

Expert Says Russia, China and U.S. All Working on 'Satellite Killers'

By [Matthew Bodner](#)

November 18, 2014



A Russian armed forces spy satellite being displayed as part of an international exhibition of military equipment.

A previously unknown Russian spacecraft conducting maneuvers characteristic of a satellite killer has sparked concerns that Russia's military provocations may soon extend to space, but experts say Russia is not the only major space power developing agile — and potentially deadly — capabilities in Earth's orbit.

Western space agencies, militaries and amateur observers are tracking a mysterious Russian satellite that could be a satellite hunter — a spacecraft that trails enemy satellites and then destroys or disables them, The Financial Times reported on Monday.

Amid Russia's showdown with the West over Ukraine the discovery looks ominous, but all the big space-faring nations — Russia, China and the U.S. — are developing similar capabilities, Robert Christy, a veteran amateur satellite tracker, told The Moscow Times

by phone.

"In a nutshell, you've got all three countries doing the same thing," he said.

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Suspicious Movements

Amateur observers such as Christy using publicly available orbital tracking data first noticed a Russian spacecraft earlier this summer, when an object classified as a small piece of space debris by the U.S. Space Tracking Network suddenly began changing its orbit.

Only after it had been flagged by monitors did the Russian Defense Ministry register the object, Christy said. It's launch had been unannounced, sparking suspicions over its possible military intention. It is now known in the international catalogue as Kosmos-2499.

The Russian Defense Ministry could not be reached for comment on the purpose of Kosmos-2499 on Tuesday.

The available tracking data shows that on Nov. 9, Kosmos-2499 zipped to within "tens of meters" of its carrier rocket, a minuscule distance relative to those traveled by spacecraft in orbit around Earth.

Military Application

Dr. James Oberg, a former NASA engineer and expert on the Russian space program told The Moscow Times: "Autonomous rendezvous by small satellites has always been considered a useful capability, for purposes of resupply, repair, inspection or even negation. ... The fact that the recent Chinese and Russian experiments have been done with no official announcements, and appear independent of already existing [civilian] rendezvous systems, does suggest to me they are not for peaceful purposes."

Oberg said killer satellites can be deployed into much higher orbits, where vital navigation, communication, and observation satellites are deployed, than ground-launched anti-satellite missiles, making the technology demonstrated by Kosmos-2499 militarily significant.

At close range a hostile satellite could take photographs of secret satellite hardware and intercept signals sent to the satellite from its ground controllers. Or it could initiate a cyber attack on the satellite, shoot it or disable it by ripping its solar panels off with a robotic arm.

"Furthermore, such systems must have long-duration flight capability, which implies they can be placed nearby potential targets and passively await the moment of activation for months or even years, probably without detection," Oberg added.

The U.S. Air Force maintains a database of all known objects orbiting Earth — including Russian and Chinese, but not U.S., military spacecraft — which amateur space trackers use to monitor the activity of satellites and spacecraft.

But although space is being watched, the inherent dual-use nature of space technology makes it easy to clothe military escapades in civilian clothing. It is easy to measure capability, but not intent.

And on capability Russia is not ahead of the pack. Indeed, Earth's orbit has seen plenty of potential satellite killers: "A tiny British satellite attempted such a feat and almost succeeded in the summer of 2000. The U.S. performed such maneuvers at least twice [since then]. And China performed at least three such missions in the last four years," said Igor Lissov, editor of Novosti Kosmonavtiki, a popular Russian space journal.

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Original url:

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