCAS, a novel yet safety critical flight control logic with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

IV. BOEING’S RESPONSE AND BELATED DISCLOSURE OF MCAS

242. On March 13, 2019, after consultation with the FAA, the NTSB, other national civil aviation authorities and customers around the world, Boeing conceded and recommended the temporary suspension of operations of the entire global fleet of three-hundred and seventy-one (371) 737 MAX aircraft.

243. The following day, Boeing suspended all 737 MAX deliveries.⁸⁵

244. Currently, there is no official word on when deliveries will resume or when the grounding will be lifted.

245. In an April 5, 2019 press release, Boeing acknowledged that MCAS caused both the Lion Air and Ethiopian Airlines crashes. Boeing stated that the “Lion Air Flight 610 and Ethiopian Airlines Flight 302 accidents were caused by a chain of events, with a common link being erroneous activation of the aircraft’s MCAS function.”⁸⁶

246. The day before, Boeing CEO Dennis Muilenburg also stated “erroneous activation of the MCAS function can add to what is already a high workload environment. It’s our [Boeing’s] responsibility to eliminate this risk.” Mr. Muilenburg further acknowledged that Boeing is working on a software fix for MCAS.⁸⁷

247. He did not explain why Boeing chose not to disclose the presence of MCAS on 737 MAX aircraft prior to or at the time Boeing launched the MAX.

248. In an April 5, 2019 press release, Boeing explained that it would temporarily move from a production rate of fifty-two (52) 737 MAX aircraft per month to forty-two (42)

⁸⁵ The Boeing Company, *In Consultation with the FAA, NTSB and its Customers, Boeing Supports Action to Temporarily Ground 737 MAX Operations*, March 13, 2019, <https://boeing.mediaroom.com/news-releases-statements?item=130404>.

⁸⁶ The Boeing Company, *Statement from Boeing CEO Dennis Muilenburg: We Own Safety - 737 MAX Software, Production and Process Update*, April 5, 2019, <https://boeing.mediaroom.com/2019-04-05-Statement-from-Boeing-CEO-Dennis-Muilenburg-We-Own-Safety-737-MAX-Software-Production-and-Process-Update>.

⁸⁷ The Boeing Company, *Boeing CEO Dennis Muilenburg Addresses the Ethiopian Airlines Flight 302 Preliminary Report*, April 4, 2019, <https://boeing.mediaroom.com/2019-04-04-Boeing-CEO-Dennis-Muilenburg-Addresses-the-Ethiopian-Airlines-Flight-302-Preliminary-Report>; see also Robert Wall and Merrill Sherman, *The Multiple Problems, and Potential Fixes, With the Boeing 737 MAX*, *The Wall Street Journal*, August 19, 2019, <https://www.wsj.com/articles/fixing-the-problems-with-boeings-737-max-11566224866>.

airplanes per month starting in mid-April 2019, so it could prioritize the focus on software fix certification and returning the MAX to flight.⁸⁸

V. THE 737 MAX IS BEING SUBJECTED TO INTENSE REGULATORY REVIEW AND INVESTIGATION

249. The 737 MAX is currently being scrutinized by regulators around the world.

250. In March 2019, the U.S. Department of Transportation Secretary Elaine L. Chao asked the Office of the Inspector General (OIG) to conduct a formal audit to compile an objective and detailed factual history of the activities that resulted in the certification of the Boeing 737 MAX aircraft.⁸⁹ The OIG audit commenced on March 27, 2019, and is ongoing.⁹⁰

251. On April 2, 2019, the FAA established a joint authorities technical review team comprised of safety experts from the FAA, NASA, and nine international aviation authorities with the purpose of conducting a comprehensive review of the certification of the 737 MAX to determine its compliance with all applicable regulations and to identify necessary future enhancements. The joint authorities technical review team held its first meeting on April 29, 2019.⁹¹ Their review is ongoing.

252. The U.S. Department of Justice initiated a criminal investigation into Boeing's

⁸⁸ The Boeing Company, *Statement from Boeing CEO Dennis Muilenburg: We Own Safety - 737 MAX Software, Production and Process Update*, April 5, 2019, <https://boeing.mediaroom.com/2019-04-05-Statement-from-Boeing-CEO-Dennis-Muilenburg-We-Own-Safety-737-MAX-Software-Production-and-Process-Update>.

⁸⁹ *U.S. Secretary of Transportation Asks Inspector General to Ensure Audit of Boeing 737-MAX 8 Certification is Part of Review* (2019), <https://www.transportation.gov/briefing-room/dot1419>.

⁹⁰ Office of the Inspector General & Matthew E. Hampton, *Information: Audit Announcement FAA's Oversight of the Boeing 737 MAX Certification Project No. 19A3006A000* (2019), <https://www.oig.dot.gov/sites/default/files/Audit%20Announcement%20-%20FAA%27s%20Oversight%20of%20the%20Boeing%20737%20MAX%20Certification.pdf>.

⁹¹ FAA Updates on Boeing 737 Max, <https://www.faa.gov/news/updates/?newsId=93206&xid=17259>.

conduct in connection with the certification of 737 MAX aircraft.⁹² The Department of Justice has sought from Boeing materials relating to its marketing of the 737 MAX.⁹³ Its investigation is ongoing.

253. As part of its investigation, the Department of Justice served a subpoena on SWAPA.

254. The U.S. House of Representatives also has initiated an investigation into Boeing.⁹⁴ Its investigation is ongoing.

255. The U.S. Securities and Exchange Commission also is investigating Boeing's disclosures to shareholders. The SEC inquiry also focuses on whether Boeing adequately disclosed dangers associated with MCAS.⁹⁵ The investigation is ongoing.

256. Regulators have since discovered additional, previously undisclosed problems with the 737 MAX that must be fixed before the MAX can again be certified for flight.

257. For example, in June 2019, the FAA discovered an additional safety issue relating

⁹² Andy Pasztor & Andrew Tangel, *Senate Committee Opens Inquiry Into FAA Safety Inspectors, Training Requirements for Boeing 737 MAX*, The Wall Street Journal, April 2, 2019, <https://www.wsj.com/articles/senate-committee-opens-inquiry-into-faa-safety-inspectors-training-requirements-for-boeing-737-max-11554241623>.

⁹³ Evan Perez & Shimon Prokupecz, *Justice Department issues subpoenas in criminal investigation of Boeing*, CNN, March 21, 2019, <https://www.cnn.com/2019/03/20/business/boeing-justice-department-subpoenas/index.html>.

⁹⁴ Andy Pasztor & Andrew Tangel, *Senate Committee Opens Inquiry Into FAA Safety Inspectors, Training Requirements for Boeing 737 MAX*, The Wall Street Journal, April 2, 2019, <https://www.wsj.com/articles/senate-committee-opens-inquiry-into-faa-safety-inspectors-training-requirements-for-boeing-737-max-11554241623>.

⁹⁵ Samantha Masunaga, *Boeing reportedly facing SEC probe over investor disclosures related to 737 Max*, The Los Angeles Times, May 24, 2019, <https://www.latimes.com/business/la-fi-boeing-737-max-sec-20190524-story.html>.

to the 737 MAX's flight control system that requires fixing.⁹⁶

258. Around the same time, the FAA also noticed problems associated with the 737 MAX's emergency procedures, requiring an additional delay in recertification.⁹⁷ Although there has been no public disclosure of the emergency procedure problems being examined, reports indicate that such problems relate to measures pilots can take to counteract MCAS in the event of a malfunction.⁹⁸

259. On July 5, 2019, it was reported that the European Union Aviation Safety Agency, commonly known as EASA, outlined five (5) issues that Boeing must address before it would approve the 737 MAX for return to service, including problems associated with the 737 MAX's angle of attack sensors, inadequate training measures, potential difficulty that pilots could have in turning the manual trim wheel, and problems associated with the MAX's autopilot function.⁹⁹

260. EASA also appears focused on a pilot's potential inability to counteract MCAS in

⁹⁶ BBC, *Boeing 737 Max: New issue could delay aircraft's return*, June 27, 2019, <https://www.bbc.com/news/business-48752932>; see also Anurag Kotoky & Kyunghie Park, *Boeing's Grounded 737 MAX – The Story So Far*, The Washington Post, July 9, 2019, https://www.washingtonpost.com/business/boeings-grounded-737-max-the-story-so-far/2019/07/08/5eb2e4be-a1e6-11e9-a767-d7ab84aef3e9_story.html?utm_term=.7909863e133b.

⁹⁷ David Gelles, *Boeing Pledges \$100 Million to Those Affected by 737 MAX Crashes*, The New York Times, July 3, 2019, <https://www.nytimes.com/2019/07/03/business/boeing-737-max-crash-compensation.html>.

⁹⁸ Andrew Tangel & Andy Pasztor, *FAA Finds New Software Problem in Boeing's 737 MAX*, The Wall Street Journal, June 26, 2019, <https://www.wsj.com/articles/faa-finds-new-software-problem-in-boeings-737-max-11561596917>.

⁹⁹ Benjamin D. Katz & Alan Levin, *Boeing 737 MAX has Autopilots, European Regulators Find*, Bloomberg, July 5, 2019, <https://www.bloomberg.com/news/articles/2019-07-05/europe-sets-out-demands-for-boeing-before-max-can-fly-again>.

the event of malfunction.¹⁰⁰

261. EASA will conduct its own separate test flight of the MAX before it is allowed to return to service in Europe and is specifically considering whether it will require the MAX to have a third angle of attack sensor to be considered airworthy.¹⁰¹

262. On September 26, 2019, the NTSB issued a Safety Recommendation Report to address Boeing's erroneous "assumptions about pilot recognition and response to failure conditions used during the design and certification process" of the 737 MAX.¹⁰² The NTSB found that neither Boeing's System Safety Assessment ("SSA") nor its simulator tests satisfied the requirements of 14 C.F.R. 25.1309 and it directed the FAA to "require that Boeing (1) ensure that system safety assessments for the 737 MAX in which it assumed immediate and appropriate pilot corrective actions in response to uncommanded flight control inputs, from systems such as [MCAS], consider the effect of all possible flight deck alerts and indications on pilot recognition and response; and (2) incorporate design enhancements (including flight deck alerts and indications), pilot procedures, and/or training requirements, where needed, to minimize the potential for and safety impact of pilot actions that are inconsistent with manufacturer assumptions."¹⁰³

263. There is no publicly announced timetable for the 737 MAX's return to flight.

¹⁰⁰ *Id.*

¹⁰¹ Alan Levin & Richard Weiss, *Boeing 737 MAX jet to face separate flight test by EU regulators*, The Seattle Times, September 10, 2019, <https://www.seattletimes.com/business/boeing-aerospace/boeing-737-max-jet-to-face-separate-flight-test-by-eu-regulators/>.

¹⁰² NTSB, *Safety Recommendation Report: Assumptions Used in Safety Assessment Process and the Effects of Multiple Alerts and Indications on Pilot Performance*, September 19, 2019, available at: <https://www.nts.gov/investigations/AccidentReports/Reports/ASR1901.pdf>.

¹⁰³ *Id.*

264. The full scope of previously undetected problems that may affect the 737 MAX's safety and need remediation currently are unknown.

VI. SOUTHWEST'S OPERATION OF THE 737 MAX AND ITS ANTICIPATED RETURN TO SERVICE

265. Southwest took delivery of its first 737 MAX on August 29, 2017, and put it into revenue service on October 1, 2017.

266. By February 2019, Southwest had 34 737 MAX aircraft in its fleet with another 36 due to be delivered before the end of the year and more on order.

267. Accordingly, had the 737 MAX required new pilot training, Boeing would have owed Southwest at least \$70 million by the end of 2019.¹⁰⁴ See ¶ 55, *supra*.

268. Southwest's 737 MAX fleet remains grounded with the rest of the world's.¹⁰⁵

269. All of Southwest's 737 MAX aircraft were removed completely from Southwest's flight schedule through January 5, 2019.¹⁰⁶

VII. BOEING'S ACTIONS PUT SWAPA PILOTS IN HARM'S WAY

270. Boeing knew or should have known that the 737 MAX was unsafe, un-airworthy, and placed SWAPA pilots, the passengers in their care, and others, in danger.

271. First, that Boeing knew or should have known that the 737 MAX was unsafe and

¹⁰⁴ Maureen Tkacik, *Crash Course: How Boeing's Managerial Revolution Created the 737 MAX Disaster*, The New Republic, September 18, 2019, <https://newrepublic.com/article/154944/boeing-737-max-investigation-indonesia-lion-air-ethiopian-airlines-managerial-revolution>.

¹⁰⁵ Hannah Sampson, *Everything Travelers Need to Know About Boeing 737 Max Developments*, The Washington Post, September 1, 2019, <https://www.washingtonpost.com/travel/2019/08/14/everything-travelers-need-know-about-boeing-max-developments/>.

¹⁰⁶ Leslie Josephs, *Southwest Won't Fly Boeing 737 Max Until 2020 and Will End Newark Flights*, CNBC, July 25, 2019, <https://www.cnbc.com/2019/07/25/southwest-air-to-pull-out-of-newark-after-taking-a-growth-hit-from-the-boeing-737-max-grounding.html>.

un-airworthy is demonstrated by its false SSA for MCAS that Boeing filed with the FAA and that the NTSB subsequently found to be non-compliant with 14 C.F.R. 25.1309.

272. The SSA:

- a. Understated MCAS's authority to command the number and length of trim movements by the horizontal stabilizer;
- b. Understated the degree to which MCAS could move the horizontal stabilizer;
- c. Failed to account for the fact that MCAS was designed to reset and repeat its commands even after the pilot countermanded MCAS's automatic nose-down trim;
- d. Failed to disclose that MCAS relied on a single angle of attack sensor and thus was a single point failure; and
- e. Classified MCAS incorrectly as "hazardous."

273. Because MCAS's SSA was incorrect, Boeing knew or should have known that MCAS was being misrepresented when discussed with others.

274. Boeing nonetheless implemented MCAS in order to make the 737 MAX "feel" like prior generations of 737 aircraft, furthering its misinformation campaign upon which SWAPA relied.

275. Boeing did so without acknowledging actual differences between the 737 MAX and prior generations of 737 aircraft.

276. Boeing thus failed to mitigate the actual risk of catastrophic stall on the 737 MAX.

277. Boeing also failed to inform and warn SWAPA pilots of the risk of catastrophic stall on the 737 MAX.

278. Boeing therefore also failed to adequately train SWAPA pilots on how to avoid the increased risk of catastrophic stall on the 737 MAX aircraft as compared to prior generations of 737s.

279. Boeing did so for the purpose of selling 737 MAX aircraft to Southwest and other air carriers without the need to alter its rushed development timeframe.

280. In doing so, Boeing also violated FAA's Airworthiness Standards for Commercial Aircraft, 14 C.F.R. § 25.203(a) – Stall Characteristics, which states in part “[n]o abnormal nose-up pitching may occur.... In addition, it must be possible to promptly prevent stalling and to recover from a stall by normal use of the controls.”

281. By virtue of selling an aircraft it knew violated Federal Aviation Regulations, it was reasonably foreseeable that such aircraft likely would be grounded in the future once its defect was discovered and until such defect could be remedied.

282. As a result of Boeing's negligent conduct, SWAPA pilots were placed in harm's way, and SWAPA and its members incurred damages and other losses described below.

VIII. SWAPA AND ITS MEMBER PILOTS HAVE INCURRED MILLIONS OF DOLLARS IN DAMAGES BECAUSE OF BOEING'S NEGLIGENCE, MISREPRESENTATIONS, AND INTERFERENCE WITH SWAPA'S COLLECTIVE BARGAINING AGREEMENT AND BUSINESS RELATIONSHIPS WITH SOUTHWEST

283. Southwest's published flight schedule that incorporated the 737 MAX versus the actual Southwest schedule that incorporated the 737 MAX as compared to the actual Southwest flight schedules subsequent to the grounding can be used to determine the millions of dollars in compensation that SWAPA pilots have lost as a result of the 737 MAX grounding.¹⁰⁷

284. Even if Boeing is able to get the 737 MAX re-certified, and Southwest is able to

¹⁰⁷ See, e.g., Ted Reed, *New Report Puts Impact Of Boeing 737 MAX Grounding at \$4.1 Billion*, Forbes, August 10, 2019, <https://www.forbes.com/sites/tedreed/2019/08/10/new-report-puts-impact-of-boeing-737-max-grounding-at-41-billion/#48e7808d1fdf>.

get the 737 MAX operating in commercial passenger service by the end of 2019,¹⁰⁸ SWAPA pilots will still have collectively lost millions of dollars in compensation.

285. These losses will continue until such time as Southwest is able to re-integrate the 737 MAX into its flight schedules at the level it was planning prior to the grounding.

286. Upcoming holiday travel will only exacerbate SWAPA's losses.¹⁰⁹

287. SWAPA sought compensation from Boeing for these losses.

288. Boeing refused.

IX. SWAPA ALSO INCURRED LOSSES ARISING FROM ITS PARTICIPATION IN THE DOJ INVESTIGATION AND A REDUCTION IN DUES

289. SWAPA was subpoenaed in connection with the Department of Justice's investigation into the 737 MAX's certification, and Boeing's conduct in connection with same.

290. SWAPA also was subpoenaed by the SEC in connection with its investigation into Boeing's 737 MAX disclosures.

291. In connection with both investigations, SWAPA has been forced to retain legal counsel at its loss.

292. In connection with both investigations, SWAPA has been required to collect thousands of potentially relevant documents, and to employ counsel to review such documents for production to the government.

¹⁰⁸ Elijah Shama, *Boeing 737 Max likely grounded until the end of the year after new problem emerges*, CNBC, June 28, 2019, <https://www.cnbc.com/2019/06/28/boeing-737-max-likely-grounded-until-the-end-of-the-year.html>.

¹⁰⁹ Andy Pasztor and Alison Snider, *New Delays Could Keep Boeing 737 MAX Grounded Into Holiday Travel Season*, The Wall Street Journal, September 1, 2019, <https://www.wsj.com/articles/new-delays-could-keep-boeing-737-max-grounded-into-holiday-travel-season-11567376957>; see also Mary Schlangenstone, et al., *New Boeing Max Delays Imperil Jet Return by Christmas*, The Seattle Times, September 1, 2019, <https://www.seattletimes.com/business/american-air-pulls-737-max-from-schedule-through-early-december/>.

293. In connection with both investigations, SWAPA already has produced documents to the government.

294. In connection with both investigations, SWAPA also has had to prepare for government-run interviews.

295. In short, SWAPA has been forced to spend hundreds of thousands of dollars in legal fees that it would not have but for Boeing's conduct.

296. SWAPA expects that these legal fees will continue to accrue as the investigations continue, and SWAPA's further participation is required.

297. SWAPA also is incurring lost dues as a result of the grounding. One percent of the wages that SWAPA pilots lost would have accrued to SWAPA.

298. As a result of the grounding, SWAPA therefore has sustained millions of dollars in damages.

299. SWAPA sought compensation from Boeing for each category of damages.

300. Boeing refused.

**FIRST CLAIM FOR RELIEF –
FRAUDULENT MISREPRESENTATION**

301. Plaintiff SWAPA repeats, reiterates, and realleges each and every allegation in paragraphs 1 through 300 above with the same force and effect as if set forth herein in full.

302. Boeing marketed the 737 MAX as a variant of the safe, reliable and time-tested 737 family of aircraft, with new fuel-efficient engines and “very deliberate” design enhancements that posed “minimal risk.”

303. Boeing made these representations publicly, and to SWAPA directly when SWAPA: participated in simulator exercises to evaluate the extent of pilot training needed for the 737 MAX; reviewed Boeing drafted flight and aircraft manuals; collaborated with Boeing to prepare Southwest’s 737 MAX pilot training program; and participated in Service Ready Operational Validation tests.

304. Boeing also made the foregoing representations on its website and in press releases described above, including, but not limited to its statements claiming that Boeing would minimize changes from the 737 NG to the 737 MAX, and that Boeing had only made changes after being assured of their safety.

305. Boeing’s representations concerning the 737 MAX were false in that Boeing did not disclose that, as compared to the 737 NG, Boeing’s use of the LEAP1-B engines on the 737 MAX, *inter alia*:

- a. Changed the aircraft’s aerodynamic center of gravity;
- b. Decreased the aircraft’s stability;
- c. Created greater pitch-up tendency at elevated angles of attack;
- d. Negatively changed the aircraft’s handling characteristics;
- e. Increased the aircraft’s susceptibility to the risk of catastrophic stall; and

- f. Relied on MCAS, a novel yet safety critical flight control logic with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

306. Boeing made these representations knowing that SWAPA pilots and union representatives were relying on their truth.

307. Boeing knew that the foregoing representations were false, or recklessly disregarded their truthfulness in making such representations.

308. Boeing's false representations related to objectively material facts concerning the 737 MAX.

309. Boeing concealed all or parts of the truth when it had a legal duty to speak, and when it had already made partial representations to SWAPA concerning the differences between the 737 NG and 737 MAX.

310. Boeing had a legal duty to correct these representations once made, but failed to do so until it was too late.

311. Boeing made the foregoing misrepresentations for its economic advantage.

312. Boeing made the foregoing misrepresentations with the intent to induce SWAPA's reliance on the representations.

313. SWAPA relied on Boeing's representations as true because of Boeing's superior knowledge concerning the 737 MAX, and SWAPA's inability to acquire its own knowledge concerning Boeing's representations.

314. SWAPA's reliance on Boeing's representations and non-disclosures also was justifiable in light of SWAPA and Boeing's long-term relationship that previously did not include any reason to doubt the truthfulness and completeness of Boeing's representations and disclosures.

315. SWAPA was entitled to rely on Boeing's representations.

316. SWAPA would not have agreed to include the 737 MAX as a term of its 2016 CBA had it known of the truth about Boeing's misrepresentations or that Boeing was concealing objectively material information relating to the 737 MAX from SWAPA.

317. Boeing's misrepresentations therefore were the proximate cause and cause in fact of SWAPA's injuries.

318. SWAPA has been damaged in the amount of millions of dollars in lost compensation, which amount continues to accrue.

319. Such damages can be determined based on Southwest's published flight schedules that incorporate the 737 MAX versus Southwest's actual flight schedule subsequent to the grounding.

320. SWAPA also has been damaged in amounts to be determined for associated costs, such as legal fees in connection with its role in the DOJ investigation and SEC investigation.

321. SWAPA also has been damaged by the loss of dues from SWAPA pilots.

322. SWAPA is entitled to damages for those categories of losses in amounts to be determined at trial.

SECOND CLAIM FOR RELIEF – NEGLIGENT MISREPRESENTATION

323. Plaintiff SWAPA repeats, reiterates, and realleges each and every allegation in paragraphs 1 through 322 above with the same force and effect as if set forth herein in full.

324. Boeing marketed the 737 MAX as a variant of the safe, reliable and time-tested 737 family of aircraft, with new fuel-efficient engines and "very deliberate" design enhancements that posed "minimal risk."

325. Boeing made these representations publicly, and to SWAPA directly when SWAPA: participated in simulator exercises to evaluate the extent of pilot training needed for the

737 MAX; reviewed Boeing drafted flight and aircraft manuals; collaborated with Boeing to prepare Southwest's 737 MAX pilot training program; and participated in Service Ready Operational Validation tests.

326. Boeing also made the foregoing representations on its website and in press releases described above, including, but not limited to its statements claiming that Boeing would minimize changes from the 737 NG to the 737 MAX, and that Boeing had only made changes after being assured of their safety.

327. Boeing's representations concerning the 737 MAX were false in that Boeing did not disclose that, as compared to the 737 NG, Boeing's use of the LEAP1-B engines on the 737 MAX, *inter alia*:

- a. Changed the aircraft's aerodynamic center of gravity;
- b. Decreased the aircraft's stability;
- c. Created greater pitch-up tendency at elevated angles of attack;
- d. Negatively changed the aircraft's handling characteristics;
- e. Increased the aircraft's susceptibility to the risk of catastrophic stall; and
- f. Relied on MCAS, a novel yet safety critical flight control logic with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

328. Boeing made these representations when it knew or should have known that SWAPA pilots and union representatives were relying on their truth.

329. Boeing knew that the foregoing representations were false, or recklessly disregarded their truthfulness in making such representations.

330. Boeing made the foregoing representations without exercising reasonable care and competence.

331. Boeing's false representations related to objectively material facts concerning the

737 MAX.

332. Boeing knew or should have known that it made representations to SWAPA for the guidance of SWAPA in their business.

333. Boeing concealed all or parts of the truth when it had a legal duty to speak, and when it had already made partial representations to SWAPA concerning the differences between the 737 NG and 737 MAX.

334. Boeing had a legal duty to correct these representations once made, but failed to do so.

335. Boeing made the foregoing misrepresentations for its economic advantage.

336. Boeing knew or should have known that the foregoing misrepresentations would induce SWAPA's reliance on the representations.

337. SWAPA relied on Boeing's representations as true because of Boeing's superior knowledge concerning the 737 MAX, and SWAPA's inability to acquire its own knowledge concerning Boeing's representations.

338. SWAPA's reliance on Boeing's representations and non-disclosures also was justifiable in light of SWAPA and Boeing's long-term relationship that previously did not include any reason to doubt the truthfulness and completeness of Boeing's representations and disclosures.

339. SWAPA was entitled to rely on Boeing's representations.

340. SWAPA would not have agreed to include the 737 MAX as a term of its 2016 CBA had it known of the truth of Boeing's misrepresentations or that Boeing was concealing objectively material information relating to the 737 MAX from SWAPA.

341. Boeing's misrepresentations therefore were the proximate cause and cause in fact

of SWAPA's injuries.

342. SWAPA has been damaged in the amount of millions of dollars in lost compensation, which amount continues to accrue.

343. Such damages can be determined based on Southwest's published flight schedules that incorporate the 737 MAX versus Southwest's actual flight schedule subsequent to the grounding.

344. SWAPA also has been damaged in amounts to be determined for associated costs, such as legal fees in connection with its role in the DOJ investigation and SEC investigation.

345. SWAPA also has been damaged by the loss of dues from SWAPA pilots.

346. SWAPA is entitled to damages for those categories of losses in amounts to be determined at trial.

**THIRD CLAIM FOR RELIEF –
TORTIOUS INTERFERENCE WITH
CONTRACTUAL RIGHTS AND RELATIONSHIP**

347. Plaintiff SWAPA repeats, reiterates, and realleges each and every allegation in paragraphs 1 through 346 above with the same force and effect as if set forth herein in full.

348. In 2016, SWAPA was negotiating an amended CBA with Southwest. This CBA was signed in November 2016.

349. Boeing was aware of these facts.

350. Boeing purposefully misrepresented to SWAPA that the 737 MAX was the same in all material respects to its predecessors that already were covered by the SWAPA/Southwest CBA, including the 737 NG.

351. Boeing marketed the 737 MAX as a variant of the safe, reliable and time-tested 737 family of aircraft, with new fuel-efficient engines and "very deliberate" design enhancements that posed "minimal risk."

352. Boeing made these representations publicly, and to SWAPA directly when SWAPA: participated in simulator exercises to evaluate the extent of pilot training needed for the 737 MAX; reviewed Boeing drafted flight and aircraft manuals; collaborated with Boeing to prepare Southwest's 737 MAX pilot training program; and participated in Service Ready Operational Validation tests.

353. Boeing also made the foregoing representations on its website and in press releases described above, including, but not limited to its statements claiming that Boeing would minimize changes from its then most recent 737 model, the 737 NG to the 737 MAX, and that Boeing had only made changes after being assured of their safety.

354. These representations were false.

355. Boeing knew them to be false and/or recklessly disregarded their truth.

356. SWAPA could not have discovered the truth of the matter on its own.

357. The information that SWAPA could not have accessed on its own includes, but is not limited to, that as compared to the 737 NG, Boeing's use of the LEAP1-B engines on the 737 MAX, *inter alia*:

- a. Changed the aircraft's aerodynamic center of gravity;
- b. Decreased the aircraft's stability;
- c. Created greater pitch-up tendency at elevated angles of attack;
- d. Negatively changed the aircraft's handling characteristics;
- e. Increased the aircraft's susceptibility to the risk of catastrophic stall; and
- f. Relied on MCAS, a novel yet safety critical flight control logic with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

358. The facts Boeing misrepresented to and concealed from SWAPA are objectively material.

359. Boeing had a financial incentive to make the foregoing misrepresentations, namely that including the 737 MAX in the SWAPA/Southwest CBA was critical to the domestic launch of the aircraft and would cause Southwest to purchase more 737 MAX aircraft and contribute generally to the acceptance of the 737 MAX into the commercial aircraft market.

360. Boeing made the foregoing misrepresentations in furtherance of its financial incentives.

361. There is no social interest in protecting Boeing's conduct; to the contrary, the social interest lies in penalizing Boeing's conduct because it put not only SWAPA pilots, but the flying public in harm's way.

362. SWAPA would not have entered into the CBA and/or agreed to its specific terms had it known that Boeing's representations were false, and had it known of the facts set forth in ¶ 357, *supra*.

363. SWAPA was reasonable and rightful in relying on Boeing's misrepresentations given SWAPA's close relationship with Boeing, Boeing's unique knowledge of the facts and Boeing's understanding that SWAPA was relying on its misrepresentations in the course of CBA negotiations.

364. SWAPA's reliance on Boeing's representations and non-disclosures also was justifiable in light of SWAPA and Boeing's long-term relationship that previously did not include any reason to doubt the truthfulness and completeness of Boeing's representations and disclosures.

365. Boeing's misrepresentations and omissions thus proximately caused and were the cause in fact of SWAPA's injuries.

366. Boeing's actions were willful and intentional.

367. Boeing's misrepresentations interfered with SWAPA's expected benefits from its CBA, and its contractual relationship with Southwest.

368. SWAPA has been damaged in the amount of millions of dollars in lost compensation, which amount continues to accrue.

369. Such damages can be determined based on Southwest's published flight schedules that incorporate the 737 MAX versus Southwest's actual flight schedule subsequent to the grounding.

370. SWAPA also has been damaged in amounts to be determined for associated costs, such as legal fees in connection with its role in the DOJ investigation and SEC investigation.

371. SWAPA also has been damaged in a loss of dues from SWAPA pilots.

372. SWAPA is entitled to damages for those categories of losses in amounts to be determined at trial.

**FOURTH CLAIM FOR RELIEF –
TORTIOUS INTERFERENCE WITH AN EXISTING BUSINESS RELATIONSHIP**

373. Plaintiff SWAPA repeats, reiterates, and realleges each and every allegation in paragraphs 1 through 372 above with the same force and effect as if set forth herein in full.

374. In 2016, SWAPA was negotiating an amended CBA with Southwest. This CBA was signed in November 2016.

375. SWAPA had an existing business relationship with Southwest, and has since 1978.

376. Boeing was aware of these facts.

377. Boeing purposefully misrepresented to SWAPA that the 737 MAX was the same in all material respects to its predecessors that already were covered by the SWAPA/Southwest CBA, including the 737 NG.

378. Boeing marketed the 737 MAX as a variant of the safe, reliable and time-tested 737 family of aircraft, with new fuel-efficient engines and “very deliberate” design enhancements that posed “minimal risk.”

379. Boeing made these representations publicly, and to SWAPA directly when SWAPA: participated in simulator exercises to evaluate the extent of pilot training needed for the 737 MAX; reviewed Boeing drafted flight and aircraft manuals; collaborated with Boeing to prepare Southwest’s 737 MAX pilot training program; and participated in Service Ready Operational Validation tests.

380. Boeing also made the foregoing representations on its website and in press releases described above, including, but not limited to its statements claiming that Boeing would minimize changes from its then most recent 737 model, the 737 NG to the 737 MAX, and that Boeing had only made changes after being assured of their safety.

381. These representations were false.

382. Boeing knew them to be false.

383. SWAPA could not have discovered the truth of the matter on its own.

384. The information that SWAPA could not have accessed on its own includes, but is not limited to, that as compared to the 737 NG, Boeing’s use of the LEAP1-B engines on the 737 MAX, *inter alia*:

- a. Changed the aircraft’s aerodynamic center of gravity;
- b. Decreased the aircraft’s stability;
- c. Created greater pitch-up tendency at elevated angles of attack;
- d. Negatively changed the aircraft’s handling characteristics;
- e. Increased the aircraft’s susceptibility to the risk of catastrophic stall; and
- f. Relied on MCAS, a novel yet safety critical flight control logic with no

service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

385. The facts Boeing misrepresented to and concealed from SWAPA are objectively material.

386. Boeing had a financial incentive to make the foregoing misrepresentations, namely that including the 737 MAX in the SWAPA/Southwest CBA was critical to the domestic launch of the aircraft and would cause Southwest to purchase more 737 MAX aircraft and contribute generally to the acceptance of the 737 MAX into the commercial aircraft market.

387. Boeing made the foregoing misrepresentations in furtherance of its financial incentives.

388. There is no social interest in protecting Boeing's conduct; to the contrary, the social interest lies in penalizing Boeing's conduct because it put not only SWAPA pilots, but the flying public in harm's way.

389. SWAPA would not have entered into the CBA and/or agreed to its specific terms had it known that Boeing's representations were false, and of the facts set forth in ¶ 384, *supra*.

390. SWAPA was reasonable and rightful in relying on Boeing's misrepresentations given SWAPA's close relationship with Boeing, Boeing's unique knowledge of the facts and expertise, and Boeing's understanding that SWAPA was relying on its misrepresentations in the course of CBA negotiations.

391. SWAPA's reliance on Boeing's representations and non-disclosures also was justifiable in light of SWAPA and Boeing's long-term relationship that previously did not include any reason to doubt the truthfulness and completeness of Boeing's representations and disclosures.

392. Boeing's misrepresentations and omissions thus proximately caused and were the

cause in fact of SWAPA's injuries.

393. Boeing's actions were willful and intentional.

394. Boeing's misrepresentations thus interfered with SWAPA's expected benefits from its CBA, and its business relationship with Southwest.

395. Boeing's misrepresentations were independently tortious as set forth in the First Second, and Sixth Claims for Relief.

396. SWAPA has been damaged in the amount of millions of dollars in lost compensation, which amounts continues to accrue.

397. Such damages can be determined based on Southwest's published flight schedules that incorporate the 737 MAX versus Southwest's actual flight schedule subsequent to the grounding.

398. SWAPA also has been damaged in amounts to be determined for associated costs, such as legal fees in connection with its role in the DOJ investigation and SEC investigation.

399. SWAPA also has been damaged in a loss of dues from SWAPA pilots.

400. SWAPA is entitled to damages for those categories of loss in amounts to be determined at trial.

FIFTH CLAIM FOR RELIEF – NEGLIGENCE

401. Plaintiff SWAPA repeats, reiterates, and realleges each and every allegation in paragraphs 1 through 400 above with the same force and effect as if set forth herein in full.

402. Boeing knew or should have known that the 737 MAX was unsafe, unairworthy, and placed SWAPA pilots, the passengers in their care, and others, in danger.

403. Boeing had a duty as an aircraft manufacturer to manufacture safe and airworthy aircraft.

404. That Boeing knew or should have known that the 737 MAX was unsafe and un-airworthy because it filed with the FAA a false SSA for MCAS that the NTSB found to be non-compliant with 14 C.F.R. § 25.1309.

405. The SSA:

- a. Understated MCAS's authority to command the number and length of trim movements by the horizontal stabilizer;
- b. Understated the degree to which MCAS could move the horizontal stabilizer;
- c. Failed to account for the fact that MCAS was designed to reset and repeat its commands even after the pilot countermanded MCAS's automatic nose-down trim;
- d. Failed to disclose that MCAS relied on a single angle of attack sensor and thus was a single point failure; and
- e. Classified MCAS incorrectly as "hazardous."

406. Boeing nonetheless implemented MCAS in order to make the 737 MAX "feel" like prior generations of 737 aircraft, furthering its misinformation campaign upon which SWAPA relied.

407. Boeing did so without acknowledging the actual differences between the 737 MAX and prior generations of 737 aircraft.

408. Boeing thus failed to mitigate the actual risk of catastrophic stall on the 737 MAX.

409. Boeing also failed to inform and warn pilots of the risk of catastrophic stall on the 737 MAX, despite its duty to do so.

410. Boeing also failed to adequately train SWAPA pilots on how to avoid the increased risk of catastrophic stall on the 737 MAX aircraft as compared to prior generations of 737s, despite its duty to do so.

411. Boeing did so for the purpose of selling 737 MAX aircraft to Southwest and other

air carriers without the need to alter its rushed development timeframe, and without the need for those carriers to incur additional cost.

412. Boeing violated the FAA's Airworthiness Standards for Commercial Aircraft, 14 C.F.R. § 25.203(a) – Stall Characteristics, which states in part “[n]o abnormal nose-up pitching may occur.... In addition, it must be possible to promptly prevent stalling and to recover from a stall by normal use of the controls.”

413. By virtue of selling an aircraft it knew violated Federal Aviation Regulations, it was reasonably foreseeable that such aircraft likely would be grounded in the future once its defect was discovered and until such defect could be remedied.

414. As a result of Boeing's conduct, SWAPA pilots have incurred lost compensation and other losses described below.

415. Among other things, SWAPA would not have agreed to its CBA had it known the truth of Boeing's misrepresentations or that Boeing was concealing objectively material information relating to the 737 MAX from SWAPA.

416. Boeing breached its duties to manufacture safe aircraft, and to warn and adequately train SWAPA pilots. These breaches were the proximate cause and cause in fact of SWAPA's damages.

417. SWAPA has been damaged in the amount of millions of dollars in lost compensation, which continues to accrue.

418. Such damages can be determined based on Southwest's published flight schedules that incorporate the 737 MAX versus Southwest's actual flight schedule subsequent to the grounding.

419. SWAPA also has been damaged in amounts to be determined for associated costs,

such as legal fees in connection with its role in the DOJ investigation and SEC investigation.

420. SWAPA also has been damaged in a loss of dues from SWAPA pilots.

421. SWAPA is entitled to damages for those categories of losses in amounts to be determined at trial.

**SIXTH CLAIM FOR RELIEF –
FRAUD BY NON-DISCLOSURE**

422. Plaintiff SWAPA repeats, reiterates, and realleges each and every allegation in paragraphs 1 through 421 above with the same force and effect as if set forth herein in full.

423. Boeing marketed the 737 MAX as a variant of the safe, reliable and time-tested 737 family of aircraft, with new fuel-efficient engines and “very deliberate” design enhancements that posed “minimal risk.”

424. Boeing made these representations publicly, and to SWAPA directly when SWAPA: participated in simulator exercises to evaluate the extent of pilot training needed for the 737 MAX; reviewed Boeing drafted flight and aircraft manuals; collaborated with Boeing to prepare Southwest’s 737 MAX pilot training program; and participated in Service Ready Operational Validation tests.

425. Boeing also made the foregoing representations on its website and in press releases described above, including, but not limited to its statements claiming that Boeing would minimize changes from the 737 NG to the 737 MAX, and that Boeing had only made changes after being assured of their safety.

426. Boeing’s representations concerning the 737 MAX were false in that Boeing did not disclose that, as compared to the 737 NG, Boeing’s use of the LEAP1-B engines on the 737 MAX, *inter alia*:

- a. Changed the aircraft’s aerodynamic center of gravity;

- b. Decreased the aircraft's stability;
- c. Created greater pitch-up tendency at elevated angles of attack;
- d. Negatively changed the aircraft's handling characteristics;
- e. Increased the aircraft's susceptibility to the risk of catastrophic stall; and
- f. Relied on MCAS, a novel yet safety critical flight control logic with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

427. Boeing made these representations knowing that SWAPA pilots and union representatives were relying on their truth.

428. Boeing knew that the foregoing representations were false, or recklessly disregarded their truthfulness in making such representations.

429. In making these misrepresentations, Boeing failed to disclose the truth, including that as compared to the 737 NG, Boeing's use of the LEAP1-B engines on the 737 MAX, *inter alia*:

- a. Changed the aircraft's aerodynamic center of gravity;
- b. Decreased the aircraft's stability;
- c. Created greater pitch-up tendency at elevated angles of attack;
- d. Negatively changed the aircraft's handling characteristics;
- e. Increased the aircraft's susceptibility to the risk of catastrophic stall; and
- f. Relied on MCAS, a novel yet safety critical flight control logic with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

430. Boeing's non-disclosures related to objectively material facts concerning the 737 MAX.

431. Boeing concealed all or parts of the truth when it had a legal duty to speak, and when it had already made partial representations concerning differences between the 737 NG and

737 MAX to SWAPA.

432. Boeing had a legal duty to correct these misrepresentations once made, but failed to do so until it was too late.

433. Boeing made the foregoing non-disclosures for its economic advantage.

434. Boeing's non-disclosures concerning the 737 MAX were deliberate.

435. Boeing made the foregoing misrepresentations and non-disclosures with the intent to induce SWAPA's reliance on the representations.

436. SWAPA relied on Boeing's representations and non-disclosures as true because of Boeing's superior knowledge concerning the 737 MAX and its expertise, and SWAPA's inability to acquire its own knowledge concerning Boeing's representations and non-disclosures.

437. SWAPA's reliance on Boeing's representations and non-disclosures also was justifiable in light of SWAPA and Boeing's long-term relationship that previously did not include any reason to doubt the truthfulness and completeness of Boeing's representations and disclosures.

438. SWAPA was entitled to rely on Boeing's representations.

439. SWAPA was entitled to assume that Boeing's disclosures were complete and accurate, and relied on Boeing for that reason.

440. Boeing's deliberate non-disclosures were intended to cause SWAPA to agree to include the 737 MAX as a term in its 2016 CBA, and/or to refrain from continuing its disagreements with Southwest over that issue.

441. SWAPA would not have agreed to include the 737 MAX as a term of its 2016 CBA had it known of the truth about Boeing's misrepresentations or that Boeing was concealing objectively material information relating to the 737 MAX from SWAPA.

442. Boeing's non-disclosures therefore were the proximate cause and cause in fact of SWAPA's injuries.

443. SWAPA has been damaged in the amount of millions of dollars in lost compensation, which amount continues to accrue.

444. Such damages can be determined based on Southwest's published flight schedules that incorporate the 737 MAX versus Southwest's actual flight schedule subsequent to the grounding.

445. SWAPA also has been damaged in amounts to be determined for associated costs, such as legal fees in connection with its role in the DOJ investigation and SEC investigation.

446. SWAPA also has been damaged by the loss of dues from SWAPA pilots.

447. SWAPA is entitled to damages for those categories of losses in amounts to be determined at trial.

JURY TRIAL DEMANDED

Plaintiff demands a trial by jury on all issues so triable.

PRAYER FOR RELIEF

Wherefore, Plaintiff demands judgment:

- A. That Defendant Boeing pays Plaintiff SWAPA for the lost compensation it has incurred and is continuing to incur;
- B. That Defendant Boeing pays Plaintiff SWAPA for its other losses associated with the 737 MAX grounding, including, but not limited to, costs of legal representation in connection with the DOJ and SEC investigation, and lost dues;
- C. That Defendant Boeing pays Plaintiff SWAPA pre-judgment interest for the foregoing;
- D. That Defendant Boeing pays Plaintiff SWAPA for all other relief to which SWAPA may be entitled, and which this Court deems just and proper.

Dated: October 7, 2019

SOUTHWEST AIRLINES PILOTS ASSOCIATION

By: /s/ Helen Yu

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- and -

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