Green future
Saihanba achievements reflect ancient Chinese wisdom LIFE, PAGE 16

COVID-19 oral pill gets approval
CHINA, PAGE 4

Roaring back
Foreign-funded players in Shanghai pick up steam
BUSINESS, PAGE 14

CHINA DAILY
香港版
HONG KONG

TUESDAY, July 26, 2022 中国日报 www.chinadailyhk.com HK **$10**

Home away from home

Shenzhou-XIV astronauts Chen Dong (center), Liu Yang (right) and Cai Xuzhe salute after entering the Wentian module, the first lab module of China's space station. The astronauts will have duties to perform in orbit, such as controlling the space station's orientation, maneuvering the small mechanical arm and testing the module's big and small arms. XU BU / FOR CHINA DAILY See story page 4

Astronauts start work inside space lab

By ZHAO LEI
zhaolei@chinadaily.com.cn

Chinese astronauts on the Shenzhou XIV mission have started their work inside the Wentian space lab, according to the China Manned Space Agency.

The agency said in a brief news release on Monday that the Shenzhou XIV mission crew — mission commander Senior Colonel Chen Dong, Senior Colonel Liu Yang and Senior Colonel Cai Xuzhe — opened the hatch door of Wentian and entered the lab at 10:03 am, about seven hours after the lab docked with the Tianhe core module of China's Tiangong space station.

In a video clip published by the agency, Chen was the first to float into Wentian and was followed by Liu and Cai.

He said in the video that the space lab has become his team's second living and working cabin in orbit and its arrival marked a new stride in the country's space station program.

"We are feeling very proud and happy," the mission commander said.

In the same clip, Liu said the Wentian's deployment opened the multi-module stage of the Tiangong station while Cai said the astronauts will work hard to make the best use of the space station.

In the coming days, Chen and his teammates will work with ground controllers to adjust the Tiangong's orbital posture, carry out tests on Wentian's robotic arm and the joint arm once it is linked with the major arm on Tianhe, and also conduct spacewalks through the airlock cabin on the lab module, according to the agency.

The first lab component of the Tiangong station, Wentian was launched on Sunday afternoon by a Long March 5B heavy-lift rocket from the Wenchang Space Launch Center in Hainan province.

The vehicle consists of three major parts — a crew working compartment, an airlock cabin and an unpressurized service module.

Weighing 23 metric tons, the space lab is 17.9 meters tall, roughly equivalent to a six-story residential building, and has a diameter of 4.2 meters. It is the largest and heaviest spacecraft China has ever built and also the world's heaviest self-propelled spaceship in service, according to designers at the China Academy of Space Technology.

Before Wentian's docking, Tiangong consisted of the Tianhe module, the Tianzhou 4 cargo ship and the Shenzhou XIV spacecraft.

Mission planners said the Tiangong station's second lab, Mengtian, will be lifted by a Long March 5B from Wenchang in October.

What They Say

Space science lab marks new breakthrough

Wentian, the first lab module of China's space station, successfully docked with the core module, Tianhe, on Sunday.

Wentian will serve as a space life science research lab, making use of the micro-gravity in space, to do many experiments that would be impossible on the ground.

It will also be used for some basic research on humankind's journey from Earth into the space.

The world's first space station, the Soviet Union's Salyut, was launched in 1971 and the International Space Station, headed by the United States, Russia and other countries, was launched in 1998, providing a good platform for the participants to do experiments there.

In 2020, the National Aeronautics and Space Administration released 20 major scientific breakthroughs for the past 20 years of the ISS' history, of which six are related to life science research in space, including research on drugs and treatment for Alzheimer's disease, Parkinson's disease, cancer, as well as the effects on the human body of living in space.

There was a time when China had little chance to do such research. Now China can.

With a weight of 20 tons and a length of 17.9 meters, Wentian is the world's longest single-body manned spacecraft, setting a new world record for China's astronautics industry.

For the Tianhe core module, as well as being a research laboratory, Wentian also has crucial backup systems for the station's normal operations.

Besides, Wentian provides one more exit, one more kitchen, as well as three sleeping zones for the astronauts, thus greatly extending the living and working space for them.

A browse at the past 10 years will find a clear path for China's space industry. The Shenzhou series of spaceships has progressed from IX to XIV, while the space station is finally coming into service. Besides, there is also the Zhurong martian probe, Xihe solar exploration satellite, as well as the Chang'e lunar probe. The Chinese are adding more footprints in space, for the common good.

On Monday, the Shenzhou XIV crew had reportedly already entered the Wentian module, which heralds the start of a series of experiments that they are to carry out during their mission.

The astronauts will also talk with schoolchildren by live video link, and it is hoped that they will spark the fires of enthusiasm in the hearts to carry forward China's space endeavors in the future.

— CNR.CN

Wang Yanan

China exploring outer space for common good

The launch of China's space station lab module Wentian has attracted worldwide attention, which is a latest step of China's great space exploration.

Wentian, or "Quest for the Heavens", will be the Tiangong space station's first lab component, which will function both as a backup of the core module and as a powerful scientific experiment platform. The craft weighs more than 20 metric tons and is about six stories tall, and consists of three major parts — a crew work compartment, an unpressurized cargo module, and a control module.

Scientific cabinets inside Wentian will mainly be used to perform biological and life science tasks and will support research on the growth, aging and genetic traits of plants, animals and microbes in space.

Such news will obviously rattle the US, because it cannot accept the progress other countries have made in space research owing to its hegemonic mindset and skewed sense of superiority.

NASA Administrator Bill Nelson told the German newspaper Bild on July 2 that, "We must be very concerned that China is landing on the moon." Claiming that China could take over the moon, he asserted that, "It's ours now and you stay out."

Earlier, on May 17, Nelson had warned about the space race with China at a US Congress hearing. He also warned about China's aggression in outer space and the cybersecurity risks posed by technology theft, alleging that, "They are pretty good at stealing."

These are baseless claims.

The Outer Space Treaty, which entered into force in October 1967, says space is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means, and that outer space shall be free for exploration and use by all states. Hence, it's ridiculous that a high-ranking US official is trying to smear China, especially because China has always conformed to all United Nations tenets and abided by its conventions.

> **Yet China has never intended to explore the moon alone. On the contrary, it hopes to help more countries access outer space and conduct space research through its own programs, so as to benefit humankind.**

China has never thought about taking over the moon or monopolizing outer space. On the other hand, US leaders and scientists have made such claims. For instance, as early as the 1950s, US scientists urged Washington to intensify its scientific endeavor to take over the moon before the Soviet Union did, and plant the stars and stripes on the moon's surface to claim sovereignty over it.

Although this US ambition was dashed due to the Outer Space Treaty, the colonial mindset of "possession upon discovery or arrival" is unfortunately deep-rooted in some people's minds, Nelson included.

Indeed, China has made remarkable strides in the aerospace industry in the past decades, from the launch of its first artificial satellite in 1970 to the launch of the Shenzhou-14 in 2022. Now, it is building the Tiangong space station, and has promised, most remarkably, to provide all countries with space research and exploration opportunities under the UN cooperation framework. In fact, nine science projects designed by 17 countries will be among the first scientific experiments in the Chinese space station.

Having suffered invasions and occupations by colonial powers in the past, China understands the predicament of many developing countries that have been victims of Western colonialism. Space research and exploration, especially the technologies and applied sciences which it may result in, may present greater development opportunities for developing countries.

That is exactly why bio medicine, material research, and animal and plant research are given priority in China's outer space project. The exploration of the moon is also part of China's outer space project. In 2019, China became the first country to successfully land a probe on the far side of the moon. The same year, China and Russia announced a joint lunar expedition, including the establishment of an international permanent manned lunar scientific research station.

Even though the exploration of the moon, including manned landing and construction of research stations, is technically complex, investment intensive, and time consuming, it could help human beings better understand the moon and investigate the potential value of the moon to meet humankind's resource demand.

Yet China has never intended to explore the moon alone. On the contrary, it hopes to help more countries access outer space and conduct space research through its own programs, so as to benefit humankind.

In contrast, still obsessed with the zero-sum game, some Western countries have set up one obstacle after another to the exploration of outer space for the common good. Companies such as SpaceX are building a "star chain" with tens of thousands of satellites for corporate gains while taking up huge orbit resources. These seriously challenge the basic principle of space resource sharing and exploration for the interest of humankind. The US government, too, is promoting the commercialization of space operations for economic gains, with US officials even considering formulating a tax system for commercial space companies.

But China believes in the concept of a community with a shared future for mankind and adheres to the principle of win-win cooperation, which is being welcomed by more and more people across the world. And in space, China will always steadfastly uphold peace, and promote cooperation and mutual benefit.

The author is the editor-in-chief of Aerospace Knowledge.
The views don't necessarily represent those of China Daily.