



## Harmony debuts

Huawei launches new operating system amid foreign restrictions  
BUSINESS, PAGE 13

## Israeli leader's rivals unveil deal for coalition govt

WORLD, PAGE 12

## Magic wand

Conductor helps guide NCPA Orchestra on path to global recognition  
LIFE, PAGE 18



香港版  
HONG KONG

# CHINA DAILY

中國日報

FRIDAY, June 4, 2021

[www.chinadailyhk.com](http://www.chinadailyhk.com)

HK \$10

## Launch of powerful new carrier rocket expected in 2022

By ZHAO LEI

[zhaolet@chinadaily.com.cn](mailto:zhaolet@chinadaily.com.cn)

CAS Space, a Beijing-based rocket company owned by the Chinese Academy of Sciences, has begun to design what it expects will be the world's most powerful solid-propellant carrier rocket, the company's chairman said.

Yang Yiqiang, a senior rocket scientist and founder of CAS Space, told China Daily in an exclusive interview this week that the rocket — ZK 2 — is in the research and development



Yang Yiqiang

stage at laboratories in Beijing and will be ready for its debut flight before the end of 2022, if everything goes according to schedule.

The ZK 2 will have a core stage and two side boosters, each of which will have a diameter of 2.65 meters and use solid propellants. The rocket will be 39.7 meters tall and have a liftoff weight of 343 metric tons. It will be

able to transport satellites with a combined weight of 3.5 tons to a sun-synchronous orbit 700 kilometers above Earth.

These specs would make the ZK 2 the world's largest and mightiest solid-fuel rocket and even more powerful than several liquid-propellant models in China's Long March rocket fleet, such as the Long March 2C and 4B, Yang said.

The world's most powerful operational solid-fuel rocket is ArianeSpace's Vega, jointly developed by the Italian Space Agency

and the European Space Agency. With a liftoff weight of 137 tons, the European rocket can put payloads weighing 1.4 tons into a sun-synchronous orbit.

"The ZK 2's major clients will be satellite companies that want to build and operate a low-orbit satellite network," Yang said, explaining that the rocket is suitable for deploying such networks, as it can launch a large quantity of small satellites in a single flight.

[See Rocket, page 3](#)

## Rocket: Production facility to be built in Guangzhou

[From page 1](#)

"The rocket will have better flexibility than large, liquid-propellant rockets ... because it is designed for both land- and sea-based launches, and liquid-fuel rockets are unsuitable for sea-based missions. Moreover, when launched from a land-based facility, solid-propellant rockets are less dependent on ground devices and thus are easier to launch," Yang said.

CAS Space is currently preparing for the first flight of its first product, the ZK 1A solid-propellant rocket, which is scheduled to launch six small satellites in the second half of the year, Yang said. The 31-meter craft will be able to put satellites weighing 1.33 tons into a sun-synchronous orbit.

If the launch succeeds, ZK 1A will replace the Long March 11 as China's most powerful solid-fuel rocket, he said.

The company is working with the government in Guangzhou, Guangdong province, to build a 40-hectare production complex in the city's Nansha district.

As China's southernmost carrier rocket production facility, the complex is to have an initial annual production capacity of 30 rockets upon completion of the first phase next year, Yang said.

Speaking of how CAS Space started, Yang said the Chinese Academy of Sciences now needs a lot of carrier rockets to launch its experimental satellites and technology demonstration equipment. The top science body wanted its own rocket research and production capabilities, which resulted in the founding of CAS Space.

He said one of the company's most important missions is to provide launch services for the academy.

Compared with other rocket makers, CAS Space has optimized design, procurement and manufacturing procedures, which Yang said are more efficient and economical. The company uses the latest technologies and highly integrated equipment on its rockets, which guarantees a reduction in costs and fewer problems in design, production and launch operations, he said.