

China set to send 3 astronauts on longest crewed mission yet

14 October 2021



In this photo released by Xinhua News Agency, the Shenzhou-13 manned spaceship atop a Long March-2F carrier rocket is transferred to the launching area of Jiuquan Satellite Launch Center in northwestern China, Oct. 7, 2021. China is preparing to send three astronauts to live on its space station for six months—a new milestone for a program that has advanced rapidly in recent years. Credit: Wang Jiangbo/Xinhua via AP

China is preparing to send three astronauts to live on its space station for six months—a new milestone for a program that has advanced rapidly in recent years.

It will be China's longest crewed space mission and set a record for the most time spent in space by Chinese astronauts. The Shenzhou-13 spaceship is expected to be launched into space on a Long March-2F rocket early Saturday morning from the Jiuquan Satellite Launch Center on the edge of the Gobi Desert in northwestern China.

The first crew who served a 90-day mission aboard the main Tianhe core module of the space station returned in mid-September.

The new crew has two veterans of space travel.

Pilot Zhai Zhigang, 55, performed China's first spacewalk. Wang Yaping, 41, and the only woman on the mission, carried out experiments and led a science class in real-time while traveling on one of China's earlier experimental space stations. Ye Guangfu, 41, will be traveling into space for the first time.

The three later spoke to reporters through a glass barrier at the Jiuquan base, with Zhai saying the length of the mission would be a challenge, but one he was confident they were prepared to meet.

"After almost two years of training (together), our crew members now know each other well and have a tacit understanding. I believe that with the power and wisdom of our team, (we) will definitely resolve all difficulties," Zhai said.



In this photo released by Xinhua News Agency, Chinese astronauts, from left, Ye Guangfu, Zhai Zhigang and Wang Yaping wave to reporters as they arrive for a press conference at the Jiuquan Satellite Launch Center ahead of the Shenzhou-13 launch mission from Jiuquan in northwestern China, Thursday, Oct. 14, 2021. China is preparing to send three astronauts to live on its space station for six months—a new milestone for a program that has advanced rapidly in recent years. Credit: Ju Zhenhua/Xinhua via AP

Russian cosmonaut Valery Polyakov, who lived on Russia's old Mir space station in 1994 and 1995, holds the record for the longest stay in space at more than 14 months.

The mission is expected to continue the work of the initial crew, who conducted two spacewalks, deployed a 10-meter (33-foot) mechanical arm, and held a video call with Chinese leader Xi Jinping.

China Manned Space Agency Deputy Director Lin Xiqiang said the rocket was fueled and ready to fly. "All systems conducting the Shenzhou-13 mission have undergone a comprehensive rehearsal. The flight crew is in good condition and our pre-launch preparations are in order," Lin said at a Thursday briefing.

The crew's scheduled activities include up to three spacewalks to install equipment in preparation for expanding the station, verifying living conditions in the module and conducting experiments in space medicine and other areas, Lin said.

China's military, which runs the space program, has released few details but says it will send multiple crews to the station over the next two years to make it fully functional. Shenzhou-13 will be the fifth mission, including trips without crews to deliver supplies.

When completed with the addition of two more modules—named Mengtian and Wentian—the station will weigh about 66 tons, a fraction of the size of the International Space Station, which launched its first module in 1998 and will weigh around 450 tons when completed. Lin said the two additional modules would be sent before the end of next year during the stay of the yet-to-be-named Shenzhou-14 crew.



In this photo released by Xinhua News Agency, the Shenzhou-13 manned spaceship onto of a Long March-2F carrier rocket prepares to be transferred to the launching area of Jiuquan Satellite Launch Center in northwestern China, Oct. 7, 2021. China is preparing to send three astronauts to live on its space station for six months—a new milestone for a program that has advanced rapidly in recent years. Credit: Wang Jiangbo/Xinhua via AP

China was excluded from the International Space Station largely due to U.S. objections over the Chinese program's secretive nature and close military ties. It made plans to build its own space stations in the early 1990s and had two experimental modules before starting on the permanent station.

U.S. law requires congressional approval for contact between the American and Chinese space programs, but China is cooperating with space experts from countries including France, Sweden, Russia and Italy.

Lin said China was expanding such cooperation, with Ye Guangfu having undergone training with the European Space Agency in 2016, and European astronauts participating in China's sea survival training in 2017.

"We welcome astronauts from other countries entering our space station and conducting international cooperation," Lin said. "We believe that after the station enters the operation and

utilization phase, more foreign astronauts will visit our station."

Commenting on his time with the ESA, Ye called it an unforgettable experience that "made me realize that the exploration of the vast space and the construction of a home in space are a shared mission and pursuit for astronauts."

"I look forward to the day when international colleagues can travel in space together (with us), and I welcome them to visit China's space station," Ye said.

including placing a rover on the little-explored far side of the Moon and returning lunar rocks to Earth for the first time since the 1970s.

China this year also landed its Tianwen-1 space probe on Mars, whose accompanying Zhurong rover has been exploring for evidence of life on the red planet.

Other programs call for collecting soil from an asteroid and bring back additional lunar samples. China has also expressed an aspiration to land people on the moon and possibly build a scientific base there, although no timeline has been proposed for such projects. A highly secretive space plane is also reportedly under development.



© 2021 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed without permission.

In this photo released by Xinhua News Agency, Chinese astronauts, from left, Ye Guangfu, Zhai Zhigang and Wang Yaping meet the reporters at a press conference at the Jiuquan Satellite Launch Center ahead of the Shenzhou-13 launch mission from Jiuquan in northwestern China, Thursday, Oct. 14, 2021. China is preparing to send three astronauts to live on its space station for six months—a new milestone for a program that has advanced rapidly in recent years. Credit: Ju Zhenhua/Xinhua via AP

China has launched seven crewed missions with a total of 14 astronauts aboard since 2003, when it became only the third country after the former Soviet Union and the United States to put a person in space on its own. Two Chinese astronauts have flown twice.

Along with its crewed missions, China has expanded its work on lunar and Mars exploration,

APA citation: China set to send 3 astronauts on longest crewed mission yet (2021, October 14) retrieved 1 December 2021 from <https://phys.org/news/2021-10-china-astronauts-longest-crewed-mission.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.