

# Spacewalkers to Hook Up Harmony at its New Location

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Expedition 16 Commander Peggy Whitson participates in a spacewalk on Nov. 9, 2007. Credit: NASA

A 6-hour, 40-minute spacewalk by International Space Station Commander Peggy Whitson and Flight Engineer Dan Tani will begin the external outfitting of the Harmony node in its new position in front of the U.S laboratory Destiny.

The spacewalk is scheduled to begin at 5 a.m. EST Tuesday from the U.S. airlock Quest. Whitson, the lead spacewalker, will wear the suit with the red stripes while Tani will be in the suit with the barber-pole

stripes.

After leaving the airlock and setting up tools and equipment, Whitson will remove, vent and stow an ammonia jumper, part of a temporary cooling loop. Removing it allows connection of the hookup of the permanent ammonia cooling loop on a fluid tray on the station's exterior.

Tani meanwhile will retrieve a bag of tools left outside on the station during the Nov. 9 spacewalk by Whitson and Flight Engineer Yuri Malenchenko. Then he'll remove two fluid caps to prepare for connection of that permanent cooling loop.

Next he will move on to reconfigure a circuit that was used for a Squib firing unit, a small pyrotechnical device that freed a radiator on the Port 1 truss for its deployment last Thursday.

Much of the spacewalk will be devoted to work with Harmony's Loop A fluid tray. That 300-pound, 18.5-foot tray will be moved from its temporary position on the S0 truss, at the center of the station's main truss, to Harmony, atop the starboard avionics tray.

Tani will join Whitson at S0. They'll release the fluid tray and then move it to Harmony. They'll use a kind of relay technique, one moving ahead and attaching tethers to be ready to receive the tray, then the other moving farther forward to take the next handoff.

Once they reach the installation point they'll bolt down the tray, then hook up its six fluid line connections, two at S0, two at the tray and two in between.

Tani will move to his final task, on the port side of Harmony. There he will mate 11 avionics lines. Whitson, meanwhile, will configure heater cables, then mate electrical umbilicals by hooking up four electrical

harnesses linking Pressurized Mating Adapter-2 at the outboard end of Harmony to station power.

The two spacewalkers will do the standard cleanup process, then enter the airlock. The beginning of its repressurization will mark the official end of the spacewalk.

Another spacewalk by Whitson and Tani to complete the exterior hookup of Harmony is scheduled for Nov. 24.

Source: NASA

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