

China launches final satellite in GPS-like Beidou system

23 June 2020



In this photo released by Xinhua News Agency, a rocket carrying the last satellite of the Beidou Navigation Satellite System blasts off from the Xichang Satellite Launch Center in southwest China's Sichuan Province, Tuesday, June 23, 2020. China launched the final satellite in its Beidou constellation that emulates the U.S. Global Positioning System, marking a further step in the country's advance as a major space power. (Xue Chen/Xinhua via AP)

China on Tuesday launched the final satellite in its Beidou constellation that emulates and may seek to compete with the U.S. Global Positioning System, marking a further step in the country's advance as a major space power.

The launch of the satellite onboard a Long March-3 rocket was broadcast live from the satellite launch base of Xichang, deep in the mountains of southwestern China, shortly before 10 a.m. About half an hour later, the satellite was deployed in orbit and extended its solar panels to provide its energy.

An initial launch scheduled for last week was scrubbed after checks revealed unspecified technical problems.

The third iteration of the Beidou Navigation Satellite System promises to provide global coverage for timing and navigation, offering an alternative to Russia's GLONASS and the European Galileo systems, as well as America's GPS.

The launch of the 55th satellite in the Beidou family shows China's push to provide global coverage has been "entirely successful," the system's chief designer Yang Changfeng told state broadcaster CCTV.

"In actual fact, this also signifies that we are moving from being a major nation in the field of space to becoming a true space power," Yang said.

China's [space program](#) has developed rapidly over the past two decades as the government devotes major resources toward developing independent high-tech capabilities—and even dominating in fields such as 5G data processing.



In this Oct. 19, 2017, file photo, visitors look at a display of satellite technologies at an exhibition highlighting China's achievements under five years of President Xi Jinping's leadership at the Beijing Exhibition Hall in Beijing. China on Tuesday, June 23, 2020 launched the final satellite in its Beidou constellation that emulates the U.S. Global Positioning System, marking a further step in

the country's advance as a major space power. (AP Photo/Ng Han Guan, File)

The first version of Beidou, meaning "Big Dipper," was decommissioned in 2012. Future plans call for a smarter, more accessible and more integrated system with Beidou at its core, to come online by 2035.

The now complete current system, known as BDS-3, consists of 30 satellites and began providing navigation services in 2018 to countries taking part in China's sprawling "Belt and Road" infrastructure initiative, along with others, according to the official Xinhua News Agency. It largely relies on medium earth orbit satellites, but also operates six geosynchronous orbit satellites such as the one launched Tuesday, Xinhua said.

Along with being a navigation aid, the system offers "short message communication, satellite-based augmentation, international search and rescue, as well as precise point positioning," Xinhua said. The short messaging systems allows for communications up to 1,200 Chinese characters long, as well as the ability to transmit images, it said.

While China says it seeks cooperation with other [satellite](#) navigation systems, Beidou could ultimately compete against GPS and others in the same way Chinese cell phone makers and other producers of technically sophisticated hardware have taken on their foreign rivals.

In 2003, China became just the third country to independently launch a crewed space mission and has since constructed an experimental space station and sent a pair of rovers to the surface of the moon.

Future plans call for a fully functioning permanent space station and a possible crewed flight to the moon, with its first attempt to send an orbiter and rover to Mars possibly coming as early as next month. If successful, it would be the only other country besides the U.S. to land on Earth's closest planetary neighbor.

The program has suffered some setbacks, including launch failures, and has had limited cooperation with other countries' [space](#) efforts, in part because of U.S. objections to its close connections to the Chinese military.

© 2020 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed without permission.

APA citation: China launches final satellite in GPS-like Beidou system (2020, June 23) retrieved 9 October 2020 from <https://phys.org/news/2020-06-china-satellite-gps-like-beidou.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.