



# INTERNATIONAL SPACE STATION



I will tell you something about International Space Station or ISS. But first I will tell you something about first space station called MIR. Like you probably know it is Russian space station, but it have modules which were build in USA too. Russia don't have money for supporting Mir and they will probably throw Mir in atmosphere where it will be burned. On august 1999 Mir was for the first time whiteout crew. They left it on 28<sup>th</sup> of August 1999. Its first part was in space in 1986 and since then Mir orbited the Earth for more than 80.800 times and there was 100 different astronauts on it. One of them was even American with Slovenian origin. Mir was damaged for a several times and once it was even fire on it. On 6<sup>th</sup> of April this year two cosmonaut come back to Mir.

Mir has become a home base of Internatonal Space Station. That is the most extensive international space project. International Space Station will be more than four times as large as the Russian Mir space station. At creating ISS are cooperating 16 countries: United States of America, Russia, Canada, Japan and 11 countries united at European Space Agency (ESA). But the *United States* has the responsibility for the biggest part of project, which will cost the most money. They will do three connecting modules, laboratory module, thruss segments, four solar arrays, a habitation module, three mating adapters, a cupola, an unpressurized-logistic carrier and a centrifugale module. The various systems being developed by the U.S. include thermal control; life support; guidance, navigation and control, data handling, power systems, communications and tracking. The international partners Canada, Japan, the European Space Agency, and Russia, will contribute the following key elements to the International Space Station:

*Canada* is providing a 55-foot-long robotic arm to be used for assembly and maintenance tasks on the Space Station.

*The European Space Agency* is building a pressurized laboratory to be launched on the Space Shuttle and logistics transport vehicles to be launched on the Ariane 5 launch vehicle.

*Japan* is building a laboratory with an attached exposed exterior platform for experiments as well as logistics transport vehicles.

*Russia* is providing two research modules; an early living quarters called the Service Module with its own life support and habitation systems; a science power platform of solar arrays that can supply about 20 kilowatts of electrical power; logistics transport vehicles; and Soyuz spacecraft for crew return and transfer.

In addition, *Brazil and Italy* are contributing some equipment to the station through agreements with the United States.

Space Station is being build in three phases. First phase Shuttle-Mir program began in 1995 and involved more than two years of continuous stays by astronauts aboard the Russian Mir Space Station and nine Shuttle-Mir docking missions. Second phase is composing most important modules of new space station. At third phase International Space Station will be build and it will be ready for staying of six astronauts.

The fist crew will probably go up there on September this year. It will be made of three men: William (Bill) Shepherd, Yuri Pavlovich Gidzenko and Sergei Konstantinovich Krikalev. William is American and will surve as the International Space Station Commander. He has logged more than 440 hours in space. Yuri is Russian and will serve as the Soyuz Commander. He has logged more than 180 days in space. Sergei is Russian too. He will serve as the Flight Engineer. He has logged more than 1 year and three months in space, including seven spacewalks.

The first crew will spend five months aboard the International Space Station. When they arrive, the station will consist of three modules: the Russian Service Module, which will serve as living quarters and onboard control center for the early station; the U.S.-funded and Russian-built Zarya, a module that provides supplementary power and propulsion functions; and the U.S.-built Node 1, a connecting module that provides the attachment points for future U.S. segments. Both Zarya and Node 1, were successfully lunched in 1998. But Space Station probably won't be finished before January 2005 when Shuttle will bring Multi-Purpose Logistics Module and some other components. Then Space Station will allow expansion of station crew from three members to up to six members and then it will be finished.