

legacy

BUILDING THE FUTURE

The lessons learned from more than 50 years of technological advancements and space exploration missions have made NASA's Constellation Program possible. Because of the successes of our past, we will explore new frontiers and build a future from our legacy.



MERCURY AND GEMINI

1961 – 1966

Project Mercury launched Americans into space for the first time, and during Project Gemini, we traveled higher and longer. We also learned how to rendezvous and dock – two skills that were necessary to go to the moon.



APOLLO

1968 – 1972

The Apollo Program landed humans on the moon and returned them safely to the Earth. Neil Armstrong and Buzz Aldrin took the first steps on the moon on July 20, 1969, during Apollo 11.



SHUTTLE

1981 – PRESENT

The space shuttle has been the United States' workhorse in space since 1981. During the past 25 years the shuttle fleet has aided in the assembly of the International Space Station, the deployment and servicing of satellites such as the Hubble Space Telescope, and hundreds of science missions.



INTERNATIONAL SPACE STATION

1998 – PRESENT

The International Space Station is the largest human-made object in space and the most complex international project in history. Led by the United States with the cooperation of 14 other nations, construction of the station has crossed cultural, language and technological borders.

National Aeronautics and Space Administration



"We leave as we came and, God willing, as we shall return, with peace and hope for all mankind."

– Eugene Cernan
Apollo 17 Commander
Last person to walk on the moon
December 14, 1972

The next giant leap
has begun.

For more information on NASA's Constellation Program, please visit <http://www.nasa.gov/constellation>

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AMERICA'S NEW SPACESHIPS

The greatest adventures always begin with a small step.

Whether it was sailing on open seas in search of new worlds, moving west and exploring new frontiers, or lifting our eyes higher and imagining what it would be like to visit our nearest neighbor in the sky, those journeys began with a small, simple step. Those steps led to giant leaps that changed history, expanded our understanding of the world and pushed the boundaries of possibility.

From 1969 to 1972, 12 humans landed on the moon and explored its surface. Since that time, the space shuttle and the International Space Station have taught us how to live and work in space. Our ability to operate in such a challenging environment has expanded, and with the lessons learned to take us even further, we once again lift our sights to the moon.

Why go back? NASA's Constellation Program, which is developing the Orion spacecraft, the Altair lunar lander and the Ares rockets, will take humans to the moon for the first time in 50 years, but this time we will stay. We will build a lunar outpost and will live and work on the moon's surface. The moon still has many scientific mysteries to reveal to us, and it will teach us what we need to know for our next giant leap: putting human footprints on Mars and exploring even farther into the solar system.

This new journey has begun, and work is under way across the United States to build the spacecraft and technologies that will take us on that journey. We invite you to explore with us as we work to take these first steps that will lead to our next giant leap.

ARES I

CREW LAUNCH VEHICLE

Ares I will launch the Orion crew exploration vehicle into orbit to rendezvous and dock with the International Space Station or the Altair lunar lander. The rocket has a single five-segment solid rocket booster and combines propulsion technology from both the space shuttle's solid rocket booster and Apollo-era engines.

ARES V

CARGO LAUNCH VEHICLE

The Ares V will launch the Altair lunar lander and the Earth departure stage to orbit for missions to the moon. It will be the largest rocket ever built and will stand taller than the Saturn V rocket from the Apollo program.

ORION

CREW EXPLORATION VEHICLE

The Orion crew exploration vehicle will succeed the shuttle as NASA's primary vehicle for human space exploration. It is more than twice the size of an Apollo capsule and can carry four to six people to the space station, moon and beyond.

ALTAIR

LUNAR LANDER

The Altair lunar lander will carry four astronauts to the surface of the moon. It will be launched separately from Orion and the two will dock together in low-Earth orbit. Altair will provide life support and a base for the crew while on the lunar surface for up to seven days and can also be flown unmanned for cargo missions.

