China outlines its positive sea role

Wang Guoqing, spokesman for the fifth session of the 12th National Committee of the Chinese People's Political Consultative Conference, made the comment at a press conference. [Photo/Xinhua]

China values freedom and safety of navigation in the South China Sea more than any other country, a spokesman for the top political advisory body said yesterday.

Wang Guoqing, spokesman for the fifth session of the 12th National Committee of the Chinese People's Political Consultative Conference, made the comment at a press conference, citing the fact that China was a major trading nation as well as the largest littoral country of the South China Sea.

Certain countries outside the region alleged China threatens freedom of navigation, an entirely "pseudo proposition," he said.

Since China had recovered the South China Sea islands at the end of World War II, there had never been a problem with navigational freedom in the region.

The South China Sea islands are an integral part of China's territory, Wang said, adding that it was "perfectly normal" for China to build facilities, including those for necessary defense purposes, on its own territory. International law entitled sovereign states to do so.

China, Wang reiterated, resolutely defended the freedom of navigation that every country enjoys in the South China Sea according to international law.

"We have set up cooperation mechanisms with many other countries to ensure safe navigation," he said. The civilian facilities China has built on the South China Sea islands, such as lighthouses, had played a positive role in guaranteeing navigation safety and humanitarian rescue, Wang added.

He also said the Belt and Road Initiative was advancing steadily, bringing

investment and jobs to participating countries.

More than 100 countries and international organizations had joined the initiative and over 40 of them had cooperation agreements with China, he said.

Chinese businesses had helped to build 56 economic and trade cooperation zones in 20 countries along the Belt and Road, with total investment exceeding US$18 billion, helping to generate over US$1 billion in tax revenue and more than 160,000 jobs.

Wang said the CPPCC National Committee would do more work in 2017 to promote cultural and people-to-people exchanges with countries along the Belt and Road. The initiative was proposed by China in 2013 and aims to become a trade and infrastructure network connecting Asia with Europe and Africa along ancient trade routes.

In the spirit of regional connectivity, China is working in aviation, power, rail, road and telecommunications projects with participating countries.

The CPPCC will open its annual session at 3pm today in Beijing, he said.

More than 2,000 members from different sectors across the country will discuss major political, economic and social issues concerning the country's development during this year's session, which is scheduled to conclude on March 13.

China to take first step for manned space outpost

China will launch a space station core module next year as the first step in completing the country's first space outpost, a senior engineer with China Aerospace Science and Technology Corpsaid yesterday.

The core module of the space station, named "Tianhe-1," will be launched on board a new-generation Long March-5 heavyweight carrier rocket, said Bao Weimin, director with CASC.

It will be followed by a series of launches for other components of the space station, including two space labs, which will dock with the core module in space, in the next four years or so, he said, adding that the space station will be completed around 2022.

Assembly of the core module has already been completed and tests are under way, said Bao.

Earlier reports said the new Chinese space station will initially be much

smaller than the current International Space Station, which weighs 420 tons, but could be expanded for future scientific research and international cooperation.

With the ISS set to retire in 2024, the Chinese space station will offer a promising alternative, and China will be the only country with a permanent space station.

Bao said the Chinese outpost will function in orbit for “dozens of years,” and that it had been specially designed to be able to handle space debris.

“For the big pieces (of space debris), we could conduct evasive maneuvers, and for those measuring less than 10 cm in size, we just take the hit,” Bao said, adding that all key parts of the space station will be serviceable and replaceable.

He went on to say that the next five years will see some exciting advances in China’s space program.

In particular, the Long March-5 launch missions have been scheduled this year, including one that will take the Chang’e-5 lunar probe to the Moon in November and return with lunar samples.

Long March-5 is a large, two-stage rocket with a payload capacity of 25 tons to low-Earth orbit and 14 tons to geostationary transfer orbit, the largest of China’s carrier rockets. Its carrying capacity is about 2.5 times that of the current main model Long March carrier rockets.

The rocket will also be used in China’s planned Mars probes, and possibly future missions to Jupiter and other planets within the solar system, Bao said.

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10 dead, 38 injured in China bus, truck collision

Ten people died and 38 others were injured when a cement tanker crashed into a bus Thursday night in southwest China’s Yunnan Province, the local government said.

The accident happened at 11:33 p.m. on a highway in Yunxian County of Lancang City, the city government’s press office said in a statement Friday.

The cement tanker, with a license plate from the neighboring Sichuan Province, veered off the road after colliding into a coach bus that was carrying 47 people, including two drivers, it said.

The bus, en route from Gengma County to the provincial capital Kunming,

overturned on the road, the document said.

It said nine people were confirmed dead at the scene and another one died later in hospital, but did not identify the victims.

The government had launched an investigation and the injured people had been landed in hospitals, the document said.

Probe will bring back moon rocks and soil

Chang’e 5, China’s newest lunar probe, will bring 2 kilograms of lunar soil and rock samples back to Earth before the end of 2017, the project’s chief said Thursday.

“The monthlong Chang’e 5 mission will be the most sophisticated lunar expedition China has ever made,” Hu Hao, director of the national Lunar Exploration Center, told China Daily. “It will face a lot of challenges such as the great number of demanding maneuvers and the complicated condition of its landing site.”

The center is under the State Administration of Science, Technology and Industry for National Defense.

Hu said that Chang’e 5 will be launched atop a Long March 5 heavy-lift carrier rocket at the Wenchang Space Launch Center in Hainan province.

The 8.2-metric ton probe has four components, an orbiter, lander, ascender and re-entry module. After the probe reaches lunar orbit, the components will separate into two parts, with the orbiter and re-entry module remaining in the orbit while the lander and ascender descend toward the moon’s surface, Hu said.

The lander and ascender will make a soft landing – using small rockets to slow descent – and get to work of such tasks as using a drill to collect underground rocks and a mechanical arm to gather lunar soil.

After two days, the ascender’s rocket will elevate it to lunar orbit to dock with the re-entry module. It will transfer lunar samples to the module, which will carry them to Earth. The samples are to be distributed to scientists around the country for research.

If the mission is successful, the third phase of China’s lunar exploration program will be finished ahead of schedule, Hu said, also a deputy to the 12th National People’s Congress. The third phase is to be concluded before 2020, according to earlier plans.

China’s most recent lunar mission took place in December 2013 when the Chang’e 3 probe carried the nation’s first lunar rover, Yutu or Jade Rabbit, to the moon. The mission marked the mankind’s first soft-landing on the moon in nearly four decades.

Chang’e 3’s success marked the completion of the second phase of China’s lunar exploration program. It followed the successful Chang’e 1 mission in 2007 and Chang’e 2 in 2010.

Designers and engineers are now carrying out tests on Chang’e 5 and work is proceeding well, Hu said.

The Chang’e 5 mission will pave the way for the nation’s future manned expedition to the moon, Hu said.

Ye Peijian, one of China’s leading space scientists, told Xinhua News Agency on Wednesday that the fourth phase of the country’s lunar exploration program will unfold in 2018 as the Chang’e 4 probe will be launched to carry out the world’s first soft-landing on the far side of the moon. He added that China also plans to explore the two lunar poles in the near future.

Fossils point to life on Earth 4 billion years ago

Tiny fossils that scientists say are the oldest ever found offer evidence of life on Earth 3.8 to 4.3 billion years ago, when our planet was still in its infancy, researchers reported on Wednesday.

Even at the more primitive end of the spectrum, “the microfossils we discovered are about 300 million years older” than any runners-up, said Dominic Papineau, a professor at University College London, who made the discovery.

Dating puts the fossils “within a few hundred million years” of the formation of the solar system, he said.

The results were published in the peer-reviewed journal Nature.

The emergence of life not long after Earth formed would suggest it also could emerge on watery worlds outside our solar system at comparable stages of formation, the scientists said.

“If life happened so quickly on Earth, then could we expect it to be a simple process that could start on other planets?” asked the lead author, Matthew Dodd, a graduate student at the London Centre for Nanotechnology.

Earth and Mars are believed to have had liquid water on their surfaces at the

same time, he noted.

“We could expect to find evidence for past life on Mars 4 billion years ago,” Dodd said.

But it may be that Earth was “just a special case”, he added.

The tiny fossils – half the width of a human hair and up to half a millimeter in length – take the form of blood-red tubes and filaments formed by ocean-dwelling bacteria that fed on iron.

Locked inside white, flowerlike quartz structures known to harbor fossils, they were found along what were once warm-water vents on the ocean floor, most often in deep waters.

Such iron-rich, hydrothermal systems still exist and are home to bacteria that may be similar to those unearthed by Dodd and his colleagues.

The site of the discovery, the Nuvvuagittuq Supracrustal Belt in Canada, contains some of the oldest sedimentary rocks known on Earth.

Scientists say they formed between 3.77 and 4.29 billion years ago, and may have been the habitat for the planet’s first life-forms.

It is still not known when, or where, life on Earth began, but these deep-sea vents are seen as a good candidate.

Earth is thought to be about 4.57 billion years old, scientists said.