

Virtual Learning

Aerospace Engineering

Space Stations - Mir

April 22, 2020

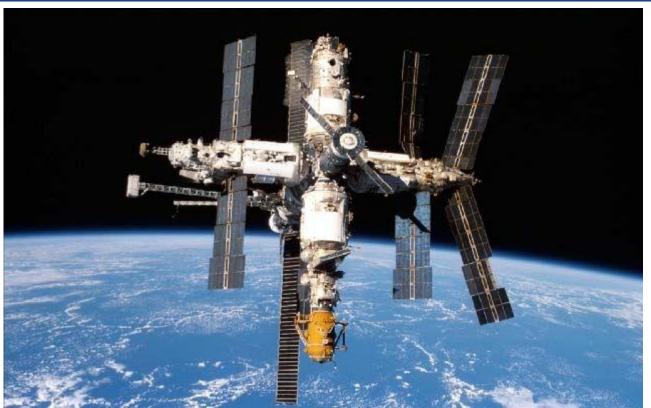


Aerospace Engineering Lesson: April 22, 2020

Objective/Learning Target:

Students will learn about the significance of the space station Mir.







Bell Work:

What was the first working manned Space Station in outer space?





Let's Get Started:

Watch Videos:

- The MIR Space Station And How It Came To Be
- Mir Episode 1 The Core Module



Before You Begin

The Salyut Program - the first space station program, by the Soviet Union. It involved a series of four crewed scientific research space stations and two crewed military reconnaissance space stations over a period of 15 years, from 1971.

Modular Space Station - different parts were shipped up to space and put together to form the whole station.



Mir was a space station that operated for over 15 years in low Earth orbit. It was designed by the Soviet Union, and the station continued to operate under Russia after the Soviet Union fell apart in the early 1990s.

The space station served as an important part of today's International Space Station. Aboard Mir, crews dealt with long-duration stays in space of more than 400 days. Health effects and psychological situations were observed and documented.

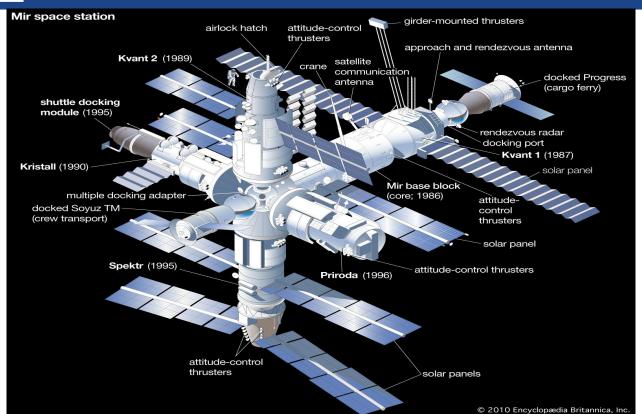


After construction was completed, Mir had multiple facilities. At 43 feet long, the "core" module of the station was the main area where the cosmonauts and astronauts did their work. This also contained the main computer and other vital space station parts. In addition to solar arrays and a docking port, the station had several facilities for orbital science. This included two Kvant modules, for astronomy and science research, Kristall, which was a facility for microgravity manufacturing, and Spektr which focused on Earth work.



In 1993, NASA and Russia made a deal that brought space shuttles to Mir. This would benefit both programs in two ways. It would give NASA astronauts, who had been confined to shuttle flights, some valuable long-term flight experience. For Russia, it would provide them with some badly needed cash as they struggled to keep its expensive spaceflight program alive.







Research the Space Station Mir. Then create a timeline that includes at least 10 dates, and what happened on those dates.