



By any other name

Yunnan's China rose sees sweet smell of success

BUSINESS FOCUS, PAGE 15

Private carrier rocket ready to go commercial

CHINA, PAGE 4

Amazing knot

Decorative crafts revitalize intangible cultural heritage

YOUTH, PAGE 17



香港版
HONG KONG

CHINA DAILY

中國日報

www.chinadailyhk.com HK \$10

WEDNESDAY, August 10, 2022

Ceres 1 rocket ready to go commercial

Galactic Energy is the country's first private company with such a vehicle

By ZHAO LEI
zhaolei@chinadaily.com.cn

Galactic Energy, a carrier rocket maker in Beijing, carried out the third flight of its Ceres 1 rocket on Tuesday, becoming the first private Chinese company with a commercially ready launch vehicle.

The Ceres 1 Y3 rocket, the third of its kind, blasted off at 12:11 pm Tuesday from the Jiuquan Satellite Launch Center in Northwest China's Gobi Desert and placed three small satellites into sun-synchronous orbits about 500 kilometers above the Earth, the private start-up said in a statement.

The payloads were two Earth-observation satellites and a technology demonstration satellite.

The mission marked the first time a privately built Chinese rocket has successfully completed three orbital launches, far outperforming other private competitors.

There are a number of private rocket companies in China but only Galactic Energy and i-Space, another Beijing-based private startup, have completed orbital missions, which refer to rocket flights that successfully deploy a payload into orbit.

Before the Ceres 1, the SQX 1 rocket developed by i-Space launched two satellites and several experimental payloads into space from the Jiuquan center in July 2019. The model's maiden flight also marked the first orbital mission by a privately built rocket in China. However, the following three SQX 1 launches failed due to technical malfunctions.

Tuesday's launch was also the first successful launch by the country's private space sector this year.



The Ceres 1 Y3 rocket blasts off from the Jiuquan Satellite Launch Center in Northwest China's Gobi Desert on Tuesday. WANG JIANGBO / FOR CHINA DAILY

“We have started manufacturing components for nine new Ceres 1 rockets. ... We will perform two to three launch missions before year's end.”

Xia Dongkun, vice-president of Galactic Energy

The Ceres 1 is about 20 meters tall, has a diameter of 1.4 meters and mainly burns solid propellant. With a liftoff weight of 33 metric tons, it is capable of sending a 300-kilogram satellite, or several satellites with a combined weight of 300 kg, to a 500-km sun-synchronous orbit, or 350-kg payloads to a low-Earth orbit at an altitude of 200 km.

The Ceres 1 is ideal for domestic and foreign clients seeking a small, cost-efficient launch vehicle to deploy mini-satellites, its designers said.

The rocket made its debut flight in November 2020 from the Jiuquan center, sending a small communication satellite into space.

In December 2021, it completed a second flight and placed five small satellites in orbit.

Xia Dongkun, a vice-president of Galactic Energy, said after the launch that the success of the third flight mission has put an end to the rocket's trial phase and that it is ready for commercial operations.

“We have started manufacturing components for nine new Ceres 1 rockets. We have also begun to assemble the fourth Ceres 1 that will be launched next time. We will perform two to three launch missions before year's end,” he said.

According to Xia, his company now has orders worth 400 million yuan (\$59 million) for commercial launch services by 10 Ceres 1s. Its engineers are now developing the Pallas 1, a larger, liquid-propellant rocket model that can be reused, the executive said.

He added that production for the new rocket's engine has recently started and ground tests will begin next month.

“We aim to perform Pallas 1's maiden flight around the end of 2023,” Xia said.

Mengtian lab arrives at Hainan launch center

By ZHAO LEI
zhaolei@chinadaily.com.cn

The Mengtian space lab, the second lab component of China's Tiangong space station, recently arrived at the Wenchang Space Launch Center in Hainan province, according to the China Manned Space Agency.

The agency said in a brief news release on Tuesday morning that the craft was transported to Wenchang by ship and will be assembled and tested at the launch center.

Preparations for the launch mission scheduled for October are underway at the center.

Mengtian is some 17 meters long, has a diameter of 4 meters and weighs more than 20 metric tons, according to its designers at the China Academy of Space Technology.

Scientific equipment onboard will be used for microgravity studies and to carry out experiments in fluid physics, materials science,

combustion science and fundamental physics.

Wentian, Tiangong station's first lab module, was launched on July 24 on a Long March 5B heavy-lift rocket from the Wenchang center.

The 23-ton vehicle is the largest and heaviest China has deployed in orbit and consists of three main sections — a crew working compartment, an airlock cabin and an unpressurized service module.

Tiangong is currently composed of four modules: the Tianhe core module, the Wentian lab, the Tianzhou 4 cargo ship and the Shenzhou XIV spacecraft. It is manned by three astronauts who arrived in early June.

Once Mengtian is connected to Tiangong, the station will be T-shaped and astronauts will have as much as 110 cubic meters of usable space.

The Tianzhou 5 cargo craft and the Shenzhou XV crew are scheduled to arrive at the massive orbiting outpost toward the end of the year.