

Countdown begins for US shuttle Endeavour

May 14 2011



US space shuttle Endeavour crew (left to right) Commander Mark Kelly, Greg Chamitoff, Andrew Feustel, Roberto Vittori, Michael Fincke and Pilot Greg Johnson wave at Kennedy Space Center, Florida on May 12 as they prepare for the shuttle countdown. Endeavour and her crew are being prepared for a second attempt on their final planned launch May 16 to the International Space Station.

Countdown has begun for the final flight of the Endeavour, scheduled to lift off Monday on the American space program's second to last mission to the International Space Station.

Astronauts will deliver a potent physics experiment to probe the origins of the universe during the 16-day mission, which will include four spacewalks.

The 30-year US [space shuttle program](#) formally ends later this year after the last flight of Atlantis, leaving Russia's [space](#) capsules as the sole option for world astronauts heading to and from the orbiting research

lab.

Two weeks after technical problems postponed the launch of Endeavour, engineers have fixed the problem and the weather forecast was 70 percent favorable for Monday's 8:56 am (1256 GMT) blastoff, NASA said.

"The trouble shooting done over the last two weeks is now complete," NASA shuttle test director Jeff Spaulding said Friday, describing extensive tests done to assure that the power problem was fixed.

"All the retests are complete, it's good and we are ready to go from that perspective," he said.

The initial April 29 launch attempt was scrubbed hours before liftoff when technicians discovered a power failure in a heating line that served to prevent fuel from freezing in orbit.

Countdown to Monday's launch officially began on Friday at 7:00 am (1100 GMT) after the six-member crew of astronauts including five Americans and one Italian, Roberto Vittori, arrived at Kennedy Space Center on Thursday.

NASA weather officer Kathy Winters said that if a 24-hour postponement is needed, the likelihood of good weather would slip to 60 percent.

The final rollback of the massive service structure around the shuttle is set for midday Sunday, marking the last major movement on launchpad 39A before the spacecraft is loaded with crew for take off.



US space shuttle Endeavour is seen on launch pad 39A at Kennedy Space Center, Florida on March 11, 2011. Countdown has begun for the final flight of the Endeavour, scheduled to lift off on May 16 on the American space program's second to last mission to the International Space Station.

Fueling of the [external fuel tank](#) is set to begin at 11:36 pm Sunday night (0336 GMT Monday) in anticipation of the early morning launch.

The key mission of Endeavour's trip to the orbiting research lab is to deliver a massive physics experiment, the Alpha Magnetic Spectrometer-2, which will be left behind to scour the universe for hints of dark matter and antimatter.

US congresswoman Gabrielle Giffords of Arizona, the wife of shuttle commander Mark Kelly, will watch the launch from [Kennedy Space Center](#), her office said.

Giffords, who was allowed by her rehab doctors in Houston to fly to

Florida to watch the planned April 29 launch, was shot in the head in January during a meeting with local voters.

The bullet tore through the left side of her brain, and she has been undergoing grueling rehabilitation to regain speech and movement on her right side.

Endeavour's delay has pushed back Atlantis's planned liftoff from June 28 to mid-July, but no final date has been set.

After the final shuttle missions, the three spacecraft in the flying fleet and the prototype Enterprise will be sent to different museums across the country.

Discovery was the first shuttle to retire after its last journey to the ISS ended in March.

Once the [shuttle](#) program formally ends, the world's astronauts will rely on Russia's space capsules for transit to the ISS at a cost of 51 million dollars per seat until a new American spacecraft can be built by private enterprise, possibly by 2015.

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