



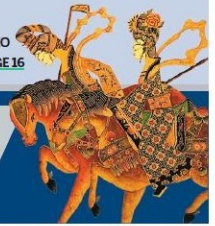
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Maritime mission

A Smart Dragon 3 carrier rocket is launched on Wednesday, off the coast of Yangliang in Guangdong province, marking China's first sea-based space launch mission in the South China Sea.

ZHANG JINGYI / FOR CHINA DAILY
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First carrier rocket launched in South China Sea

By ZHAO LEI
zhaolei@chinadaily.com.cn

A Smart Dragon 3 carrier rocket lifted off early Wednesday morning off the coast of Yangliang in Guangdong province, marking the first sea-based space launch mission in the South China Sea.

The rocket blasted off at 3:24 am from a launch service ship and soon transported a space-based internet technology demonstration satellite into its preset orbit, according to the China Academy of Launch Vehicle Technology, maker of the Smart Dragon 3 series.

The satellite, called CX-19, was designed and built by the Shanghai-based Innovation Academy for Microsatellites of the Chinese Academy of Sciences.

The Smart Dragon 3 is a solid-pro-

pellant rocket model. The type made its maiden flight in December last year from a ship in the Yellow Sea, placing 14 satellites into orbit.

The rocket is 31 meters tall, has a diameter of 2.65 meters and can carry a liftoff weight of 140 metric tons.

It is mainly propelled by a high-performance, solid-propellant engine, which holds 71 tons of propellant that creates a thrust of 200 tons.

The Smart Dragon 3 is capable of sending multiple satellites with a combined weight of 15 tons to a typical sun-synchronous orbit at an altitude of 500 kilometers.

The rocket model features strong carrying capacity and good economy, according to Jin Xin, Smart Dragon 3's project manager, who added that it can be launched both on land and at sea and can be used on short notice.

The Smart Dragon 3 is suitable for clients who wish to quickly launch large numbers of satellites to establish space-based commercial networks as soon as possible, he said.

The manager said the rocket used on Wednesday was assembled at his academy's production facility in the coastal city of Haiyang in Shandong province.

"It was transported by a ship that traveled more than 2,400 kilometers in five and a half days to the launch site off Yangliang. The long journey confirmed the structural strength and equipment quality of the rocket model," said Jin.

Guan Hongren, the Smart Dragon 3's chief designer, said the rocket model has become ready for mass production and large-scale launch tasks.

Before the latest mission, China

had performed six sea-based launches — four by the Long March 11 rocket, one by the Smart Dragon 3, and another one by the Ceres 1 rocket of the Beijing-based private company Galactic Energy. All of those took place in the Yellow Sea.

Wednesday's launch was the third time this year for China to deploy a satellite to verify space-based internet technologies. The first internet technology demonstration satellite, made by the China Academy of Space Technology in Beijing, was launched in July from the Jiuquan Satellite Launch Center in northwestern China's Gobi Desert, while the second, a product of the Innovation Academy for Microsatellites, was lifted from the Xichang Satellite Launch Center in southwestern China's Sichuan province late last month.