

‘New Marshall Plan,’ is a pre-requisite for any serious attempt to understand how to end “war economy.” In that article, Mr. LaRouche noted, “I forewarn the reader, that this report is of some length, and contains parts which only citizens who actually think (cognitively) are likely to read to completion.”

The Destruction of Boeing: Once a Great Engineering Company

by Carl Osgood

July 15—On August 7, 1955 Boeing Company chief test pilot Alvin “Tex” Johnston, during a demonstration flight for aviation industry executives, flew two-barrel rolls in the Boeing 367-80, the 4-engine jet-powered airliner that served as the prototype for the 707 jetliner. As he explained to company president Bill Allen, the maneuver was absolutely safe because as the airplane was rolling, Johnston maintained one positive G of force on it all the way around so that it never “knew” it was inverted. In a barrel roll, the pilot pitches the nose up into a climb and then rotates it into the inverted position. When he comes to the top of what amounts to a loop, he continues the roll into a dive and, if done correctly, he comes out of the maneuver in the same heading, speed, and altitude at which he was flying before going into it. It is often confused with an aileron roll but in that maneuver the airplane never changes altitude.

At Allen’s insistence, Boeing had spent \$16 million, almost the entirety of the company’s profit since the end of World War II, to develop that jet-powered airliner and by the time production ended in the early 1990s, more than 1,000 of the 707 jetliners had been built, almost 900 of them for commercial operators. Using the same technology, Boeing introduced the 727 and 737 short-to-medium-range airliners and the 747-jumbo jet in rapid succession between 1963 and 1968, revolutionizing air travel.

Johnston’s now legendary barrel roll—he described it and why it worked in his 1991 memoir, *Jet-Age Test Pilot*—typified the kind of company Boeing was in

those days. It has been likened to a society or even a family of engineers more than a commercial concern, and it was dedicated to building well-engineered airplanes for its customers. “Traditionally, Boeing has prided itself in developing cutting-edge products, new airplanes, developing technologies, the kinds of things that you can sell, because they’re great products,” Bill Dugovich, then-spokesman for the Society of Professional Engineering Employees in Aerospace, told *EIR* in an [interview](#) published on March 17, 2000. “Because they’re great products, people buy them, and the company makes money.”

Things began to change in the aviation industry in the late 1970s and early 1980s, with deregulation and the focus on increasing competition among the airlines, and cost cutting. The turning point for Boeing came in 1997 with the merger with McDonnell Douglas, a rival company in both the military and commercial realms. McDonnell Douglas was the smaller of the two compa-



National Air and Space Museum

Initially the Boeing Corporation proudly produced airplanes with engineering of high quality. Shown: Model 707 commercial airliners at the Boeing factory in Seattle, Washington in 1958.

nies but its corporate culture of cost-cutting and rising share prices for its investors ended up dominating management of the combined company.

Regime Change at Boeing

Exemplifying the cultural change was the move of company headquarters from Seattle to Chicago, completed in August of 2001. The effect was that the company’s top management was no longer directly connected to the production process. “When people say I

changed the culture of Boeing, that was the intent, so it's run like a business rather than a great engineering firm," Harry Stonecipher, head of McDonnell Douglas who became Chief Operating Officer of Boeing after the merger in 2003, told the *Chicago Tribune* in 2004. "It is a great engineering firm, but people invest in a company because they want to make money."

One of the results of the cultural shift, one that would prove lethal, was the Boeing 737 MAX passenger jet. The new jetliner proved immensely popular with airlines across the globe because it was reliable and simple to operate. Over 10,000 aircraft were delivered by the time of the first flight of the Boeing 737 MAX in 2017. One of the reasons for that popularity was that each new generation of the airliner retained enough commonality with older versions that a pilot experienced in an older version could transition to a new version without having to be recertified as qualified to fly by the FAA, saving the airlines money. The problem, however, was that as the new versions of the plane got longer and heavier, each version would require a bigger, more powerful engine. This increase in size created ground clearance problems for the 737 Max series, given that it was a plane that had been originally designed to be close to the ground.

With the MAX 8, Boeing, under the influence of the cost-cutting mentality brought into the company by the McDonnell Douglas managers, took short cuts to avoid re-engineering the entire aircraft. Instead of redesigning it with longer landing gear, they moved the engines forward and upward on the wing, which changed the aerodynamics of the aircraft. In short, the repositioning of the engines created a tendency of the aircraft to pitch up, especially at low speeds, a situation that could prove fatal right after takeoff.

But instead of fixing the aerodynamics problem, Boeing went for a software fix, a flight management computer called the "Maneuvering Characteristics Augmentation System," or MCAS. "It all comes down to money, and in this case, MCAS was the way for both Boeing and its customers to keep the money flowing in the right direction," wrote Gregory Travis, a software engineer, and a pilot, in the *IEEE Spectrum* in 2019. By telling the FAA, operators, and pilots that the 737 MAX was really the same aircraft as earlier generations of the aircraft, they avoided recertification of both the aircraft and pilots. However, as Travis demonstrated, it was not the same aircraft.



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A cultural shift took place at Boeing after its 1997 merger with McDonnell Douglas, with lethal results in the 737 MAX 8 (shown here in 2016), as cost-saving short cuts replaced thorough engineering.

According to Travis, MCAS was designed with redundancy, with two separate systems, just as there are two separate sets of instruments in the cockpit, one for the pilot and one for the co-pilot. What the MCAS does is push the nose of the plane down automatically if it detects that it's pitching too high, in order to avoid a stall. Only one of the computers is operating at a time. If one of the computers gets bad data, such as from a failed sensor, there is no cross check built into the system to determine which one is right, analogous to the two pilots checking each other's instruments and troubleshooting the problem. Instead, the MCAS will continue to believe the bad data and override the ability of the pilots to fly out of the problem.

Money, Money, and Military Money

The shortcuts that Boeing took, as revealed in a House of Representatives Transportation and Infrastructure Committee investigation, created the conditions that led to the crash of the Lion Air flight in Indonesia in October 2018 and an Ethiopian Airlines flight in March of 2019, which together killed 346 passengers and crew.

In addition to inheriting McDonnell Douglas's cost-cutting mentality, Boeing also inherited its military business, based in St. Louis, which built the F-15 Eagle and F-18 Hornet jet fighters. One of the more infamous products of Boeing's military business in St. Louis is the Joint Direct Attack Munition (JDAM), which is little more than a gravity bomb with a GPS guidance kit attached to it, allowing pinpoint accuracy at a range of up to 28 km from the release point. The JDAM was developed in the aftermath of the 1991 Gulf War in which the U.S. Air Force found that it lacked a guided munition

that worked in all kinds of weather. The Air Force embarked on a program in the mid-1990s to develop a GPS-guided munition with five different contractors, one of which was McDonnell Douglas, which won the first production contract in 1997, just prior to the merger with Boeing.

The JDAM first came to public attention in 1999, when five 2,000-pound bombs were dropped from a B-2 stealth bomber onto the Chinese embassy in Belgrade during NATO's 1999 Allied Force bombing campaign against Serbia. Since that time, JDAMs have been used in every air campaign involving the U.S. military and many of its allies. This includes the Saudi war in Yemen, where the Saudis proved adept at bombing schools, funerals, and other civilian targets but not in ending the war.

According to a report in *Air Force Magazine*, some 430,000 JDAM kits had been sold to the military by February of 2020, with production continuing. A modified version of the JDAM kit is also being applied to the



USN/Michael W. Pendergrass

Boeing also inherited McDonnell Douglas' military business, producing the infamous, pinpoint accuracy of the Joint Direct Attack Munition (JDAM). Shown are 2,000-pound GBU-31 JDAM bombs, developed jointly by Lockheed Martin and Boeing (McDonnell Douglas), on the aircraft carrier USS Harry S. Truman.

B61-12 air dropped nuclear bomb, giving a pilot the ability to drop it with pinpoint accuracy on a target, leading to charges by anti-nuclear activists that it is "more usable" and thus more likely to be used than previous versions of the bomb.

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The Great Leap Backward: LaRouche Exposes the Green New Deal

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Already being implemented, this plan is taking over the direction of national economies from sovereign governments, using the power of central banks and the too-big-to-fail private financial institutions, cutting off credit to fossil fuel power generation and to industrial and agricultural enterprises claimed to emit too much carbon. Meanwhile it is creating a new huge bubble in the "sustainable fuel" sector, hoping to prop up the increasingly bankrupt financial system.

Stopping it by returning to a Hamiltonian American System credit policy, requires an understanding which is the purpose of this report.

EIR
Special Report

The Great Leap Backward LaRouche Exposes The Green New Deal



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