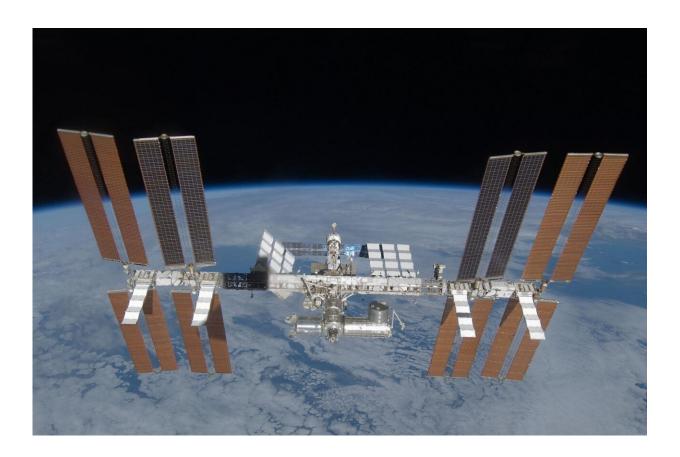


Boeing's Starliner launches on historic first human spaceflight

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A pair of NASA astronauts have finally taken their historic ride on Boeing's CST-100 Starliner making its first-ever human spaceflight on the morning of June 5.



Barry "Butch" Wilmore and Sunita "Suni" Williams were back for a third time in a month once again taking a ride out to Cape Canaveral Space Force Station's Space Launch Complex 41 to climb on board the spacecraft sitting atop a United Launch Alliance Atlas V rocket that lifted off at 10:52 a.m. to take the pair to the International Space Station.

"Let's get going," said Wilmore minutes before launch. "Let's put some fire in this rocket and let's push it to the heavens where all these tough Americans have prepared it to be."

The pair are flying the Crew Flight Test mission, a followup to two uncrewed test flights of Starliner, the first of which came in 2019. That mission was a partial failure as it was not able to rendezvous with the ISS forcing a 2.5-year delay to Boeing's program to remedy hardware, software and management issues.

The second uncrewed test flight in 2022 made it to the ISS, but postlaunch review and preparation for the CFT brought further delays with more hardware issues popping up.

But half a decade later, Williams and Wilmore were set to fly, entering quarantine on April 22. Finally, on May 6, they tried for the first time to take off from the Space Coast, but an issue with a fluttering valve on ULA's upper Centaur stage scrubbed that attempt with about two hours to go on the countdown clock. Then a second attempt this past Saturday was scrubbed within four minutes of launch because of ULA computers not synching at the <u>launch pad</u>.

"I am very impressed with my colleagues for being such optimists and such professionals." said NASA astronaut for future Starliner crew member Mike Fincke during NASA's live commentary leading up to launch.



"They've been in quarantine for a long time. You know we've been waiting for over five years to get Starliner launched, but they are very, very excited about today. You can see that they're focused on getting the job done and they are very ready for this mission."

The duo began suiting up before 6 a.m. at KSC's Neil Armstrong Operations & Checkout Building venturing out after 7:30 a.m. to climb aboard the updated Starliner-themed Airstream Astrovan for the ride over to neighboring Cape Canaveral and make their way back on board the Starliner spacecraft.

Before driving over, they played a traditional prelaunch game with chief of the astronaut office, Joe Acaba, not leaving until they had lost to Acaba—this time in a quick game of Rock, Paper, Scissors. The idea is that losing that game is the worst thing that happens on a launch day.

"Speaking as a child of the 70s, a lot of us watched "Mr. Rogers Neighborhood" and Mr. Rogers would tell us to take our time to do it right, and that's what we're doing here," Fincke said.

Just before 9 a.m., teams waited for the conclusion of a weather brief before moving forward with hatch closure, but were given the go for hatch closure with less than two hours to go before launch.

"We are ready. We're smiling out here, see you in a couple weeks," said Wilmore.

If they manage to lift off, the astronauts will spend just over 25 hours making their way to the ISS where they will spend about eight days on board before returning to Earth for a landing in one of five locations in the desert in the southwestern United States.

"Today is a great day to put on a spacesuit and climb into a spacecraft



and go launch," Fincke said.

If successful, this will be the final required mission for Boeing under NASA's Commercial Crew Program to achieve certification and set up regular rotational missions to the ISS, sharing duties with SpaceX.

"We need that access," said NASA Associate Administrator Jim Free. "So right now, we have one provider giving us that access to the space station. This will give us a second provider, which means if we have a problem with either, we have ways to get our crews to and from station, which helps keep the tempo that we've had for 23 years of having humans in low-Earth orbit, but also that opportunity to get the crews back if there's an issue at all and keep that presence going."

Wilmore and Williams will spend time on both the way up and down from the ISS testing out manual control overrides among other facets of the mostly automated spacecraft.

"There's a thought of how things should be, but then there's the reality of how things need to be," said Wilmore ahead of the launch attempt.

"That's what this test is all—everything we do is test. It's been a process over the years that is such a benefit in all aspects of the capabilities of this spacecraft, and we're excited to be a part of it."

The pair are former Navy test pilots and veterans of two spaceflight each, with both having traveled on board Russia Soyuz capsules as well as the space shuttle. Wilmore is commander and joined NASA's astronaut corps in 2000 while Williams joined in 1998.

Williams was given the honor to name the capsule after it landed, and dubbed it Calypso, in deference to oceanographer Jacques Cousteau's famed vessel. The zero-gravity indicator for the mission follows the maritime theme, a stuffed narwhal that is also named Calypso.



The flight comes just over four years since SpaceX made its first crewed flight to the ISS with its Crew Dragon spacecraft, which has since flown 13 times carrying 50 humans to space. That includes the four members of Crew-8 awaiting along with the rest of the seven-person crew of Expedition 71 aboard the ISS.

ISS crew members Jeanette Epps and Tracy Dyson recorded a message for Williams and Wilmore ahead of their last attempt to launch this past Saturday.

"We'll be monitoring your every move on the journey and we'll be waiting to open the hatch and welcome you to your home away from home."

"We know you've waited a while to get your ride aboard Starliner, but we know it will have been worth every minute," Epps added. "So from all of us on the International Space Station, godspeed and we'll see you soon."

Starliner is only the sixth ever U.S.-based spacecraft to fly with NASA astronauts following Mercury, Gemini, Apollo, the space shuttle and SpaceX's Crew Dragon. Williams is the first woman to fly on an orbital test flight among NASA's spacecraft.

It also marks a return of human launches from Cape Canaveral's launch pads, which last saw a crewed flight in 1968 with the launch of Apollo7. Every Apollo mission afterward as well as the space shuttle and Crew Dragon launches have come from nearby Kennedy Space Center.

It's the first time an Atlas V will fly with humans as well, although earlier iterations of the Atlas rocket flew several human spaceflights in the early 1960s, including John Glenn's historic trip to space as the first



American to each orbit in 1962. This also marks the 100th launch of an Atlas V rocket.

Starliner will also become the first U.S.-based capsule to make a land touchdown as Crew Dragon, Apollo, Gemini and Mercury all made waterlandings, as will the Artemis program's Orion capsule that has yet to fly with humans. Russia's Soyuz, though, features land touchdowns.

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