Boeing's Business Model After Crisis

Idea In Short

Boeing designs, builds and sells commercial airplanes, defense systems and space technology, a business William Boeing started in Seattle in 1916. For most of its history the company competed with Airbus for dominance of commercial aviation while supplying the United States government with military aircraft and spacecraft. That reputation cracked after two 737 MAX crashes in 2018 and 2019 killed 346 people and led regulators worldwide to ground the aircraft for nearly two years. A third crisis followed in January 2024, when a door plug blew off an Alaska Airlines 737 MAX mid-flight, reopening questions about Boeing's manufacturing quality that the earlier grounding was supposed to have settled. Boeing's business model today runs through commercial airplanes, defense and space, and aftermarket services, but every part of it now operates under closer regulatory oversight than before 2018.

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A century of building the world's aircraft

Boeing traces its roots to 1916, when William Boeing and his partner George Conrad Westervelt built the B&W Seaplane in Seattle. The company grew over the following century into one of two dominant makers of large commercial jets worldwide, alongside Europe's Airbus, while also becoming one of the largest suppliers to the United States defense establishment. Boeing now employs more than 140,000 people and operates major facilities in Washington, South Carolina, Missouri and Alabama, with its corporate headquarters in Arlington, Virginia.

For decades, Boeing's brand rested on engineering reliability, a reputation reinforced by aircraft such as the 747 and 777 that airlines flew for decades with strong safety records. That reputation gave Boeing pricing power and long order backlogs from airlines planning fleet purchases years in advance.

Two crashes and a grounding that cost billions

Boeing's modern crisis began with the crash of Lion Air Flight 610 in October 2018 and Ethiopian Airlines Flight 302 in March 2019, together killing 346 people. Investigators traced both crashes to a flight-control system called MCAS, which pushed the plane's nose down based on faulty data from a single sensor, and to Boeing's failure to fully disclose the system's behavior to pilots and regulators.1 Regulators worldwide grounded the 737 MAX for nearly two years, and Boeing later reached a deferred prosecution agreement with the Department of Justice, agreeing to pay more than $2.5 billion in penalties and compensation.

> Two crashes traced to a single hidden software system cost Boeing an aircraft grounding, a criminal case and years of the trust it had spent a century building.

The grounding halted deliveries of Boeing's best-selling jet, forcing airlines to rework fleet plans and pushing Boeing to a net loss for 2019, its first full-year loss in more than two decades. The crisis also triggered congressional hearings that examined how closely the FAA had delegated certification authority to Boeing itself, an arrangement regulators tightened significantly once the MAX returned to service in late 2020.

The Alaska Airlines door plug reopened the wound

On January 5, 2024, a door plug panel blew out of an Alaska Airlines 737 MAX 9 shortly after takeoff from Portland, Oregon, forcing an emergency landing with no fatalities.2 The National Transportation Safety Board found that bolts meant to secure the panel had not been reinstalled after work at Boeing's Renton factory, a manufacturing lapse rather than a design flaw like MCAS but one that raised the same fundamental question: whether Boeing's production floor could reliably execute its own engineering standards.

The FAA responded by capping Boeing's 737 production rate and giving the company 90 days to submit a comprehensive quality-improvement plan, which Boeing delivered in May 2024, including expanded inspections and retraining across its assembly lines. Kelly Ortberg took over as chief executive in August 2024 and told a Senate committee in 2025 that

Boeing had made "serious missteps" that were "unacceptable," while outlining structural changes to manufacturing oversight.3

Buying back Spirit AeroSystems to fix the supply chain

Investigators traced the missing door plug bolts to work performed at Spirit AeroSystems, the fuselage supplier Boeing had spun off in 2005 to cut manufacturing costs. In 2024, Boeing agreed to reacquire Spirit for approximately $4.7 billion, a deal that closed after regulatory approval in Europe and the United States and returned fuselage production for the 737, 767, 777 and 787 programs to Boeing's direct control.4 Ortberg has described the reacquisition as central to closing the gap between Boeing's engineering standards and what independent suppliers actually built, a gap the 2005 spinoff had widened by putting a profit-driven contractor between Boeing and a safety-critical part of the aircraft.

Defense and services cushioned commercial troubles

While Commercial Airplanes absorbed the brunt of the MAX crisis and its aftermath, Boeing's Defense, Space and Security division continued supplying the U.S. government with military aircraft, satellites and rocket systems, giving the company a revenue base less exposed to airline demand cycles. Global Services, Boeing's aftermarket support business covering maintenance, parts and fleet management, has also grown steadily, benefiting from a large installed base of Boeing aircraft that need servicing regardless of how new jet deliveries are performing. Together, these two segments gave Boeing revenue diversification that partially offset losses tied to 737 MAX groundings and production caps in its commercial business.

The financial toll and a slow recovery

Boeing posted its first full-year net loss in more than two decades in 2019 as the MAX grounding halted deliveries, and the company has recorded a net loss in most years since, including through the pandemic, the door plug fallout and a machinists' strike in late 2024 that idled West Coast production for weeks. Total losses tied to the MAX crisis alone, including compensation, penalties and lost production, have been estimated in the tens of billions of dollars across direct and indirect costs.5 Ortberg has prioritized stabilizing cash flow and reducing debt taken on during the crisis years, arguing that Boeing's underlying commercial order book, including a backlog of thousands of aircraft, remains strong enough

to fund a recovery if execution improves.

Key Partners

Boeing depends on Spirit AeroSystems, now a subsidiary following the 2024 reacquisition, for major fuselage and structural components across several aircraft programs. Engine makers including General Electric and Pratt and Whitney supply propulsion systems integrated into Boeing's commercial and defense aircraft. The U.S. government and NASA function as both customers and partners on defense and space programs. Research institutions and universities collaborate with Boeing on materials science and next-generation aerospace technology.

Key Activities

Boeing's core activity is the design, engineering and manufacturing of commercial airplanes, military aircraft and space systems across facilities in multiple states. Supply chain management has taken on new importance following the door plug incident, with Boeing now directly overseeing more fuselage production than it did before the Spirit reacquisition. Testing, certification and quality assurance activities have expanded significantly since 2024 in response to FAA scrutiny. Boeing also invests heavily in research and development to keep its aircraft competitive with Airbus on fuel efficiency and range.

Key Resources

Boeing's intellectual property, including decades of aerospace engineering patents and design data, remains a core resource that competitors cannot easily replicate. Its manufacturing facilities, spread across Washington, South Carolina and other states, represent enormous fixed capital investment built over a century. The company's workforce of engineers, machinists and technicians constitutes a resource that Boeing has worked to rebuild after pandemic-era layoffs and post-crisis attrition. Boeing's brand and its relationships with airline and government customers, while damaged by recent crises, still carry substantial commercial weight.

Value Propositions

For commercial airlines, Boeing offers a range of aircraft from narrow-body 737s to wide-

body 777s and 787s, along with financing support and fleet customization options. For governments and defense agencies, Boeing supplies military aircraft, satellites and missile defense systems built to meet specific national security requirements. For cargo and logistics operators, Boeing provides freighter aircraft designed around cargo volume and range needs. For maintenance and repair providers, Boeing's Global Services division offers parts, technical data and training that keep existing fleets flying safely.

Customer Relationships

Boeing manages most large commercial and government contracts through dedicated account teams and long-term service agreements rather than transactional sales. Airlines and defense customers typically engage Boeing years before delivery, given aircraft development and production cycles that can span a decade. Global Services maintains ongoing relationships with operators through maintenance contracts, training programs and digital fleet-management tools. Boeing's investor relations and public communications functions have taken on greater importance since 2019, given sustained regulatory and media scrutiny.

Channels

Boeing sells commercial aircraft directly to airlines through its sales organization rather than through third-party distributors. Defense contracts are negotiated directly with government agencies, often through formal procurement processes. Global Services reaches customers through service centers, digital platforms and authorized maintenance partners located near major airline hubs. Boeing's website and investor communications serve as channels for public disclosure, particularly important given the company's history of regulatory and shareholder scrutiny since 2019.

Customer Segments

Commercial airlines, including major carriers such as United, Southwest and American Airlines, form Boeing's largest customer segment by revenue. Government and defense organizations, led by the U.S. Department of Defense, represent a second major segment tied to national security budgets rather than airline demand cycles. Business jet operators and cargo and logistics companies form smaller but consistent segments. Maintenance, repair and overhaul providers round out Boeing's customer base through the Global

Services division.

Cost Structure

Manufacturing costs across commercial, defense and space programs represent Boeing's largest expense category, encompassing materials, labor and facility overhead. Research and development spending remains substantial, with Boeing investing billions annually to keep its aircraft competitive and to fund next-generation programs. Since 2019, Boeing has also absorbed significant costs tied to legal settlements, regulatory compliance and the quality overhaul launched after the Alaska Airlines incident. Employee salaries and benefits, spread across a workforce of more than 140,000 people, constitute another major cost line.

Revenue Streams

Commercial Airplanes generates revenue through the sale of jets and related parts to airlines worldwide, historically Boeing's largest segment. Defense, Space and Security contributes revenue through military aircraft, satellite and space-systems contracts with governments. Global Services adds a steady revenue stream through maintenance, parts, training and digital fleet-support services for aircraft already in operation. Together these three segments give Boeing revenue that is diversified by customer type even when one segment, such as commercial jet deliveries, faces disruption.

- 1Investigators Linked Both 737 MAX Crashes To The MCAS Flight-Control System
- 2The Alaska Airlines Door Plug Blowout Occurred In January 2024
- 3Boeing CEO Kelly Ortberg Testified To The Senate About Safety Missteps
- 4Boeing Completed Its Reacquisition Of Spirit AeroSystems
- 5Boeing's 737 MAX Crisis Carried Tens Of Billions Of Dollars In Direct And Indirect Costs

Summary

Boeing's business model has not fundamentally changed since William Boeing built his first seaplane in 1916: design and manufacture aircraft, sell them to airlines and governments, then earn recurring revenue servicing the fleet for decades. What changed is the trust

regulators, airlines and the flying public place in how Boeing executes that model. Two fatal 737 MAX crashes and the 2024 Alaska Airlines door plug blowout exposed gaps between the company's manufacturing floor and its engineering promises, gaps that cost Boeing billions of dollars and years of production limits imposed by the Federal Aviation Administration. Chief executive Kelly Ortberg has staked his tenure on proving those gaps can close, largely by bringing fuselage manufacturing back in-house through the Spirit AeroSystems reacquisition. Whether Boeing regains its former standing depends on execution its critics say it has not consistently delivered since 2018.