

International Space Station status report: SS07-13

by Bend_Weekly_News_Sources

The Expedition 14 crew was busy this week moving trash into the ISS Progress 23 cargo ship, installing a new window on the space station and preparing for upcoming missions to the station. The new window was installed on Wednesday on the port side hatch of the Unity node. It is fitted with a berthing camera system that includes target markings on the outside of the hatch. This will help robotic operators align and dock the station's new elements. The window's installation was part of the crew's work to ready the station's Pressurized Mating Adapter-3 (PMA-3) for its relocation later this year to Unity's Earth-facing port. This was the second hatch window installed by an Expedition crew. A similar window was installed by Expedition 6 crew members on Unity's starboard hatch. Space Station Commander Michael Lopez-Alegria and Flight Engineer Suni Williams also temporarily relocated a "wall" of collapsible water bags to allow them access to PMA-3 and provide access to some of the station's computer cables, allowing the two to install new, upgraded cabling. Lopez-Alegria and Williams emptied all the items stowed in PMA-3 except for a spare Bearing Motor and Roll Ring Module, which was tied down for the adapter's robotic relocation later this year. The apparatus is used to help the solar arrays swivel, or gimbal, to point to the sun for the generation of electricity. Additional work included preparations for the April 9 arrival of the Expedition 15 crew and U.S. spaceflight participant Charles Simonyi aboard Soyuz TMA-10. The ISS Progress 23 thrusters were fired on Thursday for 12 minutes, 32 seconds to lift the station into the correct orbit for rendezvous and docking of the Soyuz. This orbital boost also provided the correct trajectory for landing of the Expedition 14 crew members and Simonyi aboard Soyuz TMA-9 on April 20. Other tasks included preparation for the March 29 relocation of the Soyuz TMA-9 spacecraft from the Earth-facing port of the Zarya module to the aft port of the Zvezda Service Module. As a result, the Soyuz TMA-10 will not need to perform the maneuver to reach Zarya as its final destination. In addition, the crew prepared for the undocking and discarding of the ISS Progress 23 cargo ship, the station's giant trash can, on March 27. To ready the station for the STS-117 mission, Williams began photography practice for space shuttle Atlantis' Rendezvous Pitch Maneuver. She and her new Expedition 15 crewmates will take photos of Atlantis' heat shield as it performs the slow, 360-degree nose-forward back flip 600 feet below the station. Tyurin this week completed photographic observations of Earth as part of the Russian "Uragan" Earth-imaging investigation and monitored radiation inside the station for another set of experiments. He tracks data on three different experiments that monitor cosmic rays and background radiation. Next week, Lopez-Alegria and Williams will conduct some of the work required to install the station's new integrated station computer network. This new system is ten times faster than the station's current local area network (LAN) system. It will use Ethernet connectivity over a router through either cable or wireless equipment, thus eliminating drag-through cables from the U.S. segment into the Russian segment. Installation of the LAN originally was planned for the Expedition 15 crew. However, the STS-117 launch delay prompted station managers to advance the LAN work to save time during Expedition 15.

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