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SYLLOGE ON CHINA

Focus: Nuclear, Space, Missiles and other Security Issues

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INDIAN PUGWASH SOCIETY



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China shows global responsibility on nukes

Liu Xuanzun, Fan Anqi and Bai Yunyi
Global Times, January 04, 2022

China had pushed forward a joint statement by the leaders of the five nuclear weapon states on preventing nuclear war and avoiding arms races issued on Monday by urging the others to join the reaffirmation that a nuclear war cannot be won and shall not be fought, after the process under the framework of the Non-Proliferation Treaty (NPT) remained in a state of inaction for a couple of years and despite resistance from the former Trump administration, a senior Chinese diplomat stated.

<https://www.globaltimes.cn/page/202201/1245100.shtml>

China will modernize, not drastically expand, its nuclear arsenal: senior diplomat

Liu Xuanzun, Fan Anqi and Bai Yunyi
Global Times, January 04, 2022

China has no plan to drastically expand its nuclear arsenal but the country will continue to modernize it under the changing security environment, a senior Chinese diplomat said in response to recent foreign reports that have been speculating and hyping China's nuclear weapon development, including those on the alleged missile silo buildups in Northwest China and the alleged hypersonic tests. When asked about the topic at a press briefing introducing the joint statement on preventing nuclear war and avoiding arms races issued on Monday by the leaders of five Nuclear-Weapon States, Fu Cong, Director General of the Arms Control Department at China's Ministry of Foreign Affairs, said that China is not dramatically expanding its nuclear capabilities, since China maintains its nuclear capabilities at the minimum level that is required for national defense.

<https://www.globaltimes.cn/page/202201/1245088.shtml>

Xi signs mobilization order for military training

Xinhua, January 04, 2021

Chinese President Xi Jinping January 04 signed a mobilization order for the training of the armed forces, the first order of the Central Military Commission (CMC) in 2022. Signed by Xi, also general secretary of the Communist Party of China Central Committee and chairman of the CMC, the order declared the start of military training for the year. The entire rank and file of the armed forces are required to resolutely implement the plans and instructions of the Party leadership and the CMC, according to the order, adding that the changing landscape of national security and combat circumstances must be accurately understood. The armed forces must closely follow the evolution of technology, warfare and rivals, redouble their efforts to better combine training with combat operations, and strengthen systematic training and the use of

technologies to develop an elite force that is capable of fighting and winning wars, the order read.

<http://www.xinhuanet.com/english/20220104/0393e0b827af4fe8ad8e03d9cb8e6886/c.html>

China's complaints over Elon Musk's satellites 'highlight need for better communications to prevent accidents in space'

Liu Zhen

South China Morning Post, January 02, 2022

China and the United States have been urged to improve communications with each other and with private companies over space matters to reduce the risk of accidents. The call follows China's complaint to the United Nations that its Tiangong space station had two near misses with satellites from Elon Musk's company SpaceX last year.

<https://www.scmp.com/news/china/military/article/3161854/chinas-complaints-over-elon-musks-satellites-highlight-need>

China's Tianwen-1 sends New Year blessings from Mars by releasing new images

Global Times, January 01, 2022

The CNSA released new images taken by the Tianwen-1 Mars probe on the first day of 2022, including one group picture of the orbiter with the Red Planet, Zhurong rover on Mars surface and the Mars North Pole glacier.

<https://www.globaltimes.cn/page/202201/1243874.shtml>

China says it has hypersonic missiles with heat-seeking tech – years before US

Stephen Chen

South China Morning Post, December 31, 2021

Chinese scientists say they have developed next-generation hypersonic weapons with technical breakthroughs in infrared homing technology – which the US military may not have until 2025. Heat-seeking capability allows Chinese hypersonic missiles to home in on almost any target – including stealth aircraft, aircraft carriers and moving vehicles on the street – with unprecedented accuracy and speed, according to the researchers. The first generation of hypersonic weapons were designed to penetrate missile defense systems and hit fixed targets on the ground at five times the speed of sound or faster. Although China and Russia had deployed some hypersonic missiles, a popular opinion elsewhere was that these weapons had little practical value unless a country wanted to start a nuclear war.

<https://www.scmp.com/news/china/military/article/3161762/china-says-it-has-hypersonic-missiles-heat-seeking-tech-years>

Chinese aircraft carrier the Liaoning back home after being shadowed by Japanese warship during drills

Echo Xie

South China Morning Post, December 31, 2021

Chinese aircraft carrier the Liaoning returned to its home port of Qingdao on December 30 after 20 days of training in the region, with the navy and state media saying it had been closely shadowed by a Japanese warship at one stage. The Liaoning and five other warships carried out combat exercises in the Yellow and East China seas and the western Pacific Ocean. The People's Liberation Army drills began on December 9 and included fighter jet landings and maritime search and rescue in the Yellow Sea, and tactical flights of carrier-based J-15 fighter jets in the western Pacific.

<https://www.scmp.com/news/china/military/article/3161753/chinese-aircraft-carrier-liaoning-back-home-after-being>

Highlights of China's space achievements in 2021

Global Times, December 30, 2021

Space launches exceed 50 times, long March carrier rocket embarks on 400th mission, the second country to land a rover on Mars...In the voyage of space, China never stops.

<https://www.globaltimes.cn/page/202112/1243774.shtml>

China launches new communication technology experiment satellite

Xinhua, December 30, 2021

China successfully sent a new communication technology experiment satellite into space from the Xichang Satellite Launch Center in southwest China's Sichuan Province December 30. The satellite was launched by a Long March-3B carrier rocket at 0:43 a.m. (Beijing Time) and has entered the planned orbit. The launch marked the 405th mission of Long March series carrier rockets.

<http://www.xinhuanet.com/english/20211230/e3fd62ef959e4b7da69a3ae8f0c3516f/c.html>

PLA Navy amphibious assault ship holds drills in South China Sea

Liu Xuanzun

Global Times, December 30, 2021

The Chinese People's Liberation Army (PLA) Navy recently organized drills in the South China Sea for its first Type 075 amphibious assault ship, as it was announced that the vessel has reached comprehensive operation and management capability with its choppers, landing craft and armoured vehicles. The domestically developed Type 075 amphibious assault ship the Hainan recently conducted a series of tests and exercises in the South China Sea.

<https://www.globaltimes.cn/page/202112/1243813.shtml>

PLA sent more warplanes near Taiwan island than DPP authority claimed: China's Defense Ministry

Liu Xuanzun

Global Times, December 30, 2021

The Chinese People's Liberation Army (PLA) sent a larger number of warplanes for drills near Taiwan in 2021 than the figure recently claimed by the island's secessionist Democratic Progressive Party (DPP) authority, China's Defense Ministry revealed on December 30. According to media reports, the DPP authority recently hyped so-called threats from the Chinese mainland, claiming that more than 940 PLA warplanes entered Taiwan's self-proclaimed air defense identification zone in 2021, doubling the combined sum of that in 2019 and 2020.

Responding to this suggestion, Senior Colonel Tan Kefei, a spokesperson from China's Ministry of National Defense, said that the source of the current tensions in the Taiwan Straits is the provocative seeking of "independence" by DPP authority and "Taiwan independence" secessionist forces, as well as external forces' attempts to use Taiwan to contain China. It is the PLA's responsibility to safeguard national sovereignty, safety and deter "Taiwan independence" secessionist actions, Tan said.

<https://www.globaltimes.cn/page/202112/1243805.shtml>

US Starlink satellites irregular operations threaten not only safety of China's space station 'but also intl outer space environment'

Yang Sheng and Liu Xuanzun

Global Times, December 29, 2021

Some foreign media said that China and Russia's activities in space that created "debris" will "bring more risks" when these outlets have tried to defend the improper maneuvering of SpaceX's satellites that encountered China's space station twice. In response, Chinese Foreign Ministry refuted the accusation, saying that such voices are trying to distract attention from the dangerous actions SpaceX had taken. Chinese experts said that the SpaceX satellites which have close ties with the US military are not only threatening the safety of Chinese personnel in orbit, they could also be used for intelligence gathering against other countries' spacecrafts, and

the frequent and massive operation of SpaceX satellites will pose security concerns for any spacecraft.

<https://www.globaltimes.cn/page/202112/1243724.shtml>

Exclusive: China, Russia to sign new 5-year space cooperation program, build intl lunar station by 2035: Roscosmos

Deng Xiaoci and Fan Anqi

Global Times, December 29, 2021

China and Russia will sign a new space Cooperation Program for 2023-2027 next year, which will include a plan to create an open and inclusive International Lunar Research Station (ILRS) by 2035, Russia's national space agency Roscosmos stated. The new program will also include plans to support the development of the ground segment of the two countries' national satellite systems, Russia's GLONASS and China's BeiDou Navigation Satellite System (BDS) to be installed next year, as well as a slate of exciting projects Roscosmos and the China National Space Agency (CNSA) will work on in the coming decades as the two countries join forces to achieve new heights in the sphere of space exploration.

<https://www.globaltimes.cn/page/202112/1243731.shtml>

Why China reacted so strongly to its Tiangong space station's near-misses with Elon Musk's satellites

Kristin Huang

South China Morning Post, December 29, 2021

The recent near-misses involving Elon Musk's Starlink satellites and China's Tiangong space station have highlighted Beijing's concerns about space becoming weaponised. Chinese observers said Washington wants to maintain its dominance in space and warned that the South African-born entrepreneur's company SpaceX, which has been given a contract to build a new satellite for the US military capable of tracking hypersonic missile launches, may form part of that strategy. The two near-misses – in July and October – have also highlighted concerns about the low-Earth orbit becoming overcrowded with satellites and space detritus, increasing the danger of a serious accident.

<https://www.scmp.com/news/china/military/article/3161450/why-china-reacted-so-strongly-its-tiangong-space-stations-near>

China hits back at ‘double standards’ amid US tech war, Washington’s nuclear weapon concerns

Orange Wang and Jack Lau

South China Morning Post, December 29, 2021

China has hit back at discriminatory restrictions and “double standards” aimed at preventing the wider spread of nuclear weapons amid a growing technology rivalry with the United States and increasing concern in Washington over Beijing’s expanding arsenal. Beijing issued its first white paper on export controls on December 29, pledging more engagement to shape “fair, reasonable and non-discriminatory” global export controls. It stressed it will firmly oppose the abuse of “standard international practice” and while arguing that no country or region should “gratuitously impose” discriminatory restrictions or apply “double standards” when it comes to preventing the wider spread of nuclear weapons.

<https://www.scmp.com/economy/china-economy/article/3161447/china-hits-back-double-standards-amid-us-tech-war-washingtons>

PLA Naval Aviation University receives Y-9 transport aircraft

Liu Xuanzun

Global Times, December 29, 2021

The Chinese People's Liberation Army (PLA) Naval Aviation University recently received the Y-9 transport aircraft. Analysts said that this will enable cadets to better learn about the Y-9 before they graduate as they are expected to fly the standard version as well as a wide variety of special mission variants when they enter active service. A brand-new Y-9 transport aircraft recently received a water salute ceremony at an undisclosed base affiliated with the PLA Naval Aviation University. "The commissioning of the new aircraft means the university's personnel training is even closer to combat units and to the conditions of real combat," mentioned Senior Captain Zhao Shuqi, commander of the base, adding that "we will make the maximum use of the new equipment and help the training of new talent goes on a fast track." With the Y-9 platform, the university can train pilots to fly the base transport aircraft version and special mission aircraft variants developed based on it since they share many basic characteristics.

<https://www.globaltimes.cn/page/202112/1243752.shtml>

Construction begins at second Changjiang Hualong One

World Nuclear News, December 29, 2021

The first concrete has been poured for the basemat of Changjiang unit 4, China National Nuclear Corporation (CNNC) and China Huaneng Group have announced. Two Hualong One units are now under construction as the second phase of the plant in Hainan province.

<https://www.world-nuclear-news.org/Articles/Construction-begins-at-second-Changjiang-Hualong-O>

China is developing a heavy carrier rocket able to launch a 150-ton spacecraft: CNSA deputy head

Global Times, December 28, 2021

China is developing a heavy carrier rocket that can launch spacecrafts as heavy as 150 tons, the same as the Tiangong space station, Wu Yanhua, deputy head of China's National Space Administration (CNSA) stated. The rocket is also able to launch spacecrafts of 30 tons, four times the weight of the Chang'e-5 probe, to the Moon, Wu said, noting that this rocket would be used in China's major aerospace exploration missions for a long time. Besides the carrier rocket, Wu revealed that China is also working on a new generation of manned rockets based on the Long March-5 design. Two roller boosters will be added to the Long March-5 and the propellant will be non-poisonous and non-pollutant liquid oxygen and hydrogen as well as liquid oxygen and kerosene.

<https://www.globaltimes.cn/page/202112/1243546.shtml>

US exhausts cards against China despite rising military activities near Taiwan, S.China Sea

By Liu Xuanzun

Global Times, December 28, 2021

According to monitoring from a Chinese think tank, the US military conducted highly intensive operations near China including aerial close-in reconnaissance, aircraft carrier drills and submarine activities over the past year, posing severe military threats and security risks to China in regions including the South China Sea and the Taiwan Straits, military experts stated. With US President Joe Biden on December 27 signing a new defense bill that will see US military expenditure further expand with a particular focus on China, Chinese analysts predict further increase of US military activities targeting China next year, and said China should continue its efforts to safeguard national sovereignty and territorial integrity by enhancing its national defense development and troops' combat preparedness.

<https://www.globaltimes.cn/page/202112/1243629.shtml>

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Liu Xuanzun

Global Times, December 28, 2021

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December 28. With US President Joe Biden on December 27 signing a new defense bill that will see US military expenditure further expand with a particular focus on China, Chinese analysts predict further increase of US military activities targeting China next year, and said China should continue its efforts to safeguard national sovereignty and territorial integrity by enhancing its national defense development and troops' combat preparedness.

<https://www.globaltimes.cn/page/202112/1243629.shtml>

Chinese defense minister urges Japan to learn from history, after Japanese forces' mock drills concerning Diaoyu Islands

Liu Xuanzun

Global Times, December 27, 2021

Chinese State Councilor and Defense Minister Wei Fenghe told Japanese Defense Minister Nobuo Kishi on December 27 that Japan should face squarely up to and learn from history, and that China will resolutely safeguard its territorial sovereignty and maritime rights in the East China Sea and the Diaoyu Islands, shortly after Japanese media reported that Japan recently conducted an exercise under the assumption that "foreign forces" occupied the Diaoyu Islands. The drill, exposing Japan's right-wing militarist ambitions and its failure to reflect on history, was obviously a provocation targeting China, as Japan tries to play a role in the US' attempts to contain China, analysts said.

<https://www.globaltimes.cn/page/202112/1243528.shtml>

AI supported unmanned vehicles expected to go to the moon: Baidu executive

Global Times, December 27, 2021

China will welcome the golden age of AI in the coming years as it will be widely used in the aerospace industry. Unmanned vehicles supported with AI are expected to go to the moon, Robin Li, founder of tech giant Baidu, said on December 27. The two major capabilities of AI, perception and control, will have a wide range of applications in the aerospace industry. It can make future Chinese lunar research stations more intelligent and can also be used in unmanned scientific exploration and resource development and utilization, Li said at the Baidu Create 2021, China's first metaverse conference hosted on its metaverse platform, XiRang.

<https://www.globaltimes.cn/page/202112/1243518.shtml>

China's Baidu launches metaverse app, as more firms join race in 'the next big thing'

Li Qiaoyi and Tu Lei

Global Times, December 27, 2021

Chinese internet giant Baidu on December 27 officially took the wraps off its metaverse app, which was used to hold the company's annual developer conference, as more Chinese tech firms join the global race for supremacy in the next big thing in technology.

<https://www.globaltimes.cn/page/202112/1243522.shtml>

Shenzhou-13 taikonauts conduct second extravehicular activities

CGTN, December 27, 2021

Shenzhou-13 astronauts conducted their second spacewalk outside China's space station on December 26, according to the China Manned Space Agency (CMSA). Taikonaut Ye Guangfu opened the airlock door around 6:44 p.m. (Beijing time) and exited Tianhe, the station's core module, at 6:50 p.m., followed by Zhai Zhigang at 7:37 p.m. The third crew member on board, Wang Yaping, remained inside to support the extra vehicular activities (EVAs), which included elevating a panoramic camera outside with the assistance of the robotic arm.

<https://news.cgtn.com/news/2021-12-26/Shenzhou-13-taikonauts-conduct-second-extravehicular-activities-16j2VSPEb1C/index.html>

China completes record-breaking warplane production goals for 2021

Liu Xuanzun

Global Times, December 26, 2021

The Chinese aviation industry is wrapping up the warplane production and test flight work scheduled for 2021 in the last week of the year, with many companies already finishing their missions while others are making their final runs. Despite challenges including occasional COVID-19 outbreaks, the high quality and quantity of the aircraft will meet the demands of the aviation forces of all Chinese People's Liberation Army (PLA) branches, analysts said on December 26. With the last warplane landing on the runway at the test flight station of Shenyang Aircraft Corporation under the state-owned Aviation Industry Corporation of China (AVIC) on December 15, the Shenyang company wrapped up the year's production and test flight missions 16 days before the year ends, and the number of aircraft the company produced and delivered this year broke a record

<https://www.globaltimes.cn/page/202112/1243426.shtml>

CNSA hands over part of Chang'e-5 lunar samples to birthplace of Mao Zedong

Deng Xiaoci

Global Times, December 25, 2021

China National Space Administration (CNSA) held a special lunar sample hand-over ceremony on December 25 in Shaoshan, Central China's Hunan Province — the birthplace of late Chinese leader Mao Zedong on December 25, one day ahead of the 128th anniversary of Mao's birth. The samples delivered to Shaoshan were part of the lunar dust and soil retrieved by China's Chang'e-5 moon probe and successfully returned to Earth in 2020, with the December 25 event marking the launch of the back-up storage base for lunar samples for the country's lunar exploration project in Shaoshan.

<https://www.globaltimes.cn/page/202112/1243339.shtml>

China's well-oiled military machine launches three warships in one day

Kristin Huang

South China Morning Post, December 25, 2021

China launched three warships, including two for export, on December 23, as it expands its naval construction strength. The vessels – a 071E landing platform dock (LPD) and two Type 054 frigates – were launched at the Hudong-Zhonghua Shipbuilding yard near Shanghai, according to the China Maritime Safety Administration and Chinese media. The LPD was ordered by Thailand in Sept 2019, the first export contract for a ship of this class.

<https://www.scmp.com/news/china/military/article/3161052/chinas-well-oiled-military-machine-launches-three-warships-one>

China keeps an eye on the skies as US Space Force marks 2nd anniversary

Liu Zhen

South China Morning Post, December 25, 2021

The US Space Force celebrated its second anniversary this week while China closely watches its development. The eighth and youngest branch of the US armed services was established on December 20, 2019 to “help the United States deter aggression and control the ultimate high ground,” as for US president Donald Trump put it when he signed the law establishing the force. The USSF now has about 6,500 uniformed personnel, and operates missile detection networks and the Global Positioning System (GPS), as well as monitoring more than 4,500 active satellites in space for their safety. It is also in charge of technology with offensive uses, such as a satellite jamming system.

<https://www.scmp.com/news/china/military/article/3161039/china-keeps-eye-skies-us-space-force-marks-2nd-anniversary>

Work on shipyard in Shanghai for Chinese warships goes smoothly, to open in 2023

Liu Xuanzun

Global Times, December 23, 2021

Since its start at the beginning of the year, the construction of a new shipyard for a key Chinese warship builder has been going smoothly, and dock basin construction kicked off on December 22. The construction of the dock basin of the second phase of the Changxing Shipbuilding Base Project under the China State Shipbuilding Corp (CSSC) started on Changxing Island, Shanghai with a commencement ceremony, CSSC Hudong-Zhonghua Shipbuilding (Group) Co announced. Construction of the dockyards started in September, and the high-pressure jet grouting pile is 40 percent complete. The steel columns are in place at the cutting and processing factory at the joint workshop for hull construction, Hudong-Zhonghua revealed, noting that the company and all other participating parties will strive to get the dock basin finished on time.

<https://www.globaltimes.cn/page/202112/1243242.shtml>

US satellite could detect Chinese hypersonic missiles, but could it stop them?

Kristin Huang

South China Morning Post, December 23, 2021

The United States may have solved the problem of how to detect hypersonic weapons but would still struggle to stop them, Chinese analysts said. A report from C4ISRNET, a US-based publication covering emerging issues and trends in global military transformation and network-centric warfare technologies, reported on December 22 that a prototype satellite that will help the US Missile Defense Agency track hypersonic threats had passed a critical design review, allowing contractors to make it. Named the Hypersonic and Ballistic Tracking Space Sensor (HBTSS), it will operate in low Earth orbit as part of a constellation of hundreds of satellites, according to the report.

<https://www.scmp.com/news/china/military/article/3160869/us-satellite-could-detect-chinese-hypersonic-missiles-could-it>