

Shuttle Atlantis coming in for one final landing

July 21 2011, by Jean-Louis Santini



This NASA photo shows the International Space Station taken by Atlantis' STS-135 crew as the shuttle departed the station on July 19. Atlantis has begun its re-entry into Earth's atmosphere ahead of a final homecoming that brings down the curtain on NASA's 30-year space shuttle program.

Atlantis began its re-entry into Earth's atmosphere Thursday ahead of a final homecoming that brings down the curtain on NASA's 30-year space shuttle program.

The shuttle's orbital maneuvering engines fired at 4:49 am (0849 GMT), slowing the shuttle just enough for its fiery re-entry into Earth's atmosphere as the team neared the end of the historic landing at [Kennedy Space Center](#).

"Atlantis starts the beginning of the end of a journey that started with the aerodynamic testing of a craft called Enterprise in 1977, punctuated by the maiden launch of Columbia in 1981, culminating this morning with a night flight to the Kennedy Space Center," mission control's commentator in Houston said.

NASA meteorologists were forecasting perfect conditions for the shuttle's pre-dawn landing at 5:56 am (0956 GMT). Mission control described a "gorgeous night at the Kennedy Space Center," with clear skies and hardly any wind.

"Sounds pretty promising to me," commander Chris Ferguson told mission control.

Earlier the crew woke to the song "God Bless America," in preparation for the bittersweet end to the storied shuttle career, 42 years after US astronaut [Neil Armstrong](#) became the first person to step foot on the Moon as part of the [Apollo 11 mission](#).

"Forty-two years ago today, Neil Armstrong walked on the moon and I consider myself fortunate that I was there to actually remember the event," Ferguson told mission control late Wednesday, recalling the images of July 20, 1969.

"It is kind of interesting to be here on the final night of the shuttle mission. We don't quite know what to think. We are just trying to take it all in."

Atlantis' final descent to Earth

The shuttle's last mission marks the final flight of the 30-year US space shuttle programme




STS-135 mission team:
Rex Walheim, Doug Hurley,
Chris Ferguson, Sandra Magnus

Key facts	
Flights	33
Crew	207
Maiden voyage	Oct 3, 1985
Final mission	July 8-21, 2011

Source: NASA AFP

Factfile and photos of the US space shuttle Atlantis, which left the International Space Station for the final time on Tuesday

Ferguson then read a quote by Apollo-era flight director Gene Kranz, best known for leading mission control's successful effort to save the Apollo 13 astronauts after an oxygen tank exploded on a trip to the Moon.

"I pray that our nation will someday find the courage to accept the risk and challenges to finish the work that we started," the commander said,

calling the quote by Kranz, whose hero role was showcased in a 1995 movie starring Tom Hanks as an astronaut and Ed Harris as Kranz, "very appropriate."

The Atlantis landing will end an era of US dominance in human space exploration, leaving Russia as the sole taxi to the International Space Station until a replacement US capsule can be built by private industry.

The four US crew members on [shuttle mission](#) STS-135 are wrapping up a successful trip to restock the ISS for a year with several tons of supplies and food.

Over the course of the program, five NASA shuttles -- Atlantis, Challenger, Columbia, Discovery and Endeavour -- have comprised a fleet designed as the world's first reusable space vehicles.

The first shuttle flight to space lifted off April 12, 1981.

Columbia and Challenger were destroyed in accidents that killed their crews, leaving only three in the space-flying fleet and Enterprise, a prototype that never flew in space. The quartet will become museum pieces in the coming months.



Space shuttle Atlantis blasts off from launch pad 39A at Kennedy Space Center, on July 8, in Cape Canaveral, Florida. Atlantis has begun its re-entry into Earth's atmosphere ahead of a final homecoming that brings down the curtain on NASA's 30-year space shuttle program.

Critics have assailed the US space agency for lacking a focus with the space shuttle gone and no next-generation human spaceflight program to immediately replace it.

The astronaut corps now numbers 60, compared to the 128 employed in 2000, and thousands of people are being laid off from Kennedy Space Center. But NASA chiefs say future missions to deep space should revive hope in the US program.

"We have just not done a good job of telling our story. NASA is very busy," the agency's administrator Charles Bolden told CNN.

"The president said to us, 2025 for an asteroid and 2030 to Mars. We have a lot of work to do ahead."

NASA is building a Multi-Purpose Crew Vehicle that hopes to reach that goal, while it turns over low-orbit space travel and [space](#) station servicing to commercial ventures.

A commercial launcher and capsule built by a private corporation in partnership with NASA may be ready to tote crew members as early as 2015.

Until the private sector fills the void left by the shuttle's retirement, the world's astronauts will rely on Russian Soyuz rockets for rides to the ISS.

NASA flight director Tony Ceccacci said his team was just trying to keep emotions at bay and focus on getting the [shuttle](#) home safely.

"We have a motto in the [mission control](#) center that flight controllers don't cry, so we are going to make sure that we keep to that."

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