

# Spacewalk Set for Tomorrow

November 8 2007

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Backdropped by the blackness of space and Earth's horizon, the International Space Station is seen from Space Shuttle Discovery as the two spacecraft begin their relative separation. Image credit: NASA

The International Space Station's crew enjoyed a day off duty Tuesday before starting a heavy schedule of spacewalks and robotics activities, which kick off with a spacewalk by Commander Peggy Whitson and Flight Engineer Yuri Malenchenko Friday morning. The goal of the work is the relocation of the Harmony module so the station will be ready to receive the European laboratory module on the next shuttle flight, targeted to launch in early December.

A spacewalk to prepare for the relocation of Pressurized Mating Adaptor 2 and the subsequent move of the new Harmony node to its permanent International Space Station home is scheduled to begin about 6 a.m. EST

on Friday.

Station Commander Peggy Whitson and Flight Engineer Yuri Malenchenko will be in U.S. spacesuits and use the Quest airlock. Whitson, the lead spacewalker, will wear the suit with the red stripes. Cosmonaut Malenchenko's suit will be all white. Newly arrived Flight Engineer Dan Tani will be the spacewalk choreographer.

Their first task will be to disconnect the Station to Shuttle Power Transfer System cables between the U.S. laboratory Destiny and PMA-2. Next they'll disconnect eight other cables between PMA-2 and the lab.

Subsequently they will demate connectors on the rigid umbilicals on the side of the lab, temporarily stowing them on the lab and elsewhere. That is so they will be accessible once fluid umbilical trays are installed there after the Harmony move. Malenchenko also will install caps on his side of the lab on receptacles left open by the PMA cable demates.

Whitson also will remove a Crew Equipment Translation Aid light on the lab to make way for the trays. She will take the light to the airlock. It will be reinstalled later. Malenchenko will move to the truss and configure the port Squib firing unit.

The next task takes them to the outboard end of the Harmony node, where PMA-2 will be installed. There they will remove the active Common Berthing Mechanism cover. The cover is held on by a strap that goes around the circumference. They'll bundle the cover and secure it with wire ties. It will be put in a Progress cargo carrier for disposal.

While Whitson completes connections for a power and data grapple fixture on the bottom of Harmony that will provide a base for the station's robotic arm, Malenchenko will move back behind the Z-1 truss to reconfigure a power system, removing an electrical jumper. Next

Whitson will work at the right side of the "rats' nest," at the base of Z-1 on another reconfiguration.

Then she'll retrieve a box called the base-band signal processor and return it to the airlock. It will be returned to Earth for refurbishment. Malenchenko will remove and replace a failed electrical circuit box called a remote power controller module. They'll transfer tools between two bags and move a bag to the S0 truss for later spacewalks.

PMA-2 is scheduled to be removed from Destiny and placed on Harmony, using the station's robotic arm, on Monday, Nov. 12. Harmony, brought to the station by Discovery, is to be moved from its temporary position on the left side of the Unity node to the front of Destiny, again using Canadarm2, on Wednesday, Nov. 14.

Source: NASA

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