

## International Space Station status report: SS07-30

*by Bend\_Weekly\_News\_Sources*

HOUSTON - The Expedition 15 crew completed the first of three planned spacewalks this week and prepared for the upcoming arrival of space shuttle Atlantis to the International Space Station. On Wednesday, Commander Fyodor Yurchikhin and Flight Engineer Oleg Kotov stepped outside the station and installed five additional debris protection panels on the conical section of the Zvezda Service Module, the area between its large and small diameters. The aluminum debris protection panels are designed to shield the module from micro-meteoroids. Also during the spacewalk, the cosmonauts relocated a Global Positioning System (GPS) antenna cable. The cosmonauts moved the GPS cable to assist the rendezvous and docking of the European Automated Transfer Vehicle later this year. On June 6, Yurchikhin and Kotov are set to wear Russian spacesuits again and install 12 additional protection panels on Zvezda. They also will install a section of an Ethernet cable on the Zarya module and a Russian experiment called Biorisk on the Pirs Docking Compartment. During the second spacewalk, Flight Engineer Suni Williams will remain aboard the station as the spacewalk choreographer, as she did this week, advising and keeping the spacewalkers on schedule. Additionally this week, Williams packed science payload and personal items she will bring with her when she returns to Earth at the end of the upcoming STS-117 shuttle mission, scheduled for launch Friday, June 8 at 7:38 p.m. EDT. Williams collected her fifth and final set of blood and urine samples for the Nutritional Status Assessment, which measures physiological changes in the human body during spaceflight. The samples are stored at minus 80 degrees Celsius in the Minus-Eighty Laboratory Freezer. The experiment will help researchers understand bone metabolism, oxidative damage, vitamin and mineral status and hormonal changes and how they relate to stress, bone and muscle metabolism. The results should provide a better understanding of what happens physiologically, and when it happens, to crew members on long-duration space missions. Science activities on the International Space Station are coordinated by NASA payload teams at Johnson Space Center, Houston, and Marshall Space Flight Center, Huntsville, Ala. Marshall is the home of the Payload Operations Center linked to Mission Control in Houston.

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