

Astronauts embark on second spacewalk to fix cooling system

August 11 2010

NASA astronauts aboard the International Space Station Wednesday began a second spacewalk to work on repairing a failed cooling system, the space agency said.

Astronauts Doug Wheelock and Tracy Caldwell Dyson suited up and switched to independent power in the space station airlock at 1227 GMT, initiating the walk in space.

Once outside the station, they will work to unhook and remove a busted pump module that caused the cooling problem in preparation for attaching a replacement.

"If all goes as planned, the spare pump will be installed during the third spacewalk," said the US space agency, adding that that operation would be possible "no earlier than Sunday."

Wheelock and Dyson's first spacewalk on Saturday lasted eight hours and three minutes, the sixth longest ever, but they were unable to remove the defective pump.

They disconnected three of four fluid lines connected to the pump but a fourth line leaked, causing them to stop work, [NASA](#) said.

Conditions on the ISS remained stable and the station's six-person crew -- three Americans and three Russians -- was not in danger, NASA officials said.

If the [spacewalk](#) efforts this week fail -- a highly unlikely scenario, NASA has said -- the astronauts would no longer be able to cool most of the space station components.

But the crew would not be in danger because they could move to the Russian segment of the ISS, which has its own cooling system.

According to NASA figures, without thermal controls the ISS's sun-facing side would roast at 250 degrees Fahrenheit (121 Celsius), while the outpost's dark side would plunge to some minus 250 degrees Fahrenheit (minus 157 Celsius).

The ISS, which orbits 350 kilometers (220 miles) above Earth, is a sophisticated platform for scientific experiments.

It is a 100-billion-dollar cooperation between 15 countries, and has been manned uninterrupted since October 1990.

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