

ISS astronauts forced to take cover as Russian satellite shatters

03 October 2024 Adam Jeffs, Editor, SAE Media Group

A Russian satellite has shattered into more than 100 pieces, highlighting the growing problem of space debris



Credit: NASA

Astronauts on the International Space Station (ISS) were forced to take cover inside the Starliner spacecraft on Thursday, June 27th after a Russian satellite shattered into more than 100 pieces.

LeoLabs, a company dedicated to monitoring events in-orbit, first noticed the satellite breaking apart when it recorded a debris-generating event on the 26th. The event was not considered to be an immediate threat to the astronauts, however precautionary measures were taken, with NASA stating:

"Mission Control continued to monitor the path of the debris, and after about an hour, the crew was cleared to exit their spacecraft and the station resumed normal operations."

Astronauts forced to take shelter included stranded Starliner crew members Butch Wilmore and Sunni Williams, who have been unable to return to Earth due to technical issues with the Starliner spacecraft.

The event highlights the growing problem posed by space debris among space faring nations, as space becomes more congested orbital collisions become increasingly likely. With satellite mega-constellations such as SpaceX's Starlink and those [under construction by the Chinese](#), this problem is only set to get worse.

The issue has necessitated creative solutions to ensure continued safe access to space, such as the use of AI by Neuraspace to track space debris and the launch of an orbital spacecraft by Space Machines Company to actively clear up space junk.

If we were to see traditional conflict in space however, these efforts may not be sufficient as the active destruction of satellites could increase the congestion of space debris exponentially. Such a scenario could be closer than we think, with [Russia threatening attacks on US and SpaceX satellites](#) following claims that they have been used to direct Ukrainian missile strikes.

While the US has demonstrated the same capacity to strike satellites that Russia has, such conflict would benefit Russia more than the US. Since Russia has somewhat fallen behind in the 21st century space race with both the US and China growing their space programmes at record rates, Russia has the least to lose from the denial of safe access to space.

Russia is still a global space power however, and satellites are critical to everyday life for most nations as they provide key services such as GPS or broadband, so it is unlikely that Russia will be keen to enter into a space-based conflict with 'hard kill' solutions. It is more likely that space-based warfare will turn first to 'soft kill' solutions such as electronic jamming or spoofing, with space-based nuclear weapons such as those the [US claims that Russia has launched](#) being saved as a last resort.

The [Military Space Situational Awareness](#) conference, taking place April 2025, will feature a range of leading experts from military and industry who will discuss the key issues and strategies surrounding space domain awareness in 2025.