Why Have an International Space Station?

The International Space Station (ISS) is a key component in the NASA Vision to improve life here, to extend life to there, to find life beyond. It is this vision that inspires us to lead the global effort to create an unprecedented outpost in space—the ISS. Much like the expeditions of Magellan, Columbus, and Lewis and Clark, this incredible worldwide endeavor will change the world as it is known today and lead humankind into the uncharted pathways of the future.

NASA's mission is to explore the universe, to search for life, and to inspire generations to better understand and protect our home planet. For more than four decades, we have opened new vistas in science and technology and brought the vastness of the universe to the homefront. By pushing the boundaries of human experience and knowledge, NASA discoveries continue to transform life on Earth. NASA's research and development served as catalysts for the computer age and are now helping to revolutionize many of the goods and services that permeate the fabric of daily life—engineering, medical, rescue, transportation, materials, and communications.

The space station opens a new realm of scientific possibilities with the use of its unique microgravity environment. As an educational outpost, the station inspires a new generation to continue to learn about our world and the universe. As an exploration and engineering endeavor, the station allows humans to live and work in space more productively than ever before.

It is through the ISS that NASA will expand the frontiers of space and knowledge by exploring, utilizing, and enabling the development of space to benefit everyone on Earth.

The ISS team achieves amazing technical feats on a routine basis. Behind the tons of hardware, miles of wire, and millions of lines of computer code, it is the people of this program who stand out as the creators of an enduring achievement. Sixteen countries led by five space agencies in the United States, Russia, Japan, Europe, and Canada accomplished the formation of one integrated team for a common goal.

Key NASA Web Sites

Space Flight for ISS Information  spaceflight.nasa.gov
NASA Home  www.nasa.gov
Aerospace Technology  aerospace.nasa.gov
Biological and Physical Research  sparceresearch.nasa.gov
Earth Science  earth.nasa.gov
Space Science  spacescience.nasa.gov
NASA Education Programs  education.nasa.gov

Pack light: For your 4-month stay, you'll need about 1 ton of supplies. Don't forget the toothpaste.

On Earth, the ISS would weigh about 200 tons, or 400,000 pounds (equivalent to about 140 automobiles).

Residents and visitors: The station has been the long-term residence of 20 expedition crewmembers and has provided lodging to nearly 100 different visitors.

Solar arrays for power (238 by 38 ft)

Radiators for cooling

Port truss (P1)

Canadarm2 Space crane on railcar platform

Destiny Laboratory

Your home in space: The station is about the size of a 3-bedroom home (more than 15,000 cubic ft) with the electrical power to supply more than 10 of the same (~2 kW average/home). It has a wingspan (238-ft solar arrays) greater than a 777 aircraft.

What's Cooking? Since the first crew arrived in November 2000, more than 8,000 meals and 2,700 snacks have been served on the station (3 meals and 1 snack x number of crew members x number of days in orbit).

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To extend life to there,
To find life beyond.

The NASA Mission  To understand and protect our home planet,
To explore the universe and search for life,
To inspire the next generation of explorers
... as only NASA can.

With the blackness of space and Earth's horizon as a backdrop, this full view of the International Space Station was photographed by a crewmember onboard the Space Shuttle Mission STS-113 following the undocking of the two spacecraft on December 2, 2002.