



# SPACE THREAT FACT SHEET

HEADQUARTERS SPACE FORCE INTELLIGENCE

The access to and use of space is of vital national interest. Intensifying strategic competition presents a serious threat to U.S. national security interests in, from, and to space. China and Russia are developing new space systems to enhance military effectiveness and end any reliance on U.S. space services. China and Russia are also testing and fielding sophisticated counterspace capabilities with the intent to disrupt and degrade U.S. space-enabled capabilities.

CHINA's ambitious space program is a source of national pride and key to Chinese Communist Party (CCP) plans for a powerful and prosperous nation. The People's Liberation Army (PLA) expects space to play an important role in future conflicts by enabling long-range precision strikes and denying other militaries the use of space-based information.

- ▶ In 2015, the CCP officially organized its military space capabilities under the newly-established Aerospace Force which was subsequently aligned directly under the Central Military Commission in Beijing.
  - ▷ By November 2025, China had conducted 70 total space launches this year, placing 319 payloads into orbit. As of November 2025, China had more than 1,301 satellites in orbit.
  - ▷ Since the end of 2015, China's on-orbit presence has grown by approximately 667% (+1,106 satellites).
  - ▷ The PLA benefits from 510+ ISR-capable satellites with optical, multispectral, radar, and radiofrequency sensors, increasing its ability to detect U.S. aircraft carriers, expeditionary forces, and air wings.
  - ▷ China has launched 108 G60 and 95 SatNav communications satellites to low Earth orbit (LEO) as part of two planned mega-constellations by 2030 to compete with Western commercial proliferated LEO (pLEO) constellations
  - ▷ China uses at least 10 satellites to conduct on-orbit space situational awareness (SSA) that augment its network of terrestrial space object surveillance and identification (SOSI) sensors.
  - ▷ The PLA is improving space-based capabilities combined with its growing arsenal of standoff weaponry to enable long-range precision strikes against U.S. and allied forces.
  - ▷ China has launched three reusable spaceplanes that released unidentified objects. The first was in orbit two days, the second over nine months, and the third nearly nine months.
  - ▷ In May 2025, China launched the first 12 satellites of its Three-Body Computing Constellation, an artificial intelligence (AI) supercomputer array with a planned processing capacity of one quintillion operations per second.
  - ▷ China has made significant strides in developing reusable space launch vehicles (SLVs), a key technology for meeting its pLEO plans. This includes a successful 12-km high vertical takeoff and landing test last year. However, China's first attempt at recovering a reusable SLV failed in early December when the Zhuque-3 first stage booster lost an engine during landing and crashed on the pad.
  - ▷ China maneuvered two satellites, Shijian-21 (SJ-21) and Shijian-25 (SJ-25) into extremely close proximity where they conducted probable satellite refueling experiments in geosynchronous Earth Orbit (GEO).
- ▶ Intelligence suggests the PLA likely sees counterspace operations as means to deter and counter U.S. military intervention in a regional conflict. It is actively developing and fielding a wide range of counterspace capabilities.
  - ▷ In 2007, the PLA destroyed a defunct weather satellite in LEO with a ground based antisatellite missile. The capability evolved into an operational system intended to target LEO satellites.
  - ▷ The U.S. Defense Intelligence Agency assesses the PLA probably intends to field ASAT weapons able to reach up to GEO at 36,000 km. In 2013, the PLA launched a ballistic object which peaked at 30,000 km, suggesting it may already have a basic ASAT capability against higher orbits
  - ▷ China has already launched "inspection and repair" systems that could also function as weapons. In 2022, the SJ-21 satellite moved a derelict BeiDou navigation satellite to a graveyard orbit above GEO.
  - ▷ Multiple SJ-series and TJS-series experimental satellites have conducted unusual, large, and rapid maneuvers in GEO; tactics that could have several different military applications.
  - ▷ The PLA has multiple ground-based laser weapons able to disrupt, degrade, or damage satellite sensors. By

the mid-to-late 2020s, the PRC could have higher-power systems able to damage satellite structures.

- ▷ PLA military exercises regularly incorporate jammers against space-based communications, radars, and navigation systems like GPS. Intelligence suggests the PLA may be developing jammers to target SATCOM over a range of frequencies, including U.S. military protected extremely-high-frequency (EHF) systems.

RUSSIA has one of the world's largest space programs and remains a capable space actor. Its experience and pedigree are unmatched outside the U.S. and are enduring sources of pride for the Russian people.

- ▶ Russia views space as a warfighting domain and believes space supremacy will be a decisive factor in future conflicts. To that end, its military's space troops were integrated into the Aerospace Forces in 2015, in part to better integrate space-based capabilities into larger operations. However, Russian space technology has declined amid funding shortfalls, international isolation, and broader societal problems.
  - ▷ Russia conducted only 17 launches in 2024—well short of the 26+ annual launches it averaged from 1995 to 2015—and remained largely absent from the international market, launching only five foreign payloads.
  - ▷ Russia retains expertise in rocket engines and space launch; however, its launch activity increasingly lags the U.S. and China. Russia aspires for its newest cosmodrome to reduce dependencies on Baikonur.
  - ▷ Russia operates advanced ISR satellites for optical imagery, SIGINT, and missile warning, but Moscow is increasingly relying on civil and commercial providers. For example, Russian private military companies have purchased imagery from Chinese company Spacety to support combat operations in Ukraine.
- ▶ Even as Moscow backs space arms control negotiations, Russia is researching, developing, testing, and deploying counterspace systems to take advantage of a perceived vulnerability of U.S. military dependence on space.
  - ▷ In November 2021, Russia tested its Nudol DA-ASAT missile against a defunct Soviet satellite in LEO, creating 1,500 pieces of trackable debris. This act endangered spacecraft of all nations in LEO, including astronauts and cosmonauts on the International Space Station (ISS) and taikonauts on China's Tiangong Space Station.
  - ▷ A large missile first observed on a MiG-31 aircraft at a test site in 2018 may be related to an air-launched ASAT missile named Burevestnik that will be "capable of destroying targets in near-space."
  - ▷ Russia has deployed probable orbital ASAT prototypes into LEO in 2017, 2019, 2022, 2024, and 2025. The four most recent were all placed in orbits matching those of U.S. national security satellites, and one ejected an object near a Russian satellite while testing a space-based ASAT weapon.
  - ▷ In June 2025, Russia launched a satellite into a peculiar, high-altitude orbit, passing near numerous U.S. and allied satellites in GEO. It also released an unidentified object with which it has repeated close approaches.
  - ▷ In September 2025, Russia launched "Mozhaets-6", a military payload which Russian media claims is a small satellite and will comprise an "orbital squadron".
  - ▷ Russia launched three satellites in February 2025 which conducted a series of maneuvers that enabled close approaches of under 1 km. Operations of this type could be used to threaten or collect on U.S. satellites.
  - ▷ Russia deployed Peresvet laser weapons to five strategic missile divisions starting in 2018. The system can mask missile deployments by blinding satellite sensors. Russia may deploy more powerful lasers by 2030.
  - ▷ Russia is also developing an ASAT capability using a new satellite designed to carry a nuclear weapon. Such a capability could pose a threat to all satellites and to the vital space-enabled services the world depends on. As of late April, a satellite believed to be associated with this program was spinning uncontrollably, suggesting it may no longer be functioning.
  - ▷ Moscow has repeatedly said "quasi-civilian" commercial satellites used for military purposes "may become a legitimate target for retaliation," and Russia demonstrated its willingness to use cyber-attacks against commercial space systems during the Ukraine war. In 2025, Russia told international regulators it considered European satellites aiding Ukraine's military as "legitimate targets," and Russia's continuing electronic attacks on GPS and SATCOM across Europe have been called "extremely worrisome and unacceptable" by the International Telecommunications Union. Moreover, the United Kingdom's Space Command has stated Russia persistently uses its ground-based jammers to target its satellites.

China is the **PACING CHALLENGE** and is rapidly improving its space capabilities to **TRACK & TARGET** U.S. military forces. China & Russia are pursuing a wide range of counterspace capabilities to **DISRUPT & DEGRADE** U.S. space capabilities.