

# US shuttle, the most complex flying machine ever built

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The US space shuttle is the most complex and costly flying machine ever built. It helped build a pioneering space outpost but also kept Americans confined to low Earth orbit for 30 years.

As the shuttle program prepares to retire after Atlantis lands Thursday for a final time, here are some key facts about the iconic US spacecraft.

## COSTS:

The three-decade [space shuttle program](#), NASA's most enduring project in its 50 years of existence, cost a total of \$208 billion (in 2010 dollars) compared to \$151 billion spent on Apollo which put Americans on the moon in 1969.

In 2010, NASA said the cost to prepare and launch a single [shuttle mission](#) was approximately \$775 million.

## ORIGIN:

Officially known as the Space Transportation System (STS), the program was formally launched by president [Richard Nixon](#) in 1972 to make spaceflight a possibility for common people, not just the educated elite.

## CAPACITY:

The shuttle could fly at speeds of 17,500 miles (28,160 kilometers) per hour and was designed to maneuver in [low Earth orbit](#) at 100 to 400 miles (160-640 kilometers) high.

Its largest crew size reached eight people (STS-61A and STS-71's return from the Russian space station Mir). Its smallest crews were two people on each of the first four test missions STS-1 through STS-4.

#### FIRST FLIGHT:

Columbia lifted off from Launch Pad 39A at NASA's [Kennedy Space Center](#) in Florida on April 12, 1981.

#### LAST FLIGHT:

Atlantis took off from the same launch pad on July 8, 2011 and returns on July 21, carrying a four-member US crew after a 13-day mission to the [International Space Station](#) (ISS).

#### KEY ATTRIBUTES:

With about 2.5 million moving parts, the shuttle possessed a 60-foot-long (18-meter) 15-foot (4.5 meter) wide payload bay for cargo and a [robotic arm](#) that could carry several satellites into orbit at once.

#### SIZE:

The orbiter measures 122 feet (37 meters) long and 57 feet (17 meters) high on the runway. Its wingspan is 78 feet (24 meters).

#### NAMES:

Each space shuttle is named after an influential ship in history. The

prototype Enterprise, which never flew in space, was supposed to be named Constitution but was coined Enterprise after the starship on the popular series Star Trek, following a massive write-in campaign by fans.

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