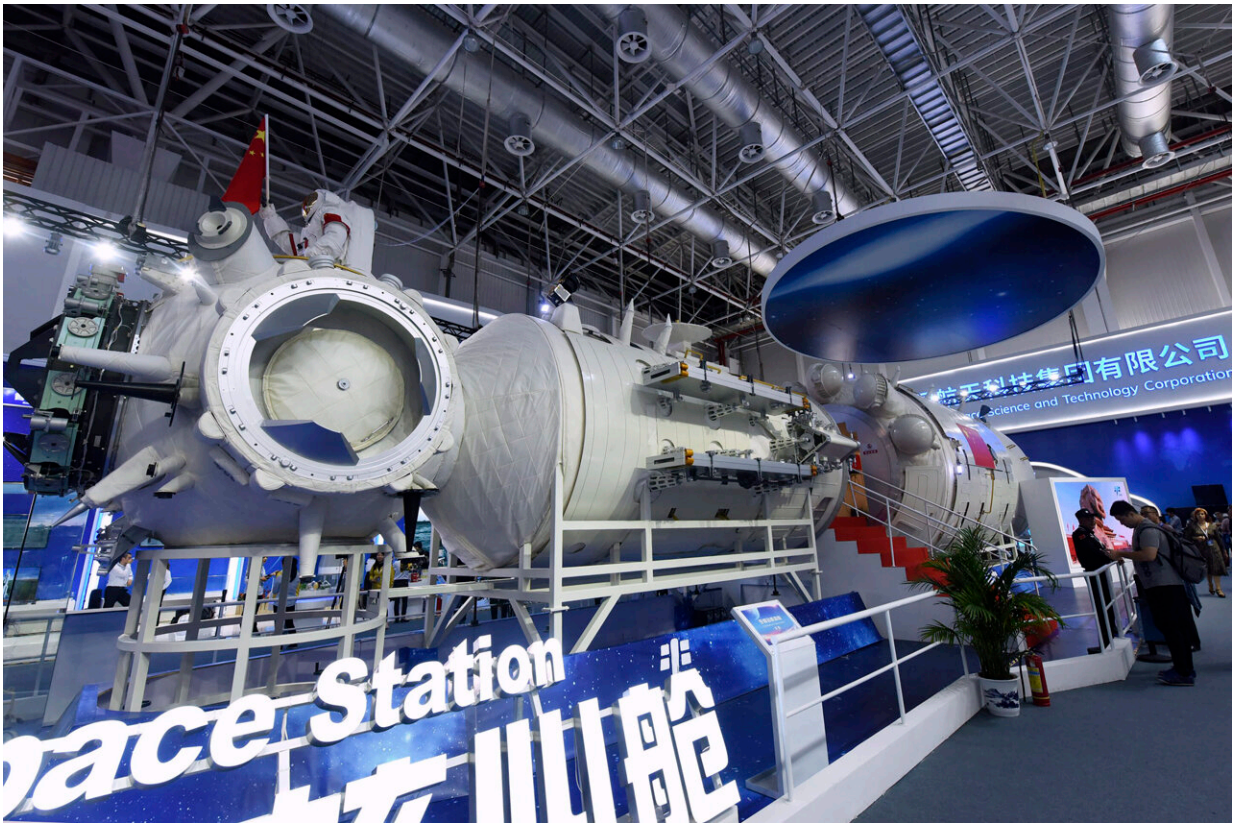


EXPLAINER: The significance of China's new space station

June 17 2021, by Sam McNeil



In this Nov. 7, 2018, photo, visitors look at a life-size model of the Tianhe core module of China's next space station at the Airshow China in Zhuhai in southern China's Guangdong Province. China on Thursday, June 17, 2021 has launched its first crewed space mission in five years, sending three astronauts to a new space station that marks a milestone in the country's ambitious space program. Credit: Chinatopix via AP

Adding a crew to China's new orbiting space station is another major advance for the burgeoning space power.

Here's a look at key developments:

WHAT'S THE MISSION'S PURPOSE?

The three-member crew is due to stay for three months in the station's main living module, named Tianhe, or Heavenly Harmony. They will be carrying out science experiments and maintenance, space walks and preparing the facility to receive two additional modules next year.

While China concedes it arrived late at the space station game, it says its facility is cutting-edge. It could also outlast the International Space Station, which is nearing the end of its functional lifespan.

The launch Thursday also revives China's crewed [space program](#) after a five-year hiatus. With Thursday's launch, China has now sent 14 astronauts into space since it first achieved the feat in 2003, becoming the third country after the former Soviet Union and the U.S. to do so.

WHY IS CHINA BUILDING THE STATION?

As the Chinese economy was beginning to gather steam in the early 1990s, China formulated a plan for [space exploration](#), which it has carried out at a steady, cautious cadence. While China has been barred from participation in the International Space Station, mainly over U.S. objections to the Chinese program's secretive nature and close military connections, it's likely the country would have built its own station anyway as it sought the status of a great space power.



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At a news conference Wednesday, China Manned Space Agency Assistant Director Ji Qiming told reporters at the Jiuquan launch center that the construction and operation of the [space station](#) will raise China's technologies and "accumulate experience for all the people."

The space program is part of an overall drive to put China on track for even more ambitious missions and provide opportunities for cooperation

with Russia and other, mostly European, countries along with the United Nations Office for Outer Space Affairs.

POLITICS AND SECURITY

China's space program has been a massive source of national pride, embodying its rise from poverty to the world's second-largest economy over the past four decades. That has helped shore up the power of the Communist Party, whose authoritarian rule and strict limits on political activity have been tolerated by most Chinese as long as the economy is growing.



A Long March-2F Y12 rocket carrying a crew of Chinese astronauts in a Shenzhou-12 spaceship lifts off at the Jiuquan Satellite Launch Center in Jiuquan in northwestern China, Thursday, June 17, 2021. China has launched the

first three-man crew to its new space station in its the ambitious programs first crewed mission in five years. Credit: AP Photo/Ng Han Guan

President and head of the party Xi Jinping has associated himself closely with that success, and Ji in his remarks cited Xi as setting the updated agenda for China's rise to prominence in space. The first mission to the station also coincides with the celebration of the party centenary next month, an important political milestone.

At the same time, China is modernizing its military at a rapid pace, raising concerns from neighbors, the U.S. and its NATO allies. While China espouses the peaceful development of space on the basis of equality and mutual respect, many recall that China in January 2007 sent a ballistic missile into space to destroy an inactive weather satellite, creating a debris field that continues to be a threat.

WHO ARE THE ASTRONAUTS?

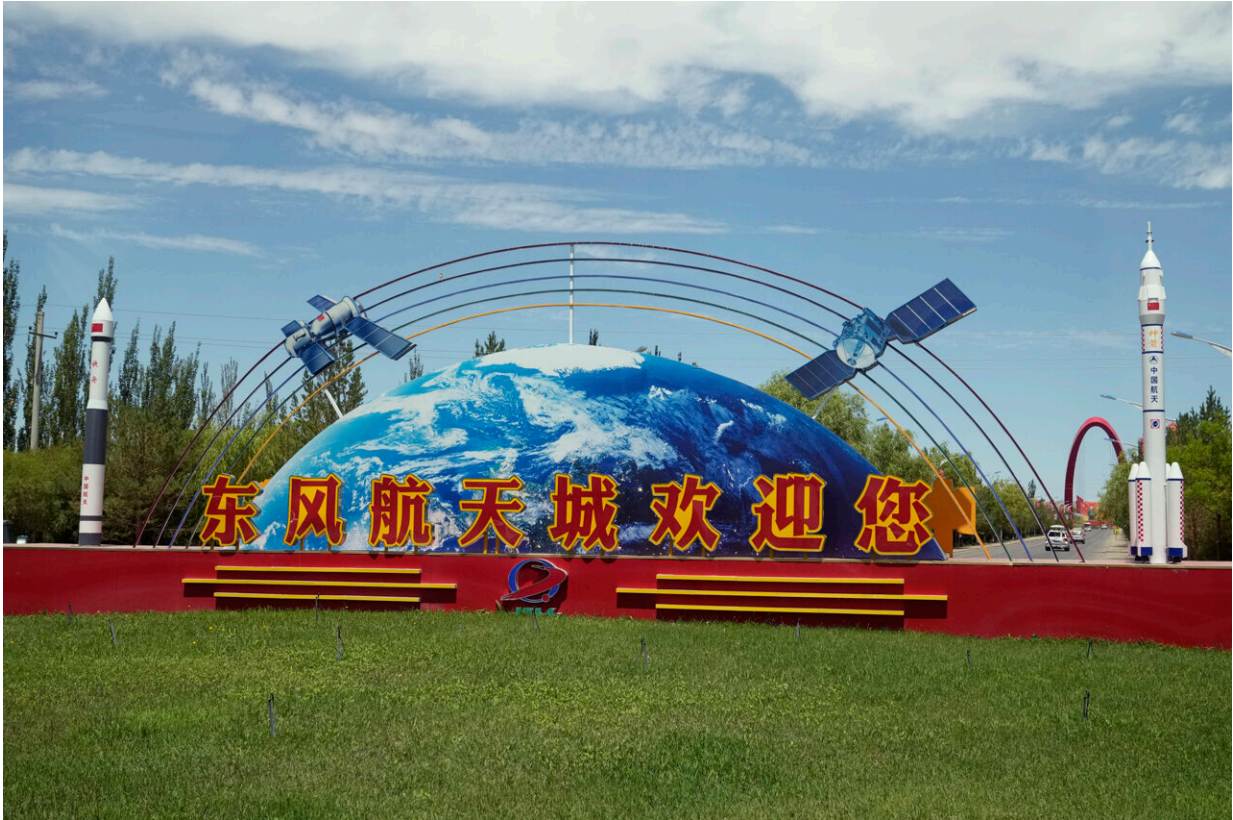
Mission commander Nie Haisheng, 56, and fellow astronauts Liu Boming, 54, and Tang Hongbo, 45, are former People's Liberation Army Air Force pilots with graduate degrees and strong scientific backgrounds. All Chinese astronauts so far have been recruited from the military, underscoring its close ties to the space program.



Workers prepare for the start of a press conference near a poster depicting the Chinese space station held at the Jiuquan Satellite Launch Center ahead of the Shenzhou-12 launch from Jiuquan in northwestern China's Gansu province on Wednesday, June 16, 2021. Credit: AP Photo/Ng Han Guan



Chinese astronauts prepare to depart on the Shenzhou-12 mission at the Jiuquan Satellite Launch Center in Jiuquan in northwestern China, Thursday, June 17, 2021. Adding a crew to China's new orbiting space station is another major advance for the burgeoning space power. Credit: AP Photo/Ng Han Guan



A scene depicting Long March rockets, Shenzhou module, Space station and satellite is seen at a welcoming sign that reads, "Dong Feng Space City welcomes you" near the Jiuquan Satellite Launch Center in Jiuquan in northwestern China, Wednesday, June 16, 2021. China has launched the first three-man crew to its new space station in its the ambitious programs first crewed mission in five years. Credit: AP Photo/Ng Han Guan



Chinese President Xi Jinping is seen on a propaganda board with the slogan "China Dream, Space Dream" from inside a bus at the Jiuquan Satellite Launch Center near Jiuquan in Northwestern China's Gansu province on Wednesday, June 16, 2021. China's space program has been a massive source of national pride, embodying China's rise from poverty to the world's second largest economy over the past four decades. That has helped shore up the rule of the Communist Party whose authoritarian rule and strict limits on political activity have been tolerated by most Chinese as long in the expectation that the country continues to progress in material terms. Credit: AP Photo/Ng Han Guan



Chinese astronauts, from left, Liu Boming, Nie Haisheng, and Tang Hongbo wave as they prepare to board for liftoff at the Jiuquan Satellite Launch Center in Jiuquan in northwestern China, Thursday, June 17, 2021. China plans on Thursday to launch three astronauts onboard the Shenzhou-12 spaceship who will be the first crew members to live on China's new orbiting space station Tianhe, or Heavenly Harmony. Credit: AP Photo/Ng Han Guan



Chinese astronauts, from left, Tang Hongbo, Nie Haisheng, and Liu Boming salute as they prepare to board for liftoff at the Jiuquan Satellite Launch Center in Jiuquan in northwestern China, Thursday, June 17, 2021. China plans on Thursday to launch three astronauts onboard the Shenzhou-12 spaceship who will be the first crew members to live on China's new orbiting space station Tianhe, or Heavenly Harmony. Credit: AP Photo/Ng Han Guan



A woman holds up a Chinese flag near a board displaying China's astronauts at the Jiuquan Satellite Launch Center in Jiuquan in northwestern China, Thursday, June 17, 2021. China has launched the first three-man crew to its new space station in its ambitious programs first crewed mission in five years. Credit: AP Photo/Ng Han Guan



A Long March-2F Y12 rocket carrying a crew of Chinese astronauts in a Shenzhou-12 spaceship lifts off at the Jiuquan Satellite Launch Center in Jiuquan in northwestern China, Thursday, June 17, 2021. China launched the first three crew members on a mission to its new space station Thursday in its first crewed mission in five years. Credit: AP Photo/Ng Han Guan



An exhaust trail is left behind after a Long March-2F Y12 rocket carrying a crew of Chinese astronauts in a Shenzhou-12 spaceship lifted off at the Jiuquan Satellite Launch Center in Jiuquan in northwestern China, Thursday, June 17, 2021. China launched the first three crew members on a mission to its new space station Thursday in its first crewed mission in five years. Credit: AP Photo/Ng Han Guan



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For Nie, it is his third trip to space, and for Liu, his second following a mission in 2008 that included China's first space walk. Tang, who was recruited as one of the second batch of candidates in 2010, is flying in space for the first time.

Future missions to the station will include women, according to officials, with stays extended to as long as six months and as many as six astronauts on the station at a time during crew changeovers. With China

stepping up international cooperation and exchanges, it's only a matter of time before foreign astronauts join the Chinese colleagues on missions to the station, Ji told reporters Wednesday.

WHAT ELSE IS CHINA DOING IN SPACE?

Along with its crewed space program, China has been moving boldly into exploration of the solar system with robotic space ships. It landed a probe on Mars last month that carried a rover, the Zhurong, which is conducting a range of surveys, looking particularly for frozen water that could provide clues as to whether the red planet once supported life.

Earlier, China landed a probe and rover on the moon's less explored far side, joining the Yutu, or Jade Rabbit, rover that was part of an earlier lunar exploration mission. China also brought back the first lunar samples by any country's [space](#) program since the 1970s and officials say they want to send Chinese astronauts to the moon and eventually build a research base there.

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