

CHINA

Submersible sets sights on deepest ocean

Vessel capable of carrying 3 people for tasks 10 km under water, designers say

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China's latest manned submersible is expected to explore the deepest part of the ocean — the bottom of the Mariana Trench in the Pacific Ocean.

The submersible, named *Fendouzhe*, or "striver", will make its first attempt to carry its crew to approach the Challenger Deep — the deepest point in the trench — before the end of this year, according to sources at the China Ship Scientific Research Center in Wuxi, Jiangsu province. The center is a subsidiary of the State-owned shipbuilding conglomerate China State Shipbuilding Corp.

The electrically powered submersible, which weighs tens of metric tons, was assembled at the center in March. It conducted some tests in a lake in Wuxi before being transported to a shipyard in Fuzhou, Fujian province, in July to be loaded onto its mother ship, *Exploration 2*.

The mother ship then carried the craft to Sanya, a coastal city in Hainan province, to make some preparatory dives in the South China Sea ahead of its maiden journey to the Mariana Trench.

Fendouzhe is the world's deepest-diving manned submersible, capable of bringing people to 10,000 meters underwater to perform scientific missions, sources said, noting that almost all of the vehicle's technologies and apparatuses were developed by Chinese researchers.

Designers and engineers overcame many technical difficulties to build the submersible's sophisticated equipment, including the titanium alloy-based pressure sphere holding the crew and the ultra-deep communication devices.

Once the craft begins formal operations with the Chinese Academy of Sciences, it will carry three crew members in each deep-diving operation, which can last as long as 10 hours. Excluding the time for ascents and descents, the crew will be able to carry out around two hours of scientific tasks at a depth of more than 10,000 meters, designers said.

Currently, the nation operates two manned deep-sea submersibles — *Jiaolong*, or "sea dragon", and *Shenhai Yongshi*, or "deep-sea warrior". Both of them were designed and built by the country's engineers.

Jiaolong entered service in 2010, making China the fifth country in the world to have deep-sea exploration technology after the United States, France, Russia and Japan. During a test dive in June 2012, it reached its deepest depth — 7,062 meters — in the Mariana Trench.

With a 4,500-meter diving capability, *Shenhai Yongshi* was delivered to the Chinese Academy of Sciences in late 2017 and is involved in intensive scientific operations.

In the long term, China plans to build a manned deep-sea station that will start operating around 2030, according to officials at the State Oceanic Administration.



Lime time

Women of the Bouyei ethnic group harvest limes in Wangmo county, Guizhou province, on Thursday. A deeply impoverished county, Wangmo is paired with Yuyao city, Zhejiang province, for poverty relief work. Yuyao helped local poor villagers join an agricultural company's lime production effort by letting them become shareholders. The villagers are able to enjoy dividends while also working for a salary.

XU WEIMING / FOR CHINA DAILY

No new positive results in 10m tests in Qingdao

By XIE CHUANJIAO in Qingdao, Shandong
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The recent COVID-19 outbreak in Qingdao, Shandong province, was unlikely to have originated at the community level as no new positive result was found following citywide nucleic acid testing, officials said at a news conference on Thursday afternoon.

By 3:30 pm on Thursday, the city had collected and tested more than 10.4 million samples and had released more than 8.8 million results. There were no additional positive results beyond those already under quarantine, said Sui Ruwen, the city's vice-mayor and chief of the public security bureau.

The testing effort, which aims to cover the total population of 11 mil-

lion residents, is expected to be finished on Friday, he said.

On Thursday morning, the city reported one new confirmed COVID-19 case, its 13th since Sunday. The case is an independent virus infection of a 40-year-old port worker whose test was positive but who had showed no symptoms three weeks ago.

"Generally, the incubation period of the virus ranges from one to 14 days, but there are also reported cases whose incubation period lasted four weeks," said Sun Yunbo, director of a medical experts team organized to treat the city's novel coronavirus, adding that the dock worker is an individual case.

In addition to the 13th confirmed case, the previous 12 in the recent epidemic, which started over the weekend, were closely linked to the city's pulmonary hospital. Some top

health experts said the risk of infection spreading inside communities is unlikely.

The reasons for the recent outbreak should be analyzed by top health experts in the country, said Jiang Fachun, deputy director of the city's disease control and prevention center.

Wu Zunyou, chief epidemiologist at the Chinese Center for Disease Control and Prevention, said during an interview with Xinhua News Agency on Wednesday afternoon that efforts in the coming days should be focused on the close contacts of cases in the pulmonary hospital, especially if there are close contacts that have not been found and isolated.

He suggested that the re-emergence of the virus in Qingdao is not due to the transition from autumn

to winter, neither is it related to the eight-day National Day Holiday despite the large numbers of people who traveled during that time.

"Priorities for prevention should be on wards in hospitals, especially those receiving overseas confirmed cases, and the use of major medical equipment should also be isolated," said Wu.

"Wearing face masks, keeping social distances and washing hands frequently should become a daily routine," he added.

In response to the recent outbreak in Qingdao, Sui Zhenhua, director of the Qingdao health commission, was suspended from his post and is being investigated, and Deng Kai, dean of the pulmonary hospital, was removed, according to the statements from the city government on Thursday.

US urged to stop negative actions regarding Taiwan

By ZHANG ZHIHAO
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The United States should stop indulging in rhetoric and negative actions related to the Taiwan Straits, Senior Colonel Zhang Chunhui, spokesman of the People's Liberation Army Eastern Theater Command, said on Thursday.

On Wednesday, the guided-missile destroyer USS *Barry* sailed through the Straits. The PLA Eastern Theater Command dispatched maritime and PLA Air Force units to monitor the vessel's entire passage, Zhang said.

"Recently, the US has been routinely sending the wrong message to Taiwan separatist forces and has severely damaged peace and stability in the region," he said. "We solemnly warn the US to stop stirring up trouble in the Taiwan Straits with its rhetoric and actions."

Experts said the island's pro-secession Democratic Progressive Party is "delusional and fooling themselves" by believing the US will keep supporting its separatist agenda and even military confrontation with the Chinese mainland so long as Taiwan can pay up by purchasing US weapons and goods.

Last week, US National Security Adviser Robert O'Brien said Taiwan should buy more weapons and turn itself into a "porcupine" to discourage "the lion", which represented the Chinese mainland, from attacking it.

David Helvey, the US principal deputy assistant secretary of defense for Indo-Pacific security affairs, said last week that Taiwan's intention to boost defense spending by \$1.4 billion next year was insufficient, and it needed to buy more advanced, lethal capability weapons.

On Tuesday, it was reported that the White House was planning to sell MQ-9 reaper attack drones and a coastal defense missile system to Taiwan, prompting opposition from China's Foreign Ministry and the Taiwan Affairs Office of the State Council.

On Sunday, China Central Television revealed that Chinese security authorities had cracked down on

several hundred Taiwan-related espionage cases and arrested a group of Taiwan residents suspected of spying in an operation called "Xunlei-2020". It is the second major operation targeting Taiwan-related espionage since 2018.

On Thursday, People's Daily published an article slamming Taiwan separatists and the island's intelligence agencies, saying the DPP had sold out the interests of the Taiwan people to gain protection from Western countries, and the intelligence agencies had exacerbated this trend via "despicable and unjust means".

These means included spying on the Taiwan people, limiting cross-Straits exchanges, ignoring the safety and well-being of its agents, creating false intelligence, abusing power for personal gains and embezzling funds.

"We urge the Taiwan intelligence agencies not to get tied to the bandwagon of Taiwan secession. This bandwagon is only racing to a bitter and tragic end," it said.

"We hope Taiwan intelligence agents could see current trends and cease operations immediately. There is no need to willfully take the wrong road to one's doom. Don't say we didn't warn you."

The phrase "Don't say we didn't warn you" is widely regarded as the most severe diplomatic expression in China's political discourse. The phrase had only been used three times previously by People's Daily: in 1962 before China's border conflict with India, in 1979 ahead of the China-Vietnam War, and in 2019 at the height of the China-US trade conflict.

Wang Xiaopeng, an expert on maritime borders at the Chinese Academy of Social Sciences, told China Central Television that Taiwan is pursuing secession "on multiple fronts", including diplomacy, economy, media, intelligence and military.

"If Taiwan separatists still recklessly pursue their goal, they will surely pay the heaviest price," he said.

Jiangsu university probing transmission of TB

By CANG WEI in Nanjing
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Jiangsu Normal University has formed a special working team to investigate the transmission of tuberculosis among 22 confirmed cases and another 43 who had abnormal CT chest scans.

On Wednesday, the university revealed on its micro blog account that the 22 students diagnosed with TB, who became infected from August 2019 to this month, have suspended schooling to receive treatment.

During further examinations conducted in September and this month, another 43 students showed abnormal CT chest images and had been quarantined for more checks.

All the students come from the Pan'an Lake campus of Kewen College, which is affiliated with the

university that has more than 9,900 students at its two campuses in Xuzhou, Jiangsu province.

The university revealed the information after some students posted on micro blog that many cases have been emerging at the campus for more than one year. Some students also said that the college took almost no measures during the year to control the disease.

"The university has done lots of work recently to guarantee the students' health," said Fei Chun, president of Kewen. "Medical experts from the provincial health department and Xuzhou have hurried to the college to help treat the patients and control the transmission."

However, Fei refused to reveal what measures the college had taken before the students posted on the internet.

Shi Ping, an attending physician

of the infectious diseases department of Jiangsu Province Hospital, said that the patients may show symptoms such as fever, cough, fatigue, night sweats and weight loss. Some patients may also have chest pain and shortness of breath, or cough up blood.

"The patients can release the droplets that contain the pathogen in the air when they cough, sneeze, laugh or talk loudly," she said. "The key to prevent transmission is to reduce the density of the droplets in a space and ventilate the space."

Shi suggested that classrooms and dorms be ventilated and that all people on campus wear masks, wash their hands frequently and cover their mouths and noses with tissues when they sneeze. Besides avoiding gatherings, people should also exercise more and maintain a balanced diet.

All the patients' close contacts should be traced and tested for TB, Shi said.

According to the Chinese Center for Disease Control and Prevention, people who live with TB patients or share the same rooms with them during work or study should be classified as close contacts.

Prevalence of TB has been reported in some other Chinese universities.

In December 2019, some students from Yangzhou University in Jiangsu were diagnosed with the disease.

From 2012 to 2013, 28 students from a university in Changsha, Hunan province, were also diagnosed with TB, as were 13 students from Jiangsu University of Science and Technology in December 2011.

Guo Jun contributed to this story.

Exhibition on COVID-19 battle opens in Wuhan

By LIU KUN in Wuhan
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An exhibition opened on Thursday in Wuhan, capital of Hubei province, depicting the endeavors and achievements made in COVID-19 control and prevention in the city in the first half of the year, as normal life has been restored in the city after the novel coronavirus was effectively suppressed there.

The three-month show, hosted by the Hubei provincial government, includes more than 1,100 photos, more than 1,000 objects, 45 videos and 18 interactive sites for visitors. Recent technologies such as virtual reality have also been adopted to present vivid impressions to viewers.

Images and models of key elements during the fight against the epidemic between January and April were presented in the exhibition, including intensive care units that treated severe COVID-19 patients; Huoshenshan Hospital, a hospital built in 10 days to specially admit COVID-19 patients in Wuhan; and temporary hospitals that were created from exhibition centers, sports stadiums and warehouses.

The exhibition was staged follow-



Visitors look at a group sculpture depicting medical personnel from the People's Liberation Army supporting Wuhan, Hubei province, during the height of the COVID-19 outbreak, as the exhibition opens on Thursday. ZHU XINGXIN / CHINA DAILY

ing success in bringing the epidemic well under control in Wuhan, the hardest hit city by the virus in Hubei, as well as in the whole country. Just 11 new confirmed COVID-19 cases were reported on the Chinese mainland on Wednesday, including one locally transmitted, according to the National Health Commission.

Following the epidemic, Wuhan imposed a lockdown that lasted nearly 80 days, and was lifted on

April 8 after the daily number of newly reported COVID-19 cases dropped to zero. Following the lockdown of Wuhan in January, China mobilized the whole country to help epidemic control in Hubei province, including sending more than 42,000 medical workers from across the country to the province.

Huang Yanhua, a head nurse at the Hubei Cancer Hospital in Wuhan, said she was really moved

and happy to see everything has returned to normal in the city.

Huang said she was assigned to Leishenshan Hospital, which was completed at the height of the epidemic in Wuhan in February to exclusively receive COVID-19 patients, and spent nearly two months treating patients there.

"We saved 68 COVID-19 patients. I felt scared when treating the patients then, but now I feel honored for what I did," she said. "Wuhan is now peaceful, and this makes me very happy. I feel really proud of my country."

Zhang Zhaotang, an 85-year-old veteran who received treatment for one month at Huoshenshan Hospital after being infected with the novel coronavirus, said he was grateful for the doctors and nurses who saved his life.

"When hospitalized, I asked the doctors who treated me whether they were scared or not, and they told me no," he said while attending the exhibition. "I think they were also fearless warriors, just like us when fighting on the battlefield."

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