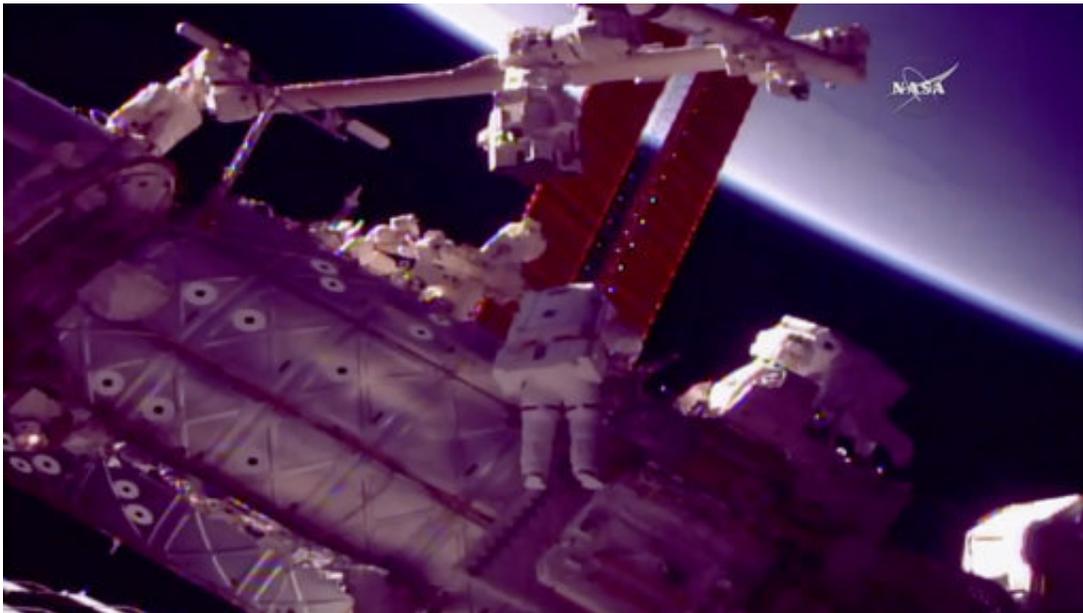


# Spacewalking astronauts give new hand to robot arm

January 23 2018, by Marcia Dunn

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NASA astronauts Mark Vande Hei, left, and Scott Tingle work outside the International Space Station on Tuesday, Jan. 23, 2018, to give the robot arm a new hand. (NASA TV via AP)

Spacewalking astronauts gave a hand to the International Space Station's big robot arm Tuesday.

As the federal government geared back up 250 miles below, NASA astronauts Mark Vande Hei and Scott Tingle successfully installed the new mechanical gripper.

Because of the lingering effects of the government shutdown, the spacewalk got started in the morning without coverage on NASA TV. An on-air message simply stated: "We regret the inconvenience." Nearly an hour into the spacewalk, however, NASA TV came alive and began broadcasting the event with typical blow-by-blow commentary.

Space station operations were largely unaffected by the three-day shutdown. Considered essential personnel, Mission Control kept watch as usual at Johnson Space Center in Houston.

Vande Hei performed a similar spacewalk last October, when he replaced the first of two original hands on the Canadian-built arm. This second new hand will go on the opposite end of the 58-foot arm, able to move like an inchworm by grabbing hold of special fixtures.

The bulky bundle of latches—more than 3 feet, or a meter, long and weighing more than 440 pounds, or 200 kilograms—needed to be replaced because of wear and tear. It's been in orbit, grabbing cargo capsules and performing other chores, since 2001.



NASA astronauts Mark Vande Hei, top, and Scott Tingle work outside the International Space Station on Tuesday, Jan. 23, 2018, to give the robot arm a new hand. (NASA TV via AP)

Tingle had to use extra muscle to release a stubborn bolt securing the spare mechanical arm.

"Nice work," Vande Hei said. "And the crowd goes wild," chimed in Mission Control.

Next, the spacewalkers wrested the old, degraded hand from the robot arm. Once the new hand was in place, a software issue cropped up briefly. Six hours into the spacewalk, NASA declared victory. The spacewalk lasted 7 1/2 hours.

It was the first spacewalk for Tingle, who arrived last month, and the third for Vande Hei.

"Make us proud out there," astronaut Joe Acaba told the spacewalkers from inside. "We'll have hot chow for you when you get back."

Vande Hei will go back out Monday with another astronaut to finish the job. Then the two Russians on board will conduct a spacewalk Feb. 2 to install a new antenna on their country's side of the outpost.

The space station is home to three Americans, two Russians and one Japanese.

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