

Written Testimony of Paul Njoroge
Before the U.S. House Subcommittee on Aviation
Rep. Richard Larsen, Chair
July 17, 2019

Thank you Chairman Larsen and Chairman DeFazio, and thank you Ranking Members Sam Graves and Garrett Graves, and all Distinguished Members of this Committee for allowing me to testify before you today.

My name is Paul Njoroge and I come before you with a broken heart. It is not something that this Committee or that Congress can fix, but I push myself every day to try to do something in the memory of my family, my entire family that was killed in the second Boeing crash in Ethiopia. My wife, Carolyne, a wonderful mother to our children, and who we talked about getting old together. Our three children, Ryan, six years old with the whole world ahead of him as he dreamed of being an astronaut one day. Kelli, just four years old, and the light of everyone's eye. And little nine-month-old Rubi, a baby who sat on her mommy's lap who I wish I could hold just one more time. I have nightmares about how they must have clung to their mother, crying, seeing the fright in her eyes as they sat there helplessly. And there was nothing I could do to save them. My mom in law sat beside them with tickets I had purchased for them that was to be a trip of a lifetime. I paid for plane tickets that was to be a safe flight. I did not know all of the information of which Boeing knew about how dangerous that plane was yet the corporation allowed 157 people to board that dangerous plane that could not land safely. I never knew it would be the last time I would ever see them.

I miss their laughter, their playfulness, their touch. I am empty. I feel that I should have been on that plane with them. My life has no meaning. It is difficult for me to think of anything else but the horror they must have felt. I cannot get it out of my mind.

But I speak for more than myself who are trying to cope with this insufferable loss. I speak for all of the families who lost loved ones whom they will never see again and who were tragically torn from their lives because of reckless conduct on the part of so many, particularly Boeing, a company who became steadfast in its single-minded quest to place blame on so-called “foreign pilots.” Since the first Max8 crash in October, Boeing began a pattern of behavior blaming innocent pilots who had no knowledge and were given no information of the new and flawed MCAS system that could overpower pilots. No manual, no training, no information was provided to pilots on how that new MCAS system worked, yet they were put in those cockpits and expected to know what to do. Instead of accepting responsibility and informing pilots around the world, Boeing continued its blame game on pilots, to shift focus from its own responsibilities until the second plane crashed. Then the world turned its focus on those who were really culpable. It could no longer be denied by Boeing.

Little did passengers around the world know of the close relationship that Boeing had with the FAA. So close that apparently the FAA was allowing Boeing to certify planes, like the Max8, for flying without supervising those doing the certification. The FAA should have known that the failure to have triple redundancy in critical safety systems could cause crashes and death. This has to become part of an improved FAA, checking safety and certification requirements. No excuses can replace this necessity. The FAA allowed a flawed software package to rely upon data from a single angle of attack sensor. These sensors have a relatively high rate of error, a rate that normally would require at least two levels of redundancy. Not only was this redundancy mandate not followed, the FAA and Boeing did not simulate sensor failures when testing the 737 MAX8.

The families demand that the 737 Max8 be fully recertified as a new plane because it is too different from the original plane designed at the beginning of the Vietnam War. The FAA's practice of grandfathering old designs and granting waivers on new designs has significant human costs. Boeing persuaded the FAA to certify the Boeing 737 MAX8 as a 737, a plane designed in 1966. The 737 has a low fuselage compared to modern planes. The low fuselage is a relic from more than 50 years ago when staircases to the tarmac were the method of getting passengers on and off planes. Boeing wanted to incorporate bigger and more fuel-efficient engines to compete with Airbus. But it also wanted to minimize its certification and training costs. The problem with these new engines was that they could not fit under the 737's wings. Rather than scrapping the 1960's design in favor of a modern design, Boeing fit the engines onto the old fuselage by moving them up and forward. This caused the plane to be prone to handle differently than the older 737s and nose up in unfamiliar ways. Boeing's response was the now-infamous MCAS software to take control of the plane in ways the pilot would not detect.

We demand that the FAA require simulator training, as do airline passenger groups, and the famous pilot, Captain Chesley "Sully" Sullenberger. After the two crashes, the FAA surprisingly proposed only requiring an hour-long iPad tutorial for cost reasons and the simple fact that only two 737 MAX simulators exist in North America, Boeing and the FAA are resisting this basic requirement that could have prevented these two crashes. The lack of foresight and greed behind this inadequate training hurts the core of my very being. I will never understand how any person, how any corporation, can be so selfish and so sightless in its duty to allow passengers to travel safely from one place to another.

As an investment professional, allow me to inform Congress as to how Boeing has viewed this whole crisis – only through the lens of its stock price and the security of their executives’ jobs. By focusing only on cutting costs and spending profits to pump up the stock price, rather than reinvesting in safety, Boeing’s CEO has managed to steer the company’s stock (NYSE:BA) from a price of \$140 on July 1, 2015 to last week closing price of \$365. Some investors and traders might have even banked higher profits when the price reached \$446 some days before the second March 10 crash of its Boeing 737 Max8 in Ethiopia.

But, let me give my thoughts about how the stock price has moved exponentially since late 2016. Although the first 737 MAX planes were delivered in May 2017, by the end of 2012, the company had received 2,500 orders for these planes. This translated to expected revenues totaling to \$140 billion. Boeing’s executives at the time started employing an aggressive equity-repurchase program; \$2.8 billion in 2013 and \$6.0 billion in 2014. And when Boeing’s current CEO took over in 2015, the stock-repurchase dollar values started to swell even further -- \$6.8 billion in 2015, \$7.0 billion in 2016, \$9.2 billion in 2017, and \$9.0 billion in 2018. And in December 2018, barely two months after the crash of the Boeing 737 Max8 in the Java Sea., the board authorized repurchase of NYSE:BA stock worth \$20 billion in 2019. By March 10, \$2.3 billion worth of stock had been repurchased. And after the 737 MAX was grounded, on April 24, 2019, Boeing’s CEO and his executive team realized that the company’s revenues were at risk, and so they suspended the stock repurchase program.

Boeing increased dividends by 10.2 percent in Q1 2013, 50.5 percent in Q1 2014, 24.7 percent in Q1 2015, 19.8 percent in Q1 2016, 30.3 percent in Q1 2017, 20.4 percent in Q1 2018 and 20.2 percent in Q1 2019. Over the last six years, Boeing has revised the revenues and earnings guidance a number of times; all these based on the expected and realized revenues from

the sale of the poorly designed 737 MAX plans. All these actions; the aggressive share-repurchase program, the dividends increase, the revisions of revenues and earnings guidance, had an enormous signaling effect to investors. The Boeing executive team knew that such actions would cause excitement on Wall Street, and continually increase the company's stock price. Boeing acted as a financial company rather than a provider of safe and innovative airplanes. Management cut safety engineers, captured the FAA, outsourced aggressively to foreign countries, and avoided recertification of the 737 MAX as a new plane.

I know that CEO Dennis Muilenberg and Boeing's executive team have been the primary beneficiaries of this strategy to extract wealth from this storied company. They have benefited from the stock-based compensations. They also have benefited from bonuses based on company performance; with this performance significantly being boosted by the revenues from the sale of the 737 MAX planes. Could that be the reason Boeing did not feel obliged to ground the MAX even after the second crash of the Boeing 737 Max8? Do Boeing executives now understand why I and many others across the world have said that the entire Boeing team focused on profits, stock price and overall company financial performance at the expense of the safety of human life? Did the lure of numbers make Boeing lose sight of its fundamental responsibility, which is to ensure that all of its planes are safe to fly? Back to my very essential question; why wasn't the Max8 grounded in November after the first crash in the Java Sea? One hundred and eight nine lives were lost, and executives at Boeing cared more about its stock price than from such a tragedy occurring again.

I and other families want any recertification to take place only after all investigations are completed. Any future ungrounding must not precede a full legislative fix of the FAA and the aviation safety system. Indeed the FAA should be taking the lead to fix its

captured status. Recertifying the MAX without a legislative fix would represent Congress' and the FAA's endorsement of the system as is. Congress cannot continue allowing Boeing to unduly influence the FAA, avoiding safety engineering oversight and cutting corners.

FAA has jeopardized its standing as the global leader in aviation safety. Boeing has surrendered its top spot in global commercial airplane manufacturing to Airbus. How else can the FAA and Boeing regain its status in the world of aviation unless it has guaranteed a full investigation and a full fix of these issues?

The Congress should require that the FAA return to the Designate Engineering Representative (DER) which existed before the supervision-free delegation of the Organization Designation Authorization (ODA) system was implemented in 2005. The DER system allowed the safety culture of aviation engineering be supervised by and to report problems directly to FAA, without being silenced or intimidated by company managers and their timeline and financial pressures. While the Acting FAA Administrator estimated that eliminating the entire Organization Designation Authorization system would cost the FAA \$1.8 billion and would require 10,000 more employees, but that cost estimate is not relevant to returning to the DER system. But if an even more substantial FAA overhaul costed \$1.8 billion per year, with over 950 million flights per year in the United States alone, that cost represents less than \$2 per flight. My point is that fundamental safety improvements are affordable and well within our reach.

The U.S. Senate should only confirm a new FAA Administrator if the nominee agrees to safety reforms. Any nominee for FAA Administrator who does not unequivocally agree to safety reforms at the FAA is not qualified to serve as the leader of this critical organization. The FAA surrenders too much of its authority to Boeing, and if Congress decides

to endorse the FAA's status quo, Congress would be surrendering its authority to Boeing as well. The problems are known. Congress cannot punt on this issue any longer. The credibility of the US aviation system, and perhaps Boeing itself, cannot survive a third crash.

FAA should establish an effective system requiring manufacturers, airlines, pilots and others in the industry to report potential safety problems or defects as an “early warning system.” Other safety critical industries have early warning system data collection with immediate responsiveness, so those industries can prevent deaths rather than respond to them. In 2002, Congress required the National Highway Traffic Safety Administration to enact early warning procedures. Motor vehicle manufacturers and equipment manufacturers are required to report information that will help NHTSA identify defects related to motor vehicle safety. The FAA and aviation industry need to mandate such systems in place.

As the Boeing CEO and other senior executives certainly enjoyed their July 4th holiday watching fireworks in the skies with their families. All I could think of in Canada on July 1, a day celebrated much like July 4th in America, was of the deadly skies of Bishoftu, Ethiopia, of a 737 Boeing Max plane repeatedly taking control from the pilots to push the nose down and eventually crashing into the ground at 500 miles an hour. Nothing was left but a crater. I sat huddled in a small apartment, not being able to return to my house ever. I thought of all the celebrations I will be missing with my family. No more birthdays, no more anniversaries, no more holidays, no weddings for my children, no grandchildren. Boeing has never reached out to families about the impossible sorrow and grief we will carry for our entire lives. Instead they have a press relations strategy to apologize to cameras and propose half-baked promises to give \$100 million to local governments and nonprofit organizations.

Future hearings of this Committee should include testimony from those who wrote the MCAS software, technical dissenters, whistle blowers, safety engineers and, in every hearing, families who each have their own grief to explain to this Committee. You hear multiple testimony from pilots, associations, unions, and government agencies. A true investigative hearing would include these persons with direct knowledge who are not presenting oral organizational press releases.

Thank you.