

CHINA

Freight train to Europe links Beijing to BRI

Service opens new 'fast corridor' for intl trade enterprises in capital

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6.04 million containers

have been transported via China-Europe freight train services since 2011.

The very first freight train from Beijing destined for Europe set off on Thursday, marking the latest milestone for the Chinese capital in its participation in the Belt and Road Initiative, according to a senior local official.

Departing Mafang Station in Pinggu district, the freight train loaded with 55 containers will travel north and exit the country via the land port of Manzhouli in the Inner Mongolia autonomous region before arriving in Moscow, Russia, 18 days later.

The cargo of auto parts, construction materials, home appliances, clothes and household goods, will travel around 9,000 kilometers, according to the Pinggu district government on Thursday.

"The train opens a new international fast freight corridor linking China with Europe, adding to Beijing's foreign trade transport network," said Yin Hang, deputy secretary-general of the Beijing city government.

Located in the northeastern suburbs of Beijing, Pinggu district functions as a "comprehensive logistics port" for the capital. In recent years, the district has attracted a growing number of domestic and foreign logistics enterprises.

Di Tao, head of the district government, said on Thursday before the train set off that Pinggu will increase the two-way transportation capacity of the train based on the huge consumption demand of the capital, and promised to expand routes to better serve Beijing, Tianjin and Hebei province.

"We will continue to strengthen the construction of railway stations and other facilities, to build the land port into a national logistics hub and integrate it into the

national modern logistics system," he said.

Mafang Station has become the starting point for Beijing's integration into the Belt and Road Initiative, according to the district.

The first train carried goods from Taitong International Transportation Co, whose main business is international multimodal transport and logistics operations management.

Chu Yixiao, general manager of the company, applauded the route and said the train has provided more development opportunities by delivering goods from Beijing to Europe directly, cutting transport costs and raising efficiency.

According to China State Railway Group, the national railway operator, cross-border freight trains linking China and Europe connect 108 Chinese cities and 208 cities in 25 European countries. Since operations began in 2011, the service has run 65,000 China-Europe trains and transported 6.04 million containers.

The freight trains have contributed a lot to the economic and trade cooperation and cultural exchanges for countries along the routes. Earlier this month, a China-Europe train carrying 100 containers of China-made commodities and ceramic products left Yiwu, a major small commodities hub in East China's Zhejiang province, for Madrid, Spain.

On the same day, a train loaded with 70 containers of Spanish goods, including red wine and olive oil, departed Madrid and headed for Yiwu.



Singing to the seeds

Villagers sow seeds while singing during a spring plowing ritual in Dagze of Lhasa in the Tibet autonomous region on Thursday. Tibetan people dress up for the annual ceremony to pray for a bumper harvest in the year.

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Team develops method for better quantum communication

A Chinese research team has developed a new method for quantum communication, achieving secure communications at a distance of more than 615 kilometers.

The transmission, using a newly designed open configuration of twin-field quantum key distribution, only requires half the amount of optical fiber normally required by conventional closed channels. The innovation shows promise for the building of a wide area quantum network in the country, according to study findings recently published in the journal Nature Communications.

Quantum key distribution allows for the exchange of cryptographic keys securely between shared parties.

Of all the QKD protocols, twin-field is the most viable solution for long-distance secure fiber communication. The communication users of both parties transmit their own optical fields independently to meet at an intermediate station for interference in a twin-field QKD configuration.

The interference outcome is used by the two users for their information reconciliation, so it is important to keep the mutual phase stable. However, the phase varies violently in practice, caused by the frequency difference between the lasers from both parties and the rapid phase fluctuation of the long fiber.

To remedy this problem, the previous configurations of twin-field QKD had adopted a gigantic and resource-inefficient interferometer structure, which means that besides the essential quantum fiber between the QKD's two parties, an additional fiber called the service fiber is needed for optical frequency dissemination, said Yuan Zhiliang, chief scientist at the Beijing Academy of Quantum Information Sciences.

The research team led by Yuan introduced a new technique that stabilizes an open channel without using a closed interferometer or the service fiber, and successfully achieved quantum communication

at a distance of 615.6 km.

Zhou Lai, a team member from the BAQIS, explained their findings, noting that in the traditional methods, two lines are necessary for quantum communication between two sites about 615 km apart, while with the new method, one line is enough.

In the twin-field QKD with their open configuration, the team adopted optical frequency comb technology to replace the conventional service fiber to calibrate the frequency of lasers from both parties in the quantum communication, realizing accurate information transmission.

Zhou illustrated the frequency comb as turning a beam of light with a single frequency into multiple beams of light with different frequencies, which are "separated like the row of teeth on a comb".

The frequency comb technology serves the additional function of solving the problem of fiber drifts, which inevitably occur during long-distance quantum communication,

Zhou said, explaining that the comb works by greatly reducing the impact of noise on quantum signals, thus ensuring the accuracy of information transmission over long distances.

During an interview with Xinhua, the team demonstrated their research results through an optical fiber with a core diameter of about 10 microns and a length of 615 km, successfully completing the long-distance quantum communication.

The twin-field QKD system with the open configuration is still relatively large, and the team is currently in the process of developing a photonic chip measuring 1 square centimeter to integrate various device modules used in the QKD system, Yuan said.

"Once the chip has been successfully developed, devices used for quantum communication could be carried around like portable laptops," he added.

XINHUA

Viral videos spur college kids to try Zibo's barbecue

By ZHAO RUIXUE
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The publicity department of the city of Zibo in Shandong province is thanking its lucky stars after a group of tech-savvy college students were able to achieve something they had been unable to for the past few years — make Zibo's special barbecue go viral.

Zibo has long sought to publicize its unique take on roasted skewers of meat, veggies, seafood and assorted other foodstuffs, hoping that it would become a must-try "brand" of the city. Until late February this year, the publicity of Zibo barbecue had achieved limited success. That is, until some college students attending a job fair in the city went to try the barbecue and took videos of themselves enjoying the food and posted them onto social media.

The passionate youths unknowingly started a trend that has spurred the hashtag: "College students visit Zibo to try barbecue in groups" to go viral on social media.

As of Wednesday, videos related to the hashtag had surpassed 45.15 million views on Douyin, the Chinese version of TikTok.

As a result of going viral, youths from across the country have started to pour into Zibo to try its now famous barbecue.

What makes barbecue special in Zibo is that the skewers are 70-80 percent cooked before being brought to the table, where diners can finish off the cooking at their own little stove of hot coals. On top of that, diners have pancakes, scalions and other dressings at the table so they are able to assemble their own barbecue-filled package a bit like how traditional Peking duck is prepared.

Xu Jiayue, a student from Shandong Transport Vocational College, came to Zibo from neighboring city Weifang to try the barbecue for herself on Tuesday.

"The stoves allow us to cook the meat, which gives us a feeling of participation, and it allows us to eat the meat at a perfect temperature,

which ensures a good taste and flavor," she said.

Zibo, a city with 4.5 million people, has had record numbers of arrivals at its train station since March 4. A total of 27,065 visitors arrived on Saturday, setting a record for daily passengers arriving at the railway station in the past three years.

College students from neighboring cities accounted for a large proportion of the passengers, officials from the train station said.

On Wednesday afternoon, one barbecue restaurant owner said that there were long lines outside the restaurant every day for the past two weeks.

Several restaurants said they were selling more than 10,000 skewers of meat, chicken wings or vegetables a day during the past week, especially on the weekend.

Once the hungry diners have had their fill of barbecue, many of them have been setting out to see Zibo's other attractions while they're in the area.

"Zibo barbecue going viral is not accidental," Yin Qidi, head of the city's commerce bureau, said at a news conference held to address the barbecue craze on Friday.

The once traditional industrial city has been putting a lot of effort into developing the city into a young people friendly one, Yin said, adding that the city offers rooms with extra discounts in designated hotels to outside visitors between the ages of 18 and 35.

Local statistics showed several hotels offering such services for young people were fully booked on Wednesday.

To capitalize on its recent fame, the city plans to hold a barbecue festival around the May Day holiday, said Yin.

Authorities including the market supervision and public security have joined in to ensure food safety and reasonable pricing in the "barbecue sector", and the city's public transportation company has opened 21 bus lines especially for transporting people to barbecue restaurants.



A freight train departs for Moscow, Russia from Beijing's Mafang Station in suburban Pinggu district, becoming the latest cargo service linking China with Europe via railway. ZOU HONG / CHINA DAILY

Coastal city taps market for blue carbon

By MA ZHENHUAN in Hangzhou
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Ningbo, a coastal city in Zhejiang province, is bringing into play the potential of its ecosystems to achieve carbon neutrality, as 2,340 metric tons of "blue carbon" credits were auctioned off in the city on Tuesday.

The concept was introduced in the report Blue Carbon: The Role of Healthy Oceans in Binding Carbon by the United Nations Environment Programme in collaboration with the UN Food and Agriculture Organization and the UN Educational, Scientific and Cultural Organization in 2009.

It refers to carbon that is absorbed from the atmosphere and stored in coastal and marine ecosystems. Scientific studies

show that the ocean stores 50 times more carbon than the atmosphere, and 20 times more than land plants and soil combined. Mangroves, tidal marshes and seagrasses are recognized as three major blue carbon sinks as both their plants and sediment below can sequester and store large quantities of carbon.

Based on the quantity of carbon they absorb and store, the ecosystems generate blue carbon credits that are sold to buyers who want to offset their carbon emissions.

The market for blue carbon credits is relatively new in China. Those sold on Tuesday were generated by three varieties of algae — kelp, seaweed and sea lettuce — at Xihu Port in the city's Xiangshan county.

"Algae is part of marine fishery

carbon sinks. Due to accounting difficulties, it has not entered the international carbon markets. It's a blue ocean of blue carbon trading," said Yan Xiaojun, the Party secretary of Zhejiang Ocean University.

It was the first time a blue carbon credit has been auctioned in China.

He Congying, an associate researcher at Ningbo Institute of Oceanography, stressed that such auctions will promote the development of ecological products, and encourage company engagement in protection efforts.

Wang Yuan, a manager at Zhejiang Yiduan Precision Machinery, which won the auction, said the blue carbon credits will be used to offset the company's carbon emissions.

Zhu Wenrong, general manager

of Xuwen Seaweed, sold nearly 200 tons of blue carbon credits at the auction.

"The sea lettuce that we raise is a great carbon sink. Now we can turn its ecological value into cash."

Zhu said the income from the auction will be used in research on sea lettuce cultivation and its carbon sequestration.

"I hope Xiangshan's blue carbon economy and coastal economy will receive more attention," he said.

In June, Ningbo released a strategy to reach peak carbon emissions and carbon neutrality, which included improving blue carbon ecosystems and tapping the market for blue carbon credits.

Ding Dewen, an academician at the Chinese Academy of Engineering, said, "It will serve as a model for the development of blue carbon projects in coastal cities across the country."

Yu Yin contributed to this story.

Over the moon



Zhang Zhongqiang (center left), a master in colored clay sculpture, introduces *tuerye*, or Rabbit Lord, an iconic cultural element of Beijing, to diplomats from the Shanghai Cooperation Organization countries in Beijing on Thursday. The exhibition features designs of auspicious Chinese zodiac animals — this year being the rabbit. ZOU HONG / CHINA DAILY