

Spacewalking is the new domain of the rich as billionaire attempts first private spacewalk

September 11 2024, by Marcia Dunn



This illustration provided by SpaceX in 2024 depicts a spacewalk from the Dragon capsule. Credit: SpaceX via AP

First came space tourism. Now comes an even bigger thrill for the monied masses: [spacewalking](#).

The stage is set for the first private spacewalk Thursday. Tech billionaire Jared Isaacman will pop out of the hatch of his orbiting SpaceX capsule, two days after blasting off from Florida on a chartered flight that lifted him and his crew higher than anyone since NASA's moonwalkers. He partnered with SpaceX CEO Elon Musk to buy a series of rocket rides and help develop brand new spacesuits.

SpaceX is the first private company to attempt a spacewalk, until now the domain of just 12 countries. There's a reason why it's such a niche and elite group: Spacewalking is considered the most dangerous part of any flight after launch and reentry, and demands extensive training.

"Spacewalks are a whole different entire ballgame than just strapping into a rocket and riding it, getting some zero-g time and coming back," said retired NASA astronaut Chris Cassidy.

Cassidy knows firsthand about the dangers of spacewalking: He was working outside the International Space Station in 2013 when his partner, Italian astronaut Luca Parmitano, almost drowned. Parmitano's helmet filled with water from his cooling garment, and he barely made it back inside in time. Another 30 minutes that day and "the answer might be different," Cassidy said.



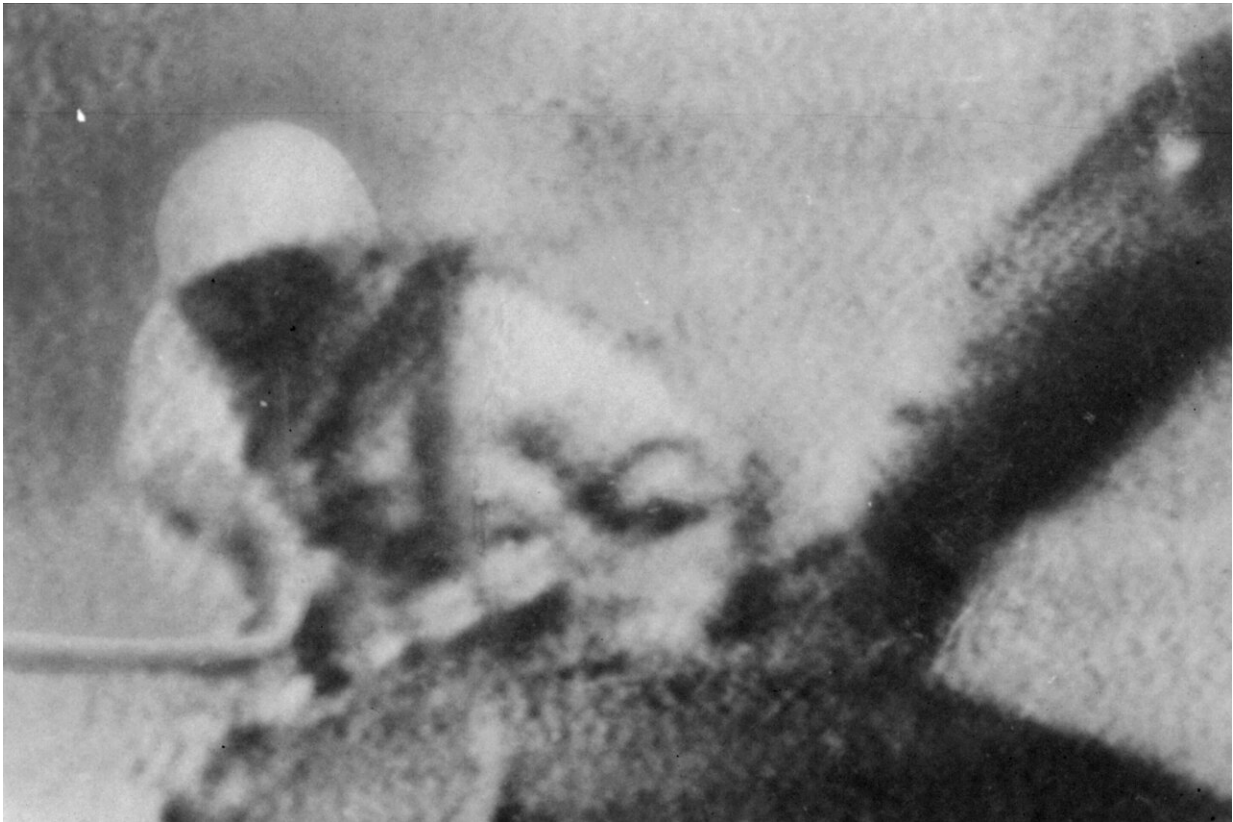
This image provided by SpaceX on Tuesday, Sept. 10, 2024, shows a view of Earth and the Dragon capsule's Skywalker spacewalk platform shortly after the Polaris Dawn crew launched into an orbit. Credit: SpaceX via AP

Cassidy worries there's "a slippery slope" where the wealthy could try to jump to the front of a spacewalking line with minimal training.

Risk and disaster analyst Ilan Kelman of University College London said it's "appropriate and inevitable" that non-professionals will end up performing spacewalks. But he anticipates fatalities along the way.

"We can and should do plenty to reduce the risk," said Kelman. "We must be entirely honest with anyone participating, especially the low chance of rescue when something major goes wrong."

This spacewalk attempt won't be like what routinely happens at the International Space Station where astronauts float out to do repairs. Isaacman and SpaceX engineer Sarah Gillis will venture just barely outside the capsule as they soar about 450 miles (more than 700 kilometers) above Earth. Their orbit was initially twice that high, but reduced for the spacewalk.



In this image provided by TASS, Soviet cosmonaut Alexei Leonov climbs out a hatch of his spacecraft, the Voshkod-2, to perform the first spacewalk on March 18, 1965. Credit: AP Photo/TASS, File

Besides being new to spacewalking, the crew of four will test suits fresh off the factory floor. All will be exposed to the vacuum of space since

the Dragon capsule, unlike larger space vehicles, lacks an airlock.

For Isaacman, throwing away the cabin atmosphere and then restoring it is the riskiest part of the endeavor.

"You can't afford to get anything wrong along that journey or you sidetrack it," Isaacman said. "We're going out just long enough to do what we need to do to get the data."

The bulk of their training over the past two years has focused on the spacewalk, the highlight of their planned five-day flight. SpaceX put considerable preparation and testing into the capsule and suits, said SpaceX's Bill Gerstenmaier, a former NASA manager.

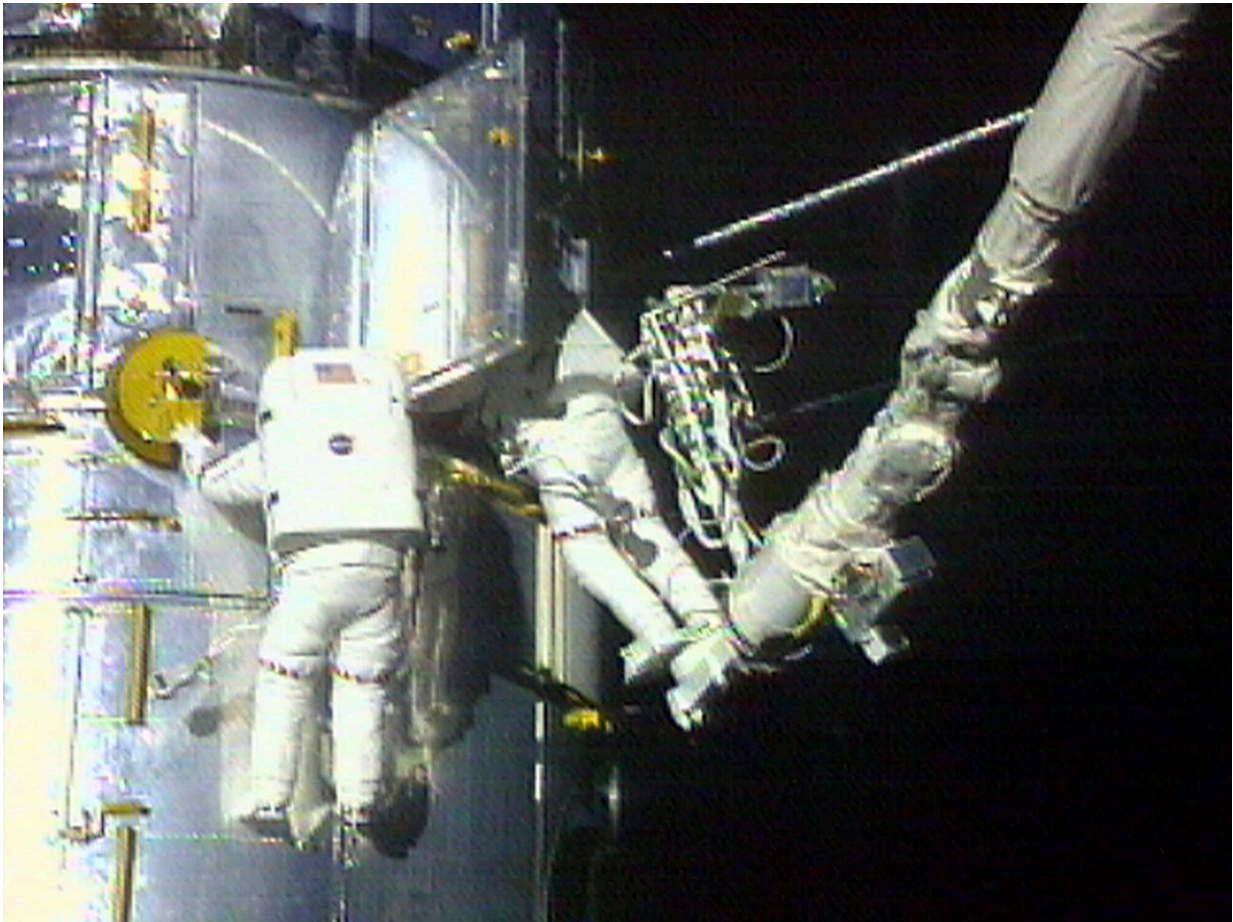
For safety, Isaacman and Gillis will always keep a foot or hand on the capsule or the ladder-like support that they'll position above the hatch. They will be tethered to 12-foot (3.6-meter) lines, but there will be no dangling at the end of them.



In this photo provided by NASA, astronaut Ed White backs away from the Gemini spacecraft to start the U.S.'s first spacewalk on June 3, 1965, during the Gemini 4 mission. Credit: James McDivitt/NASA via AP



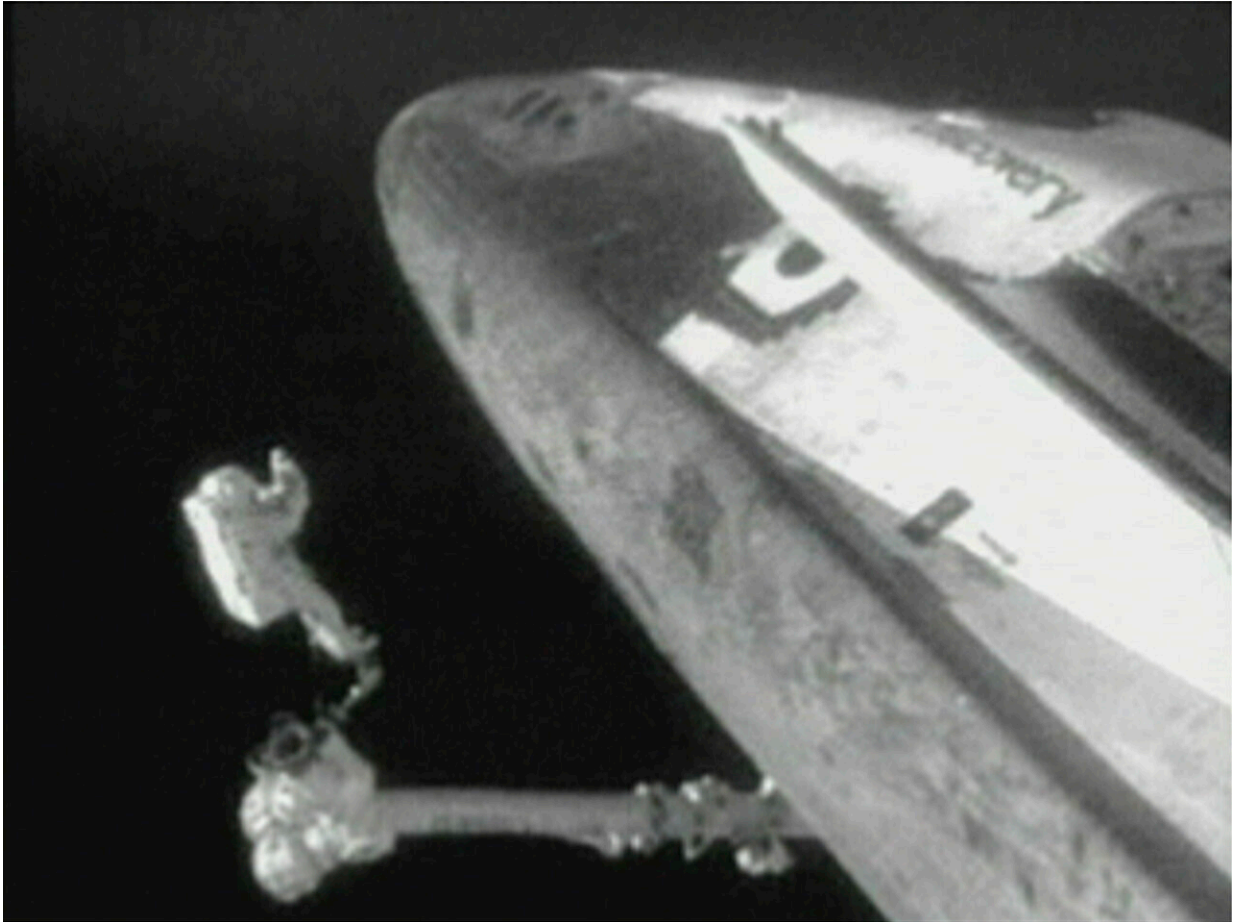
In this photo provided by NASA, astronaut Ed White performs the U.S.'s first spacewalk on June 3, 1965, during the Gemini 4 mission. Credit: James McDivitt/NASA via AP



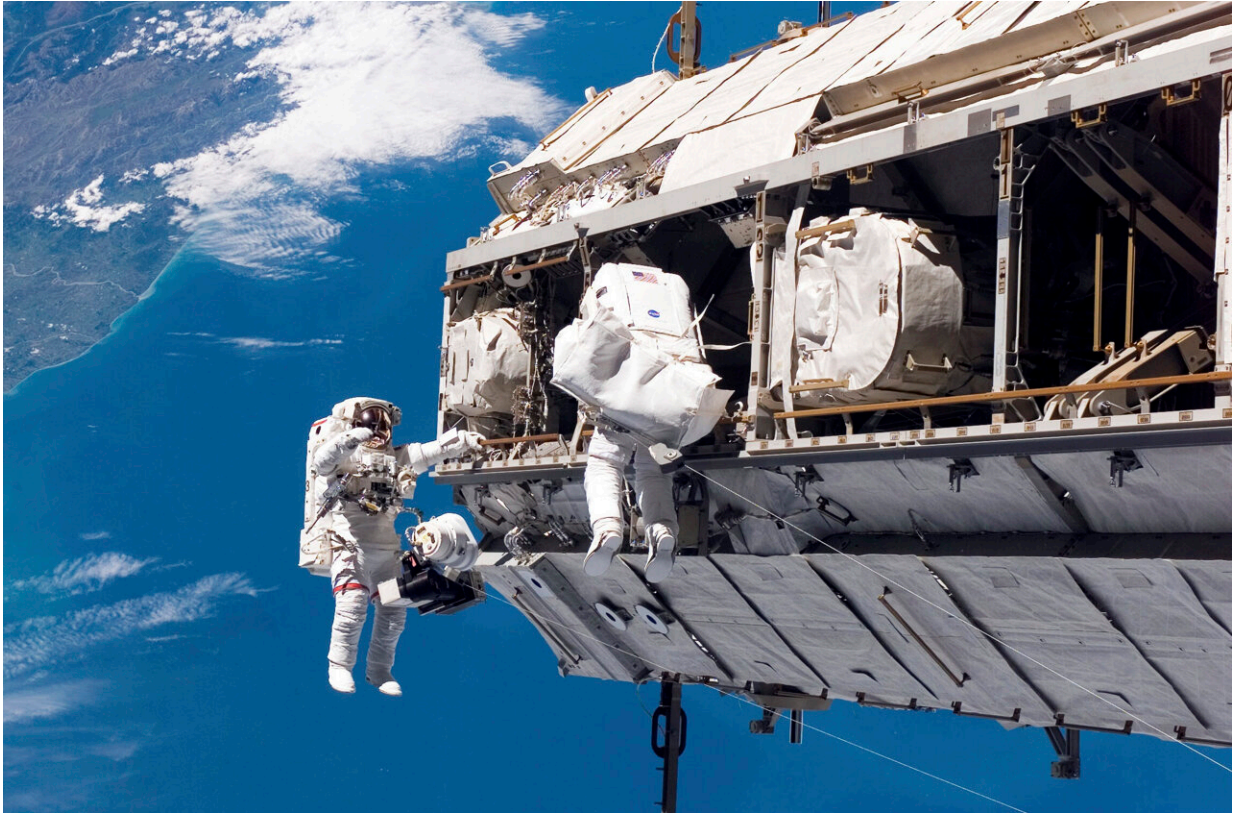
In this image from video provided by NASA, astronaut Claude Nicollier, left, maneuvers around the Hubble Space Telescope as astronaut Micheal Foale looks inside the observatory during a spacewalk Thursday, Dec. 23, 1999. Credit: NASA via AP, File



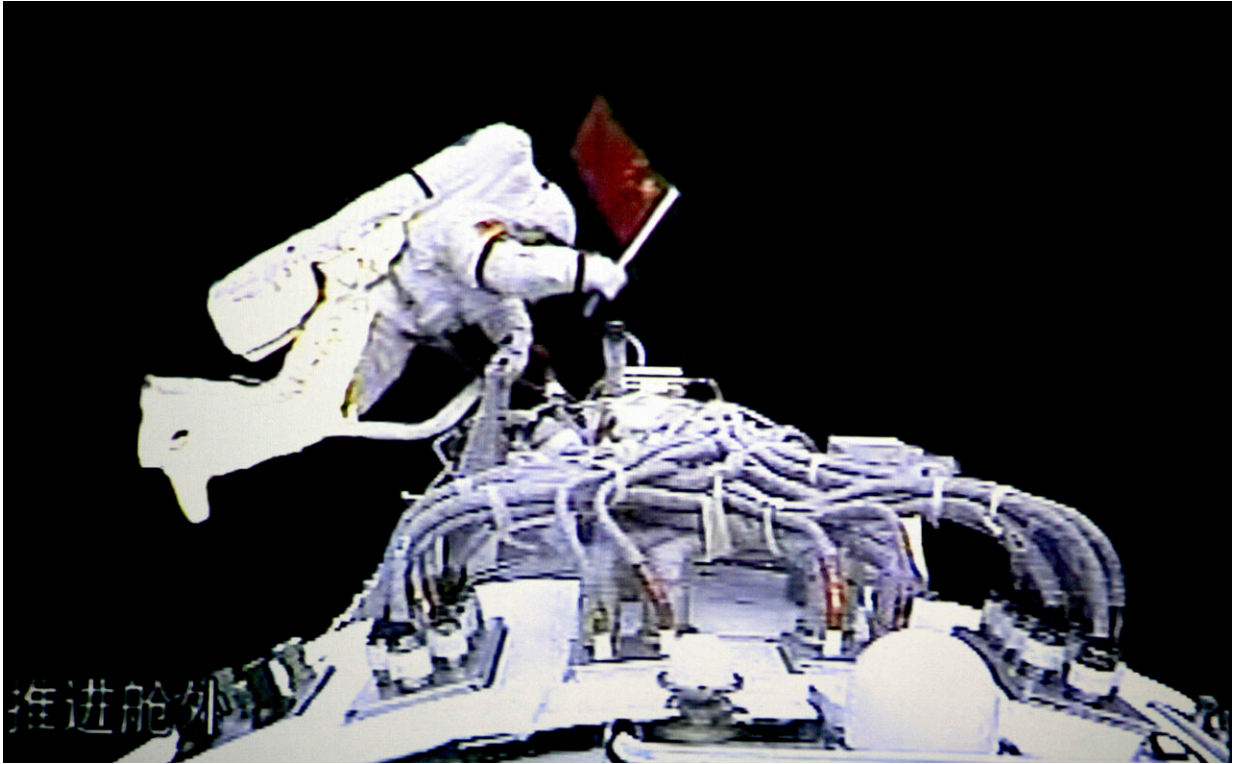
In this image from video provided by NASA, astronauts Richard Linnehan, left, and John Grunsfeld wave to the camera during their last few moments of the final spacewalk for the Hubble Space Telescope repair mission on March 8, 2002. Credit: NASA via AP, File



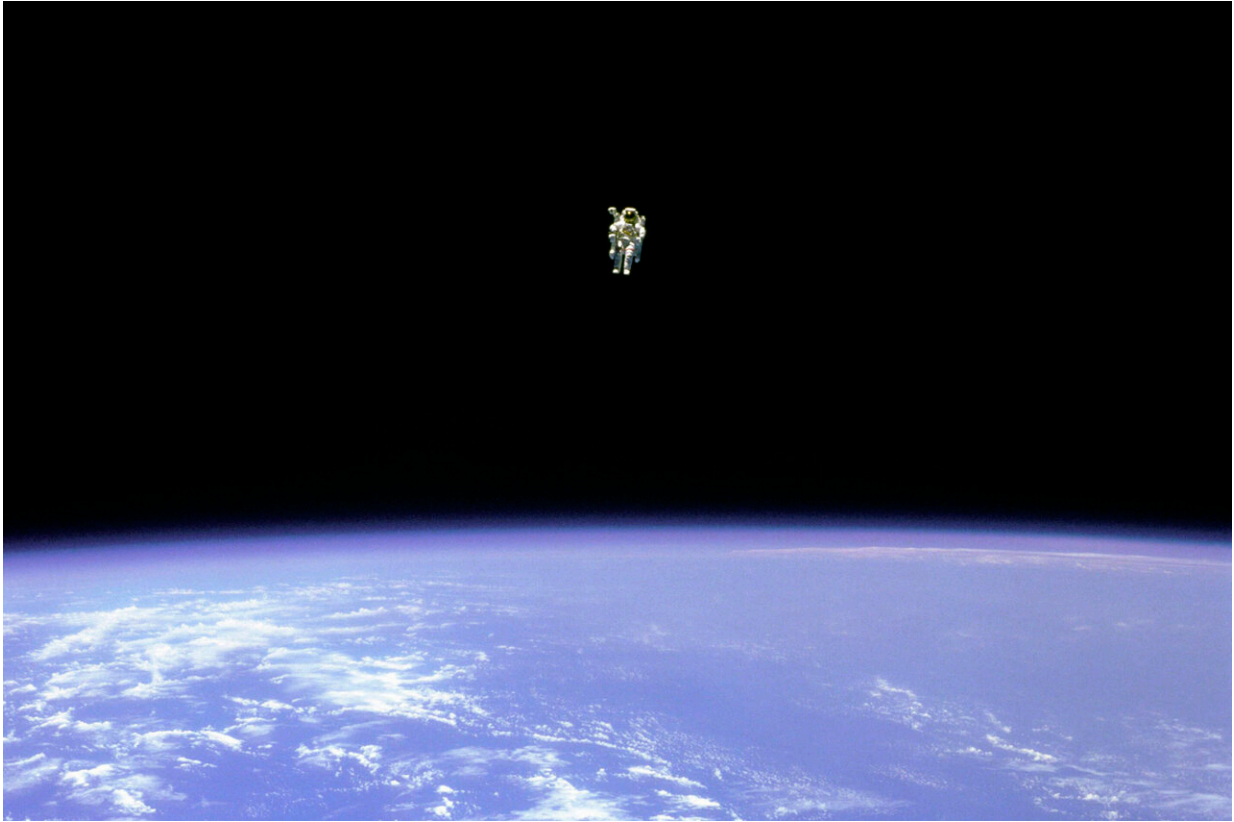
In this image from video provided by NASA, astronaut Steve Robison maneuvers under the shuttle Discovery to remove gap fillers on Aug. 3, 2005, the first time in spacewalking history that an astronaut has ventured under the belly of a space shuttle and performed repairs. Credit: NASA via AP, File



In this photo provided by NASA, astronaut Robert L. Curbeam Jr., left, and European Space Agency astronaut Christer Fuglesang, participate in a spacewalk during construction of the International Space Station on Dec. 12, 2006. In the background are New Zealand and the Pacific Ocean. Credit: NASA via AP, File



In this image from video provided by the Beijing Space Command and Control Center and the Xinhua News Agency on Sept. 27, 2008, Chinese astronaut Zhai Zhigang walks outside the orbit module of the Shenzhou-7 spacecraft for a spacewalk after docking with the Chinese station Tiangong 1. Credit: Beijing Space Command and Control Center, Xinhua via AP, File



In this photo provided by NASA, astronaut Bruce McCandless uses a nitrogen jet-propelled backpack, a Manned Manuevering Unit, outside the space shuttle Challenger on Feb. 12, 1984. Credit: NASA via AP, File

The duo will take turns emerging from the hatch, each spending 15 to 20 minutes outside as they flex and test their suits. Their crewmates—SpaceX engineer Anna Menon and former Air Force Thunderbird pilot Scott "Kidd" Poteet—will monitor the spacewalk from inside.

The entire [spacewalk](#) should last no more than two hours. Isaacman has refused to say how much he invested in the flight.

To date, 263 individuals representing a dozen countries have performed

spacewalks, according to NASA statistics, led by Soviet cosmonaut Alexei Leonov in 1965 with NASA's Ed White close behind.

China, the only other country to launch its own citizens into space, joined the spacewalking club in 2008. Europe, Japan, Canada and the United Arab Emirates also have seen their astronauts float outside, but always in NASA or Russian garb and under NASA or Russian control.

With SpaceX intent on getting people to the moon and Mars, "we need to start somewhere and the first step is what we're doing on this mission," Gillis said.

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