

Speech from Boeing CEO Dennis Muilenburg: 2019 Address to Shareholders

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CHICAGO, April 29, 2019 – Today marks six months since the Lion Air Flight 610 accident, and nearly two months since Ethiopian Airlines Flight 302. We at Boeing are sorry for the loss of life in these tragedies, and they continue to weigh heavily on us. We recognize the devastation of the families and friends of the passengers and crew members and extend our deepest sympathies to all of them.

Please join me in a moment of silence at this time to honor the 346 people on board the two flights.

Thank you for honoring them with me.

I learned early on in my career the importance of the work we do at Boeing.

As the lead engineer on a project, I watched my pilot friend climb into the cockpit of a prototype aircraft and fly it for the first time. In that moment, the unforgettable feeling of knowing someone's life literally depends on your work became very real for me. He landed safely, and to this day I remember exhaling with both relief and admiration.

When an accident occurs, we feel it deeply across our company because all of us understand that lives depend on what we do. We hold ourselves to the highest standards of safety, quality and integrity in our work because the stakes could not be higher. It demands the utmost excellence.

These enduring values are at the core of everything we do. Yet, we know we can always be better. We have a responsibility to design, build and support the safest airplanes in the sky. The recent accidents have only intensified our dedication to it.

Our leadership role is clear, our commitment to our values is resolute, and our pursuit of excellence is never ending. We own it. When it comes to safety, there are no competing priorities. This is clear in the steps we've taken since the accidents, and in our performance in the past year and throughout our history centered on safety, quality and integrity.

I'll focus on these three important values today.

It all starts with safety. From the days immediately following the Lion Air accident, our top engineers and technical experts have been working tirelessly in collaboration with the Federal Aviation Administration and our customers to finalize and implement a software update that will ensure accidents like these never happen again.

The update will prevent erroneous angle of attack sensor readings from triggering the Maneuvering Characteristics Augmentation System, or MCAS, something that initial investigation reports indicate occurred in both MAX accidents, as one link in a longer chain of events. We know we can break this link in the chain. It's our responsibility to eliminate this risk.

We're making steady progress on the path to certification, having completed the official engineering test flight of the software — the final technical flight test prior to the certification flight. Overall, our talented test pilots have made 146 737 MAX flights totaling roughly 246 hours of air time with the updated software, and nearly 90 percent of our 50-plus MAX operators around the globe have experienced that software update themselves during one of our simulator sessions.

With the certified software update implemented, the 737 MAX will be one of the safest airplanes ever to fly.

There is nothing more important to us than the safety of our airline customers and their passengers. Every day, 5.3 million people fly safely on Boeing airplanes. In addition, more than 2,900 737 airplanes on average are in the air with nearly half a million people on board at any given time, and one 737 takes off or lands around the world every one-and-a-half seconds.

We don't make safety features optional. Safety has been and always will be our top priority, and every one of our airplanes includes all of the safety features necessary for safe flight.

We also care about the safety of our people. Internally, we've reduced workplace injuries by roughly 40 percent while production has increased by 25 percent through 2018 since launching our company-wide safety initiative in 2013. The National Safety Council also recognized Boeing with the 2018 Robert W. Campbell Award for leadership and excellence in incorporating environment, health and safety values and best practices at every level of our company.

As we improve safety, we also continue to prioritize productivity and quality — mutually reinforcing objectives that are never at odds.

We're taking steps to transform our approach to first-time quality through an enterprise-wide effort that was launched earlier this year. It's about eliminating non-value-added tasks, waste and rework regardless of where they occur in the organization. In addition, we're streamlining our enterprise systems and processes, creating the digital engineering, manufacturing and supply chain capabilities that will enable our future.

We're also partnering with our customers to ensure our work exceeds their high expectations for us, including most recently on our KC-46 tanker program. When debris was found aboard delivered aircraft, we took immediate next steps in partnership with the customer to develop and implement a corrective action plan and strengthen our processes.

As an example of our progress, the F-15 Full-Size Determinant Assembly team is using a process to eliminate drilling and shimming from assembly by adding fastener holes at the supplier. This new process significantly reduces rework, increases quality and leads to improved ergonomics because drilling is no longer required. We're also applying this approach on the 777X as we share best practices across our business.

In light of our commitment to continuous improvement, I've also asked the Boeing Board of Directors to establish a committee to review our companywide policies and processes for the design and development of the airplanes we build. With their collective experience and expertise, the committee members will confirm the effectiveness of our policies and processes for assuring the highest level of safety on the 737 MAX program, as well as our other airplane programs, and recommend improvements where necessary.

As we work through this challenging time and in everything we do, we act with integrity.

We know every person who steps aboard one of our airplanes places their trust in us. We'll do everything possible to earn and re-earn that trust and confidence from our airline customers and the flying public. That includes ensuring our airline customers and their pilots are confident in the enhanced training and education materials we're developing and deploying — also, that they have the proficiency necessary to succeed and a strong, diverse talent pipeline for the future.

The industry will need 790,000 new civil aviation pilots and 754,000 new maintenance technicians to fly and maintain the world fleet safely over the next 20 years, according to our outlook. Meeting this significant demand requires ongoing cross-industry collaboration among operators, equipment manufacturers, governments and educators.

Boeing has an important role to play in advancing training efforts that support safe operations, and we're committed to going above and beyond. To that end, we took steps earlier this year with a \$3 million grant to

Embry-Riddle Aeronautical University to help students learn with greater efficiency and perform more effectively once on the job. This is just the beginning.

Overall, our investments in our communities exceeded \$280 million in 2018 — a company record — as we continue to drive positive, lasting change across the globe in important areas such as STEM learning and veterans' support.

Boeing's leadership position in the aerospace industry also is making a meaningful difference in addressing aviation's impact on climate change. Boeing reduced greenhouse gas emissions by 28 percent while increasing aircraft deliveries 66 percent in the decade leading to a bold new environment strategy for 2018 to 2025.

Safety, quality, integrity and all of our enduring values represent who we are as a company. When we get the values right, it enables our strategy. If we don't, we can't succeed.

Looking ahead, we'll continue to capture the opportunity we have before us by working together as One Boeing, strengthening what we already do well and driving improvements as we sharpen and accelerate our pace of progress. These are key tenets of our powerful strategy, which guides us in pursuit of our bold goals and aspiration to be the best in aerospace and an enduring global industrial champion.

The strength of our strategy is reflected in our strong 2018 performance. We booked record 2018 revenue of \$101 billion, exceeding \$100 billion for the first time in company history driven by record commercial airplane deliveries; higher defense, space and security volume; and continued growth in services. We also generated record earnings and cash, which fueled investments in our people and innovation, and returned value for all our stakeholders.

We see a combined market opportunity of \$8.1 trillion dollars over the next 10 years, and we're well-positioned to meet that growing demand with our offerings in commercial, defense, space and services.

We forecast a need for nearly 43,000 new commercial airplanes over the next 20 years, effectively doubling the size of today's global fleet. Our defense portfolio features proven, world-class platforms to address current needs and innovative, effective and affordable new franchise programs, including the T-X trainer and MQ-25 unmanned aircraft. The services sector represents a significant opportunity as we aim to continue outpacing the average services market growth rate of 3.5 percent.

We'll continue building more efficient and capable airplanes, developing smarter solutions for our military customers, creating next-generation space exploration vehicles, and seizing a larger share of the services market.

This year, we plan to start flight-testing the 777X and continue exploring prospects for the new middle-of-the-market airplane. In addition, we'll deliver more KC-46 tankers; ramp up activities for the T-X and MQ-25 programs, including first flight of the MQ-25; prepare for crewed and uncrewed flight tests of the CST-100 Starliner; integrate our subsidiaries further; and strengthen our vertical capabilities.

We're also sharpening our focus on profitable, long-term growth; disciplined execution of our production and development programs; and delivering greater life-cycle value. In addition, we're investing in our business to drive innovation, fuel growth and provide customers unmatched value combined with more capability, efficiency and reliability.

In 2018, we established Boeing NeXt, a new organization focused on defining the future of urban, regional and global mobility. The future of mobility will require significant technological advancements, more efficient economics, and strong safety and environmental standards. With our expertise across the commercial, defense and space markets, this is something only Boeing can do. We took steps toward this future when Boeing's autonomous passenger and cargo air vehicles completed successful first flights.

Internally, we're leveraging our talent and resources and aligning teams to pursue innovation in key areas, including additive manufacturing, avionics, and information and data analytics, to just name a few. Concurrently, we're bringing in ideas from outside the company, including through industry partners and our Boeing HorizonX innovation cell, which is uncovering and accelerating potentially transformative aerospace technologies, manufacturing innovations and emerging business models.

While organic investment remains our primary engine for innovation and growth, we're also making complementary inorganic investments where they add strategic, long-term value. In the past year, we completed our acquisition of KLX, a major global provider of aviation parts and services, and started operations for our airplane seat joint venture with Adient and auxiliary power units joint venture with Safran. We also continue to move forward on our strategic partnership with Embraer, which received approval from Embraer's shareholders earlier this year. When finalized, the partnership will strengthen our respective commercial and defense portfolios.

It's our responsibility to build, deliver and service airplanes that are safe to fly and can be safely flown by every single one of the professional and dedicated pilots all around the world. We own it.

Again, all of us at Boeing are deeply sorry for the loss of life, and we offer our sincere condolences. We feel the immense gravity of these events and recognize the devastation of the families and friends of the loved ones who perished. We also regret the impact the grounding has had on our airline customers and their passengers and on our supply chain partners, many of which are small to medium-sized businesses.

We're humbled and continually learning from the recent accidents. Together as a One Boeing team, we'll work to earn and re-earn people's trust and create a stronger company and industry for generations to come.

Our mission is to connect, protect, explore and inspire the world. We'll fulfill it only by living and leading with our values. That's what safety, quality and integrity mean to us.

When we're aligned with our values, the future is ours to build.

Thank you.
