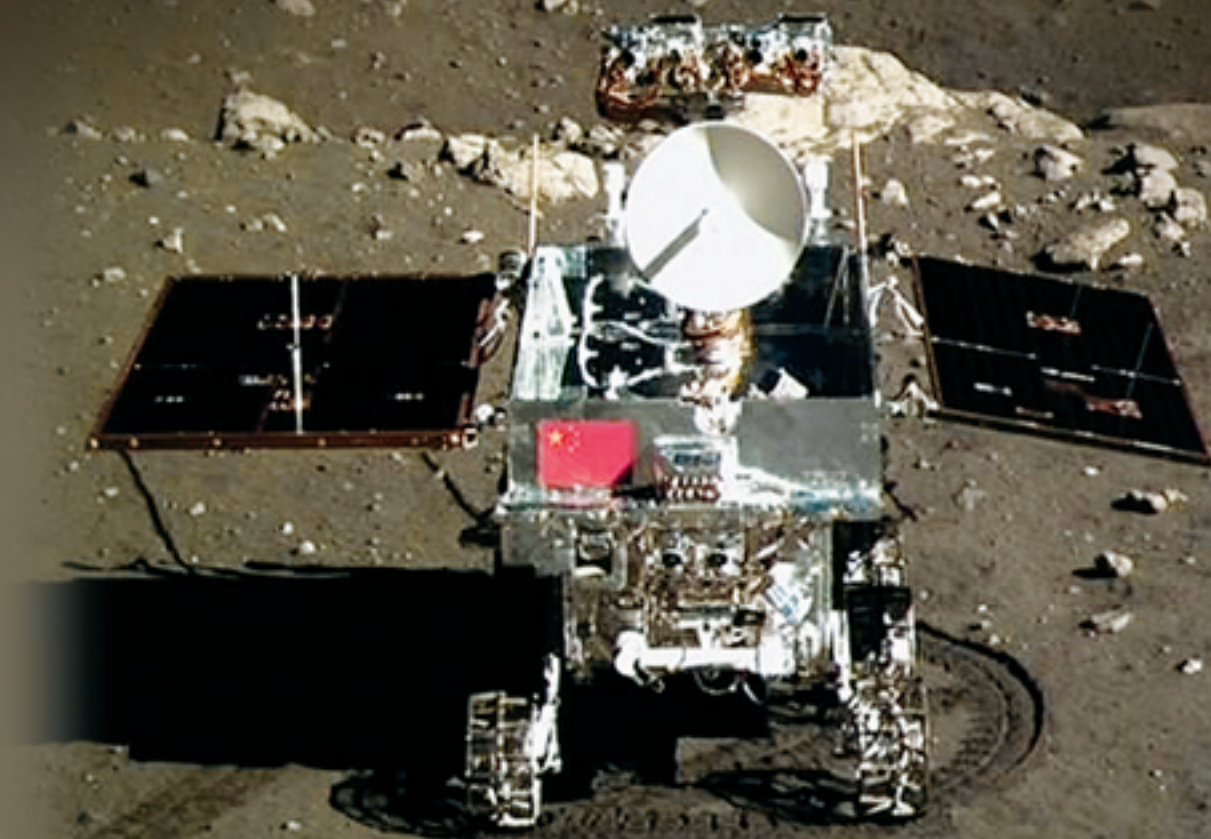


A RETROSPECTIVE: THE TOP NEWS STORIES OF 2013 P.24, 28 & 34

BEIJING REVIEW

VOL.56 NO.52 DECEMBER 26, 2013

北京周報 WWW.BJREVIEW.COM



HELLO WORLD

Meet *Yutu*, China's lunar rover

RMB6.00
USD1.70
AUD3.00
GBP1.20
CAD2.60
CHF2.60
JPY188

ISSN 1000-9140



邮发代号2-922 · 国内统一刊号: CN11-1576/G2



中国与非洲



12 issues a year at a subscription rate of 180 RMB/R360

SUBSCRIPTION HOTLINES
+27 (0)11 613 2053 FAX: +27 (0)11 784 1214
Email: casa201208@hotmail.com

An Africa-oriented English monthly covering China and Africa published by BEIJING REVIEW, ChinaAfrica is the leading publication in China featuring news, views and analysis for an African audience.

WWW.CHINAFRICA.CN



12

COVER STORY

China on the Moon

Space mission success



SPECIAL REPORT 14



Rapid Transformation

How the reform and opening up has made a difference

THE DESK

» Another Step Toward Space **02**

THIS WEEK COVER STORY SPECIAL REPORT

» Reflections on an Epoch **18**
Prominent scholar's oral history

» A Grateful Heart **20**
Qijing's woman in charge

WORLD

» Top 10 World News Stories in 2013 **24**

NATION

» Top 10 National News Stories in 2013 **28**

BUSINESS

» Top 10 Economic Stories in 2013 **34**

» Market Watch **40**

CULTURE

» Behind the Scenes **44**
China's rising screenwriters

FORUM

» Challenges and Reforms **46**
Putting things in context

EXPAT'S EYE

» Shower Follies in Fuzhou **48**
A quick-fix encounter



32

NATION

Asset Disclosures

Moves to cut graft



38

BUSINESS

New Year, New Direction

Getting ready for 2014

Cover Photo: Chinese Yutu lunar rover on the moon's surface (XINHUA)

©2013 Beijing Review, all rights reserved.

ONLINE AT » WWW.BJREVIEW.COM

BREAKING NEWS » SCAN ME » Using a QR code reader

Beijing Review (ISSN 1000-9140) is published weekly for US\$64.00 per year by Cypress Books, 360 Swift Avenue, Suite 48, South San Francisco, CA 94080, Periodical Postage Paid at South San Francisco, CA 94080. POSTMASTER: Send address changes to Beijing Review, Cypress Books, 360 Swift Avenue, Suite 48, South San Francisco, CA 94080



President & Editor in Chief: Wang Gangyi

Vice President: Qi Wengong

Associate Editors in Chief: Li Jianguo, Huang Wei,

Wang Yanjuan, Zhou Jianxiong, Ding Zhitao

Assistant President: Li Zhenzhou

Assistant Editor in Chief: Wa Chunfang

Executive Editor: Ding Zhitao

Assistant Executive Editors: Yao Bin, Zhang Zhiping, Zan Jifang

Editorial Administrators: Zhang Xiaoli, Shi Bosen

Opinion Editor: Zan Jifang

World Editor: Yan Wei

Nation Editor: Yao Bin

Business Editors: Yu Shujun, Lan Xinzhen

Culture Editor: Liu Yanyun

Editorial Consultants: Joseph Halvorson, Kieran Pringle

Staff Reporters: Tang Yuankai, Ding Ying, Ding Wenlei, Wang Jun, Li Li,

Yin Pumin, Pan Xiaobao, Yuan Yuan, Wang Hairong, Liu Xinlian,

Yu Yan, Yu Lintao, Zhou Xiaoyan, Bai Shi, Deng Yaqing, Ji Jing

Photo Editor: Wang Xiang

Photographer: Wei Yao

Art: Li Shigong

Art Director: Wang Yajuan

Chief Designer: Cui Xiaodong

Designer: Zhao Boyu

Proofreading: Qin Wenli, Ma Xin

Distribution Director: Hu Keqiang

Human Resources: Hou Jin

International Cooperation: Zhang Yajie

Marketing/PR Director: Pan Changqing

Legal Counsel: Yue Cheng

North America Bureau

Chief: Huang Wei

Deputy Chief: Xu Tao

Tel/Fax: 1-201-792-0334

E-mail: hww@bjreview.com

Africa Bureau

Chief: Li Jianguo

Africa Managing Editor: Francisco Little

Tel: 27-71-6132053

E-mail: casa201208@hotmail.com

General Editorial Office

Tel: 86-10-68996252

Fax: 86-10-68326628

English Edition

Tel: 86-10-68996259

Advertising Department

Tel: 86-10-68995810

E-mail: ad@bjreview.com.cn

Distribution Department

Tel: 86-10-68310644

E-mail: circulation@bjreview.com.cn

Published every Thursday by

BEIJING REVIEW, 24 Balwanzhuang Lu,

Beijing 100037, China.

Overseas Distributor: China International Book Trading

Corporation (Guoji Shudian), P. O. BOX 399,

Beijing 100044, China

Tel: 86-10-68413849, 1-416-497-8096 (Canada)

Fax: 86-10-68412166

E-mail: fp@mail.cibtc.com.cn

Website: http://www.cibtc.com

General Distributor for Hong Kong, Macao and Taiwan:

Peace Book Co. Ltd.

17/FI, Paramount Bldg, 12 Ka Yip St, Chai Wan, HK

Tel: 852-28046687 **Fax:** 852-28046409

Beijing Review (ISSN 1000-9140 USPS 2812) is published weekly in the

United States for US\$64.00 per year by Cypress Books,

360 Swift Avenue, Suite 48, South San Francisco, CA 94080

News Postage Paid at South San Francisco, CA 94080

POSTMASTER: Send address changes to *Beijing Review*,

Cypress Books, 360 Swift Avenue, Suite 48,

South San Francisco, CA 94080



EDITOR

Another Step Toward Space

On December 14, China's lunar probe *Chang'e-3* successfully landed on the moon. Later, the lunar rover *Yutu*, meaning jade rabbit, separated from the lander and set out on its adventure across the moon's surface. The monumental event makes China the third country to successfully soft land a probe on the moon after the United States and the former Soviet Union.

According to Ouyang Ziyuan, chief scientist of China's lunar exploration program, the country has mapped out three phases for exploring the moon: unmanned exploration, a manned lunar landing, and eventually establishing a base on the moon. It will mainly focus on the unmanned exploration before 2020.

In 2007, China launched *Chang'e-1*, the country's first lunar probe, which successfully surveyed the moon from orbit. In 2010, China's second lunar probe flew out to the moon and similarly performed observations from orbit. Followed its predecessors, *Chang'e-3* performs a series of new missions, soft landing on the moon, analyzing materials on the moon's surface and sending data back to Earth automatically.

China has always conformed to the principle of a peaceful use of space when carrying out its space exploration program. The lunar exploration program is China's choice based on its scientific, technological and economic strength. The lunar exploration program will advance the country's development across various aspects, including aerospace technology, space science, communication technology as well as new materials and new energy. China's lunar exploration program is a new start for the country's aerospace industry. ■

WRITE TO US



Send an e-mail: contact@bjreview.com.cn

Please provide your name and address along with your submissions.
Submissions may be edited.

CHINA.....RMB6.00 U.S.A.....USD1.70 AUSTRALIA.....AUD3.00 UK.....GBP1.20
CANADA.....CAD2.60 SWITZERLAND.....CHF2.60 JAPAN.....JPY188 EUROPE.....EURO1.90
TURKEY.....YTL5.00 HK.....HKD9.30 NEPAL.....RS40

北京周报 英文版 2013年 第52期 ISSN 1000-9140 广告许可证 0171号北京市期刊登记证第733号
邮发代号2-922·国内统一刊号: CN11-1576/G2 国内零售价: 人民币6.00元



Available on App Store



FESTIVE FIGHTER

Two girls take a photo together with an imitation terra-cotta warrior wearing a Santa hat in front of a store in Xi'an, northwest China's Shaanxi Province, before Christmas. Shops, restaurants and stores will go to increasingly outlandish lengths to seize the business opportunities in the run up to the gift-giving season.

Housing Projects

Affordable houses under construction in Xining, capital of northwest China's Qinghai Province.

China began construction of 6.66 million affordable housing units this year and had already completed 5.44 million within the first 11 months, meeting targets ahead of schedule. Investment in affordable housing during the period reached 1.12 trillion yuan (\$183.23 billion).

A total of 36 million affordable housing units will be built from 2011 to 2015. The plan includes renovations in run-down neighborhoods.



Registration Reform

The Ministry of Public Security says that it has already drafted a plan for reforming the current household registration system.

"We will set up a new household registration system by 2020," said Huang Ming, Vice Minister of Public Security, in an interview with China Central Television on December 17. "It will have three key features. First of all, we will adopt the same system in urban and rural areas. Second, the requirement for immigration will be based on legal and stable homes and jobs. Besides

that, the new system will be based on where you live most of the time as opposed to place of birth. By 2020, it should be much easier for people to migrate."

Huang said that this round of reform aims to help migrant workers in cities acquire legal registration and also to attract more people to cities. The government will also make efforts to boost public services, including education, medical treatment, and social security programs for long-term dwellers.

There are currently an estimated 160 million migrant workers in China.

Greener Petrol

China's standardization authority announced stricter quality standards for gasoline on December 18, in an effort to reduce vehicle emissions.

The higher standard marks a step toward accelerating the use of greener fuel in the world's largest auto market, where vehicle exhausts are blamed as a major factor in worsening air conditions.

The new standard, known as China 5, limits sulphur content for gasoline to no more than 10 ppm (parts per million), whereas the previous standard allowed up to 50 ppm.

Petrol meeting the new China 5 standard will be available nationwide by January 1, 2018.

According to government data,

one fifth of airborne particulate matter smaller than 2.5 microns in diameter, commonly referred to as PM2.5, comes from vehicle emissions. PM2.5 readings are considered a major indicator of air quality.

Under the new standards, the maximum allowable content of manganese, an element that is harmful to humans, will be lowered to 2 mg/L from the previous 8 mg/L. Alkene content will also be reduced to mitigate photochemical smog.

Ding Jizhu, Director of the Industrial Standards Department under the Standardization Administration of China, said that the China 5 standard has been made in accordance with emission control standards in Europe.

Ding estimates that the new standard will cut nitrogen oxide emissions by 300,000 metric tons annually.

Protected Zone

China plans to strengthen environmental protection in the Sanjiangyuan region of west China's Qinghai-Tibet Plateau, the headwater of many of its major rivers.

With an average altitude of 4,000 meters, Sanjiangyuan, which



NEW OUTPOST

China is expanding its presence at the South Pole, with construction workers leaving the nation's Zhongshan Station on December 18 to build the Taishan summer field camp, the country's fourth Antarctic base



TEMPLE VERIFICATION

The mediation room of Nengren Temple in Jiujiang, Jiangxi Province. The State Administration for Religious Affairs said on December 17 that it will publish a list of officially approved Buddhist and Taoist temples online next year to prevent scams



means “source of three rivers” in Chinese, is home to China’s largest and highest wetland ecosystem.

The newly approved protection plan for the region aims to expand the rehabilitation area from 152,000 to 395,000 square km, according to a statement released on December 18 after an executive meeting of the State Council, the country’s cabinet.

According to the plan, efforts will focus on protecting and rehabilitating vegetation in the area while developing and improved monitoring and warning network tailored to local ecological conditions.

Government Online

The official website of the Chinese Government, www.gov.cn, created two more microblog accounts on December 18, following their

previous foray into social media in October.

The website, which is run by the General Office of the State Council, opened microblog accounts on Sina Weibo and People.com.cn.

Since October 11, the website has already been operating two micro-blog accounts at Xinhuanet.com and QQ.com, as well as an account on WeChat, a popular Chinese messaging app with over 400 million users.

The website will use the social media accounts to publicize important information, according to a statement from the website.

School Funding

High schools in China’s impoverished areas received 5 billion yuan

(\$824 million) between 2011 and 2013 from the Central Government, the Ministry of Finance announced on December 16.

This year, the Central Government provided 2 billion yuan (\$329 million) for equipment, books, as well as the expansion and renovation of high schools, according to the ministry.

Local governments in central and western regions pumped 1.1 billion yuan (\$181 million) into high schools in poor areas from 2011 to 2012 to improve basic schooling standards, the ministry stated.

So far, local and central funds have benefited 2.56 million students in 796 schools, expanded and renovated 2.23 million square meters of school infrastructure and provided books worth 69.62 million yuan (\$11 million) and equipment worth 553 million yuan (\$91 million).

Organ Allocation

China’s computerized organ-allocation system was used successfully for the first time in Beijing on December 17, as donated organs from a 47-year-old man were transplanted into three patients.

The donor died on December 7 from a cerebral hemorrhage in a suburban Beijing hospital.

The man’s liver and both of his kidneys were then given to patients

waiting for transplants at Peking University People’s Hospital.

It is the first time in Beijing that donated organs were allocated by the China Organ Transplant Response System and transplanted to patients in need, according to a hospital news release. Previously, organ allocation would have been likely to have been dealt with internally by a hospital.

The China Organ Transplant Response System was launched in 2010 to more fairly distribute organs from donors from across the country after their deaths.

Lottery Sales

China’s lottery sales reached 279.05 billion yuan (\$46 billion) in the first 11 months, up 18.9 percent year on year, the Ministry of Finance announced on December 17.

During this period, welfare lottery sales reached 158.89 billion yuan (\$26 billion), an increase of 16.9 percent year on year, and sports lottery sales rose 21.7 percent year on year to 120.16 billion yuan (\$20 billion).

The ministry attributed the jump in sales to the introduction of new lottery products, promotion of quiz-style games and more outlets for online lottery games.

Money raised through lotteries is used for the jackpot, management fees and public lottery funds.

Fare Increases

Passengers pass through the security check at the Tian’anmen West subway station in Beijing on December 17.

Traffic authorities in Beijing said on December 18 that it is considering proposals to raise subway fares to help ease crowding during rush hours.

In Beijing, a subway ticket currently costs 2 yuan (\$0.33)

and allows passengers to ride an unlimited distance, making as many transfers as necessary. The rate, which has been in place since 2007, has long been the lowest in the country.

Beijing, home to 21 million permanent residents, currently has 456 km of subway lines in operation, which transport 10 million passengers daily.



Making Toys For the World

Workers from a toy company in Wendeng, Shandong Province, examine toys made for the movie *Rio 2*, on December 18. Those toys will be shipped for sale in South America.

Despite a lackluster global economy, local toy companies received authorized production permits for a number of international cartoons.



OTC Market Expansion

China has decided to expand its over-the-counter (OTC) market to all qualified small and medium-sized enterprises (SMEs), according to an official statement released on December 14.

The State Council announced that the OTC market, a national share transfer system for SMEs that is also known as the New Third Board will be expanded to cover all innovative and promising companies.

Qualified companies can apply

for a listing on the board for public share transfers so as to realize equity and bond financing as well as aid in asset restructuring. Companies should ensure accurate and complete information disclosures on their operations.

Qualified enterprises can apply directly to be listed on the New Third Board through China's stock exchanges.

The State Council demanded the China Securities Regulatory Commission (CSRC) simplify approval procedures so as to

increase efficiency.

The CSRC will exempt approval procedures for applying joint-stock companies with 200 or fewer shareholders and listed ones with private placement and no more than 200 shareholders, according to the State Council statement.

Home Prices Surge

The price of homes in large Chinese cities continued to rise in November.

All but one of the 70 major cities monitored by the government reported year-on-year increase in new home prices in November, the National Bureau of Statistics said on December 18.

Twenty-six cities reported an annual increase of 10 percent or higher, with only prices in Wenzhou in east China's Zhejiang Province failing to rise.

Shanghai led the race among the 70 cities, with an annual rise of 21.9 percent in November, followed by an increase of 21.1 percent in Beijing, 21 percent in Shenzhen and 20.9 percent in Guangzhou.

New home prices rose month on month in 66 of the 70 cities, compared to 65 in October.

Control Easing

The Ministry of Commerce announced on December 16 that it will further loosen controls on cross-border yuan direct investment.

Under the new regulations, approval procedures for yuan-denominated direct investment from overseas investors will be further simplified. The new regulation will take effect on January 1, 2014.

With cross-border yuan direct investment, foreign investors use legally acquired yuan to make investments in China by founding companies, increasing investments, or participating in mergers and acquisitions of domestic enterprises.



WATERWAY CONNECTION

A crane moves goods to be shipped outside the country via the Xijiang River golden waterway in Guangxi Zhuang Autonomous Region. Guangxi is facilitating infrastructure construction alongside the river to boost foreign trade



ROADS LEAD TO PROSPERITY

Cars drive on the Yan'an-Wuqi Highway on December 19, when the 109.8-km road, connecting two cities in Shaanxi Province, was officially opened

Foreign investors are still not allowed to invest in negotiable securities, financial derivatives, or entrusted loans in yuan.

The existing regulations, which took effect in 2011, require provincial bureaus to report to the ministry for further approval if foreign investors' yuan investment hits 300 million yuan (\$49 million) or more, or if their investment is in sectors such as financial guarantees, financial leasing, micro-credit, auctions, cement, steel, electrolytic aluminum or shipbuilding.

The new regulations have no such requirements. Overseas investors also include those from Hong Kong, Macao, and Taiwan.

Investment Up

Foreign direct investment (FDI) gained 2.35 percent in November



compared to a year ago to reach \$8.48 billion, increasing for 10 consecutive months, data from the Ministry of Commerce showed on December 18. The rate of growth was higher compared to the 1.24-percent rise in October.

From January to November, the country's FDI inflow stood at \$105.51 billion, up 5.48 percent from the same period last year.

FDI from the European Union surged 17.36 percent from a year earlier to \$6.82 billion in the first 11 months. Investment from the United States climbed 8.6 percent to \$3.16 billion.

From January to November,

Chinese investment into overseas non-financial sectors grew 28.3 percent year on year, reaching \$80.24 billion.

Natural Gas Boom

China's natural gas sector will develop quickly in the near future, offering "golden opportunities" for business and cooperation, a Hong Kong thinktank commented in a report on December 16.

The report was released by the China Energy Fund Committee (CEFC) at the National Press Club in Washington, D.C.

Fueled by the U.S. shale gas boom and the promise of a greener economy for China's 12th Five-Year Plan (2011-15), natural gas "appears to be a feasible and accessible option that could aid in resolving China's energy dilemma," said Dr. Patrick Ho, deputy chair and secretary general of CEFC at the report's launch.

The report also discussed the prospect of China's production of unconventional natural gas, such as shale gas, an industry still in the infant stages.

To further develop unconventional gas resources the report suggested that China needs to develop more drilling technologies, better pipeline networks and set a market-oriented approach for gas pricing and development rights.

Numbers

2%

Estimated growth of luxury spending on the Chinese mainland in 2013, a drop compared to 7-percent growth in 2012 and 30 percent in 2011

\$1.3 tln

China's U.S. Treasury bonds holdings after purchasing \$10.7 billion in October

7.5%

Year-on-year growth of China's electricity consumption from January to November

13%

Year-on-year growth in China's retail sales of consumer goods from January to November

4G Set to Take Off

A consumer demonstrates video played on a 4G cellphone in Ningbo, Zhejiang Province. On December 18, China Mobile's 4G services were launched in three cities in Zhejiang Province—Hangzhou, Ningbo and Wenzhou.

The telecom operator pledged to launch their 4G mobile network in 16 cities by the end of 2013.



THIS WEEK WORLD



KENYA

Chairwoman of the Southern African Development Community and President of Malawi Joyce Banda (left) and President of Uganda Yoweri Museveni sign a landmark peace deal between the M23 Rebels and the Government of the Democratic Republic of Congo on December 12 in Nairobi



SOUTH AFRICA

Former South African President Nelson Mandela's ex-wife Winnie Mandela Madikizela (left) and widow Graca Machel (center) stand by his coffin during a funeral ceremony in Qunu on December 15



CHILE

Chilean President-elect Michelle Bachelet waves as she celebrates her victory in the presidential elections in Santiago on December 15





THAILAND

An anti-government demonstrator blows a whistle at the gate of the Government House in Bangkok on December 12



MIDDLE EAST

Israelis try to move a stranded vehicle out of the snow in Jerusalem on December 13. The city experienced its worst snowstorm since 1953



NORTH KOREA

North Korean leader Kim Jong Un (front right) and his wife, Ri Sol Ju, stand side by side at a memorial service marking the second anniversary of Kim's father and former leader Kim Jong Il's passing in Pyongyang on December 17

“The National Center for the Performing Arts (NCPA) will continue to produce quality programs in the future. Through our Going Out strategy, we’ll do a better job at telling China’s story and conveying Chinese messages to the rest of the world.”

NCPA Vice President Wang Zhengming, during the center’s public open day on December 22, when the center hosted free shows, lectures, exhibitions and performances



“The most fantastic thing about the landing of China’s first moon rover is seeing images captured and relayed to Earth by the Yutu rover.”

Liu Cixin, one of China’s most celebrated science fiction writers, after watching the live broadcast of the Yutu rover’s disembarking on TV



“The total production costs for the event were 13 million HK dollars this year. A total of 400,000 people are expected to watch the show on both sides of the harbor, and share the cheerfulness of the New Year.”

Peter Lam, Chairman of the Hong Kong Tourism Board, on Hong Kong’s plan to launch the largest ever countdown extravaganza in Victoria Harbor on December 31, with an unprecedented fireworks display



“It is the first time we detected the H10N8 virus in human pneumonia samples. Studies in our laboratories show the chances of human infection from contact with live poultry is rare.”

Feng Zijian, Director of the Emergency Office of the Chinese Center for Disease Control, following the death of a woman in central China’s Jiangxi Province in mid-December, who was believed to be the first recorded human case of the H10N8 strain of bird flu



INNOVATIVE ENTREPRENEUR



Liu Qingfeng, CEO and President of iFlytek, a speech-recognition technology developer, received the title of Economic Figure of 2013 at a gala hosted by China Central Television (CCTV) on December 12 alongside nine other people. This annual award has been given to the most influential figures in various industries in China since it was launched in 2000.

Liu, 40, started his company in 1999, which became listed on the Shenzhen Stock Exchange in 2008.

Their offline speech-recognition software has achieved an accuracy rate of nearly 90 percent for Chinese.



ECONOMIC VISIONARY



Li Yining, a renowned economist and the Honorary Dean of Guanghua School of Management of Peking University, was given a Lifetime Achievement Award at a CCTV gala honoring the Economic Figures of 2013 on December 12.

Few economists have steered China’s development path in the same way as Li, since his idea of joint-stock reforms guided China to transform itself from a planned to a socialist market economy.

Li, 83, has been teaching in Peking University since 1955.

Correction

Beijing Review regrets an error on the cover story of issue No. 51 of 2013. The author of “Nelson Mandela in My Eyes” should be Lu Miaogeng.

Food Security

Caijing Magazine
December 9

On November 29, China's National Bureau of Statistics revealed that China's grain output reached 601.935 million tons in 2013, up 2.1 percent compared to the previous year. This is the 10th consecutive year that China's grain output has increased.

However, the reality is that China is still suffering from a food shortage in spite of the rate of increase. In the past decade—excluding 2008 and 2009, when the grain output slightly surpassed demand—grain output has failed to meet the demands of the Chinese people.

One reason for the gap between demand and production is that China

includes soybeans in the figures. Because the imported soybeans have occupied half of the domestic market, the degree of self-sufficiency is lowered by 10 percentage points.

Nevertheless, China's three major grains—rice, wheat and corn—are also experiencing increased imports. This is an alarming trend. According to statistics, China imported 19 million tons of the three major grains in 2012. The figure for the first seven months in 2013 reached 11.439 million tons. Moreover, China could surpass



Egypt to become the world's biggest importer of wheat in 2013.

The truth is that the import of major grains has become normal for China. Due to the difficulty in realizing large-scale grain production in the short term and the increasing shortage of cultivated land and other resources, China's grain production costs have remained high. In addition, the space for an increase in production is narrowing. The current

situation cannot be changed in the short term. Ensuring food security is becoming an increasingly urgent issue for China.

Parking Space

Changjiang Daily
December 18

The number of vehicles on Beijing's roads exceeds 5.4 million, but the city only has 2.76 million regular parking spaces. Currently, over 80 percent of vehicles are parked in irregular spaces, but this doesn't mean there are insufficient parking spaces.

Management of parking spaces is disorganized. Only the traffic units of public security departments have the right to plot out roadside parking spaces, with the toll standards to be ratified by the reform and development departments. Parking tolls are handed to the financial departments. Industry and commerce departments respond to day-to-day operations, and the urban management departments deal with problems. Companies charging for parking spaces, restaurants and hotels close to roadside parking spaces, community administrative departments all consider parking spaces a gold mine. Public resources become a method of illegal profiteering.

It is true that charging for parking could help drive people to choose public transit as an alternative, but it doesn't mean that a city should neglect developing and better managing parking spaces.

Parking space problems are an inevitable pain during urban development, but high fees are definitely not the answer. A city should be capable of holding its vehicles. More and more parking spaces and their management should be made public property again.

Airport Paralysis

Yangcheng Evening News
December 17

This year, it was not rare to see an airport paralyzed during bad weather. In many cases, not only did some flights fail to operate normally, but some airports failed to cope appropriately. Passengers who were delayed at the airport lacked food and medical services. There were even violent incidents due to disputes between passengers and airport staff. It's time for airports to carefully examine their services.

Flight delays caused by weather hap-

pen frequently. Every airline and airport has a corresponding emergency plan. With efforts to promote common sense and safety knowledge, people would be able to show more understanding and tolerance when there are unexpected circumstances caused by natural disasters during their travels. However, for this to happen, an orderly and well-prepared follow-up services from airlines and airports are needed. Airports and flights might be affected, but emergency plans shouldn't. Recklessness and disorder should be avoided.

Cultural Shift

Oriental Outlook
December 5

A hundred years ago, the New Culture Movement, which took place in the mid 1910s and 1920s, called for the creation of a new Chinese culture, and changed the Chinese people's worldview. Today, culture is again undergoing major changes—this time, the change is brought by new technology and new media.

Technology and media affect the methods of cultural transmission today. Everyone involved in the transmission process can smell the opportunities that new culture transmission methods bring. Famous writers such as Hai Yan, who insists on drawing a line with online literature, wants to enable works to be accessible on the Internet.

Every market has a "first pot of gold" at its beginning stage. This is also the most disorderly stage. On the one hand, this disorder is reflected on the rules and management system of the market. On the other hand, it can offer possibilities for new participants to win.

Literary works, films, TV series, publications and music make up the pillars of our cultural life. What will they become in the new media, new channels and new trends? How will they be produced? How can businesspeople make money from them? How will they provide nutrition for society? All these questions are to be answered with the development of the new movement.



TOUCHDOWN: *Chang'e-3* probe's soft-landing on the lunar surface on December 14 is shown on a monitor in the Beijing Aerospace Control Center



COVER STORY

CHINA ON THE MOON

Chang'e-3 completes the first successful soft-landing on an extraterrestrial body in 37 years **By Yuan Yuan**

The Chinese lunar probe *Chang'e-3* has initiated a new phase of space exploration for mankind after successfully landing on the Earth's satellite.

The soft-landing was made at approximately 9:11 p.m. on December 14, making China the third country to do so after the former Soviet Union and the United States. *Chang'e-3* was launched on a Long March-3B carrier rocket from the Xichang Satellite Launch Center in southwest China's Sichuan Province. The region of the moon that the probe landed on, known as Sinus Iridum, or the Bay of Rainbows, has remained unstudied and untouched by mankind until now.

About seven hours after the landing, at 4:35 a.m. on December 15, *Yutu*, meaning jade rabbit, the 140-kg lunar rover carried by *Chang'e-3*, separated from the lander and drove out onto the moon's surface, leaving behind tire tracks on the loose lunar soil. A camera on the lander recorded the process and the images were transmitted back to Earth, according to the Beijing Aerospace Control Center.

At 11:42 p.m., after the rover moved to a spot about nine meters north of the lander, they took photographs of each other using the lander's landform camera and *Yutu's* panoramic camera.

The color images, transmitted live via a satellite network designed by China, show *Yutu* proudly brandishing the five-starred red Chinese flag, the first time that it has been taken to an extraterrestrial body.

Ma Xingrui, chief commander of China's lunar exploration program, announced that the *Chang'e-3* mission was a "complete success," after the lander and moon rover took pictures of each other.

Previously unseen

"The photographs showed both the lander and the rover are functioning well and at the same time they marked the completion of the soft landing, and the beginning of onsite surveying," said Pei Zhaoyu, a spokesman for the program.

According to scientists working on the *Chang'e-3* mission, six of the eight scientific instruments aboard *Yutu* and the *Chang'e-3's*

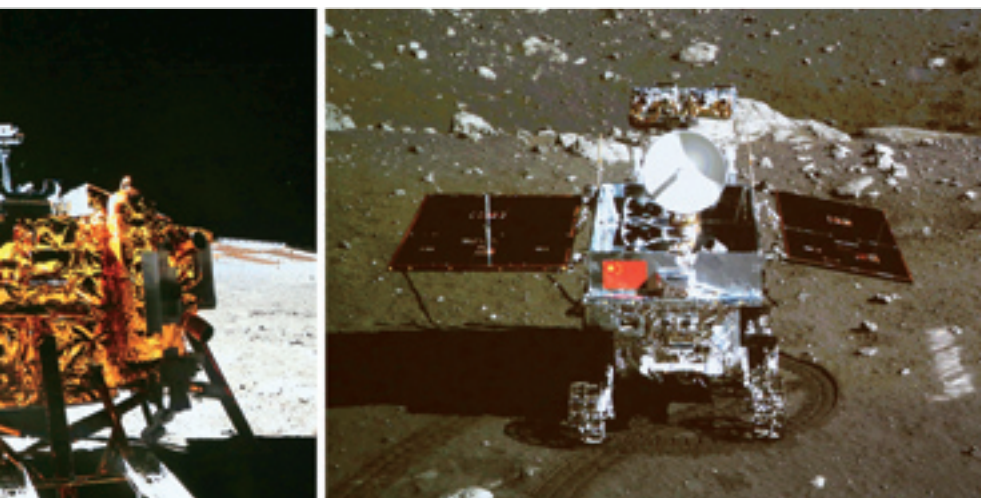
lander have already been activated and have begun observing space, the Earth and the moon, as of December 18.

"*Chang'e-3* will study the moon's terrain, geological structure, composition, and potentially exploitable resources," said Zou Yongliao, a scientist with the Chinese Academy of Sciences, adding that the lander will observe the Earth's plasmasphere using an extreme-ultraviolet imager.

At the same time, the *Chang'e-3's* lander, which will conduct exploration at the landing site for one year, will also deploy a telescope that will observe deep space.

"This is the first time mankind has placed a telescope on the moon. The special environment of the moon will enable us to conduct observation that could not be done on the Earth due to the impact of the atmosphere," said Sun Huixian, deputy chief engineer of China's lunar exploration program.

Yutu, which will have a three-month life span, will survey the moon's geological structure and surface composition, also looking for natural resources.



HERE WE ARE: *Chang'e-3's* lander and lunar rover *Yutu* photograph each other on the moon at 11:42 p.m. on December 15

On December 15, *Yutu's* radar began tests to determine the constitution of the lunar soil. According to Sun, the radar system attached to the bottom of the rover can scan up to 100 meters beneath the lunar surface.

Sun said that the rover is able to climb slopes of up to 30 degrees and travel at 200 meters per hour, explaining that designers set such a low speed for the vehicle because it has to detect and avoid obstacles.

Using its ability to detect obstructions, the rover will determine the path of least resistance by coupling its onboard navigation systems with remote control.

"Theoretically, *Yutu* can travel nearly 10 km across the moon," Sun said. "Engineers set up a laboratory on the Earth to simulate the uneven terrain of the moon and the rover went through extensive testing first."

The moon's temperature ranges from more than 100 degrees Celsius during the day to as low as 180 degrees Celsius below zero at night due to the lack of an atmosphere, presenting another challenge to the rover.

To work properly, the rover has to maintain an internal operating temperature range between 40 degrees Celsius below zero to 50 degrees Celsius above. To achieve this, both the lander and rover are equipped with radioisotope heating units.

Technological breakthroughs

Before *Chang'e-3* landed on the moon, 129 lunar explorations had been conducted but only 66 of them succeeded, among which only 13 unmanned soft landings were successfully completed.

The last soft landing took place on August 18, 1976, when the Soviet probe *Luna-24* touched down on the moon to collect samples.

In the following 37 years, the moon has had nothing land on its surface.

The low success rate tells the difficulties of lunar explorations and landing. China, as a newcomer to the world's space exploration club, has been adhering to a path of domestically developed innovations.

Compared to *Chang'e-1* and *Chang'e-2* lunar probes, launched in 2007 and 2010 respectively, 80 percent of *Chang'e-3's* components and technologies are new, said Sun Zezhou, chief designer of the lunar probe.

Launched in January 2004, China's lunar exploration program includes orbiting, landing and returning to the Earth.

After the *Chang'e-3* mission, China's lunar exploration program will enter a new stage of unmanned automatic sampling and return when it launches *Chang'e-5*, which will be an even more difficult endeavor with its own new challenges.

"The program's third phase will be more difficult because many technological breakthroughs must be made first, such as takeoff from the lunar surface, sampling encapsulation, rendezvous and docking in lunar orbit, and high-speed Earth re-entry, which are all new to China," said Wu Zhijian, a spokesman for the State Administration of Science, Technology and Industry for National Defense, at a press conference in Beijing on December 16.

As the backup probe for *Chang'e-3*, *Chang'e-4* will also be adapted to test technologies to be used by *Chang'e-5*, according to Wu.

It was revealed that China plans to launch *Chang'e-5* in 2017, which is expected to bring back up to 2kg of material from the lunar surface.

Researchers from the U.S. National Aeronautics and Space Administration have described *Chang'e-3's* operations on the moon

as "a new scientific opportunity that could potentially enhance studies and observations of the lunar atmosphere."

Global cooperation

"The *Chang'e-3* details tell me that the United States now absolutely must start communicating with the Chinese about lunar cooperation," said retired U.S. astronaut Buzz Aldrin, who was the second man to set foot on the moon after Neil Armstrong, in an interview with *Aerospace America* magazine.

Russian astronaut Vladimir Kovalenok said that the Chinese lunar program is on the right track and China can continue its path while taking into account the pros and cons of the lunar programs of the United States and the former Soviet Union.

"China is now a pioneer in this field, and its lunar missions will be a catalyst for lunar explorations by other countries, as the moon can serve as a basis for a jump on journeys to more distant places in the solar system," Kovalenok said.

"The European Space Agency (ESA) and China have recently signed a mutual cross support agreement that implies that the ESA can provide support to a Chinese mission through our deep space network (Estrack)," said Karl Bergquist, Administrator of ESA's International Relations Department.

"But the contrary could also be possible, i.e. that ESA would make requests to China to use Chinese antennas for an ESA mission. This has not yet happened, but I am sure it will happen in the next few years," Bergquist told China's Xinhua News Agency.

"This is a sign of the close relations that exists between the ESA and the Chinese space authorities," Bergquist added.

At the December 16 press conference, Wu said that China is always positive about international cooperation in lunar exploration. "We have had great cooperation with other countries and international organizations during previous missions," he noted.

Data collected through *Chang'e-1* and *Chang'e-2* probes are available to scientists across the globe, according to Wu. He also revealed that China shared information collected by *Chang'e-1* with the ESA, and an ESA aerospace control center as well as three of its telecommand telemetry control stations took part in the *Chang'e-3* mission.

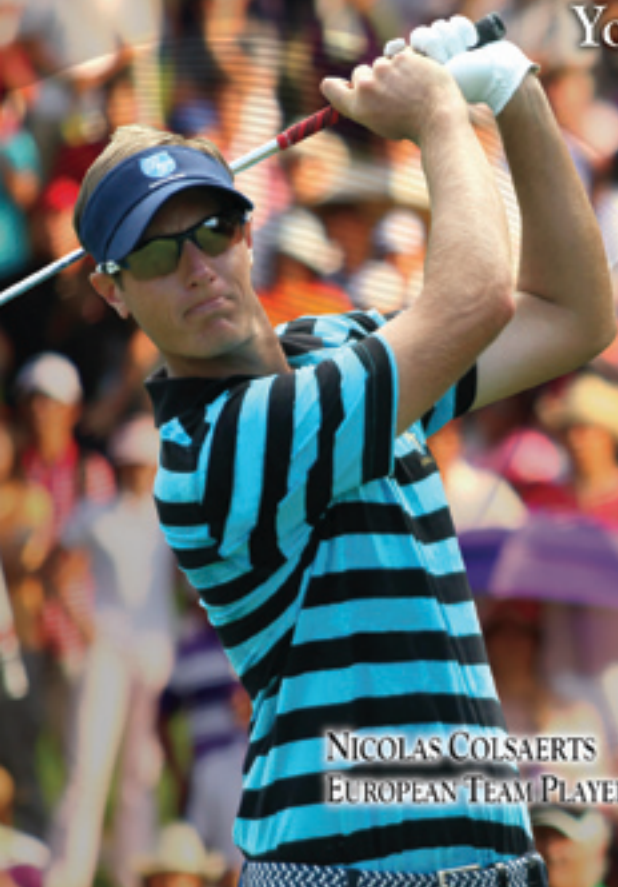
"In the next stage of China's lunar exploration program, there will be more international cooperation," Wu said. ■



THE ROYAL TROPHY

EUROPE vs ASIA
GOLF CHAMPIONSHIP

Come and Support
Your Continent!



NICOLAS COLSAERTS
EUROPEAN TEAM PLAYER



LIANG WEN-CHONG
ASIAN TEAM PLAYER

DRAGON LAKE GOLF CLUB, GUANGZHOU, CHINA • 20 - 22 DECEMBER 2013

FOR TICKETING: 400-1669299/ 400-6103721 • WWW.DAMAI.CN

WWW.THEROYALTROPHY.COM

HOST VENUE &
PREMIER SPONSOR



DRAGON LAKE
GOLF CLUB
九龍湖高爾夫球會

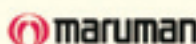
PREMIER SPONSOR



OFFICIAL SUPPLIER



OFFICIAL GOLF SUPPLIER



OFFICIAL SUPPLIER



SUPPORTED BY



INTERNATIONAL
MEDIA PARTNER



OFFICIAL
MEDIA PARTNER



INTERNATIONAL PROMOTER: ENTERTAINMENT GROUP (ASIA) LIMITED