

# SPACE

## A JOURNEY TO OUR FUTURE™

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### **ABOUT NASA**

#### **What Does NASA Do?**

NASA's mission is to pioneer the future in space exploration, scientific discovery and aeronautics research.

To do that, thousands of people have been working around the world -- and off of it -- for almost 50 years, trying to answer some basic questions. What's out there in space? How do we get there? What will we find? What can we learn there, or learn just by trying to get there, that will make life better here on Earth?

#### **A Little History**

President Dwight D. Eisenhower established the National Aeronautics and Space Administration in 1958, partially in response to the Soviet Union's launch of the first artificial satellite the previous year. NASA grew out of the National Advisory Committee on Aeronautics (NACA), which had been researching flight technology for more than 40 years.

President John F. Kennedy focused NASA and the nation on sending astronauts to the moon by the end of the 1960s. Through the Mercury and Gemini projects, NASA developed the technology and skills it needed for the journey. On July 20, 1969, Neil Armstrong and Buzz Aldrin became the first of 12 men to walk on the moon, meeting Kennedy's challenge.

Meanwhile, NASA was continuing the aeronautics research pioneered by NACA. It also conducted purely scientific research and worked on developing applications for space technology, combining both pursuits in developing the first weather and communications satellites.

After Apollo, NASA focused on creating a reusable ship to provide regular access to space: the space shuttle. First launched in 1981, the space shuttle has had 120 successful flights. In 2000, the United States and Russia established permanent human presence in space aboard the International Space Station, a multinational project representing the work of 16 nations.

NASA also has continued its scientific research. In 1997, Mars Pathfinder became the first in a fleet of spacecraft that will explore Mars in the next decade, as we try to determine if life ever existed there. The Terra and Aqua satellites are flagships of a different fleet, this one in Earth orbit, designed to help us understand how our home world is changing. NASA's aeronautics teams are focused on improved aircraft travel that is safer and cleaner.

Throughout its history, NASA has conducted or funded research that has led to numerous improvements to life here on Earth.

## **Organization**

NASA Headquarters, in Washington, provides overall guidance and direction to the agency, under the leadership of NASA Acting Administrator Christopher J. Scolese. Ten field centers and a variety of installations conduct the day-to-day work, in laboratories, on air fields, in wind tunnels and in control rooms.

## **NASA Today**

NASA conducts its work in four principle organizations, called mission directorates:

- Aeronautics: pioneers and proves new flight technologies that improve our ability to explore and which have practical applications on Earth.
- Exploration Systems: creates new capabilities and spacecraft for affordable, sustainable human and robotic exploration
- Science: explores the Earth, moon, Mars and beyond; charts the best route of discovery; and reaps the benefits of Earth and space exploration for society.
- Space Operations: provides critical enabling technologies for much of the rest of NASA through the space shuttle, the International Space Station and flight support.

In the early 21st century, NASA's reach spans the universe. Spirit and Opportunity, the Mars Exploration Rovers, are still studying Mars after more than three years. Cassini is in orbit around Saturn. The Hubble Space Telescope continues to explore the deepest reaches of the cosmos.

Closer to home, the latest crew of the International Space Station is extending the permanent human presence in space. Earth Science satellites are sending back unprecedented data on Earth's oceans, climate and other features. NASA's aeronautics team is working with other government organizations, universities, and industry to fundamentally improve the air transportation experience and retain our nation's leadership in global aviation.

## **The Future**

In the next 20 years, NASA will be laying the groundwork for sending humans not only beyond Earth's orbit, but further into to space than they've ever been. The next key steps are:

- Complete the International Space Station and retire the Space Shuttle by 2010
- Begin robotic missions to the moon by 2008 and return people there by 2020
- Continue robotic exploration of Mars and the Solar System
- Develop a crew exploration vehicle and other technologies required to send people beyond low Earth orbit.

Though nearly 50 years old, NASA is only beginning the most exciting part of its existence.

("About NASA" courtesy [www.nasa.gov](http://www.nasa.gov))