PMA-2 Move Readies Station for Harmony Relocation

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Against the backdrop of a blue Earth, Canadarm2 moves Pressurized Mating Adaptor-2. Image credit: NASA TV

International Space Station crewmembers move Pressurized Mating Adaptor-2 from the front of the U.S. laboratory Destiny to the Harmony node early Monday, clearing the way for Harmony's relocation to its permanent home.

Harmony, with PMA-2 on its outboard end, is scheduled to be moved from its temporary position on the Unity node to the front of Destiny on Wednesday.

Disengagement of the first set of bolts holding PMA-2 in place began

about 4:35 a.m. EDT, initiated by Peggy Whitson working in Destiny. With the ISS commander there was Dan Tani, the newly arrived flight engineer of Expedition 16, who operated the Canadarm2 during the move.

The unbolting of the four sets of bolts securing PMA-2 to the front of Destiny went smoothly. Those bolts had been in place since PMA-2 was attached to the lab on Feb. 12, 2001. That was during the STS-98 mission of Atlantis, which brought Destiny to the station.

Release of the final set of bolts was completed at 5:02 a.m. PMA-2, where space shuttles have docked during recent missions, was separated from Destiny at 5:12 a.m.

Tani maneuvered the 1.5 ton PMA-2 with the station's robotic arm, its base on Destiny, away from the lab, then to a point below Destiny and a pause for a camera survey of its mating surfaces.

Still working slowly and carefully, Tani then moved PMA-2 to the station's port side and toward the outboard end of Harmony and its preinstall position.

Tani brought the docking port was brought to Harmony's berthing mechanism, where the process to secure it began. Driving the last of the four groups of four bolts each was driven into place at 6:29 a.m., permanently securing PMA-2 to its new home.

After its Wednesday move, Harmony will be in position to welcome visiting space shuttles. It also will offer docking ports to the European Space Agency's Columbus laboratory, scheduled to arrive next month, and Japan's Kibo experiment module, to become a part of the International Space Station next year.

Source: NASA