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SYLLOGE ON CHINA

Focus: Nuclear, Space, Missiles and other Security Issues

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Chinese commercial reusable rocket conducts second vertical liftoff and landing test

CGTN, December 11, 2023

Another successful vertical liftoff and landing (VTVL) test was conducted for the full-sized first stage of China's commercial reusable Hyperbola-2Y rocket (coded as SQX-2Y), according to the Beijing-based aerospace company Interstellar Glory. Developed by Interstellar Glory, also known as iSpace, the rocket completed its first VTVL test on November 2, reaching a height of 178 meters above the ground. The test team then conducted the reuse maintenance and testing within 20 days for the second consecutive flight mission. The company noted that the completion of the two consecutive VTVL missions by the same rocket signifies a significant breakthrough in the reusable technologies of China's commercial liquid-propellant launch vehicles.

<https://news.cgtn.com/news/2023-12-11/Chinese-commercial-reusable-rocket-successfully-conducts-second-flight-1przHrWL6AE/index.html>

Rising Philippine-China tensions in South China Sea: 5 moments from 2023

Regine Cabato

The Washington Post, December 11, 2023

From flashing lasers to collisions and water cannons, it has been an increasingly incident-filled year in the brewing conflict between China and the Philippines in the South China Sea, one of the most vital trade routes in the world and a potential global tinderbox. After a collision this weekend between Chinese and Philippine vessels, and the use of water cannons a dozen times, the Philippines condemned what it called a “serious escalation” of Chinese aggression. The Philippines has a mutual defense treaty with the United States.

<https://www.washingtonpost.com/world/2023/12/11/philippines-china-south-china-sea-incidents/>

Long March rockets mark their 500th spaceflight

Zhao Lei

China Daily, December 11, 2023

China used a Long March 2D carrier rocket on December 10 morning to send several remote-sensing satellites into space, marking the 500th launch of the Long March family. The rocket blasted off from the Xichang Satellite Launch Center in Southwest China's Sichuan province, spitting red-orange flames and soaring into bright skies, which was caught on video published by the Shanghai Academy of Spaceflight Technology, the maker of the Long March 2D series. It was China's 59th rocket launch this year and the 13th flight of the Long March 2D model in 2023. The

overall success rate of the Long March fleet is around 97 percent. Of the 500 liftoffs, 297 were carried out by models developed by the China Academy of Launch Vehicle Technology in Beijing and 203 by the Shanghai Academy of Spaceflight Technology.

<https://www.chinadaily.com.cn/a/202312/11/WS6576537ba31040ac301a70ee.html>

China's cyber army is invading critical U.S. services

Ellen Nakashima and Joseph Menn

The Washington Post, December 11, 2023

The Chinese military is ramping up its ability to disrupt key American infrastructure, including power and water utilities as well as communications and transportation systems, according to U.S. officials and industry security officials. Hackers affiliated with China's People's Liberation Army have burrowed into the computer systems of about two dozen critical entities over the past year, these experts said. The intrusions are part of a broader effort to develop ways to sow panic and chaos or snarl logistics in the event of a U.S.-China conflict in the Pacific, they said. Among the victims are a water utility in Hawaii, a major West Coast port and at least one oil and gas pipeline, people familiar with the incidents told The Washington Post. The hackers also attempted to break into the operator of Texas's power grid, which operates independently from electrical systems in the rest of the country.

<https://www.washingtonpost.com/technology/2023/12/11/china-hacking-hawaii-pacific-taiwan-conflict/>

Annexation of remote islands through selective use of cognitive warfare and armed force to show the Chinese people achievement toward Taiwan reunification

Rira Momma

No. 44 SPF China Observer, The Sasakawa Peace Foundation, December 12, 2023

The accelerating reform of China's military under the Xi Jinping regime has long been a well-known fact. One reason why the Xi regime is rushing the modernization of the People's Liberation Army (PLA) and the strengthening of its combat capability is that China has announced a timetable to complete the PLA's modernization by 2035 in order to transform it into a "world-class military power" by mid-century. There has also been talk recently about the possibility of Chinese invasion to Taiwan by 2027. It is said that this is because Xi, whose successor has not been identified, may possibly be elected for his fourth term as general secretary of the Communist Party of China (CPC) in 2027, and 2027 also marks the 100th anniversary of the PLA.

<https://www.spf.org/spf-china-observer/en/document-detail044.html>

China and the United States are discussing nuclear arms. Who's listening?

Sofia Guerra

Stars and Stripes, December 13, 2023

The U.S.-China nuclear talks ahead of the Asia-Pacific Economic Cooperation Summit were a crucial step away from years of tension over territorial encroachment, economic protectionism, nuclear expansion, and termination of military-to-military communications. Congress, not so far removed from the balloon debacle, should take note, as they have failed to chart a realistic path forward of their own. The White House, on the other hand, secured a rare nuclear diplomacy win in November, with China and the U.S. pledging to ban artificial intelligence from nuclear control and deployment systems.

<https://www.stripes.com/opinion/2023-12-13/china-us-nuclear-arms-12348239.html>

China's CGN halts funding for UK's Hinkley nuclear plant

Francois De Beaupuy

Bloomberg, December 13, 2023

China General Nuclear Power Corp. has halted funding for the UK's Hinkley Point C nuclear station in a fresh sign of tension between London and Beijing. CGN skipped several installments in recent months, according to people familiar with the matter. That means Electricite de France SA, which was building the £32.7 billion (\$41 billion) plant with CGN, may have to pay for its completion alone, they said, asking not to be identified discussing private information. The withdrawal comes after the UK took over CGN's stake in a similar nuclear project in Sizewell last year amid national security concerns. Back then, the government didn't rule out intervening in other cases of Chinese involvement in energy supply. CGN's plan to build another atomic plant in southeast England is also up in the air.

<https://www.bloomberg.com/news/articles/2023-12-13/hinkley-point-nuclear-plant-in-uk-stops-getting-funding-from-china-s-cgn>

China brings world's first Generation IV nuclear reactor online

David Szondy

New Atlas, December 13, 2023

China claims to have brought the world's first Generation IV commercial nuclear reactor online. The Shidao Bay Nuclear Power Plant HTR-PM high-temperature gas-cooled (HTGR) pebble-bed reactor in Shidao Bay, Shandong Province, reportedly went into service this month. Generation IV reactors are the latest, long-anticipated nuclear power plants that promise to be cheaper, safer, and

more efficient than the current reactors. They're called Generation IV because Generation I were the first experimental reactors, Generation II were the first commercial reactors, Generation III were improved versions of Gen II, and Generation IV are the future reactors that incorporate new technologies, fuels, and basic designs.

<https://newatlas.com/energy/china-brings-worlds-first-generation-iv-nuclear-reactor-online/>

China launches reusable test spacecraft

Xinhua, December 14, 2023

China successfully launched a reusable test spacecraft by a Long March-2F carrier rocket from the Jiuquan Satellite Launch Center in northwest China. The reusable test spacecraft will operate in orbit for some time before returning to the scheduled landing site in China. During the in-orbit operation, the spacecraft will conduct verifications for reusable technologies and space science experiments to provide technical support for the peaceful use of space.

<https://english.news.cn/20231214/013eca02d3824dc095e6e84a08d9b6a5/c.html>

Top defence officials from US and China meet after Taiwan rift

Demetri Sevastopulo

Financial Times, December 14, 2023

The Pentagon's most senior China official has met his Chinese counterpart for the first time since he flew to Taiwan in February on a secret trip that derailed top-level military talks between the two men. Michael Chase, the top US defence official for China policy, recently met Major General Liu Zhan, the Chinese defence attaché in Washington, according to people familiar with the meeting, including a US defence official. The meeting occurred before the summit between presidents Joe Biden and Xi Jinping in San Francisco last month.

<https://www.ft.com/content/0e1551aa-b3f9-4d62-87f1-c3d49ce105fa>

Chinese, Russian militaries hold 7th joint aerial strategic patrol

Liu Xuanzun and Guo Yuandan

Global Times, December 15, 2023

The Chinese and Russian militaries held their second joint aerial strategic patrol of the year, the seventh in total since 2019, reportedly adding electronic warfare and reconnaissance aircraft to a group of bombers and fighters, in a move experts said was aimed at safeguarding peace and stability in the region. In accordance with an annual cooperation plan between the Chinese and

Russian militaries, the two sides organized and carried out the seventh joint aerial strategic patrol over the Sea of Japan and the East China Sea, China's Ministry of National Defense said in a press release. The Chinese military aircraft were carrying out routine and conventional flight activities in international air space in compliance with international law, said Mao Ning, a spokesperson at China's Ministry of Foreign Affairs, at a regular press conference.

<https://www.globaltimes.cn/page/202312/1303700.shtml>

US urged to 'act cautiously' in regard to Taiwan, South China Sea

Jiang Chenglong

China Daily, December 15, 2023

China urged the United States to "speak and act cautiously" regarding the Taiwan question and the South China Sea issues, a defense spokesperson said. Zhang Xiaogang, the spokesperson for the Ministry of National Defense, made the remarks in response to a series of recent comments and actions by the US regarding the Taiwan Strait and South China Sea. Earlier this month, the littoral combat ship USS Gabrielle Giffords illegally entered waters near Ren'ai Reef in China's Nansha Islands in the South China Sea without approval of the Chinese government. The US warship's passage was monitored by the People's Liberation Army's Southern Theater Command.

<https://www.chinadaily.com.cn/a/202312/15/WS657bb80ba31040ac301a7f01.html>

Chinese spies recruited European politician in operation to divide west

Demetri Sevastopulo, Henry Foy, John Paul Rathbone and Joe Leahy

Financial Times, December 15, 2023

Chinese spies ran a far-right Belgian politician as an intelligence asset for more than three years in a case that shows how Beijing has conducted influence operations in an effort to shape politics in its favour. Daniel Woo, an officer in China's Ministry of State Security spy agency, pushed Frank Creyelman, a former Belgian senator, to influence discussions in Europe on issues ranging from China's crackdown on democracy in Hong Kong to its persecution of Uyghurs in Xinjiang. As German Chancellor Olaf Scholz was about to visit China in late 2022, Woo asked Creyelman to convince two rightwing members of the European parliament to say publicly that the US and UK were undermining European energy security. "Our purpose is to divide the US-European relationship," Woo wrote in a text message to Creyelman. The relationship between the Chinese case officer and his Belgian agent is documented in text messages from 2019 to late 2022 that were obtained from a western security source in a joint investigation by the Financial Times, Der Spiegel and Le Monde.

<https://www.ft.com/content/601df41f-8393-46ad-9f74-fe64f8ea1a3f>

China's next generation artificial sun opens for global shared research and use in cooperation with ITER

Global Times, December 15, 2023

The China National Nuclear Corporation (CNNC) announced the global opening of the next generation artificial sun, "China Circulation-3," after the group's affiliated Southwestern Institute of Physics signed an agreement with the International Thermonuclear Experimental Reactor (ITER). The initiative invites scientists worldwide to come to China and collaborate toward the shared goal of pursuing "artificial sun energy." The "China Circulation-3" is currently China's most advanced and largest-scale nuclear fusion device, also referred to as China's next generation "artificial sun." In August this year, it successfully achieved high-constraint operation mode under a plasma current of 1 million amperes, marking a significant advancement in China's magnetic confinement nuclear fusion device, propelling it to the forefront of international research.

<https://www.globaltimes.cn/page/202312/1303719.shtml>

China launches new remote sensing satellite

CGTN, December 16, 2023

China successfully launched a new remote sensing satellite into its planned orbit from the Wenchang Spacecraft Launch Site on the southern island province of Hainan. The carrier rocket, coded as Long March-5 Y6, blasted off carrying the Yaogan-41, a high-orbit optical remote sensing satellite. The satellite will be used in land survey, crop yield estimation, environmental management, meteorological warning and forecasting and comprehensive disaster prevention and reduction. The launch marks the 502nd mission for the Long March series carrier rockets.

<https://news.cgtn.com/news/2023-12-16/China-launches-new-remote-sensing-satellite-1pzxy6Ot6CY/index.html>

China unveils space war-gaming system for military operations and training

Stephen Chen

South China Morning Post, December 16, 2023

Chinese military scientists have unveiled a space war-gaming system that was previously shrouded in secrecy. With a "user-friendly" design, the system has the power to simulate and foresee the intricate process of space combat, according to its developers. It was not just a tool for China's military operations, but also for shaping and sharpening the finest space warriors and commanders on a large scale, they said. Developed by the National University of Defence Technology in Changsha, the system has already proved its worth in a covert space mission, the

team led by associate professor Zhang Jin wrote in a paper published in domestic journal National Defence Technology in October.

<https://www.scmp.com/news/china/science/article/3245148/china-unveils-space-war-gaming-system-military-operations-and-training>

China launches commercial carrier rocket

China Daily, December 17, 2023

China successfully launched SQX 1 commercial carrier rocket into space from the Jiuquan Satellite Launch Center in Northwest China. The rocket blasted off from the launch site, sending the Di'er 1 satellite into the planned orbit. It was the sixth flight mission of the SQX 1 commercial carrier rocket.

<https://www.chinadaily.com.cn/a/202312/17/WS657eb509a31040ac301a821c.html>

China and North Korea pledge stronger cooperation in rare talks as Beijing shores up ties with neighbours

Dewey Sim

South China Morning Post, December 17, 2023

China and North Korea pledged to deepen cooperation as senior officials met for rare talks last week amid broader efforts by Beijing to shore up relations with its neighbours to counter external risks. According to China's foreign ministry, foreign vice-minister Sun Weidong met his North Korean counterpart Pak Myong-ho in Beijing, with the parties agreeing to strengthen "strategic communication and coordination". "The two sides agreed to take the 75th anniversary of the establishment of diplomatic relations between China and [North Korea] next year as an opportunity to deepen the friendly and cooperative relations between the two countries," the ministry said in a brief statement.

<https://www.scmp.com/news/china/diplomacy/article/3245367/china-and-north-korea-pledge-stronger-cooperation-rare-talks-beijing-shores-ties-neighbours>

PLA Air Force pursues fast equipment development with future air combat in mind

Liu Xuanzun

Global Times, December 18, 2023

The Chinese People's Liberation Army (PLA) Air Force is pursuing fast equipment development with the aim of adapting to future air combat, which could involve vastly expanded battlefield

boundaries, highly dynamic games, greatly enhanced unmanned combat and main battle elements characterized by high altitude and fast speed, said an official recently. Colonel Tang Shaojun at the PLA Air Force's equipment department made the remarks in an interview with the Xinhua News Agency's Outlook Weekly, which was reposted by the PLA Air Force's official WeChat account. When asked about his thoughts on future air combat, the roles of air combat elements and the challenges in developing equipment, Tang said that to design weapons and equipment is to design future warfare, and the development of weapons and equipment is a key factor in the changing form of war, so it must be fundamentally oriented by the demands of combat.

<https://www.globaltimes.cn/page/202312/1303864.shtml>

China's Sea-Based Nuclear Deterrent: Organizational, Operational, and Strategic Implications

David C. Logan

China Maritime Report No. 33, China Maritime Studies Institute, U.S Naval War College, December 18, 2023

China's development of a credible sea-based deterrent has important implications for the PLAN, for China's nuclear strategy, and for U.S.-China strategic stability. For the PLAN, the need to protect the SSBN force may divert resources away from other missions; it may also provide justification for further expansion of the PLAN fleet size. For China's nuclear strategy and operations, the SSBN force may increase operational and bureaucratic pressures for adopting a more forward-leaning nuclear strategy. For U.S.-China strategic stability, the SSBN force will have complex effects, decreasing risks that Chinese decisionmakers confront use-or-lose escalation pressures, making China less susceptible to U.S. nuclear threats and intimidation and therefore perceiving lower costs to conventional aggression, and potentially introducing escalation risks from conventional-nuclear entanglement to the maritime domain.

<https://digital-commons.usnwc.edu/cmsi-maritime-reports/33/>

Manila 'seriously misjudges situation' as Marcos hypes 'China's challenge'

Wang Qi

Global Times, December 18, 2023

The Philippines has seriously misjudged the situation, which will harm its own interests, future cooperation with China, as well as the common aspirations of regional countries for peace, stability

and prosperity, analysts said, following Philippine President Ferdinand Romualdez Marcos Jr stating that the Philippines and China remain deadlocked over the joint oil exploration and accused China of posing a "regional challenge." In an interview with the Japanese media NHK, Marcos stressed that the Philippines will deepen trilateral cooperation with Japan and the US and seek to conduct more joint exercises. Chinese Foreign Ministry spokesperson Wang Wenbin said at a press briefing that "the Philippines, bolstered by external support, has brushed aside China's goodwill and restraint and repeatedly challenged China's principles and red line. This is the major risk that could drive up tensions at sea."

<https://www.globaltimes.cn/page/202312/1303868.shtml>

China curtails ‘dangerous’ fighter jet manoeuvres after Xi-Biden summit

Kana Inagaki and Edward White

Financial Times, December 18, 2023

China has cut back on “dangerous” fighter jet intercepts against US aircraft since last month’s summit meeting between presidents Joe Biden and Xi Jinping, according to the top US military commander in the Indo-Pacific region. The apparent drop-off in the manoeuvres followed an agreement last month between the US and Chinese leaders in San Francisco to restore military relations. Beijing had cut off formal communication channels between the militaries in August 2022 in response to a visit by the then-US House Speaker Nancy Pelosi to Taiwan.

<https://www.ft.com/content/c141df36-dc64-44ae-bcf5-fa9eb1683d1c>

Remarks by Ambassador Geng Shuang at the UN Security Council briefing on the Iranian Nuclear issue

Permanent Mission of the People's Republic of China to the UN, December 19, 2023

As a permanent member of the Council at a party to the JCPOA, China has always been committed to upholding the validity of the agreement and the authority of the Council resolutions, and has been working to promote political and diplomatic solution to the Iranian nuclear issue. We will continue to take an objective and impartial position, stay engaged with the parties concerned, and play a positive and constructive role in bringing the JCPOA back to the right track at an early date, so as to safeguard the international nuclear non-proliferation regime and peace and stability in the Middle East.

http://un.china-mission.gov.cn/eng/hyyfy/202312/t20231220_11207321.htm

China's Military-Civil Fusion Strategy: A Blueprint for Technological Superiority

Nicholas R. Licata

Foreign Policy Research Institute, December 19, 2023

In an effort to transform the People's Liberation Army (PLA) into the most technologically advanced military in the world, the Chinese Communist Party (CCP) is systematically reorganizing its science and technology sectors to ensure that new innovations simultaneously advance the growth of its military capabilities. This "Military-Civil Fusion" (MCF, 军民融合) strategy targets technologies such as quantum computing, semiconductors, 5G, nuclear technology, aerospace technology, gene editing and artificial intelligence to achieve military dominance. While other nations have tried this strategy before, China's MCF is expansive and institutionalized in a way that exceeds previous efforts. China is likely to produce a variety of new weapons of mass destruction using this policy in the next decade and threaten the United States' regional interests more than it already has.

<https://www.fpri.org/article/2023/12/chinas-military-civil-fusion-strategy-a-blueprint-for-technological-superiority/>

Qinshan nuclear power station sets new record for power generation

Zheng Xin

China Daily, December 20, 2023

Qinshan nuclear power station in Zhejiang province, the first nuclear power plant designed and built in China, has generated more than 53.5 billion kilowatt-hours of clean power, a record high, said its operator China National Nuclear Corp. This has exceeded the annual power generation of last year and marks the ninth year of power generation increase, it said. The first pilot nuclear heating project in southern parts of China, which is built upon the residual thermal power of Qinshan nuclear power station, is also currently under operation in Haiyan county in Zhejiang province, it said.

<https://www.chinadaily.com.cn/a/202312/20/WS65829d8da31040ac301a8b58.html>

China quietly rebuilds secretive base for nuclear tests

William J. Broad, Chris Buckley and Jonathan Corum

The New York Times, December 20, 2023

In the remote desert where China detonated its first atom bomb nearly 60 years ago, a drilling rig recently bored a deep vertical shaft that is estimated to plunge down at least a third of a mile. It is the strongest evidence yet that Beijing is weighing whether to test a new generation of nuclear arms that could increase the lethality of its rapidly expanding missile force. For years, U.S.

government reports and independent experts have expressed vague concerns about the old base, Lop Nur. The reports point to possible preparations for year-round operations and a “lack of transparency.” Now, however, waves of satellite images reveal that the military base has newly drilled boreholes — ideal for bottling up firestorms of deadly radiation from large nuclear blasts — as well as hundreds of other upgrades and expansions.

<https://www.nytimes.com/interactive/2023/12/20/science/china-nuclear-tests-lop-nur.html>

China, Russia hail bilateral ties as strategic choice, stabilizer of intl relations amid Russian PM’s China visit

Wang Qi and Ma Jingjing

Global Times, December 20, 2023

Maintaining and developing China-Russia relations is a strategic choice made by both sides based on the fundamental interests of the two peoples, Chinese President Xi Jinping said in his meeting with Russian Prime Minister Mikhail Mishustin, following the Russian high-ranking official's meeting with Chinese Premier Li Qiang, chairing the 28th regular meeting between the Chinese and Russian heads of government. Chinese experts hailed the close strategic collaboration between the two countries in recent years as a model of a new type of great power relations, which is crucial to the stable development of the international community. In addition, under the leadership of the heads of state, the internal driving force of ties is expected to be strengthened, not only in trade and the economy, but also cultural and people-to-people exchanges.

<https://www.globaltimes.cn/page/202312/1304016.shtml>

China using ‘classic hybrid playbook’ in bid to blunt Nato tech edge, US envoy says after Japan, South Korea trip

Jack Lau

South China Morning Post, December 20, 2023

Nato envoys on a recent visit to Japan and South Korea learned about ways to protect their technological edge from being blunted by China’s “classic hybrid playbook”, the US ambassador to the transatlantic security alliance said. Julianne Smith, the United States’ permanent Nato representative, said American and European ambassadors believed that China was using disinformation, cyberattacks, economic pressure and other means to try and undermine the technological advantage of countries including Nato members. As Pacific countries, neither Japan nor South Korea is a Nato member. But Japan was in talks earlier this year to host Nato’s first liaison office in Asia, while South Korea has joined the 31-member bloc’s cyber defence unit.

<https://www.scmp.com/news/china/military/article/3245785/china-using-classic-hybrid-playbook-bid-blunt-nato-tech-edge-us-envoy-says-after-japan-south-korea>

*Sylloge on China is compiled by Mr. Niranjan C. Oak
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**Nuclear and Arms Control Centre, MP-IDSA
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