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# SYLLOGE ON CHINA

Focus: Nuclear, Space, Missiles and other Security Issues

An Initiative by Indian Pugwash Society and Centre for Nuclear Issues and Arms Control  
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INDIAN PUGWASH SOCIETY



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## **Are hypersonic missiles a game changer? Not so fast, says new study**

Kristin Huang

South China Morning Post, January 19, 2021

Hypersonic missiles are overrated in terms of speed and can be spotted by early warning systems, according to a report by US security experts that suggested their performance is roughly comparable to conventional ballistic missiles. China, Russia and the United States have all been exploring the potential of the missiles, which travel at low altitudes along a lower and flatter trajectory than intercontinental ballistic missiles to reduce the time it takes to travel from launch to impact.

They are able to change course once released from their rocket boosters. But computational modelling suggested that while hypersonic missiles using boost-glide systems are faster over shorter distances, they would be slower than ICBMs over long distances because of atmospheric drag forces. US researchers say computer modelling suggests the weapons do not have significant advantages over ICMBs in terms of speed or invisibility. Russia, China and the US are all working on an array of hypersonic weapons

<https://www.scmp.com/news/china/military/article/3118221/are-hypersonic-missiles-game-changer-not-so-fast-says-new-study>

## **China utilizing Beidou for container port automation**

Global Times, January 18, 2021

China has for the first time begun utilizing Beidou technology to realized automation of the container port, boosting efficiency rates by 20 percent while slashing costs by 10 percent. According to media reports, the first deployment Beidou in container port took place on Sunday at the automation demonstration zone at Tianjin Port in North China's Tianjin municipality. The transportation system in China has been widely integrated into the Beidou system technology. As of now more than 6.98 million vehicles on the road are equipped with Beidou system. More than 1,300 public service providers have been installed with Beidou system.

The BeiDou Navigation Satellite System - or BDS - is China's largest space-based system and one of four global navigation networks, alongside the US' GPS, Russia's GLONASS and the European Union's Galileo.

<https://www.globaltimes.cn/page/202101/1213109.shtml>

## **China rolls out management regulation on Chang'e-5 lunar samples to boost global**

## **cooperation**

Deng Xiaoci

Global Times, January 18, 2021

China released its Regulations on the Management of Lunar Samples Monday, a milestone event that demonstrates the country's open attitude to practical international cooperation and exchanges in this field. Global Times learned from China's National Space Administration (CNSA) on Monday that the document drafted by the administration contains nine articles and 37 clauses, covering topics including the storage, management, and use of lunar samples that were brought back to Earth by the country's Chang'e-5 moon probe mission.

In the international cooperation sphere, the document states that management and use of the samples' will be in line with international treaties that China has signed or participated in. The CNSA encourages researchers from home and abroad to carry out joint space scientific studies on the lunar samples, and is calling for their findings to be shared with each other.

<https://www.globaltimes.cn/page/202101/1213156.shtml>

## **China sends new naval fleet on escort mission**

China Military Online, January 16, 2021

The 37th fleet of the Chinese People's Liberation Army (PLA) Navy on Saturday left the port city of Sanya in south China's Hainan Province for the Gulf of Aden and waters off Somalia to escort civilian ships. The fleet is composed of the guided-missile destroyer Changsha, the missile frigate Yulin, and supply ship Honghu. On board the warships are 700 officers and soldiers, including dozens of special operation troops. It is the first time for the Changsha to join the escort mission. The PLA Navy began to carry out escort missions in the Gulf of Aden and the waters off Somalia in December 2008.

[http://eng.chinamil.com.cn/view/2021-01/16/content\\_9968854.htm](http://eng.chinamil.com.cn/view/2021-01/16/content_9968854.htm)

## **China and EU hold video consultation on arms control and non-proliferation**

China Military Online, January 14, 2021

On January 13, 2021, Director-General of the Department of Arms Control of the Foreign Ministry Fu Cong and EU Special Envoy for Non-proliferation and Disarmament Marjolijn Van Deelen co-held via videolink a new round of China-Europe consultation on arms control and non-proliferation. Both sides exchanged views on topics of common interest covering nuclear disarmament and non-proliferation, biochemistry, outer space, export control, and

conventional arms control.

[http://eng.chinamil.com.cn/view/2021-01/14/content\\_9967607.htm](http://eng.chinamil.com.cn/view/2021-01/14/content_9967607.htm)

## **Construction of China's space station construction nears implementation stage: CMS**

Deng Xiaoci

Global Times, January 14, 2021

China's space station construction has witnessed new progress recently, after the Tianhe core cabinet, Tianzhou-2 cargo spaceship, and space application system products for core cabinet missions passed authorities' reviews before moving out of the manufacturing factory. This progress means that China's space station construction has come close to the implementation stage, China Manned Space Engineering Office (CMS) announced via its official WeChat public account.

Currently, the Tianhe core cabinet and Tianzhou-2 cargo spaceship have completed all work in their development, manufacture and testing stages, with results all meeting the project requirements. Development work for the flight model of the space application system products designed for core cabinet missions has been completed, according to the office. Sources familiar with the matter told the Global Times that the products include scientific research equipment developed by the Chinese Academy of Sciences, which will support operations on the space station's core cabinet. "Compatibility between space application systems and with the ground research units were verified during the examination," the sources added. China will carry out 11 launches, including four manned spaceships and four cargo spaceship flights in the next two years, as it aims to complete the building of the country's first space station by around 2022, Global Times previously learned from China's space authority.

<https://www.globaltimes.cn/page/202101/1212843.shtml>

## **Military academy trains border defense drone pilots in Xinjiang**

Li Qinghua and Song Peng

China Military Online, January 14, 2021

A total of 30 grassroots cadres and police officers from border cities (counties) in Xinjiang Uygur Autonomous Region, northwest China, passed the assessment for border defense drone pilots on January 12. This border defense drone pilot training, jointly conducted by the PLA Army Academy of Border and Coastal Defense (Urumqi) and the Border Defense Commission of the Xinjiang Uygur Autonomous Region, aimed to cultivate professional backbones capable of drone operation, command, as well as maintenance for the frontier defense forces.

It is learnt that the border defense drone training mainly includes four steps, namely, theoretical study, simulation training, actual flight operation, and assessment and certification. The trainees will obtain the national civil drone pilot certificate after passing the final assessment.

[http://eng.chinamil.com.cn/view/2021-01/14/content\\_9967826.htm](http://eng.chinamil.com.cn/view/2021-01/14/content_9967826.htm)

### **China's first homegrown 10,000-ton maritime patrol vessel to be commissioned**

China Military Online, January 13, 2021

China's first homegrown 10,000-ton class law enforcement and maritime patrol vessel, Haixun 09, will be officially commissioned by the middle of this year, said Lin Kui, deputy director of the Guangdong Maritime Safety Administration (MSA), at a Guangdong provincial government press conference on January 12. According to Lin, the Haixun 09, attached to the Guangdong MSA, will be responsible for maritime patrol and law enforcement, emergency coordination and command, and prevention and control of ship pollution.

The to-be-commissioned vessel boasts strong capabilities of dynamic perception, monitoring and early warning, information collection, comprehensive command and maritime supervision. It has the designed displacement of 10,700 tons, total length of 165 meters and speed of 25 knots, being able to carry multiple types of helicopters and capable of life-saving and search operations in anywhere except the polar regions. The vessel also has a marine data center equipped with various communication means and connected with multiple satellite systems, including Beidou.

[http://eng.chinamil.com.cn/view/2021-01/13/content\\_9967224.htm](http://eng.chinamil.com.cn/view/2021-01/13/content_9967224.htm)

### **China's high-speed, armed reconnaissance drone completes maiden flight**

Liu Zhen & Kristin Huang

South China Morning Post, January 13, 2021

China's new armed reconnaissance drone, the WJ-700, successfully completed its maiden flight on Monday, according to a newspaper report. Developer Haiying General Aviation Equipment, a subsidiary of China Aerospace Science and Industry Corp, did not disclose the location of the flight but said further tests would be required before the high-speed, high-altitude aircraft was ready to go into service with the military, China Space News reported on Tuesday. The maiden flight of the unmanned aerial vehicle (UAV) came two years after it appeared as a prototype at Airshow China 2018. WJ-700 takes to the skies at an undisclosed location two years after appearing as a prototype at Airshow China. With a top speed of 700km/h, the unmanned aircraft is capable of carrying out a range of missions, including strikes on land and sea targets.

<https://www.scmp.com/news/china/military/article/3117569/chinas-high-speed-armed-reconnaissance-drone-completes-maiden>

### **China plans to launch first space-based Sun-observing satellite by 2022: chief scientist**

Deng Xiaoci

Global Times, January 12, 2021

Tests on the prototype of China's first space-borne comprehensive solar observation satellite will come close to completion by the end of January, and the spacecraft is expected to be launched by 2022, according to Gan Weimin, chief scientist with the program. The satellite, codenamed Advanced Space-based Solar Observatory or ASO-S, is tasked with conducting long-term continuous solar observation for at least four years, and its main scientific goals include the formation of solar magnetic field, solar flare and titanic blasts known as coronal mass ejections, as well as their relationship in a simultaneous fashion, Gan, the program leader and research fellow with the Nanjing-based Purple Mountain Observatory under the Chinese Academy of Sciences (CAS), told the Global Times during an exclusive interview. The simultaneous observations could yield clues as to how those eruptions are triggered, he noted.

<https://www.globaltimes.cn/page/202101/1212567.shtml>

### **China pulls 10,000 troops from India border, source says**

Minnie Chan

South China Morning Post, January 12, 2021

China has withdrawn 10,000 troops from its disputed border with India in recent weeks, with Beijing calculating a slim chance of conflict in the Himalayan region this winter, according to sources and reports. “The withdrawal started more than two weeks ago. All the troops were pulled back in military vehicles, so the Indian side could see it,” a source close to the Chinese military told the South China Morning Post on condition of anonymity. “Some of the 10,000 troops are due to return from the high altitudes after more than a year of duty, which is part of scheduled rotations.

<https://www.scmp.com/news/china/military/article/3117419/china-pulls-10000-troops-india-border-source-says>

### **Missing Chinese soldier returned by India on Monday**

China Military Online, January 11, 2021

According to the agreements between China and India, a soldier of the Chinese border troops who got lost due to darkness and complicated terrain has been handed over to the Chinese border troops by the Indian side at noon on Jan. 11, 2021.

[http://eng.chinamil.com.cn/view/2021-01/11/content\\_9966200.htm](http://eng.chinamil.com.cn/view/2021-01/11/content_9966200.htm)

### **High-resolution space reference system for panoramic images of China's western borders put into use**

China Military Online, January 11, 2021

Recently, China's first high-resolution space reference system for border panoramic images along its western areas has been set up, which will provide forward-looking information about the geographic conditions and will contribute to the development of China's western regions and the Belt and Road Initiative (BRI). In western China's high-altitude areas, winter usually sees low temperature and heavy snowfall disasters. It's extremely hard to conduct disaster relief due to complicated terrain, poor transportation, lack of geographic information, and frequent deviations in navigation and positioning.

To solve this problem, a surveying and mapping team assigned to the PLA Western Theater Command has commenced the geographic survey and data collecting works in China's western borders since 2019. In the past two years, it undertook the signal monitoring via satellite navigation and completed the correction of geographic data across the territory.

[http://eng.chinamil.com.cn/view/2021-01/11/content\\_9966247.htm](http://eng.chinamil.com.cn/view/2021-01/11/content_9966247.htm)

### **China issues plan on building rule of law**

China Military Online, January 10, 2021

China has issued a plan on building the rule of law. The plan to build the rule of law in China (2020-2025), issued by the Communist Party of China (CPC) Central Committee, states that the rule of law is a hallmark of human civilization's progress, as well as the basic way of governance. It is also an everlasting pursuit of the Party and the Chinese people, it adds. The plan calls for efforts to resolutely adhere to the path of socialist rule of law with Chinese characteristics.

It emphasizes that law-based governance in all areas must be elevated to a position that has overall, strategic and fundamental significance, as China embarks on a new quest to fully build a modern socialist country. The plan lays out basic principles for building the rule of law in China, including upholding the centralized and unified leadership of the CPC, following the

people-centered philosophy, and focusing on solving problems. The plan states that effective checks and supervision of the exercise of power, full protection for the legitimate rights and interests of the people and the establishment of faith in the rule of law are among the overall objectives. A system of distinctively Chinese socialist rule of law shall take shape by 2025 and be basically formed by 2035, according to the plan.

[http://eng.chinamil.com.cn/view/2021-01/10/content\\_9965578.htm](http://eng.chinamil.com.cn/view/2021-01/10/content_9965578.htm)

## **China's military gives glimpse of updated long-range rocket system**

Liu Zhen

South China Morning Post, January 9, 2021

Social media images show a new configuration of launchers on trucks as a backdrop to training drills. The system enables the PLA Ground Force to hit strategic targets with precision fire anywhere on the Taiwanese west coast. The People's Liberation Army marked the start of the new year by revealing a new variant of the powerful rockets it has targeting Taiwan.

The PCL-191 long-range multiple launch rocket system (MLRS), capable of firing 370mm rockets 350km (217 miles) or 750mm ballistic missiles 500km, was seen in the background of the year-opening training session of an artillery brigade in the southern province of Guangdong, according to photos published on the 74th Group Army's official social media account. It was the first public display of the updated weapon, one of the world's most powerful of its kind, since its debut at China's National Day parade in 2019. The demonstration followed the purchase by Taiwan of a truck-based MLRS with a comparable range from the United States in October.

<https://www.scmp.com/news/china/military/article/3117044/chinas-military-gives-glimpse-updated-long-range-rocket-system>

## **Chinese defense ministry slams US 'political-military dialogue' with Taiwan**

China Military Online, January 7, 2021

The Chinese military is strongly opposed to the so-called "political-military dialogue" between the US and Taiwan authorities, Senior Colonel Tan Kefei, spokesperson for China's Ministry of National Defense (MND), said in a written statement on Thursday when asked to comment on a video conference held between the US and Taiwan authorities on Jan. 7. The US move has seriously violated the one-China principle and the three China-US joint communiqués, said the spokesperson, noting that China had lodged solemn representations to the United States.

Stressing that Taiwan question is China's internal affair and concerns China's sovereignty,



territorial integrity and core interests, the spokesperson said that Taiwan question allows no external interference. The spokesperson urged the US side to stop any form of official exchange and military contact with Taiwan. He emphasized that the Chinese People's Liberation Army has unwavering will and full capacity to defeat any foreign meddling, as well as any "Taiwan independence" plots, to protect national sovereignty and territorial integrity, and to safeguard peace and stability in the Taiwan Strait.

[http://eng.chinamil.com.cn/view/2021-01/07/content\\_9964492.htm](http://eng.chinamil.com.cn/view/2021-01/07/content_9964492.htm)

### **China starts 2021 military recruitment work**

China Military Online, January 6, 2021

China has officially started the biannual military recruitment work in 2021 recently. Due to the outbreak of COVID-19, the biannual recruitment mechanism, which was originally planned to start in 2020, will be implemented from the year 2021. This will be the first time for the Chinese military to carry out recruitment work in spring since 1990. At present, the website of National Recruitment Network has launched the portals for military service registration and enlistment application. It is said that the registering work for 2021 starts on January 1 and ends on June 30.

In China, it is a duty for every male citizen of the right age to fulfill the military service registration. The state shall, in accordance with the law, register the citizens of the right age, so as to get a complete picture of potential draftees in case of emergencies. Thus, male citizens who reach the age of 18 should register or verify on time, regardless of whether they want to join the military or not. In other word, those who complete military service registration can either stop here if they do not want to join the military, or continue to apply for enlistment if they want to join the army voluntarily.

[http://eng.chinamil.com.cn/view/2021-01/06/content\\_9963828.htm](http://eng.chinamil.com.cn/view/2021-01/06/content_9963828.htm)

### **China aims for 40-plus space launch missions in 2021, space station construction to be top priority: CASC**

Global Times, January 05, 2021

China's biggest rocket contractor China Aerospace Science and Technology Corporation (CASC) has outlined its aim to conduct more than 40 space launch missions in 2021, and the construction of the country's first ever space station will be its top priority, according to a CASC official press release. The CASC held its annual work meeting. During the meeting, the Chinese space contractor said the space station construction has come to the implementation stage, and will be the focus of this year's space launch missions.

Tianwen-1, China's first Mars probe, which has traveled more than 400 million meters into its journey as of Sunday, was also mentioned in the outline. The probe aims to achieve orbiting, landing and roving on Mars. The probe is expected to reach Mars gravity by February. Research work on the experiment cabinets for the space station and on the manned lunar probe missions will also be carried out in 2021, the CASC said. Accelerating the application of the BeiDou Navigation Satellite System in other fields including civil aviation will also be a focus for 2021, it added.

<https://www.globaltimes.cn/page/202101/1211817.shtml>