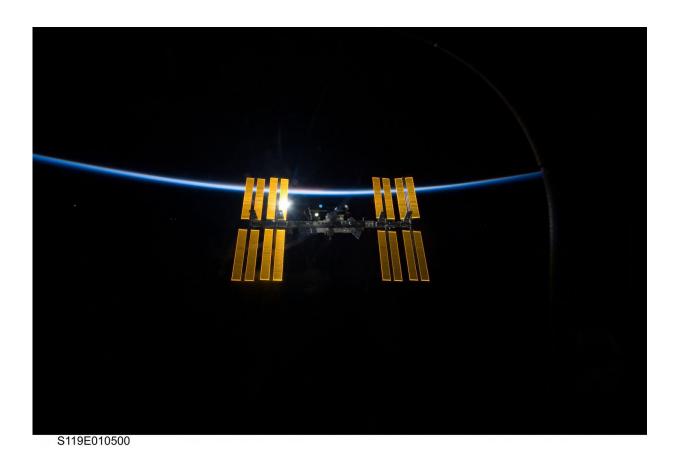


The International Space Station may become a casualty of the Russian war in Ukraine

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ISS. Credit: NASA

Will the Russian war on Ukraine lead to the demise of the International Space Station (ISS)?



Roscosmos, the Russian space agency, says Western sanctions resulting from its invasion of Ukraine have led Russia to question its commitment to the space <u>station</u> beyond 2024—news that casts doubt on the program's future. "We're in an unknown situation here," Scott Pace, a former executive secretary of the National Space Council, told The Wall Street Journal.

The space station is currently orbiting Earth at a speed of five miles per second with a crew that includes Russians and Americans. It has been a refuge from international conflict since its construction in 1998, says Mai'a Cross, the Edward W. Brooke Professor of Political Science and International Affairs at Northeastern. But the reverberations of the new war may extend beyond the atmosphere.

"It is impossible for this space station to exist without teamwork," says Cross, who is serving as guest editor of a special edition of The Hague Journal of Diplomacy that will be focused on space diplomacy. "Many people have said it is the greatest, biggest, and most expensive example of civil cooperation that has existed. You would see the ISS fail only if it was absolutely the last resort—if countries were in such dismal relationships with each other on Earth that they couldn't stomach the idea of continuing."

Cross spoke with News@Northeastern about the future of space exploration in the context of the war in Ukraine. Her comments have been edited for brevity and clarity.

The controversy was launched last week by Dmitry Rogozin, chief of the Russian space agency, who reacted to sanctions with a spate of tweets that forecast a possible crash landing for the space station—an outcome that has been refuted by



Russia's ISS partners.

He essentially claimed that if the sanctions are designed to degrade Russia's space program—which they do, because the sanctions include aerospace—there is a danger that the ISS could come crashing into the ground.

This boils down to a ridiculous scenario. The chances that somehow Russia would sabotage the ISS are very slim, because how would they get their own cosmonauts off of the space station before they sabotaged it?

You have to remember that these astronauts and cosmonauts are really good friends at this point. They've been living in close quarters all this time in space. Their lives depend on each other, and before they even went up there, they were training together for months, if not years. They learn each other's languages. They eat each other's foods. This is why the ISS is always a beacon of hope, even when there's conflict on earth, because these space people are actually quite close. They're really good friends when they're up there.

How far back does the U.S.-Russia relationship go in space?

It's something that's often not realized: During the height of the Cold War, the plan originally was to land on the moon together—to cooperate in the moon landing—and this was seriously discussed between [U.S. President John F.] Kennedy and [Soviet Premier Nikita] Khrushchev with a series of letters and meetings among the delegates and diplomats. It ultimately proved to be too much.

But countries often cooperate very heavily in the space and science



sectors, even when they're in very hot conflicts on Earth. And so for the history of the International Space Station, cosmonauts and NASA astronauts have coexisted in that area, and then other astronauts have also joined them from Europe, Japan, and other places.

What is the relationship for the crew members aboard the ISS?

Right now, as Russia and the U.S. and Europe are in these very tense times, there are four NASA astronauts, two Russian cosmonauts, and one European astronaut currently on the space station. And they have to work as a team.

The space station itself is as big as a football field. It has Russian engines, and Russia controls the location of the <u>space station</u>, but the U.S. has a huge portion of the equipment and oversees many scientific experiments and other decisions that happen.

Former President Donald Trump said he created the U.S. Space Force in 2020 to "establish American dominance in space," which conjured up Star Warslike imagery of space combat. Does this represent a vision for the future of humans in space?

The space community is trying very hard to uphold the law that states that space is not to be weaponized.

Space is militarized. The reason why it's militarized is because militaries on Earth rely on satellites for positioning and to know what's going on in the battlefield.



But that's a very different notion from space being weaponized and having weapons in space—or, as the term Space Force seems to imply, fighting battles in space. That is nowhere close to happening. There are no weapons in space that can target Earth.

Space Force portrays an aggressive stance on the part of the United States and other countries that have space forces as well. The unfortunate effect is that it makes it sound as though there's this ratcheting-up of crisis and conflict when, actually, space remains extremely cooperative. Everything that is being planned in terms of exploration and the use of space is actually peaceful.

Is there potential for conflict in future?

The dual-use nature of space technology [for science and the military] means that it would not be so difficult to cross the line into seeing this realm that has been so cooperative and peaceful turn into something that's more conflictual. We all have to be very careful—especially now, when there is war on Earth that involves Russia and could involve more Western partners—that the scales aren't tipped in space to undermine all of the progress and cooperation that has occurred since the beginning of the space age.

Provided by Northeastern University

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