



## The Space Station Chronicles

Even before the success of human spaceflight programs, writers, artists and scientists alike pondered the possibility of sending humans to explore the far reaches of the cosmos.

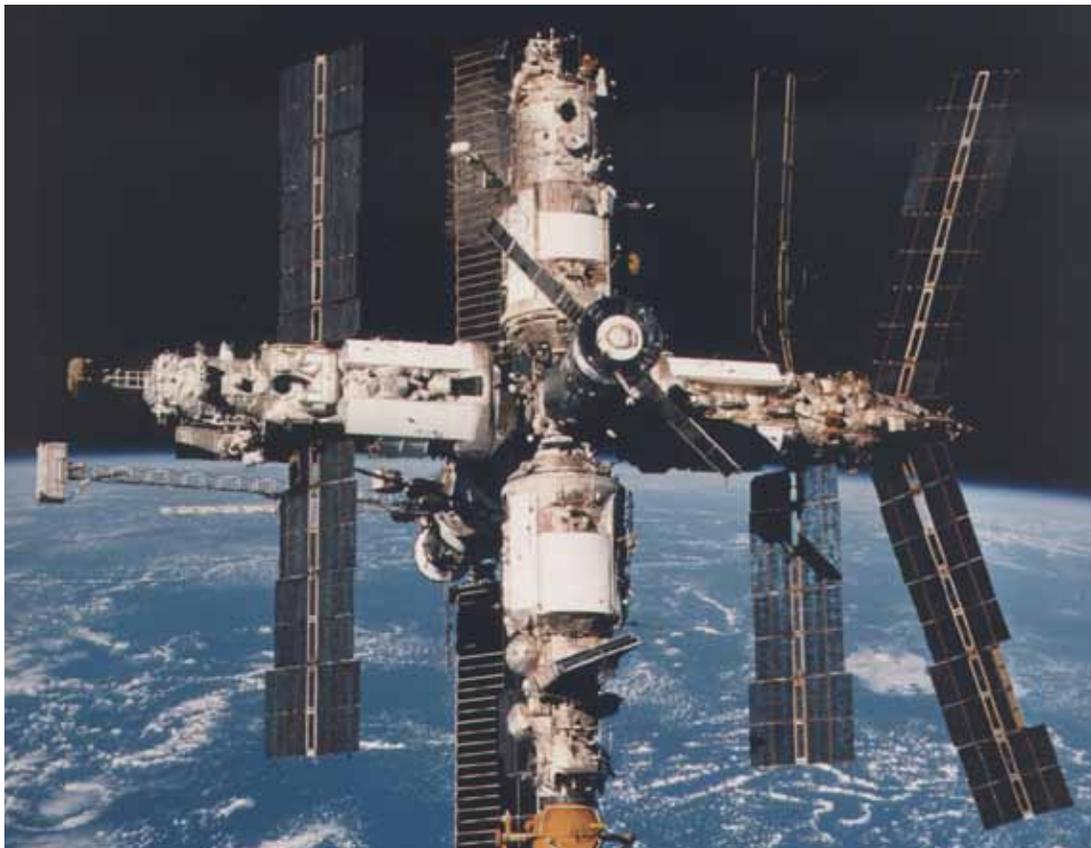
Throughout the early 19th century, many thought of ways to keep a human in space for extended periods of time to conduct research and experience the nature of our universe outside Earth.

These ambitions became a reality in the early 1960s with increasing technological development in the world; specifically, with the progress of human spaceflight programs in Russia and the United States.

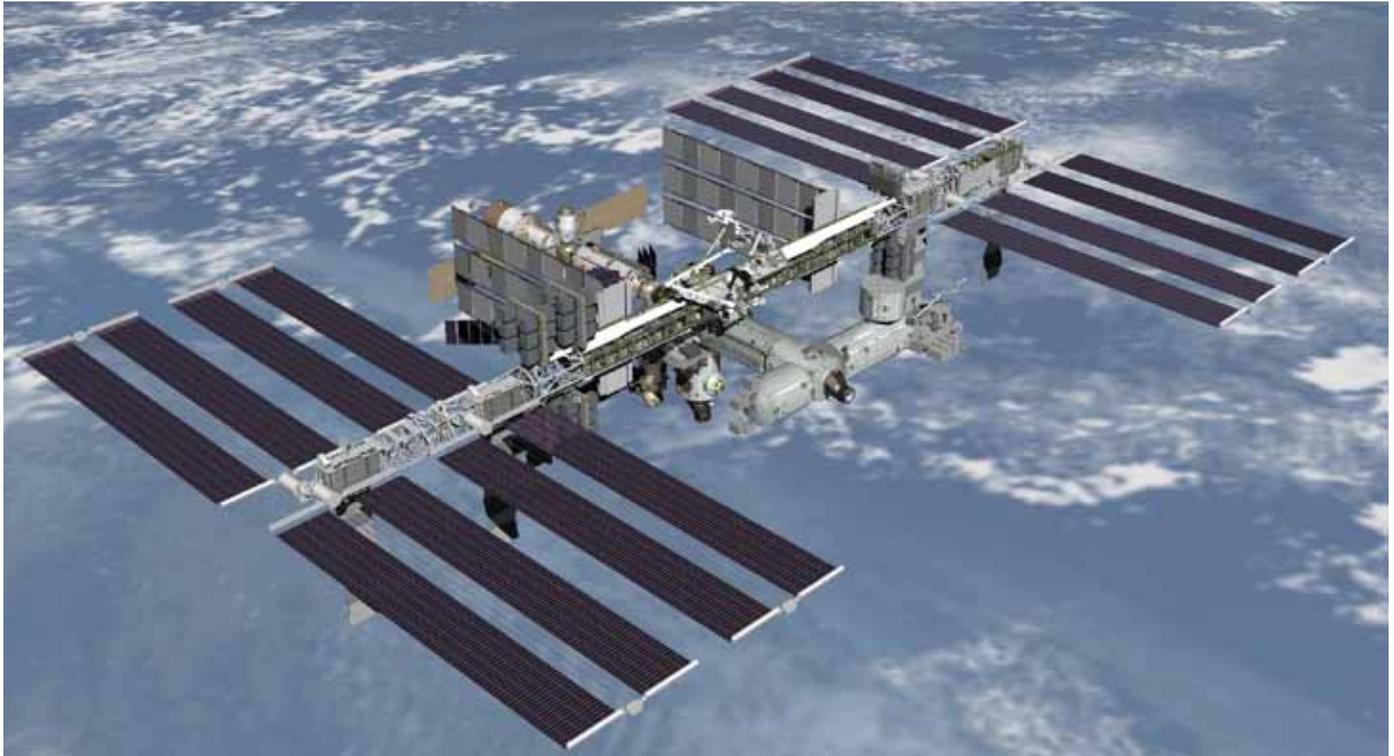
Engineers proposed several designs based on technology at the time for an orbiting space station, in which humans could live and travel.

Russia first accomplished this task in 1971 when they launched Salyut 1, their first orbiting space station. America soon followed and sent its first experimental space station, Skylab, into orbit on May 14, 1973.

Like current space station endeavors, Skylab was designed for long durations. Skylab program objectives were twofold: to prove that humans could live and work in space for extended periods, and to expand our knowledge of solar astronomy



The Russian space station.



**An artist rendering of the space station in orbit.**

well beyond Earth-based observations. Three three-man crews occupied the Skylab workshop for a total of 171 days and 13 hours. It was the site of nearly 300 scientific and technical experiments, including medical experiments on humans' adaptability to zero gravity, solar experiments and detailed Earth resources experiments.

With the success of Russian and American human spaceflight initiatives, a new era for international cooperation dawned. In 1975, the Apollo-Soyuz Test Project would send NASA astronauts in an Apollo command and service module to meet Russian cosmonauts in a Soyuz capsule. A jointly designed, U.S.-built docking module fulfilled the main technical goal of the mission, demonstrating that two dissimilar craft could dock in orbit.

In 1981, America then launched its first space shuttle, STS-1, and resumed human spaceflight. The world had now seen that humans could learn about the universe in an environment outside of our own atmosphere, and in 1984, President Ronald Reagan voiced this vision by announcing the construction of a permanently crewed space station. This marked the birth of what is today

the most complex scientific and technological project ever undertaken—the International Space Station.

What initially started as an eleven-nation agreement with NASA to develop and construct Space Station Freedom soon became a platform for 15 nations, including Russia, to work on space station operations, with an emphasis on affordability.

In February 1986, Russia began construction of its modular space station, Mir. NASA sent seven astronauts and 11 space shuttle visits to Mir as Phase I testing for the future station. The experience gained from these flights was invaluable and set the stage for the design, development and construction of today's International Space Station.

## Space Station Facts

The space station is almost four times as large as the Russian space station Mir, and about five times as large as the U.S. Skylab.

National Aeronautics and Space Administration

**Lyndon B. Johnson Space Center**  
Houston, Texas 77058

**[www.nasa.gov](http://www.nasa.gov)**

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