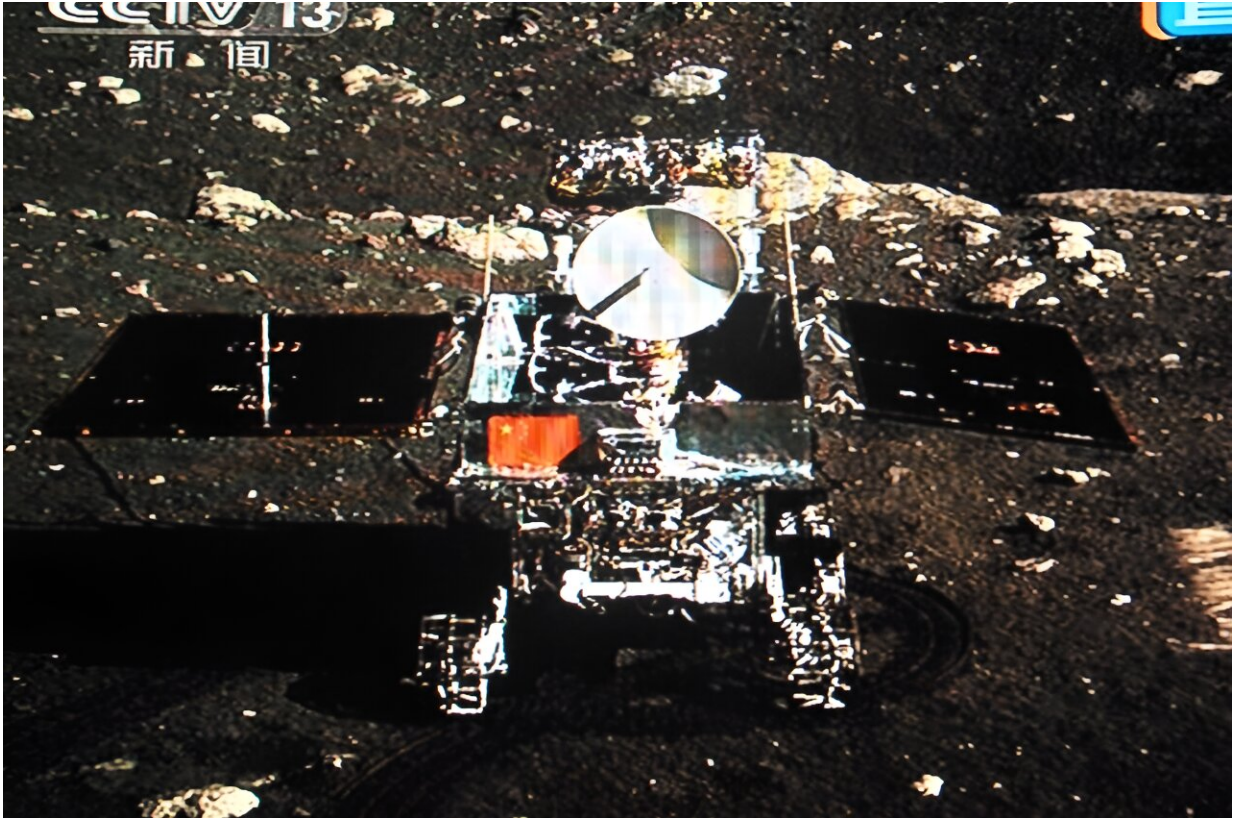


China's space program: Five things to know

December 14 2023



Chang'e-3, which carried a robotic rover, was China's first landing on the Moon.

When Chang'e-3 became the first Chinese craft to land on the moon 10 years ago, it kicked off nationwide celebrations—and a decade of major successes for a rapidly accelerating space program.

Since the December 14, 2013 landing, China has built a crewed space

station, sent a robotic rover to Mars and become the first nation to make a controlled landing on the far side of the moon.

President Xi Jinping has described building China into a space power as "our eternal dream".

Here are five things to know about this space program:

A slow start

Chinese leader Mao Zedong declared his nation's space ambitions soon after the Soviet Union launched the world's first satellite, Sputnik 1, in 1957.

It took 13 years for China to launch its first satellite Dong Fang Hong, or "The East is Red"—named after the famous Communist revolutionary song it broadcast from orbit.

It was not until the late 1980s that the program began to pick up pace, alongside China's ascent into the world's richest and most powerful nations.

Overseen by the military, its secretive space program's goals became more ambitious. In 1992, it formally began a project to send humans into space.

'Taikonauts'

More than three decades after its first satellite launch, on October 15, 2003, Yang Liwei became the first Chinese to travel into space, and an instant national hero.



China regularly launches astronauts to its Tiangong space station.

With the success of his Shenzhou 5 mission, China became only the third nation after the United States and Russia to demonstrate the ability to launch humans into space.

In total, 20 Chinese astronauts have made the journey into space, including two women. State media have used the term "taikonaut" to describe China's spacefarers.

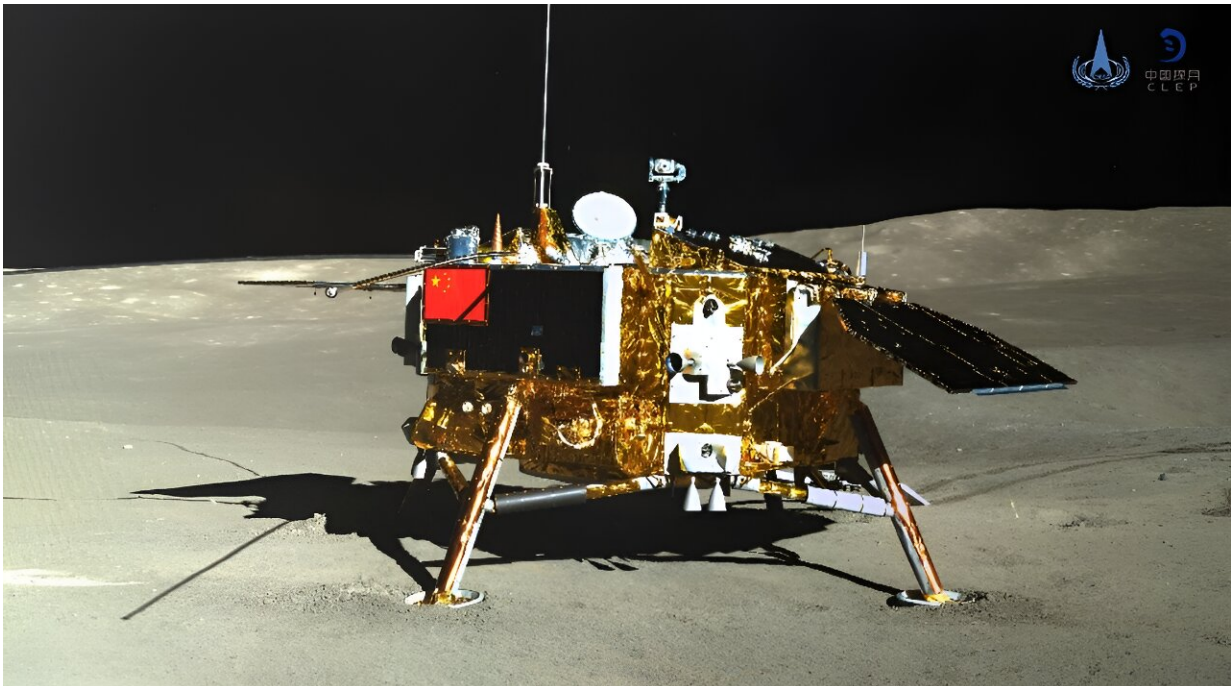
Many of them have journeyed to Tiangong, China's first long-term space station whose construction was completed last year.

Though much smaller than the International Space Station, it contains living quarters for a rotating crew, robotic arms and airlocks for conducting spacewalks.

To the moon

China has also sent exploration missions to the moon.

Named after the moon goddess in Chinese folklore, Chang'e-3 touched down on the surface in 2013, making China only the third nation to successfully land there.



China was the first nation to make a controlled landing on the far side of the Moon.

Two other milestones followed. In 2019, China became the first nation to make a controlled landing on the far side of the moon with Chang'e-4.

A year later, Chang'e-5 brought the first lunar samples to Earth in more than 40 years.

Chinese space authorities have said they plan to land humans on the moon by 2030, as well as build a lunar base.

Mars and deep space

One of the most spectacular successes of the Chinese space program came in 2021 when its Tianwen-1 mission landed a rover named Zhurong on the surface of Mars.

China is only the second nation after the United States to put a robotic rover on the Red Planet.

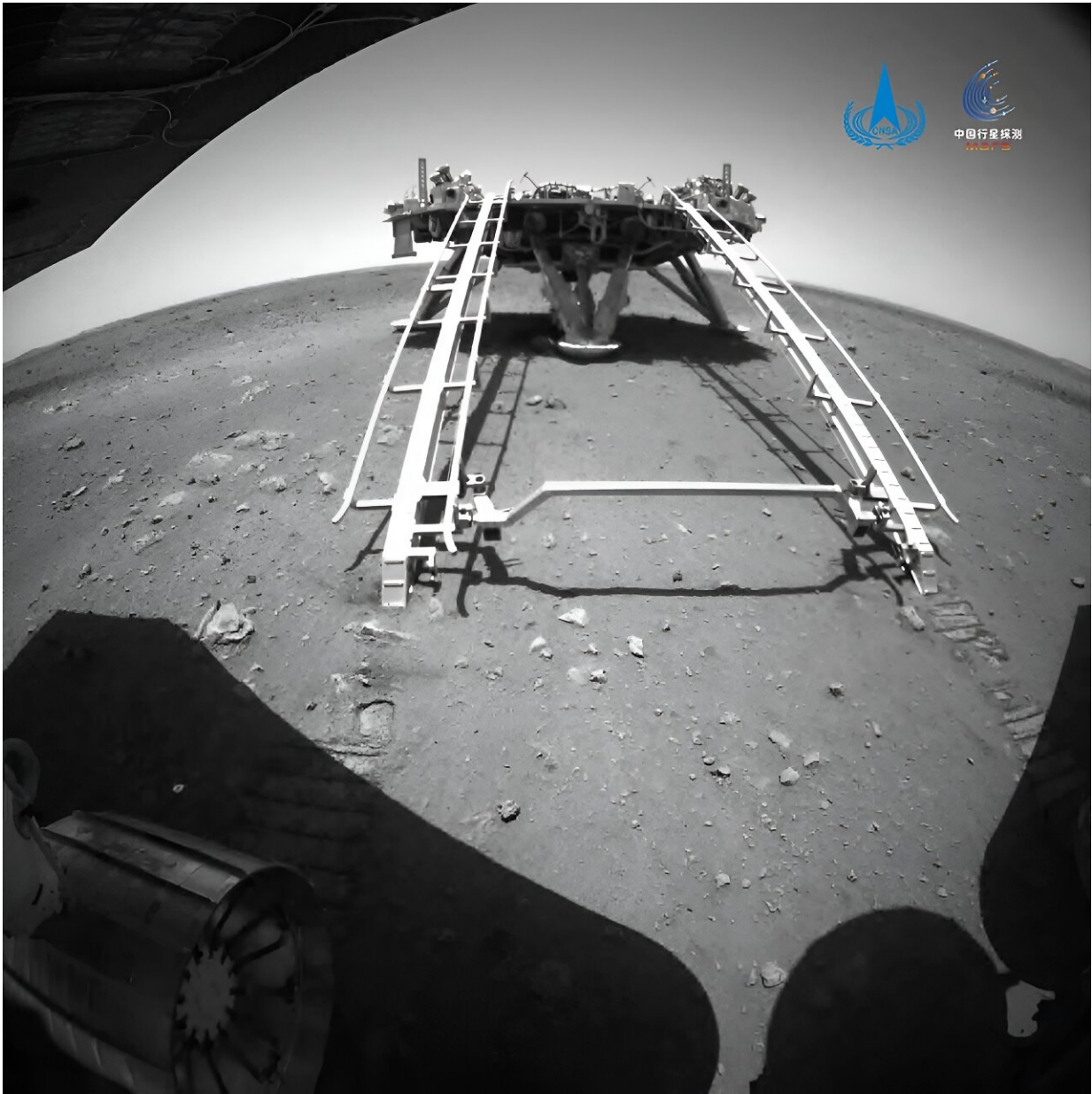
Officials have said they aim to send a crewed mission there by 2033.

Aside from landers and orbiters, China is soon expected to launch a space telescope named Xuntian.

Orbiting close to the Tiangong space station, with which it can dock, Xuntian is expected to have a field of view far greater than NASA's Hubble telescope.



Chinese astronauts Jiang Xinlin, Tang Shengjie and Tang Hongbo wave before boarding the Shenzhou-17 spacecraft on October 26, 2023.



China landed a robotic rover on Mars in 2021.

Defense and prestige

While China says it opposes the weaponisation of space, its [policy makers](#) have also identified space as critical to national defense and

security.

Its military is a core player in the national [space program](#), and China is developing spy satellites, anti-satellite missiles and electronic warfare capabilities, according to the US military.

China "sees counterspace operations as a means to deter and counter a US intervention during a regional military conflict", the Pentagon said in a report to Congress this year.

And beyond the direct applications of these technologies, China considers success in space as a major driver of its image as a global power at home and abroad.

"National prestige is perhaps one of the most important, if not the most important, motives driving Chinese [space](#) ambitions," said R. Lincoln Hines, an assistant professor at the Georgia Institute of Technology in the United States.

"These symbols of increasing international status provide a powerful form of domestic propaganda."

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