

Failure of Boeing spacecraft strands 2 astronauts on the International Space Station

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On August 24, NASA announced that astronauts Barry “Butch” Wilmore and Sunita “Suni” Williams would remain aboard the International Space Station until next year after a return via the spacecraft on which they arrived, Boeing’s Starliner, was deemed unsafe.

The Starliner will return to Earth uncrewed in September, and Wilmore and Williams will return to Earth using a SpaceX Dragon capsule, which will arrive with the Crew-9 mission in September and depart the ISS next February or March.

Williams and Wilmore arrived at the ISS on June 6, 27 hours after their launch from Cape Canaveral the day before, and were originally slated to stay for eight days before returning to Earth on June 14. Before the craft docked with the station, however, three helium leaks in its propulsion system were discovered, in addition to one discovered before launch.

And just hours before docking, it was discovered that five of the Starliner’s 28 reaction-control system thrusters, used for fine maneuvering to dock with the ISS, were experiencing intermittent failures.

While the skill and training of the astronauts flying the capsule, supported by engineers on the ground, meant that they were ultimately able to ensure a safe docking of the Starliner with the ISS, immediate questions were raised about the safety of the vessel for reentry, two in particular:

First, can Starliner safely leave the vicinity of the ISS without causing potentially catastrophic damage? And what is the possibility that current or further issues will cause the vessel to burn up as it crashes into Earth’s atmosphere, killing those on board?

Even up to August 2, Boeing claimed it was “confident” that Starliner could “return safely with crew” and continued to insist that Wilmore and Williams could board the Starliner and depart.

In reality, Boeing was attempting to protect its bottom

line, as it has in the massive safety scandal over the company’s 737-MAX aircraft. The company has suffered numerous setbacks in 2024, starting with the blowout of a door on an Alaska Airlines flight of a 737 MAX 9 in January and continuing with a slew of accidents, some near-fatal, on virtually all types of Boeing commercial airlines in service.

In addition, numerous whistleblowers have come forward exposing an internal culture at Boeing of profits over quality and safety, citing numerous examples of management forcing workers to make planes faster and ignoring the inevitable quality issues that cropped up, all at the expense of the safety of the flying public.

Among them were John “Mitch” Barnett and Joshua Dean, both of whom had devastating testimony against Boeing but died mysterious deaths before they were able to fully provide what they knew.

The corporation was no doubt hoping that a successful Starliner launch would put to rest at least some of the concerns that have been building over its competency at building intricate flight machinery, and help to bolster its stock price, which is down more than 31 percent since the beginning of the year.

Instead, Starliner has even more exposed Boeing’s subordination of safety to profit, both for commercial flights and the far more perilous endeavor of space flight.

Boeing first unveiled its design for the Starliner, also known as the CST-100, in 2010. The basic design is a reusable capsule and expendable service module, modeled after the Apollo era command and service modules. Over the next four years, it received an estimated \$586.9 million for further development and production. In 2014, it received a \$4.2 billion contract to complete the Starliner.

Elon Musk’s SpaceX received \$2.6 billion to develop its Dragon capsule under the same program.

Starliner was almost immediately plagued with design

problems. After the Unmanned Orbital Test flight in 2019 was deemed a partial failure, NASA officials demanded a second test flight, which occurred in 2022. Finally, after a decade and going \$1.5 billion over budget, NASA authorized the current mission, the Boeing Crew Flight Test.

Even before launch, it was replete with issues. The first launch attempt was on May 6 and was aborted because of a faulty oxygen release valve on the upper stage of the Atlas V launch vehicle. The first of several helium leaks in the Starliner was subsequently discovered.

The second launch attempt on June 1 was scrubbed after a power supply failed for a launch computer.

And while the third launch on June 5 was successful, it went ahead without a fix for the helium leak discovered in May. The subsequent leaks that developed while the Starliner was in orbit suggest a deeper problem with the propulsion system.

It also suggests that the Starliner's crewed launch should have been further delayed for the safety of the crew. Clearly, NASA felt pressure from Boeing to go ahead with the launch.

And Boeing itself is no doubt facing multiple pressures for a successful launch. Its direct competitor, SpaceX, has had eight successful launches to the ISS, giving it the inside track as NASA and the US government are looking for further options to reduce its reliance on Russian Soyuz capsules to ferry astronauts to space.

Since the US-sponsored Maidan coup in Ukraine and the 2022 US-NATO provoked invasion of Ukraine by Russia, the US government has been feverishly seeking to divorce itself from extensive ties to the Russian space agency Roscosmos as it prepares for war with Russia and ultimately China.

Boeing's Starliner is an integral part of this plan. The more "made in America" rockets that exist, the more secure are the war plans.

But as both Boeing and US capitalism are discovering, space is an unforgiving mistress. The hard physical realities of orbital mechanics, life support in a vacuum and the dangers of rocketing through Earth's atmosphere are not overcome by simply throwing more money at the problem. Genuine and precise physics and engineering are required, and shortcuts result in death.

The question arises why NASA continued to trust Boeing to build spacecraft after two of its MAX 8 jets faulted and crashed in 2018 and 2019, killing all 346 men, women and children on board. Boeing is not trusted by the flying public to operate planes; what could one

possibly expect in the much more hostile arena of outer space?

Ultimately, the problems of the Starliner are the result of the privatization of the space industry, where private companies are handed the reins and the expanse beyond Earth's atmosphere is given over to the playground for the super rich.

For all the accolades given to the fascistic Elon Musk for having a craft that is slated to rescue the stranded astronauts and bring them home next year, his own record is hardly spotless. Three out of four test launches of SpaceX's Starship have ended in a loss of the vehicle, all the result of Musk and NASA more interested in launching the rockets to show "progress" and claiming "success" instead of proper engineering and ground testing.

And for all the claimed innovation of both Boeing and SpaceX, neither are using technology that is particularly novel. They are still based off of the designs of the 1950s and 60s, and even the Starship only has 45 percent the thrust capacity of the Saturn V, the rocket that launched the Apollo astronauts to the Moon.

The helium pressurization technology at the center of the Boeing Starliner crises predates even the 1950s.

The development of space technology under capitalism has remained stagnant since the end of the Apollo program in 1972. The only real advance has been that the price per pound to launch unmanned vehicles has dropped significantly in the past few decades.

To date, Williams and Wilmore remain safe on the ISS and will not be returning on the Starliner. The final analysis of that vessel will be after its return to Earth, or perhaps after it burns up during reentry.

It will take a far more enlightened human civilization, one based on scientific and rational planning and which has overthrown the retrograde shackles of capitalism, to make a true attempt to reach the planets and the stars.



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