

## International Space Station status report: SS07-07

*by Bend Weekly News Sources*

With all scheduled tasks accomplished, International Space Station Commander Mike Lopez-Alegria and Flight Engineer Sunita Williams ended a nearly seven hour spacewalk at 2:06 p.m. CST Thursday.

It was the last in a series of three spacewalks in nine days from the Quest airlock. Major tasks of this spacewalk included removing and jettisoning two large shrouds and installing an attachment for cargo carriers.

Lopez-Alegria and Williams moved from the airlock out to Crew Equipment Transfer Aid carts on the rails of the main truss. Pushing one cart with their equipment, including a foot restraint, they moved to the Port 3 truss segment. Their first job was to remove two thermal shrouds, one from each of two Rotary Joint Motor Controllers on P3.

Next, they removed two large shrouds from P3 Bays 18 and 20. The shrouds, larger than king-size bed sheets, provide thermal shading. With the station in its present orientation, they are no longer needed and are being removed to avoid trapping heat. Lopez-Alegria jettisoned them toward the rear of the station.

Afterward, the Unpressurized Cargo Carrier Assembly Attachment Systems on the upper face of the P3 truss was deployed. That was done in preparation for attachment of a cargo carrier during a future shuttle mission. While Lopez-Alegria finished work on the assembly attachment system, Williams moved to the end of the P5 truss to remove two launch locks in preparation for the relocation of the P6 truss.

The final scheduled task of the spacewalk was connecting four cables of the Station to Shuttle Power Transfer System to Pressurized Mating Adapter-2 (PMA-2) at the forward end of the Destiny laboratory where shuttles dock. This will allow visiting shuttles to take power from the station to extend their missions.

Work began on the system during the Jan. 31 spacewalk, and two of the cables were routed and connected to PMA-2 on the Feb. 4 spacewalk. The last four cables were connected to the PMA Thursday. The astronauts did complete one get-ahead task to photograph a suspect connector on the outboard end of PMA-2. It carries station shuttle communications when the shuttle is docked but hatches are closed. Communications have been intermittent during recent shuttle missions.

Throughout the spacewalk, Chris Looper in Johnson Space Center's Mission Control advised Lopez-Alegria and Williams and monitored their tasks. Looper is the chief engineer for the Astronaut Office Spacewalk Branch.

Approximately 3 hours, 50 minutes into his ninth spacewalk, Lopez-Alegria set a record for cumulative spacewalk time by a U.S. astronaut at 61 hours, 22 minutes. Jerry Ross previously held the title with 58 hours, 32-minutes accumulated during nine spacewalks.

The three spacewalks from the Quest airlock in U.S. spacesuits and a Russian spacewalk on Feb. 22 are the most ever done by station crew members during such a short period. Starting from scratch, it takes crew members about 100 hours to prepare for a spacewalk. By doing the U.S. spacewalks just a few days apart, considerable crew time can be saved by not having to repeat some of the preparation.

Thursday's spacewalk was the 80th for station assembly and maintenance. It was the 52nd from the station and the 32nd from Quest. It was the fourth for Williams, the most for any woman.

During the Feb. 22 spacewalk, Lopez-Alegria and Flight Engineer Mikhail Tyurin will wear Russian Orlan suits to work on an antenna on the Progress 23 cargo ship docked at the aft port of the Zvezda service module. The antenna did not properly retract when that spacecraft docked in October. The spacewalkers will try to secure or remove the antenna to avoid any interference with the undocking of a Progress in April. The spacewalk will be the 10th for Lopez Alegria and will set a new record.

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