# **EXPEDITION 16 ADDING INTERNATIONAL SCIENCE**

The most complex phase of assembly since the International Space Station was first occupied seven years ago began when the Expedition 16 crew arrived at the orbiting outpost. During this ambitious six-month endeavor, an unprecedented three Space Shuttle crews will visit the Station delivering critical new components – the American-built "Harmony" node, the European Space Agency's "Columbus" laboratory and Japanese "Kibo" element. NASA Astronaut Peggy Whitson, the first woman commander of the ISS, and Russian Cosmonaut Yuri Malenchenko were launched aboard the Soyuz TMA-11 spacecraft from the Baikonur Cosmodrome in Kazakhstan on October 10. The two veterans of earlier missions aboard the ISS were accompanied by Dr. Sheikh Muzaphar Shukor, an orthopedic surgeon and the first Malaysian to fly in space.

## **CREW PROFILE**



#### Expedition 16 Commander Born: February 9, 1960, Mount Ayr, Iowa

Peggy Whitson (Ph. D.)

**Education:** Graduated with a bachelors degree in biology/chemistry from Iowa Wesleyan College, 1981 & a doctorate in biochemistry from Rice University, 1985 **Experience:** Selected as an astronaut in 1996, Whitson served as a Science Officer during Expedition 5.

Peggy Whitson



#### Yuri Malenchenko (Colonel, Russian Air Force) Expedition 16 Flight Engineer

Born: December 22, 1961, Svetlovodsk, Ukraine

**Education:** Graduated Gritsevets Kharkov Higher Military Aviation School in 1983 and Zhukovsky Air Force Engineering Academy, 1993

**Experience:** Selected as a cosmonaut in 1987, Malenchenko commanded the four-month Mir 16 mission during 1994. In 2000, he was a mission specialist on the STS-106 mission to the ISS and commander of Expedition 7.



#### Daniel Tani Expedition 16 Flight Engineer

Born: Born February 1, 1961 in Ridley Park, Penn, he considers Lombard, Ill. to be his hometown.

**Education:** Earned a bachelors and masters degree in Mechanical Engineering from the Massachusetts Institute of Technology in 1984 and 1988 respectively. **Experience:** Selected by NASA in June 1996, Tani was a mission specialist on the STS-108 mission to the ISS in 2001.



Daniel Tani

#### Léopold Eyharts (General, French Air Force) Expedition 16 Flight Engineer Born: Born April 28, 1957, in Biarritz, France

**Education:** Graduated as an engineer from the French Air Force Academy in 1979 **Experience:** Selected as a European Space Agency astronaut in 1998, Eyharts will be making his first space flight aboard STS-122 and the ISS.



Garrett Reisman

#### Garrett Reisman (Ph. D.) Expedition 16 Flight Engineer

**Born:** Born February 10, 1968, in Morristown, New Jersey, but considers Parsippany, New Jersey to be his hometown.

**Education:** Earned bachelors degrees in Economics, as well as Mechanical Engineering and Applied Mechanics from the University of Pennsylvania in 1991 and masters and doctorate degrees in Mechanical Engineering from the California Institute of Technology in 1992 and 1997 respectively.

**Experience:** Selected as an astronaut in 1998, Reisman will be making his first space flight aboard STS-123 and the ISS.

Two days after launch, the Sovuz docked to the Space Station joining Expedition 15 Commander Fyodor Yurchikhin, Oleg Kotov, both of Russia, and NASA Flight Engineer Clayton Anderson. Shukor spent nine days on the ISS, returning to Earth in the Sovuz TMA-10 on October 21 with Yurchikhin and Kotov who had been aboard the station since April 9.

The first milestone in Expedition 16's busy schedule was the arrival of the Shuttle Discovery in October delivering "Harmony," the second connecting node. The Shuttle and ISS crews performed several complex space walks to install the multi-hatched docking hub. Additionally, Discovery crewmember Daniel Tani replaced Anderson as an Expedition 16 flight engineer.



Expedition 16 Commander Peggy Whitson and Flight Engineer Yuri Malenchenko participate in a training session at the Gagarin Cosmonaut Training Center in Star City, Russia.

### FOR MORE INFORMATION CONTACT:

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Assembly space walks will occupy a great deal of time for the Expedition 16 crew as they activate the new "Harmony" node. The work outside the Station will include preparing "Harmony" and the Pressurized Mating Adapter-2 for relocation by the robotic Canadarm 2, as well as hooking up electrical and cooling loop connections.

Opportunities for ISS science will be expanded with the arrival of two new modules. The European "Columbus" laboratory will be attached to the "Harmony" node when STS-122 arrives at the ISS in December. In February 2008, the STS-123 mission will bring "Kibo," the first Japanese element. This Experiment Logistics Module will also be installed on "Harmony."

European Space Agency astronaut and STS-122 crewmember Léopold Eyharts of France will replace Tani in December. NASA astronaut Garrett Reisman, in turn, will replace Eyharts during STS-123.

Whitson and Malenchenko's stay aboard the station is expected to last approximately six months, at which time the Expedition 17 crew replaces them in the spring of 2008.

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