



Launch

China launches classified military satellite towards geostationary belt

Andrew Jones February 23, 2024



Liftoff of the seventh Long March 5 rocket from Wenchang, Feb. 23, 2024, carrying the classified TJS-11 satellite. Credit: Ourspace

HELSINKI — China launched the TJS-11 classified satellite early Friday as the country continues to build its geostationary capabilities.

A Long March 5 lifted off from Wenchang Satellite Launch Center on Hainan island at 6:30 a.m. Eastern (1130 UTC), Feb. 23.

The China Aerospace Science and Technology Corp., (CASC), announced launch success just under an hour after launch. The announcement also provided the first official statement on the payload:

TJS-11 (Tongxin Jishu Shiyuan-11). The satellite is described as being mainly used to carry out multi-band, high-speed satellite communication technology verification.

Neither CASC nor Chinese state media provided further details on the satellite which belongs to a series of classified geosynchronous satellites for the Chinese military. TJS satellites are thought by **observers** to serve a range of purposes including early warning, signals intelligence and more.

Buildup to the mission was shrouded in secrecy, despite the open location of the coastal launch. There were no official reports of the rollout of the rocket, in contrast to previous missions. Notably it is the shortest time between launches of the Long March 5, at 70 days since the launch of Yaogan-41. Like the Yaogan-41 launch, the TJS-11 mission used an elongated 18.5-meter-long, 5.2-meter-diameter payload fairing. Standard fairings are 12.3 meters long.

This is the first TJS satellite launched on a Long March 5, China's most powerful launch vehicle. The Long March 5 can loft 14,000 kilograms into geosynchronous transfer orbit. The launcher is required to launch China's largest satellite bus, the DFH-5.

The satellite series and its activities has caught the attention of observers in recent years. For instance, China's TJS-3 (Tongxin Jishu Shiyuan-3) satellite launched in 2018 and released a payload of unstated purposes.

Assessments of the pair's maneuvers suggest the spacecraft **moved in concert** and carried out operations including spoofing. This involves coordinated maneuvers at certain times in an attempt to confuse rivals' space tracking networks. Orbital data reveals that TJS-3 has been **making close approaches** to American satellites.

The U.S. Space Force recently stated its **growing concern at China's advancing capabilities** in geostationary orbit (GEO). Assets of note include the **Ludi Tance-4 (01)** L-band synthetic aperture radar (SAR) satellite and the **Yaogan-41** optical satellite, with an estimated resolution of 2.5 meters. China launched the pair separately in the second half of 2023.

"Paired with data from other Chinese surveillance satellites, Yaogan-41 could provide China an unprecedented ability to identify and track car-sized objects throughout the entire Indo-Pacific region and put at risk numerous U.S. and allied naval and air assets operating in the region," Clayton

Swope, a former U.S. intelligence official and now a senior fellow at the Center for Strategic and International Studies (CSIS), said Jan. 30.

Furthermore, a Long March 7A rocket launched the mystery [TJS-10](#) satellite towards GEO in November last year.

The launch of TJS-11 was the seventh flight of the Long March 5. It was also China's ninth orbital mission of 2024. CASC has yet to provide an outline for its overall launch activities for 2024, in contrast to previous years. China launched a [national record 67 times](#) last year with one failure.

Known major activities include Shenzhou missions to the Tiangong space station and the pioneering [Chang'e-6](#) lunar far side sample return mission. The latter mission will fly on the next Long March 5. Launch is expected in May, following the launch of the requisite [Queqiao-2](#) relay satellite on a Long March 8 next month.

Chinese commercial launch providers are expected to continue to build on a breakthrough 2023. The debut of new liquid-propellant launch vehicles including the [Tianlong-3](#) (Space Pioneer), [Nebula-1](#) (Deep Blue Aerospace) and [Pallas-1](#) (Galactic Energy) expected in the second half of 2024.



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Rumors are this launch did not include YZ upper stage, which means the satellite itself needed the entire extended fairing envelope.

TJS is usually for SIGINT missions, so after unfolding we're talking about possibly history's largest dish placed in GEO. Think Orion, but bigger and 2x more massive.

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So - isn't Kamala Harris the head of our National Space Council - and isn't she supposed to be doing something about space threats?

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