

In space, the looming threat of a new arms race

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A computer-generated image of trackable objects in Low Earth Orbit (LOE) around Earth

Killer satellites, blinding lasers, sophisticated jammers: the world's military powers are quietly readying for a war in outer space—at the risk of fueling a dangerous new arms race.

US military officials have in recent years sounded growing alarm about the potential vulnerabilities of their satellites, which underpin US military power.

Initially, the reserve of the United States and the Soviet Union, [space](#) has now become accessible to an ever-expanding multitude of nations and private firms.

And Moscow and Beijing are keen to show off their space-attack capabilities, a deep worry for US strategists.

"We are changing the culture in our space enterprise because we need to get our heads around... what happens if a conflict on Earth extends to space. How will we defend our assets?" Air Force Secretary Deborah Lee James said at an event last month.

In 2015, the mysterious behavior of a Russian satellite fueled speculation about Moscow developing possible attack satellites, capable of maneuvering through space and approaching a target.

Without warning or explanation, the craft positioned itself for several months between two Intelsat satellites in geostationary orbit, coming to within six miles (10 kilometers) of one, before eventually moving away again.

"Our satellites are crucial for our national security infrastructure," said Victoria Samson of the Secure World Foundation, which works to develop the safe and sustainable use of space.

"The fact that another entity can come close to them and interfere with their work is very unsettling to US national security," she added.

A 'militarized' space

China, too, has demonstrated its ability to send a small, low-orbit satellite capable of maneuvering toward another craft.

Teresa Hitchens, senior research scholar at the Center for International and Security Studies at the University of Maryland, said that China in 2013 launched three small satellites into orbit, one of which had a robotic grappling arm.

For the Pentagon and many US experts, it is clear America should speed up military efforts in space, and prevent its communications network from becoming the armed forces' Achilles heel.



A Soyuz rocket is seen being launched in Sinnamary, French Guiana

"The Department of Defense has aggressively moved out to develop responses that we see coming from China and Russia. I believe it's essential that we go faster in our responses," General John Hyten, head of the Air Force's Space Command, told lawmakers in September.

Elbridge Colby, senior fellow at the Center for a New American Security said the United States must develop the ability to defend its own space assets.

"As human beings and more states are able to operate in space, it will just become a reality that it will become more militarized," he told AFP.

"The United States should develop effective but limitable forms of space attack, particularly non-kinetic ones that do not result in space debris."

But other experts say the United States should show restraint, noting the Pentagon may already have some of the offensive capabilities that China and Russia are hoping to acquire.

"I think it's being hyped somewhat by those in the US [national security](#) community that have never felt comfortable with the US losing its role as the dominant space power," Samson said.

The United States has since 2004 possessed a mobile jamming station which, from the ground, can block satellite communications.

America has already tested using a missile to blow up a satellite, and has recently acquired four satellites that can maneuver in orbit and inspect or monitor other space objects.

International code of conduct

Hitchens, the Maryland researcher, said Russia and China are quickly

catching up to where the Americans are.

"What you have is a brewing," she said.

It's a lead up "to a potential arms race in space, where people start developing things for real."

Space war could be devastating for humans, as a single exploded satellite would leave a trail of debris that in turn could damage other satellites in a chain reaction of destruction.

"We are at a very dangerous place right now: if we actually ever fought a war that would involve anti-satellite weapon, we would damage the space environment to such an extent that it would make it very difficult to have the benefits that satellites provide to society," Hitchens said.

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