

## Spacewalking astronauts perform pump swap at space station

May 16 2018, by Marcia Dunn



In this frame from NASA TV, NASA astronaut Ricky Arnold, left, and NASA astronaut Drew Feustel work on shuffling around a couple of space station pumps at the International Space Station on Wednesday, May 16, 2018. (NASA TV via AP)

Spacewalking astronauts carried out a high-flying, high-tech version of musical chairs Wednesday, rearranging pumps outside the International Space Station.

Popping out early, NASA astronauts Drew Feustel and Ricky Arnold



quickly swapped the positions of two spare ammonia pumps that are part of the <u>space station</u>'s critical cooling system.

One pump got too cold because of a power shutdown 17 years ago and is called Frosty; flight controllers plan to test it in the coming days to see if it still works. The other, a failed unit dubbed Leaky, spewed out ammonia five years ago.

Frosty took Leaky's spot on a robot-arm mechanism, while Leaky was moved to a long-term storage platform.

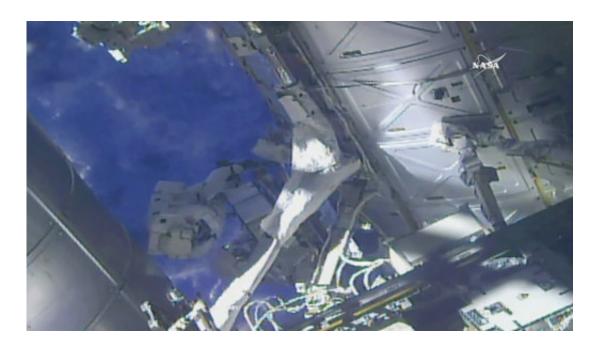
Ammonia coolant is toxic, and Mission Control repeatedly warned the spacewalkers to be careful of any leaks.

A brand new spare pump arrived at the space station last month. This fresh pump is named Motley since it's comprised of a variety of spare parts.

"We've been doing a ton of work to play musical chairs with all these (pumps) so we can have good available spares," flight controller Alex Apyan said from Houston during the spacewalk.

Each 235-pound pump, the size of a flat box, is about 3 feet by 2.5 feet by 1.5 foot.





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Feustel and Arnold also installed a new camera and communication device, and even accomplished some extra chores.

"Nice work," Mission Control said as the 6 1/2-hour spacewalk came to a close. "All right, guys, we are ready for you all to start heading home."

The spacewalkers laughed and shared jokes as they floated back inside. "Anyone home? Trick or treat!" one of them jokingly called out.

Meanwhile, the station's six-man crew is expecting a delivery. Orbital ATK plans to launch a supply ship Sunday from Wallops Island, Virginia. Weather permitting, the pre-dawn flight of the Antares rocket should be visible along the East Coast from New England to South



## Carolina.

Feustel and Arnold went spacewalking at the end of March, shortly after arriving at the 250-mile-high lab. They have another spacewalk lined up for next month.

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