

Cosmonauts Outside Station for Second Spacewalk

June 6 2007



During the May 30 spacewalk, Flight Engineer Oleg Kotov (left) rides on the end of the Strela crane with a bundle of debris panels as Commander Fyodor Yurchikhin operates the controls. Image credit: NASA TV

Two International Space Station cosmonauts began a spacewalk of a little over five hours from the Pirs docking compartment airlock at 10:23 a.m. EDT Wednesday. They will install a section of Ethernet cable on the Zarya module, install additional Service Module Debris Protection (SMDP) panels on Zvezda, and deploy a Russian scientific experiment.

Five SMDP panels were installed by station Commander Fyodor Yurchikhin and Flight Engineer Oleg Kotov on May 30. During that 5-hour, 25-minute spacewalk they also rerouted a Global Positioning System antenna cable. On today's spacewalk they will install 12

additional panels. They also will install the Ethernet cable on the Zarya module and a Russian experiment called Biorisk on Pirs.

Yurchikhin again is the lead spacewalker, EV1, wearing the Russian Orlan spacesuit with red stripes. Kotov, EV2, wears the suit with blue stripes. This is the second spacewalk for both.

Out of the airlock, the first task is to install the Russian scientific experiment, called Biorisk. It looks at the effects of microorganisms on structural materials used in space. They will attach it to the outside of Pirs.

After the cable installation, they will move aft to the forward end of the Zvezda Service Module. There they will remove one of two SMDP bundles remaining on the "Christmas Tree," an adaptor that initially had three bundles attached. It was stowed at the Unity Node on Pressurized Mating Adaptor No. 3 (PMA-3). Yurchikhin maneuvered Kotov, on the end of the Strela manually operated crane, to the Christmas Tree during the May 30 spacewalk.

Kotov retrieved it and stowed it on Zvezda, where they installed five SMDP panels. The aluminum panels vary in size but are about an inch thick. They typically measure about 2 by 3 feet and weigh 15 to 20 pounds. Initially, the spacewalkers will tether them to handrails.

Yurchikhin and Kotov will open the first bundle and install its panels on Zvezda's conical section, the area between Zvezda's large and small diameters, to join the five they installed May 30. Another six panels had been bolted into place there in 2002.

Once that is done, they'll open the remaining bag and install its six panels.

Six SMDP panels were installed during an Aug. 16, 2002, spacewalk by Expedition 5 Commander Valery Korzun and Flight Engineer Peggy Whitson. Those panels were delivered to the station by Endeavour during STS-111 in June 2002. The remaining three bundles and their adaptor were delivered by Discovery during STS-116 last December and attached to PMA-3 by spacewalkers Bob Curbeam and Sunita Williams.

With the installation of the SMDP panels completed, Yurchikhin and Kotov will move back to Pirs and return to the airlock. Hatch closure marking the end of the spacewalk is scheduled for a little after 3:40 p.m.

Flight Engineer Sunita Williams will serve as intravehicular officer for the second spacewalk, as she did for the first.

Source: NASA

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