

Endeavour astronauts wrap up third spacewalk

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Two US astronauts wrapped up their third spacewalk outside the International Space Station on Wednesday after some doing maintenance work on the Russian side of the orbiting lab, NASA said.

Astronauts Drew Feustel and Mike Fincke floated back into the space station airlock and ended their six hour, 54 minute spacewalk at 8:37 am (12:37 GMT), NASA said.

The spacewalk -- the third of four scheduled during the Endeavour shuttle's final mission -- was aimed at completing an external wireless [antenna system](#) and mending parts of the Russian side of the space

station.

"They completed all planned tasks, installing cables to increase redundancy for the power system on the Russian segment of the station, completing the external wireless antenna system work Feustel and Greg Chamitoff began during the first spacewalk, and installing a power and data grapple fixture to Zarya," NASA said.

"The fixture will allow the station's [robotic arm](#) to 'walk' to the Russian segment, extending its reach by using that grapple fixture as a base."

A final spacewalk by Endeavour astronauts outside the orbiting research station is set for Friday.

The Endeavour mission, STS-134, is the second to last for the American shuttle program. After Atlantis's planned launch in July, the three-decade US program will end and the shuttles will become museum pieces.

The walkabout began after the [spacewalkers](#) tried a new set of preparatory exercises aimed at preventing [decompression sickness](#) while conserving oxygen, NASA said.

The combination of breathing and low-effort exercises were aimed at preventing decompression sickness known as "the bends," a condition that can afflict scuba divers if they rise to the surface too quickly.

Known officially as the in-suit light exercise (ILE) pre-breathe protocol and informally as the "slow motion hokey pokey," the regimen is intended to purge nitrogen from the bloodstream.

The failure to do so could lead to the formation of [gas bubbles](#) as the astronauts stroll through space, causing pain in the joints or, in rare cases, paralysis or death.

On the eve of the past 70 spacewalks, astronauts have camped out overnight in an [airlock](#) where the pressure is 10.2 pounds per square inch, in between that of the space station (around 14 psi) and the spacesuits (about 4 psi).

Conserving oxygen at the space station will be important once the [shuttle program](#) ends later this year. Russian and European spacecraft are the only vehicles equipped to resupply the lab.

Russia's Progress capsule is able to tote 50 kilograms (110 pounds) of oxygen and the European Space Agency's ATV supply ship can bring 100 kilograms (220 pounds), a NASA spokesman said.

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