

THE VISION FOR SPACE EXPLORATION

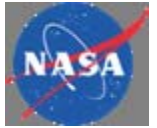
Bringing the Vision to Reality

Announced in 2004, the Vision for Space Exploration communicates the United States' and NASA's commitment to a long-term human and robotic program to explore the solar system – starting with a return to the moon that will ultimately enable future exploration of Mars and other destinations. The Vision affirms our commitment to manned space exploration and gives NASA a new focus and clear objectives. It is affordable and sustainable while maintaining the highest levels of safety.

The Vision for Space Exploration is based on the following strategic goals:

- Fly the shuttle as safely as possible until its retirement, not later than 2010.
- Complete the International Space Station in a manner consistent with NASA's international partner commitments and the needs of human exploration.
- Develop a balanced overall program of science, exploration and aeronautics consistent with the redirection of human spaceflight program to focus on exploration.
- Bring a new Crew Exploration Vehicle into service as soon as possible after the shuttle retirement.
- Encourage the pursuit of appropriate partnerships with the emerging commercial space sector.
- Establish a lunar return program having the maximum possible utility for later missions to Mars and other destinations.

The Vision for Space Exploration does not require large budget increases. In fact, NASA's total budget accounts for only 0.7% of the total federal budget.



CONSTELLATION

Before the end of the next decade, NASA astronauts will again explore the surface of the moon. And this time, we're going to stay, building outposts and paving the way for eventual journeys to Mars and beyond. There are echoes of the iconic images of the past, but it won't be your grandfather's moon shot.

This journey begins soon, with development of a new spaceship. Building on the best of Apollo and shuttle technology, NASA's creating a 21st century exploration system that will be affordable, reliable, versatile and safe. The program is called Constellation and is managed by NASA's Exploration Systems Mission Directorate.

The centerpiece of this system is a new spacecraft designed to carry four astronauts to and from the moon, support up to six crewmembers on future missions to Mars, and deliver crew and supplies to the International Space Station.

In just five years, the new ship will begin to ferry crew and supplies to the International Space Station. Plans call for as many as six trips to the outpost a year. In the meantime, robotic missions will lay the groundwork for lunar exploration. In 2018, humans will return to the moon.

Once a lunar outpost is established, crews could remain on the lunar surface for up to six months. The spacecraft can also operate without a crew in lunar orbit, eliminating the need for one astronaut to stay behind while others explore the surface.

With a minimum of two lunar missions per year, momentum will build quickly toward a permanent outpost. Crews will stay longer and learn to exploit the moon's resources, while landers make one way trips to deliver cargo. Eventually, the new system could rotate crews to and from a lunar outpost every six months.

