NEWS

China's global aspirations lift as BeiDou satellite launches into orbit

- Third generation navigational network makes Beijing an 'aerospace power' says design engineer after successful launch
- Development puts Chinese coverage on equal footing with US, Europe and Russian global satellite constellations

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A carrier rocket carrying the last satellite in China's BeiDou Navigation Satellite System (BDS) blasts off in Tuesday's successful launch. Photo: Xinhua

China launched the last satellite in its BeiDou-3 constellation into orbit on Tuesday morning, completing its long-awaited global navigation network after a one-week delay. About 20 minutes after launch, the satellite had reached its designated orbit, according to the Chinese space agency.

Zhang Xueyu, director of the satellite launching site, declared the mission a success while Yang Changfeng, chief engineering designer of the BeiDou satellite navigation system, told CCTV its completion meant China had become an aerospace power. "The successful launch also lifted up our spirits," Yang said.

The satellite was launched from Xichang, in China's southwestern Sichuan province, and was carried by a Long March 3B rocket – second most powerful in the Long March rocket family, and the primary one for delivering communications satellites into orbit.

The completion of the BeiDou Navigation Satellite System (BDS) was six months ahead of schedule, according to Communist Party mouthpiece People's Daily.

It puts China in a competitive position against the world's three other satellite navigation networks – the US-led GPS, EU-led Galileo and Russia's GLONASS. Beijing is now in a position to expand its international engagement and offer an alternative to other countries which currently rely on US technology.

The development of BeiDou – which is the name in Mandarin for the Big Dipper constellation, also known as the Plough – was spurred by the loss of two missiles in 1996, fired across the Taiwan Strait to deter the self-ruled island from moving towards independence. Later analysis by Chinese scientists blamed the failures on disruptions to the GPS system.

"A navigation system is like a gold key of your home that should only be kept in your own hands but not other's," said China's state broadcaster CCTV in an explanatory programme last week.

China's space missions in 2020 include Mars probe and space station launch

On June 16, China's state news agency Xinhua reported that "technical problems" found during a routine check before llft-off had delayed the launch of the last BeiDou-3 satellite, without giving further details.

Although China started researching its own satellite system as early as 1994, it was not until 2000 – four years after the 1996 Taiwan Strait crisis – that the first and second experimental satellites for BDS-1 were launched on October 20 and December 21, respectively. BDS-1 retired at the end of 2012.



The launch of the BeiDou-3 satellite was broadcast live across China. Photo: Weibo

The second generation BeiDou-2 – also known as Compass – became operational in December 2011 with a partial constellation of 10 satellites in orbit. It has been offering services to customers in the Asia-Pacific region since December 2012.

On March 30, 2015, China began building the third generation BeiDou-3 to offer global coverage. With the last satellite sent into orbit on Tuesday, BeiDou-3 now consists of 35 satellites capable of providing global positioning services.

The satellite and the launch vehicle for Tuesday's mission were developed by the China Academy of Space Technology and the China Academy of Launch Vehicle Technology respectively, both affiliated to the China Aerospace Science and Technology Group.

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