

Weekly Dispatch

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SYLLOGE ON CHINA

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INDIAN PUGWASH SOCIETY



INSTITUTE FOR DEFENCE
STUDIES & ANALYSES

रक्षा अध्ययन एवं विश्लेषण संस्थान

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China's lunar rover travels nearly 400 meters on moon's far side

Xinhua, March 2, 2020

China's lunar rover Yutu-2, or Jade Rabbit-2, has driven 399.788 meters on the far side of the moon to conduct scientific exploration of the virgin territory. Both the lander and the rover of the Chang'e-4 probe have ended their work for the 15th lunar day, and switched to dormant mode for the lunar night, according to the Lunar Exploration and Space Program Center of the China National Space Administration. China's Chang'e-4 probe, launched on Dec. 8, 2018, made the first-ever soft landing on the Von Karman Crater in the South Pole-Aitken Basin on the far side of the moon on Jan. 3, 2019.

As a result of the tidal locking effect, the moon's revolution cycle is the same as its rotation cycle, and the same side always faces the earth. The far side of the moon has unique features, and scientists say Chang'e-4 could bring breakthrough findings. The scientific tasks of the Chang'e-4 mission include conducting low-frequency radio astronomical observations, surveying the terrain and landforms, detecting the mineral composition and shallow lunar surface structure and measuring neutron radiation and neutral atoms. Yutu-2 has worked much longer than its three-month design life, becoming the longest-working lunar rover on the moon. The rover has helped scientists unveil the secrets buried deep under the surface on the far side of the moon, enriching human's understanding about the history of celestial collision and volcanic activities and shedding new light on the geological evolution on the moon.

http://www.xinhuanet.com/english/2020-03/02/c_138835455.htm

Air Force's operation in Wuhan shows its mobility, capabilities, military official says

China Military Online, March 2, 2020

The People's Liberation Army Air Force's large-scale airlift operation and dispatching large- and medium-sized transport aircraft to support Wuhan, Hubei province, showed rapid mobility and long-range delivery capabilities, an official with the Central Military Commission said on Monday. Zhang Tianxiang, an official with the commission's logistics support department, said the Air Force used 12 transport aircraft, including Y-9, IL-76 and Y-20, to carry 1,600 military medics to Wuhan on Feb 13 and 17. The Y-20 has made 10 flights, the first time that this large strategic airlifter domestically developed in China participated in non-war operation since its first flight in 2013, Zhang said.

The Air Force sent out its first batch of 450 military medics and medical supplies to Wuhan on Jan 24 from Shanghai, Chongqing, and Xi'an, Shaanxi province, by using three IL-76 transport planes.

http://english.chinamil.com.cn/view/2020-03/02/content_9756961.htm

Chinese military support medical, daily necessity supplies in virus-hit Wuhan

Xinhua, March 2, 2020

China's armed forces have played a role in supporting medical and daily necessity supplies in the city of Wuhan, as part of the country's sweeping efforts to fight the novel coronavirus outbreak. As of Sunday, 260 troops and 130 transport vehicles from the Central Theater Command of the People's Liberation Army had been tasked with transporting 8,500 tonnes of household goods and 23,600 pieces (sets) of protective materials and equipment to Wuhan, the epicenter of the epidemic, a military officer said at a press conference Monday.

Meanwhile, the Central Theater Command had sent helicopters to transfer 6.5 tonnes of medical supplies by Sunday, said Chen Jingyuan, head of the health bureau of the Logistic Support Department under the Central Military Commission. Earlier, the military's joint task force for response to public health emergencies allocated 400,000 medical masks, 8,000 sets of protective clothing, 50 sets of positive pressure respiratory protective hoods and two sets of negative pressure isolation transfer cabins to Wuhan to ensure medical treatment in immediate need, Chen said.

http://www.xinhuanet.com/english/2020-03/02/c_138835203.htm

Chinese arms company develops versatile combat robot vehicle

Liu Xuanzun

Global Times, March 1, 2020

A Chinese arms company has revealed a new unmanned ground vehicle that can transport ammunition and supplies in complicated terrains or provide fire cover when armed. China possesses an arsenal of unmanned weapon systems for different combat scenarios and was prepared for potential robot warfare in the future, Chinese experts said on Sunday. Chinese private arms company Zhong Tian Zhi Kong Technology Holdings Company displayed the Mule-200 unmanned ground vehicle (UGV) at the Unmanned System Exhibition and Conference 2020 (UMEX2020) in Abu Dhabi last week, Ordnance Industry Science Technology, a Xi'an-based periodical on the national defense industry, reported on Friday. The Mule-200 is a medium-sized, multipurpose crawler UGV designed to accompany infantry units and transport ammunition and supplies, equip firearms and provide fire support at close range.

Developed with a modular design concept, the Mule-200 can switch loads for transport, reconnaissance, combat and communication relay for different missions, the report said, noting

that unlike most UGVs that leave payloads in the open, the Mule-200 can store them inside its armor to provide protection. The vehicle weighs 500 kilograms and carries a maximum load of 200 kilograms. With two caterpillar tracks, the Mule-200 can travel in all kinds of terrain, the report said, noting that the robot vehicle can run at a top speed of 50 kilometers an hour with a longest range of 50 kilometers: superior to comparable UGVs with its newly developed gasoline-electrical hybrid engine.

The Mule-200 is believed to be technically mature and have excellent performance, the report said, and the fact it was developed by a private, not a state-owned, company indicates China enjoys a high technical level in UGVs. Future warfare is expected to feature intensive unmanned weapon system operations for which China is getting prepared, a military expert who asked not to be named told the Global Times on Sunday. The Mule-200 is one example of China's military-civilian integration strategy, the expert noted. Other state-owned and private companies are developing similar robot vehicle weapons, in addition to aerial drones, unmanned ships, underwater drones and amphibious drones, the expert said.

<http://www.globaltimes.cn/content/1181220.shtml>

China postpones 2020 H1 military recruiting

Ministry of Defence, February 29, 2020

China will postpone the military recruiting scheduled for the first half of this year to support the country's epidemic prevention and control work, a military spokesperson has said. Approved by the State Council and the Central Military Commission, the postponed conscription will be combined with that of the second half, which will run from Aug. 1 to Sept. 30, said Wu Qian, a spokesperson for the Ministry of National Defense. The overall annual recruitment targets, as well those for each provincial-level region, will remain unchanged, according to Wu.

http://eng.mod.gov.cn/news/2020-02/29/content_4861292.htm

China, Cambodia to hold joint military training

Xinhua, February 29, 2020

The Chinese and Cambodian armies will hold a joint military training in Cambodia from March 2 to April 10, a Chinese military spokesperson has said. Code-named "Golden Dragon-2020," this year's event will focus on joint counter-terrorism combats, said Wu Qian, a spokesperson for the Ministry of National Defense. The joint training, the fourth of its kind, is expected to strengthen strategic mutual trust, cooperation and exchanges between the two armed forces, and enhance their

capability in jointly tackling international security threats. China will dispatch 265 military personnel for the joint training, according to Wu.

http://www.xinhuanet.com/english/2020-02/29/c_138829962.htm

Indian military sends China 15 tons of medical supplies

Wang Hui

China Military Online, February 29, 2020

According to the Press Trust of India (PTI), India's largest news agency, on February 26, an Indian Air Force transport aircraft C-17 arrived in Wuhan, Hubei Province, carrying 15 tons of medical supplies, including face masks, gloves and other emergency medical equipment. Indian Foreign Minister S Jaishankar said that the supplies sent by India just reflected that India gets united as one with China "at the time of hardship".

After unloading, the military aircraft flew back to New Delhi carrying a total of 112 Indians and foreign citizens stranded in Wuhan. It is reported that these people are expected to be quarantined in India for 14 days, just like those on board the last batch of Indian aircraft. As early as February 16, Vikram Misri, Indian Ambassador to China, recorded a video in person expressing his support for the Chinese people and the Chinese government to fight against the outbreak caused by the novel coronavirus, and announced that India is willing to try its best to help the Chinese people at the time of hardship. "This is a concrete measure which will fully demonstrate the goodwill, solidarity and friendship of the people and Government of India with the Chinese people", he added.

Prior to this, some of the India's actions in epidemic prevention have drawn great concern. For example, as the first confirmed patient appeared in India at the outset of the year, India sent special aircraft to evacuate Indians in Wuhan, ignoring the WHO's suggestion. On January 31, India issued a ban prohibiting the export of personal protective equipment such as masks and protective clothing, resulting in the export failure of materials previously purchased by China from India. In fact, Counselor Ji Rong, Spokesperson of Chinese Embassy in India, said on January 24 that the WHO has repeatedly suggested that the adoption of any travel or trade restriction is not to be supported or even to be opposed, and all parties should follow the rule. It is hoped that the Indian side will treat the epidemic objectively, rationally and calmly, deal with the medical supplies in urgent need by China in a cooperative and constructive attitude, and resume normal personnel and trade exchanges between the two countries as soon as possible.

http://eng.chinamil.com.cn/view/2020-02/29/content_9755755.htm

China's Yuanwang-7 sailing to Atlantic for satellite monitoring mission

Xinhua, February 28, 2020

China's new-generation space tracking ship Yuanwang-7 is sailing to the Atlantic Ocean for a satellite maritime monitoring mission. The ship departed from a port of the China Satellite Maritime Tracking and Controlling Department in Jiangsu Province Thursday. It is the first time for Yuanwang-7 to carry out a mission in the Atlantic. Only one ship of China's Yuanwang fleet, Yuanwang-3, so far has conducted missions in the ocean. "This time the designated maritime area is remote and the route is new. We estimate that the vessel will sail in waves higher than 4 meters for over 10 days, a tougher journey than before," said Ni Liuguo, captain of the ship.

Before setting out, crew members were quarantined on the vessel and cabins were disinfected to prevent the novel coronavirus infection. They completed the preparation of medical supplies and examined facilities to ensure the success of the mission. Yuanwang-7 was developed with the latest technologies in shipbuilding, space measurement and control, marine meteorology and shipping power. Since it was put into use in 2016, Yuanwang-7 has made 13 voyages and performed 21 tasks in the Pacific Ocean and the Indian Ocean, including maritime tracking of China's second space lab Tiangong-2, the Chang'e-4 lunar probe and BeiDou satellites. China will have more than 40 space launches this year, and the Yuanwang fleet is expected to carry out intensive maritime monitoring missions.

http://www.xinhuanet.com/english/2020-02/28/c_138827363.htm

China clarifies handling procedures of maritime criminal cases

Xinhua

China has released a circular making explicit the standard procedure for the handling of maritime criminal cases by competent authorities. Jointly released by the Supreme People's Court, the Supreme People's Procuratorate and the China Coast Guard, the circular specified the rules for selecting the court of jurisdiction in different circumstances. It also stipulated principles and procedures coast guard agencies should follow in investigating the cases and competent procuratorates to which they should file for arrest warrants or transfer the case for prosecution. Coast guard agencies are subject to the supervision of procuratorates and build an information-sharing platform with the latter, according to the circular.

http://www.xinhuanet.com/english/2020-02/28/c_138827965.htm

PLA conducts largest ever procurement of individual protective equipment

China Military Online, February 28, 2020

An open tender document released by the People's Liberation Army (PLA) online showed that the Chinese military will purchase more than 1.5 million units of high-grade bulletproof plates for body armors in the coming two years as PLA's new-generation individual gear, reported Global Times recently. The program is expected to cost RMB13 billion, or USD1.85 billion, the largest individual gear procurement in the nation's history. According to the tender, it will cost less than RMB10,000 each for the 930,000 units of plates for universal bulletproof vests, and more than RMB10,000 each for the 460,000 units of enhanced bulletproof vests, which will all be delivered within 24 months after contracts are signed.

According to China's defense white paper in 2019, the PLA has about two million personnel, including 850,000 troops in 13 main Group Armies. A total of 1.4 million body armor units means every frontline service member could get one, probably with extra in reserve. Considering that China's Type 95 rifle costs no more than RMB5,000 each, the body armor procurement is almost equivalent to handing out new rifles for the whole military, which disproves the rumor that China has saved money on individual-soldier equipment to build guided-missile warplanes in order to win future battles. The execution of the procurement plan means that the PLA Army will spend the cost of two Type 055 destroyers or 25 J-16 aircraft on equipping all soldiers with body armors.

http://eng.chinamil.com.cn/view/2020-02/28/content_9755115.htm

J-15 aircraft carrier-based fighter jet gets new anti-corrosion paint: reports

Liu Xuanzun

Global Times, February 27, 2020

The latest batch of China's J-15 aircraft carrier-based fighter jet is getting new, green priming paint instead of the previous yellow one. Reports speculate it is a new anti-corrosion material that can enhance the aircraft's capabilities. A J-15, which is under assembly at the Shenyang Aircraft Company under the Aviation Industry Corporation of China (AVIC), can be seen covered in green priming paint in a set of photos released by the company on its website. Previous J-15 fighter jets used yellow priming paint, according to multiple reports and documentaries.

The color change in the priming paint likely indicates that it features a new type of anti-corrosion material, Weihutang, a column on military affairs affiliated with China Central Television, reported on Tuesday. Aircraft carrier-based aircraft usually have stronger wear and tear properties compared to land-based aircraft due to extended exposure to sea water, salt haze, muggy weather and exhaust gas, and the priming paint is a key material that can protect the aircraft's structure

from being corroded and damaged, Weihutang reported. This will contribute to an increase in the J-15's usage, lower maintenance costs and greater lifespan, the report said.

The Chinese Navy received the Shandong, its second aircraft carrier, in December 2019 and a third one is reportedly being built, so China needs more J-15s to fulfill this potential, analysts said. It is nice to see the production of the J-15 is not being significantly delayed due to the novel coronavirus outbreak, a military expert who asked not to be named told the Global Times on Thursday. The new priming paint shows that the J-15 is becoming more powerful, as it is being improved to boost the aircraft carriers' overall capability, the expert said.

<https://www.globaltimes.cn/content/1181026.shtml>

Why India's closer ties to US need not harm relations with China

Minnie Chan

South China Morning Post, February 27, 2020

The latest US\$3 billion US-Indian arms deal is partly motivated by their shared desire to check China's strategic desires, but defence analysts said this closeness did not mean New Delhi wished to isolate Beijing. The new arms deal, including the sale of 24 MH-60 Romeo Seahawk helicopters and six Ah-64E Apache attack helicopters, was concluded following US President Donald Trump's meeting with Indian Prime Minister Narendra Modi in New Delhi on Tuesday.

The decades-long rivalry with Pakistan is Indian's biggest strategic concern, but Chaturvedy Rajeev Ranjan, a visiting fellow at the S Rajaratnam School of International Studies at Nanyang Technological University in Singapore, said the growing Chinese influence in the region was also an important factor in the arms deal and other strategic agreements between the two.

"The deal is commensurate with India's willingness to play a leading role as a net security provider ... It will greatly enhance Indian navy's anti-submarine warfare capability" he said.

Trump and Modi discuss China factor, sign defence deal.

It said the six Apache attack helicopters, which it described as "flying tanks", would play a major role in India's ground force. Besides their strategic rivalry in the Indian Ocean, China and India have yet to resolve their border disputes despite holding more than 20 rounds of talks in recent years. Beijing-based military expert Zhou Chenming said Washington's arms sales to New Delhi could be seen as part of Trump's Indo-Pacific strategy, which aims to isolate China by joining forces with India, Japan and Australia to form the so-called Quad. But he argued such a move need not harm relations between China and India and noted India was also keen to enhance its role as an independent power. "Washington might use the increasingly active warship patrols by the People's Liberation Army Navy in the Indian Ocean as good reason to sell India the MH-60 Romeo

Seahawk helicopters,” Zhou said. Trump set to talk Indo-Pacific and 5G, a day after Modi’s grand welcome

“India also needs the arms deals because Modi is going to enhance his country’s independent defence policy by reducing Indian military’s reliance on Russian weapons.” India has been a big buyer of Russian weapons for five decades, including aircraft carriers, submarines and fighters. Zhou said Beijing believed that Modi would not side with the US against China. “Modi understands that in order to be a real independent big country, he shouldn’t take either sides to China, Russia, or the US, when dealing with the three big superpowers,” Zhou said. Ranjan said: “The China challenge is an important factor driving India-US relations. But, it is also a fact that China is India’s biggest neighbour that it has to engage with,” he said. “Modi has developed a good understanding with China as well.”

<https://www.scmp.com/news/china/military/article/3052689/why-indias-closer-ties-us-need-not-harm-relations-china>

Chinese envoy highlights importance of strengthening nuclear non-proliferation regime

Xinhua, February 27, 2020

A Chinese envoy on Wednesday called for strengthening the nuclear non-proliferation regime and eliminating the risk of nuclear weapons proliferation. Speaking at a UN meeting, China's deputy permanent representative to the UN, Wu Haitao, told the Security Council that the proliferation of nuclear weapons has complicated root causes and needs to be addressed in a comprehensive way. He added that the authority and universality of the international nuclear non-proliferation regime should be strengthened and double standards and selectivity should be abandoned.

The Chinese envoy also called for full development of the potential to promote the peaceful use of nuclear energy and related international cooperation. The peaceful use of nuclear energy is an inalienable right granted by the Nuclear Non-Proliferation Treaty (NPT) to states parties, he said, adding that preventing the proliferation of nuclear weapons should not undermine the legitimate rights of all countries, especially developing countries. Noting that China is committed to the path of peaceful development and pursues an independent foreign policy of peace and a national defense policy that is defensive in nature, Wu said China will continue to actively practice multilateralism, firmly uphold the international arms control and non-proliferation regime and contribute to the lofty cause of peace and security for mankind.

<http://www.globaltimes.cn/content/1180919.shtml>

China's rocket-carrying ships complete two transport missions

China Military Online, February, 27, 2020

China's Yuanwang rocket-carrying ships docked at their home port at the China Satellite Maritime Tracking and Controlling Department on February 26, after completing the maritime rocket transport tasks of Long March-7A and Long March-5B Y1 carrier rockets. Yuanwang-21 set sail first on December 30, 2019 and completed the transport mission of Long March-7A rocket. Then it joined with Yuanwang-22 in transporting Long March-5B Y1 rocket.

Li Jin, captain of ship Yuanwang-21, said: "In this voyage, the Yuanwang-21 set a record with a 59-day voyage covering more than 8,000 nautical miles in a single mission." During the mission, the fleet also strictly stuck to COVID-19 prevention and control. "Everyone's body temperature was monitored regularly. The range of personnel activities was limited, with crew members taking meals separately in batches. And the whole ship was also disinfected on daily basis," Li Jin introduced. The Yuanwang rocket-carrying ships will be subsequently refurbished and maintained at the home port, and carry out various targeted technical drills to prepare for the high-frequency rocket transport tasks this year.

http://eng.chinamil.com.cn/view/2020-02/27/content_9754058.htm

China's Chang'e-4 maps image of subsurface on lunar far side

Global times, February 27, 2020

China's spacecraft Chang'e-4 on the far side of the moon has revealed what lurks below the lunar surface and how it might evolve, according to a study published Wednesday in the journal Science Advances. The Chang'e-4 probe, launched on Dec. 8, 2018, made the first-ever soft landing on the Von Karman Crater in the South Pole-Aitken Basin on Jan. 3, 2019. The spacecraft then deployed its Yutu-2 rover, which uses the Lunar Penetrating Radar (LPR) to investigate the underground it roams. The LPR sent radio signals deep into the surface of the moon, reaching a depth of 40 meters by the high frequency channel of 500 MHz, more than three times the depth previously reached by Chang'e-3.

The Chang'e-4 team found that the subsurface at the landing site is much more transparent to radio waves. This data allowed the researchers to develop an approximate image of the subsurface stratigraphy. "We found that the signal penetration at the Chang'e-4 site is much greater than that measured by the previous spacecraft, Chang'e-3, at its near-side landing site," said the paper's author Li Chunlai, a research professor at the National Astronomical Observatories of the Chinese Academy of Sciences.

The researchers combined the radar image with tomographic data and quantitative analysis of the subsurface, concluding that the subsurface is essentially made by highly porous granular materials embedding boulders of different sizes. The content is likely the result of a turbulent early galaxy, when meteors and other space debris frequently struck the moon. The impact site would eject material to other areas, creating a cratered surface atop a subsurface with varying layers, according to the study. "This work shows the extensive use of the LPR could greatly improve our understanding of the history of lunar impact and volcanism and could shed new light on the comprehension of the geological evolution of the moon's far side," said Li.

<http://www.globaltimes.cn/content/1180922.shtml>

China participates in largest joint military exercise in Southeast Asia

:Global Times, February 25, 2020

The Chinese military has arrived in Thailand and will participate in the 2020 Cobra Gold multilateral joint military drills, the largest joint military exercise in Southeast Asia which will be led by Thailand and the US, starting Tuesday. An elite team of 25 soldiers from the People's Liberation Army (PLA) 75th Group Army arrived in Thailand on Sunday via a transport aircraft of the PLA Air Force, the PLA Daily reported on Monday. The annual Cobra Gold series joint drills has become the largest joint military exercise in Southeast Asia, and this year's edition will run from Tuesday to March 6 in Thailand, the report said.

Jointly hosted by Thailand and the US, the drills will feature high-level forums, amphibious landing exercises, humanitarian construction and disaster relief drills, China News Service reported on Sunday. The Chinese team will participate in desktop maneuvers, actual combat exercises, humanitarian construction and high-level forums, said Sun Zhi, leader of the Chinese team, according to the report. By participating in the 2020 Cobra Gold, China is eagerly participating in defense cooperation with neighboring regions, which will enhance communication with Southeast Asian countries including Thailand, providing Chinese solutions and power in humanitarian relief operations, Sun said. More than 8,900 soldiers and officers from 29 countries will join the drills.

The US is expected to send 5,500 personnel and 64 fighter jets including the F-35 stealth fighter jet for the first time, as well as an amphibious assault ship and an amphibious landing dock, foreign media reports said. China has been sending observers to the annual exercises since 2002 and participating in the drills since 2014.

<http://www.globaltimes.cn/content/1180644.shtml>

