

Rocket designers set crosshairs on new air purifiers

Chinese carrier rocket designers are using their knowledge and expertise to tap into the public's demand for fresh and clean air.

The China Academy of Launch Vehicle Technology in Beijing, a major developer of the nation's carrier rockets and ballistic missiles, will soon put on the market an air purifier that developers say incorporates a host of cutting-edge technologies used on rockets.

Beijing Ares Technology Co, a subsidiary of the academy responsible for the development and marketing of air purifiers, has sold 10,000 Alpha-blue air purifiers, developed by rocket designers, to space industry workers and will launch 5,000 sets on the open market after the coming Chinese New Year.

Wang Libo, chairman of Beijing Ares Technology, said on Wednesday that he expects the product to be popular because it has better capabilities compared with other air purifiers of its kind on the Chinese market, while being reasonably priced.

"Compared with other purifiers of its size, the Alpha-blue has a much higher rate of delivering clear air and absorbing formaldehyde in a given period of time because we powder-coat its filter screens with nanoplatinum particles that are widely used in rocket production," he said.

"We also made use of our designers' knowledge of aerodynamics that they gained through the making of rocket bodies and engines to design the air purifier's intakes and outlets to ensure it has better air circulation compared with other products," Wang added.

In addition, composite materials and remote control technologies adopted by Chinese carrier rockets have also been used in Alpha-blue, according to Wang.

An Alpha-blue air purifier sells for 4,999 yuan (\$727), much less than other purifiers with its capacity, which usually have a price of at least 8,000 yuan, he said.

"The academy has been transferring its space technologies to medical air purification for many years and has served a lot of hospitals. Now we want to help the public get rid of PM2.5," he explained, referring to the most feared pollutant in Chinese cities – particulate matter with a diameter smaller than 2.5 microns that can penetrate the lungs and seriously harm health.

Several agents have signed contracts with Ares Technology, while the company is also developing a store on Taobao, the most popular online shopping website in China, Wang said.

Zhao Xiaozhuo, an electronic engineer at China Academy of Launch Vehicle Technology who took part in the development of the nation's newest Long March

5 and Long March 7 carrier rockets, said he adopted monitor equipment used on rockets for the Alpha-blue that allows users to monitor and control the machine anywhere and anytime.

He added that the Alpha-blue's capabilities have been measured by China's top quality certification firm and the test results show it has better performance than most purifiers on the Chinese market.

Volunteers help Chinese go home for New Year

As millions of Chinese head home for Spring Festival, volunteers, charity groups and railway companies are helping them on their way.

Spring Festival, or the Chinese Lunar New Year, is the most important occasion in the Chinese calendar. This year it falls on Jan. 28.

About 3 billion trips are expected to be made during "chunyun," the Spring Festival travel rush that lasts this year from Jan. 13 to Feb. 21, the National Development and Reform Commission said.

The travel rush puts enormous strain on the transport system, leaving tickets in short supply, but many companies and local youth leagues are helping out by providing free bus rides for migrant workers.

Cheetah Mobile, a tech firm in Beijing, asked people to submit online requests for a free bus ticket back home. On Tuesday, the company arranged for buses to take more than 450 Beijing migrant workers back home.

"In the past five years, the 'orange bus' project has reached 18 cities in China during the Spring Festival, and helped 5,500 families to get together," said Xu Xiaohui, vice chief of the company.

Last week, Ping'an Group, an insurance company, commissioned 200 long-distance coaches to carry 10,000 migrant workers during the festival period.

Volunteers have also tried to make the tedious journeys easier for travelers.

At Hangzhou east railway station, volunteers handed out fortune paintings to travelers. Chinese people put such paintings, along with couplets, on doors and windows for the lunar New Year celebration.

A number of rail lines, particularly those that are less busy, have improved services. For example, some trains now have play areas for children.

"Railway staff are actively pushing reform. We aim to provide efficient and heart-warming services, making tortuous hours on the train a nice

experience,” said Wang Feng, head of the Lanzhou Railway Bureau.

[New Year brings new hope for poor Chinese](#)

The cold winter wind rattled the window frames of Xu Haicheng’s warm, cozy home. Inside sat an unlikely pair surrounded by receipts and papers.

Xu’s house guest was President Xi Jinping, and Xi was helping the farmer with his household budget.

Xi, who is also general secretary of the Communist Party of China Central Committee, for the past five years has made it an annual tradition to visit real Chinese before the Lunar New Year. On Monday and Tuesday, he was in Zhangbei County in the northern province of Hebei.

This is not the first year that Xi’s New Year inspection tours have taken him to the front line of China’s war against poverty.

He visited Gansu Province and Beijing in 2013, Inner Mongolia Autonomous Region in 2014, Shaanxi Province in 2015 and Jiangxi Province in 2016.

Last year he also visited the provinces of Qinghai and Anhui, as well as Ningxia Hui Autonomous Region, which are home to a high number of people living in poverty.

Just 200 kilometers north of Beijing, Zhangbei has been classed as a deprived county since 2013, but thanks to a major poverty-alleviation program it is receiving support, including measures to promote profitable agricultural products and emerging industries such as solar power.

Xu explained to the president that his family has 30 mu (2 ha) of land, upon which he grows potatoes, beets and oats.

The president picked up the man’s budget.

“I can see that three mu of land produced 2,000 jin (1,000 kilograms) of potatoes, which you sold for two yuan (0.29 U.S. dollars) a jin. On 15 mu of land, however, you grow other crops that only sell for half a yuan a jin,” said Xi, before adding, “That is a big price difference.”

According to county officials, Zhangbei grows 20 percent of the nation’s potatoes, and locals are keen to use more of their land to grow the lucrative tuber.

“You should develop industries and expand their scale according to market demand,” Xi suggested.

Next Xi busied himself with some number crunching as he compared Xu's household income and expenses.

"You received a grain grant of over 2,500 yuan, another grant of 306 yuan for reforesting land, and another for grassland protection for 1,140 yuan," Xi said. "Added to the money you make from farming, this means you earned 43,000 yuan."

"You spent 12,700 yuan on farming and another 29,000 yuan on various household expenses. This comes to 42,000 yuan, yes?" Xi asked.

Xu explained that he had to spend most of his income on his wife's medical treatment and tuition fees for his second daughter, who is studying Traditional Chinese Medicine, and the tuition costs him 18,000 yuan a year.

Xu's daughter told the president that she was also a recipient of a student bursary and was granted 1,500 yuan every semester.

Xi looked confused, "You earned 43,000 yuan but spent 42,000 yuan on farming, health care and education. How did you cover your day-to-day expenses?"

The farmers who also chatted with Xi at Xu's house explained that families in the village had limited outgoings.

"We grow our own food and make linseed oil by ourselves," one villager said. "I spent 600 yuan at most on coal for heating," said another.

The conversations gave the president pause for thought.

He said medical insurance for serious diseases must work well in rural areas, as families can easily slip back into poverty due to the financial burden of ill health.

Moreover, he added, all rural children should be covered by the national education policy that guarantees them nine years of free, compulsory schooling, and access to additional financial assistance.

During his tour, Xi also listened to local Party cadres who briefed him on measures they had implemented under the poverty-alleviation program, such as solar power and infrastructure projects, and training schemes for farmers.

Xi reminded the officials that they must take the lead in the fight against poverty.

The key to building an all-round moderately prosperous society by 2020 will be implementation, Xi noted.

Following the commitment that China will eliminate poverty by 2020, huge strides in poverty reduction have been achieved.

Over the past four years, the country has lifted 60 million people out of poverty. Moreover, government spending on poverty hit a record high in 2016, exceeding 100 billion yuan for the first time.

The central budget allocated 66.7 billion yuan for poverty reduction this year, up 43.4 percent year on year, while provincial governments' allocations rose more than 50 percent, topping 40 billion yuan.

In late 2016, China issued a poverty alleviation plan for 2016 to 2020, promising to help over 56 million people who live in the country's poorest villages and counties.

"I care most about the poor," Xi said in his New Year speech on the last day of 2016. His words have resonated with millions of Chinese, who like Xu, will start the new year with renewed hope that their lives are on course to improve.

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[China's population to reach 1.45 bln around 2030](#)

China's population is expected to peak at about 1.45 billion around 2030, according to the national population development plan for 2016-2030 released by the State Council, China's cabinet, Wednesday.

The country will enter a key transitional period between 2021 and 2030 in its population development as it will witness a decrease in the number of people of working age, more elderly people, still active population migration and diversified family patterns, according to the plan, which was signed and approved by Premier Li Keqiang.

"China's basic national condition of a large population will not fundamentally change. The population pressure on economic and social development will not fundamentally change. The tensions between population and resources and environment will not fundamentally change," the plan said.

The country will adhere to the family planning policy as a basic state policy, and fully implement the two-child policy to promote balanced

population development, according to the plan.

The government will improve the policy adjustment mechanism for child birth, allocate public service resources rationally, improve development and support systems for families to achieve a suitable fertility rate, it said.

Efforts will also be made to improve the skill set of new workers, make full use of workers' potentials, develop the human resources of the senior population, and make good use of international talent.

Measures will be taken to promote urbanization, improve policies on population movement, address the problem of an aging population, promote women's development, and enhance protection of minors and the disabled.

As of 2015, China's population was 1.375 billion.

China allowed all married couples to have two children in 2016. This follows an earlier easing of the policy in 2013 that allowed couples to have a second child if either parent was an only child.

The latest change ended the one-child policy that was implemented in the late 1970s to rein in the surging population.