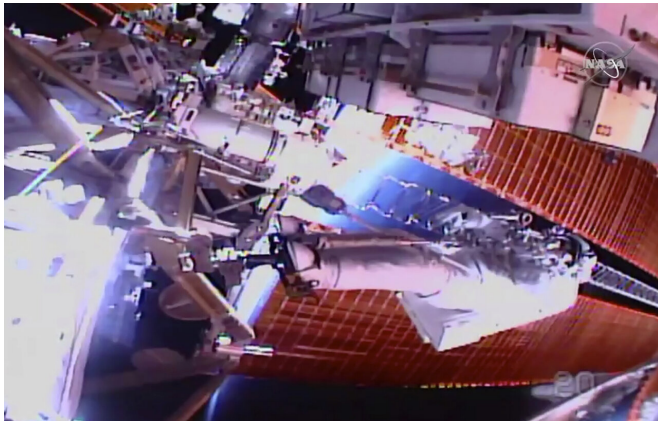


Space station power upgrades nearly finished after spacewalk

16 July 2020, by Marcia Dunn



In this image taken from NASA video, NASA astronaut Chris Cassidy works outside the International Space Station on Thursday, July 16, 2020. Cassidy and Bob Behnken ventured out on their third spacewalk over the past few weeks to remove six more old batteries in the space station's power grid, and replace them with new, improved ones. (NASA via AP)

Spacewalking astronauts completed their part of a three-year power upgrade to the International Space Station on Thursday, replacing six more outdated batteries with powerful new ones.

It was the third [spacewalk](#) in as many weeks involving battery work by NASA's Bob Behnken and Chris Cassidy.

Running more than an hour ahead of schedule, they managed to complete the battery swaps in a single spacewalk rather than two. Their fourth spacewalk next week will now focus on other chores.

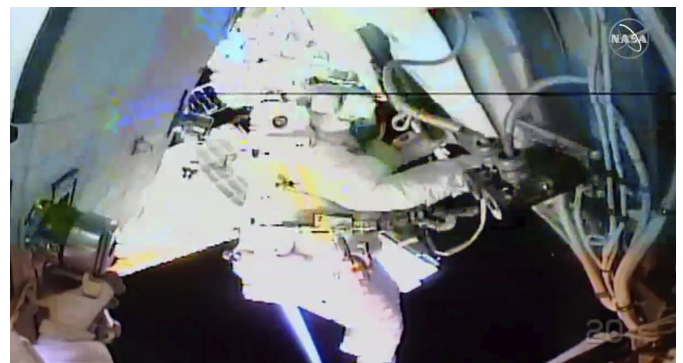
"Great job," Mission Control radioed.

Behnken and Cassidy swiftly removed six of the remaining [old nickel-hydrogen batteries](#) and plugged in three new lithium-ion units.

The lithium-ion batteries—big, boxy units with a mass of more than 400 pounds (180 kilograms)—are so powerful that only half as many are needed. The batteries store power gathered by the station's [solar panels](#) for use on the nighttime side of Earth.

The effort to replace all of the [space station's](#) 48 aging batteries began in January 2017, requiring 11 spacewalks to date.

One new battery shorted out in 2019 and the old ones had to be re-installed. One more spacewalk remains, likely this fall. NASA is putting it off instead of tackling it next week because it would involve powering down that power channel.



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Besides, the two remaining old batteries are working well with all the new ones, said Rob Navias, a spokesman at Johnson Space Center in Houston. "We are fat with power and there is no rush," he said in an email.

NASA expects these new batteries to last the rest of the space station's operational life—another four years from now at least.

Much of Thursday's six-hour spacewalk unfolded more than 260 miles (420 kilometers) up under the bright glare of daylight. "Can't control the sun," Cassidy noted. "Small price to pay for it not going away, I guess. It's nice to be in daylight the whole time."

Behnken arrived at the space station at the end of May on a SpaceX capsule, the company's first astronaut flight. He and Doug Hurley are scheduled to return to Earth in the Dragon capsule in early August.

Cassidy, the space station's commander, is halfway through a six-month mission. A Russian Soyuz capsule is his ride to and from the orbiting outpost.

Both Behnken and Cassidy each now have nine spacewalks to their credit.

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