

November 10, 2024

SYLLOGE ON CHINA

Focus: Nuclear, Space, Missiles and other Security Issues

**An Initiative by the Nuclear and Arms Control Centre,
MP-IDSA**



Chinese Foreign Ministry on Japan-EU Security and Defence Partnership agreement allegedly targeting China

Ministry of Foreign Affairs, the People's Republic of China, November 1, 2024

Security and defense cooperation between various parties should be conducive to regional peace and stability, and not target any third party or undermine the security interests of other countries. Due to historical reasons, Japan's military and security moves have been closely watched by the international community and its Asian neighbors. We urge Japan to earnestly draw lessons from history, adhere to peaceful development, respect the security concerns of its neighbors in Asia, and stay prudent in military and security areas. We also hope that the EU will not interfere in the disputes on territorial and maritime rights and interests between regional countries but instead play a constructive role for regional peace, stability, and development.

https://www.fmprc.gov.cn/eng/xw/fyrbt/lxjzh/202411/t20241101_11519937.html

J-20 designer arms electronic warfare drones with generative AI

Stephen Chen

South China Morning Post, November 1, 2024

A generative AI that can boost the performance of electronic warfare drones has been developed by scientists in China's defence industry. This large language model (LLM), similar to ChatGPT, can command a drone equipped with electronic warfare weapons to attack enemy aircraft radar or communication systems. Its decision-making performance in air combat not only surpasses traditional artificial intelligence (AI) techniques such as reinforcement learning, but is also better than experienced human experts, test results suggest. This is the first publicly disclosed research that directly applies large language models to weapons.

<https://www.scmp.com/news/china/science/article/3284588/words-can-kill-j-20-designer-arms-electronic-warfare-drones-generative-ai>

Drones become newest front in China-U.S. economic security fight

Shunsuke Akagi

Nikkei Asia, November 1, 2024

Tensions between the U.S. and China have spread to the drone industry, as American startup manufacturer Skydio -- which supplies Taiwan and Ukraine -- says its battery supply chain in China has been targeted by sanctions from Beijing. "Right now we don't expect new [battery]

sources to come online until the spring of next year," the company said in a statement released. It criticized the sanctions, saying "this action makes clear that the Chinese government will use supply chains as a weapon to advance their interests over ours."

<https://asia.nikkei.com/Politics/International-relations/US-China-tensions/Drones-become-newest-front-in-China-U.S.-economic-security-fight>

Is China prepared to uncork the nuclear option?

John A. Tirpak

Air & Space Forces, November 1, 2024

The U.S. faces the "increased likelihood of a limited nuclear exchange in a future Indo-Pacific crisis scenario," notes a new report from the Atlantic Council. Based on a wargame plus analysis of China's public statements and internal machinations, the September report asserts that China would drop its "no-first-use" policy should an attempted invasion of Taiwan begin to fail. Beijing is willing to use its power, however, to counter "perceived external threats that could negatively impact domestic political interests."

<https://www.airandspaceforces.com/article/sp-is-china-prepared-to-uncork-the-nuclear-option/>

Americans, your calls and texts can be monitored by Chinese spies

Josh Rogin

The Washington Post, November 2, 2024

Last week, the Chinese hacking and spying operation known as "Salt Typhoon" was revealed to have targeted former president Donald Trump and his running mate, Sen. JD Vance of Ohio, as well as staffers for Vice President Kamala Harris's campaign and for Congress. The Post has reported that the hackers were able to collect audio and text messages from their targets in a wide-ranging espionage operation, which likely began several months ago. The Chinese hackers, who the United States believes are linked to Beijing's Ministry of State Security, have burrowed inside the private wiretapping and surveillance system that American telecom companies built for the exclusive use of U.S. federal law enforcement agencies — and the U.S. government believes they likely continue to have access to the system.

<https://www.washingtonpost.com/opinions/2024/11/02/china-spying-telecom-trump-harris-fbi-cell-phone/>

Taiwan expects Ukraine-tested weapons from US amid rising Chinese pressure

William Yang

Voice of America, November 2, 2024

Taiwan is expected to receive several weapons that have been battle tested in Ukraine from the United States over the next few years. Analysts say those weapons can help bolster Taiwan's defence and strike capabilities amid growing military pressure from China. In the latest round of arms sales to Taiwan, worth about \$2 billion, the United States plans to deliver three medium-range National Advanced Surface-to-Air Missile Systems, also known as NASAMS. The weapons include advanced AMRAAM Extended Range surface-to-air missiles. The proposed sales will help improve Taiwan's security and "assist in maintaining political stability, military balance, and economic progress in the region," the Pentagon's Defense Security Cooperation Agency said in a statement.

<https://www.voanews.com/a/taiwan-expects-ukraine-tested-weapons-from-us-amid-rising-chinese-pressure/7848827.html>

Mirror platform for scientific experiments at China's space station put into operation

CGTN, November 3, 2024

A mirror platform for scientific experiments at China's space station has entered the official operation stage, which will provide important support for scientific experiments on the space station, according to the Technology and Engineering Center for Space Utilization (CSU) under the Chinese Academy of Sciences. The mirror platform is equipped with 14 science experiment cabinets and corresponding public support equipment for information, power distribution, and fluid cooling inside and outside the cabin. It operates as a scientific experiment system on the ground parallel to China's space station. The extensive scientific experiments the Shenzhou-19 crew is about to conduct have already undergone matching and verification experiments.

<https://news.cgtn.com/news/2024-11-03/Mirror-platform-for-experiments-at-China-Space-Station-operational-1ydNuiK5LMI/p.html>

Chinese Foreign Ministry on Premier Li Qiang's participation in the eighth Greater Mekong Subregion (GMS) Summit

Ministry of Foreign Affairs, the People's Republic of China, November 4, 2024

Since its inception over three decades ago, with the concerted efforts of the six GMS member countries, namely China, Cambodia, Laos, Myanmar, Thailand and Viet Nam as well as the Asian

Development Bank, the GMS has vigorously advanced coordinated economic and social development and regional integration, bringing tangible benefits to people of these countries. Through this summit, China hopes to have in-depth exchanges with other parties, with emphasis on openness, innovation, connectivity and coordination, strive for new progress in cooperation in key areas including regional connectivity, trade and investment, agriculture and poverty alleviation, and make greater contributions to promoting sustainable development and economic integration in the region.

https://www.fmprc.gov.cn/eng/xw/fyrbt/lxjzh/202411/t20241104_11520895.html

Chinese warships could use Peru's big new port, US general warns

Michael Stott

Financial Times, November 4, 2024

A Chinese-built megaport in Peru could be used by Beijing's navy, a top US general has said, highlighting the security risks to the US from "Belt and Road" projects in Latin America. Chinese President Xi Jinping is expected to inaugurate the \$1.3bn Chancay port on the Pacific coast when he visits Peru for a summit in mid-November, amid growing concerns among US security officials that the facility's size, depth and strategic location make it suitable to host Chinese warships. China's Cosco Shipping, which has been building the port with a local junior partner, will be the sole operator when it opens after Peru dropped a lawsuit challenging its exclusive status.

<https://www.ft.com/content/f6589d13-6014-47d0-8cc5-e98a0b7ad0bc>

China, Japan hold high-level political dialogue in Beijing; Wang-Akiba meeting 'shows Ishiba admin's pragmatic attitude toward bilateral ties'

Wang Qi

Global Times, November 4, 2024

Chinese Foreign Minister Wang Yi and Takeo Akiba, secretary general of Japan's National Security Secretariat, held consultations under the China-Japan high-level political dialogue mechanism in Beijing. The two sides reiterated that they will abide by the principles and consensus set out in the four political documents between China and Japan and commit to comprehensively advancing the strategic relationship of mutual benefit between the two sides, reaching agreement to maintain high-level intercourse, dialogue and exchanges in various fields, and send more positive signals to the outside world.

<https://www.globaltimes.cn/page/202411/1322434.shtml>

Chinese scientists say they have made converged energy beam weapon a reality

Stephen Chen

South China Morning Post, November 4, 2024

A new type of high-power microwave weapon, which combines electromagnetic waves with ultra-precise timing technology to boost power output to attack a single target, has been developed by Chinese scientists. The weapon system, which has completed experimental trials on its potential military use, consists of multiple microwave-transmitting vehicles deployed to different locations. They then emit microwaves that can merge into a powerful energy beam to attack one target. This is similar to the Death Star seen in the Star Wars films. To build up the energy required to destroy a planet, the vast space station needs to converge eight laser rays into a single beam.

<https://www.scmp.com/news/china/science/article/3284794/chinese-scientists-say-they-have-made-converged-energy-beam-weapon-reality>

Shenzhou-18 Returns to Earth: Crew returns after six-month stay on Tiangong space station

CGTN, November 4, 2024

The Shenzhou 18 crew has come back home to Earth. While they've landed here at the Dongfeng Landing Site on a cold dark night, they've received a warm welcome from the home crowd. Upon their return, the trio have also spoken their first, heart-felt words on the ground in six months. The Shenzhou 18 crew had just welcomed in the Shenzhou 19 crew in orbit at the end of October. The six taikonauts worked together for five days. The Shenzhou 18 crew had rotated with ITS previous crew in late April when they started their tenure in space.

<https://news.cgtn.com/news/2024-11-04/VHJhbnNjcmlwdDgxNjE5/index.html>

China boxed out of high-NA lithography race to 1nm chips

Scott Foster

Asia Times, November 4, 2024

Taiwan's TSMC is likely to be the second chip-making company after Intel to receive the semiconductor industry's most advanced lithography tool as the race to 1-nanometer chips gathers pace. According to a Nikkei Asia report, the world's leading integrated circuit (IC)

foundry will install ASML's new high-NA extreme ultra-violet (EUV) lithography system at its R&D center in Hsinchu, Taiwan, by the end of this year. That's about three months later than industry sources had initially expected but not significantly later than America's Intel, which installed its first high-NA lithography system at its R&D center in Oregon last April and its second in August.

<https://asiatimes.com/2024/11/china-boxed-out-of-high-na-lithography-race-to-1nm-chips/>

Shenzhou-18 mission returns samples for extraterrestrial habitation research

Shen Sheng

People's Daily Online, November 5, 2024

The Shenzhou-18 spacecraft returned to Earth with 34.6 kilograms of experimental samples, including difficult-to-prepare microorganisms, alloy materials, and nanomaterials, the Science and Technology Daily reported. The retrieved samples are poised to advance the development of space fiber lasers, facilitate the creation of extraterrestrial materials, and explore the prospects of Earth life spreading through the cosmos, the Xinhua News Agency reported. The scientific experimental samples brought back by the spacecraft include a total of 55 types, spanning 28 science projects across areas such as space life sciences, space materials science, and microgravity combustion science.

<http://en.people.cn/n3/2024/1105/c90000-20237683.html>

Prabowo's China visit signals an independent foreign policy

Ma Bo and Li Zishu

Global Times, November 5, 2024

According to a Reuters report, Prabowo is set to embark on a visit to five countries, with China as the first stop. This schedule highlights the Prabowo government's strong emphasis on deepening China-Indonesia relations. As early as the end of March this year, Prabowo chose China as his first destination as president-elect, signaling the new Indonesian administration's desire to expand cooperation and enhance mutual trust between the two countries. Prabowo adopted "keberlanjutan" (continuity) as his campaign slogan and has retained the core policy team from the previous administration in his new cabinet, appointing 16 officials who previously served in Joko Widodo's cabinet.

<https://www.globaltimes.cn/page/202411/1322491.shtml>

China's 'artificial sun' starts new experiments with digital twin tech

CGTN, November 5, 2024

China's new-generation "artificial sun" Huanliu-3 (HL-3) tokamak has launched a new round of physical experiments, incorporating for the first time a digital twin system independently developed by the China National Nuclear Corporation (CNNC), the CNNC said. HL-3, a magnetic confinement nuclear fusion facility independently designed and developed by China, is the country's largest and most advanced fusion device designed for the research and development of controlled nuclear fusion technology. A key part of HL-3's operation is the vacuum chamber baking process. The newly implemented digital twin system functions as a "super eye" during the process by creating a fully virtual replica of the physical components to provide real-time, highly accurate monitoring of the process.

<https://news.cgtn.com/news/2024-11-05/China-s-artificial-sun-starts-new-experiments-with-digital-twin-tech-1yhgRyFq396/p.html>

China's crewed lunar rover, eyeing 2030 launch, enters initial prototype R&D stage

Global Times, November 6, 2024

In order to achieve the goal of landing on the moon by 2030, the crewed lunar rover has entered the initial prototype research and development (R&D) stage, with two teams under the state-owned space giant, China Aerospace Science and Technology Corporation (CASC), winning the R&D contracts. The two winners are the Shanghai Academy of Spaceflight Technology (SAST) and China Academy of Space Technology, both subsidiaries under CASC, The Paper reported. The solicitation for the crewed lunar rover proposals went through two rounds of selection, and the two finalists that received the contracts each have their own unique characteristics in terms of innovation and advancement, the SAST revealed.

<https://www.globaltimes.cn/page/202411/1322564.shtml>

UK orders Chinese owners to relinquish control of Scottish semiconductor business

Alexander Martin

The Record, November 6, 2024

The British government ordered a Chinese-owned holding company to sell its shares in a Scottish semiconductor business following a national security assessment. Under the United Kingdom's

National Security and Investment Act 2021, the government can “scrutinise and intervene in business transactions, such as takeovers, to protect national security” in 17 sensitive areas of the economy. Future Technology Devices International (FTDI) is a semiconductor design business based in Glasgow. Three years ago, it was acquired by a holding company with Chinese directors, triggering a review.

<https://therecord.media/uk-orders-chinese-owners-scottish-semiconductor-business-divestment>

China braces for a new phase of U.S. rivalry with Trump’s return

David Pierson

The New York Times, November 7, 2024

For the past year, the United States and China have tried to manage their rivalry to reassure the world that tensions between the superpowers would not spiral into conflict. The return of President Donald J. Trump to the White House threatens to upend that delicate balance. As a statesman, Mr. Trump’s calling card is his unpredictability. He revels in mixing threats with flattery to keep his counterparts guessing. On China, he has vowed to impose blanket tariffs on Chinese exports, and threatened duties as high as 200 percent if China were to ever “go into Taiwan,” the self-governed island claimed by Beijing. But Mr. Trump has also praised Xi Jinping, China’s top leader, saying on a Joe Rogan podcast that he was a “brilliant guy” for controlling 1.4 billion people with an “iron fist.”

<https://www.nytimes.com/2024/11/07/world/asia/china-trump-rivalry.html>

Brazil eyes cooperation with China in commercial aerospace sector

Zhang Wanshi

Global Times, November 7, 2024

Brazil and China are collaborating to negotiate a memorandum of understanding aimed at bringing a Chinese satellite company to Brazil, reported The Rio Times. Brazil's Secretary of Telecommunications Hermano Barros Tercius confirmed the plans to the BBC. According to The Rio Times, SpaceSail, developed by Chinese company Shanghai Spacecom Satellite Technology, which operates in the low Earth orbit satellite internet sector, aims to begin operations in Brazil by 2025. SpaceSail, also known as Qianfan megaconstellation project, or G60, was launched with the aim of providing more extensive and high-quality communication services for domestic users. In the long run, it is expected to establish a network of over 15,000 low Earth orbit wide-screen multimedia satellites by the end of 2030.

<https://www.globaltimes.cn/page/202411/1322637.shtml>

Chinese Foreign Ministry on Xi-Trump phone call

Ministry of Foreign Affairs, the People's Republic of China, November 7, 2024

President Xi Jinping has congratulated President-Elect of the US Donald Trump. President Xi Jinping pointed out that history tells us that both China and the US stand to gain from cooperation and lose from confrontation. A China-US relationship with stable, healthy and sustainable development serves the common interests of the two countries and meets the expectations of the international community. Hope the two sides will work in the principles of mutual respect, peaceful coexistence and win-win cooperation, to enhance dialogue and communication, properly manage differences and expand mutually beneficial cooperation, and to find the right way for China and the US to get along with each other in the new era to the benefit of the two countries and the world.

https://www.fmprc.gov.cn/eng/xw/fyrbt/lxjzh/202411/t20241107_11522935.html

House Committee targets chip technology firms for China ties

Ana Swanson

The New York Times, November 8, 2024

A number of technology companies that make semiconductor manufacturing possible are coming under scrutiny from Capitol Hill, as the United States weighs further export restrictions to try to hold back China's technological advancement. The House Select Committee on the Chinese Communist Party, which has targeted numerous U.S. companies for their ties to China, sent letters to a handful of firms making semiconductor manufacturing equipment, expressing concern about technology sales to China and requesting detailed information about the companies' sales volumes and top customers.

<https://www.nytimes.com/2024/11/08/business/economy/house-committee-china-semiconductor-manufacturing.html>

Chinese scientists propose ram-rotor detonation engine for hypersonic flight

Zhang Tong

South China Morning Post, November 8, 2024

Chinese scientists proposing a new concept for a hypersonic engine with improved continuous thrust, lower start-up speeds and enhanced performance have inserted a ramjet into a rotary detonation engine. Detonation engines use detonation waves instead of traditional combustion to improve thermal cycle efficiency and propulsion performance. Because of their simple

structure and high thrust-to-weight ratio, such engines have been used for flight tests in many countries.

<https://www.scmp.com/news/china/science/article/3285368/chinese-scientists-propose-ram-rotor-detonation-engine-hypersonic-flight>

TSMC to close door on producing advanced AI chips for China

Kathrin Hille and Ryan McMorrow

Financial Times, November 8, 2024

Taiwan Semiconductor Manufacturing Company has notified Chinese chip design companies that it will suspend production of their most advanced artificial intelligence chips, as Washington continues to impede Beijing's AI ambitions. TSMC, the world's largest contract chipmaker, told Chinese customers it would no longer manufacture AI chips at advanced process nodes of 7 nanometres or smaller. Two of the people said any future supplies of such semiconductors by TSMC to Chinese customers would be subject to an approval process likely to involve Washington. TSMC's tighter rules could reset the ambitions of Chinese technology giants such as Alibaba and Baidu, which have invested heavily in designing semiconductors for their AI clouds, as well as a growing number of AI chip design start-ups that have turned to the Taiwanese group for manufacturing.

<https://www.ft.com/content/a736beeb-b38a-484e-bbe9-98e92ecb66d9>

Philippine president angers China with new laws to demarcate South China Sea territories

Jim Gomez

Associated Press, November 8, 2024

Philippine President Ferdinand Marcos Jr. signed two laws reaffirming the extent of his country's maritime territories and right to resources, including in the South China Sea, angering China, which claims the hotly disputed waterway almost in its entirety. China's foreign ministry said it summoned the Philippines ambassador to China to lodge a "stern protest." The ministry condemned the move as an attempt to "solidify the illegal ruling of the South China Sea arbitration case through domestic legislation." The laws, called the Philippine Maritime Zones act and the Philippine Archipelagic Sea Lanes act, were signed by Marcos in a nationally televised ceremony attended by top military and national security officials. They further cement Manila's rejection of China's claims to virtually the entire sea passage, and stipulate jail terms and stiff fines for violators.

<https://apnews.com/article/philippine-maritime-zones-act-archipelagic-sea-lanes-act-south-china-sea-4ecec3f00ab9367d948e5af3959aea21>

Magnetic shield over North America is losing strength ‘exceptionally fast’: PLA scientists

Stephen Chen

South China Morning Post, November 8, 2024

The magnetic field over North America is weakening at an unusually rapid rate, while the field over the eastern hemisphere, including China, is strengthening, according to a study conducted by Chinese military researchers. Scientists are still trying to determine the cause but an initial guess is that it may be related to the shift of the geomagnetic poles from the western to the eastern hemisphere. “The geomagnetic field is a natural barrier to protect the Earth,” wrote the project team led by Professor Fang Hanxian with the National University of Defence Technology in a peer-reviewed paper published last month.

<https://www.scmp.com/news/china/science/article/3285683/magnetic-shield-over-north-america-losing-strength-exceptionally-fast-pla-scientists>

Joint Statement between the People's Republic of China and the Republic of Indonesia on Advancing the Comprehensive Strategic Partnership and the China-Indonesia Community with a Shared Future

The State Council, the People’s Republic of China, November 9, 2024

The two sides agreed that China and Indonesia are both major developing countries, emerging markets, and significant forces of the Global South. China and Indonesia are similar in the development phase, concept and path, as well as in cultural traditions. Their bilateral relations are of great strategic significance and far-reaching global influence. In recent years, the China-Indonesia relationship has maintained a strong growth momentum and entered the new phase of building the China-Indonesia community with a shared future, thus opening a new chapter of unity for strength, solidarity, coordination and mutual benefit between major developing countries.

https://english.www.gov.cn/news/202411/10/content_WS67301550c6d0868f4e8ecca9.html

Chinese ambassador calls for upholding three principles in dealing with China-U.S. ties

Xinhua, November 9, 2024

Chinese Ambassador to the United States Xie Feng has called for upholding the three principles of mutual respect, peaceful coexistence and win-win cooperation when dealing with the bilateral

ties. Xie delivered the speech via video link to address the reception dinner of the U.S.-China Business Council commemorating the 45th anniversary of China-U.S. diplomatic relations. The event was held in the eastern Chinese metropolis of Shanghai. The three principles put forward by Chinese President Xi Jinping, namely, mutual respect, peaceful coexistence and win-win cooperation, both sum up the experience of China-U.S. relations over the past decades, and point out the right path for the two countries to get along in the new era, Xie said.

<https://english.news.cn/northamerica/20241109/0d21d5793fe649d09b9d77ec0fe258f3/c.html>

PLA Air Force celebrates 75th anniversary at Airshow China 2024, with J-35A, HQ-19 debut

Yang Sheng

Global Times, November 10, 2024

The People's Liberation Army (PLA) Air Force will celebrate its 75th anniversary, with the air force debuting some of its most advanced weapons, including the J-35A medium-sized stealth fighter, the HQ-19 surface-to-air missile weapon system and a new attack reconnaissance unmanned aerial vehicle at the biennial Airshow China in Zhuhai, South China's Guangdong Province. Military expert Song Zhongping said the Chinese air force becomes a strategic power today with its series of advanced weapons, such as stealth fighter jets, large cargo aircraft, strategic bombers, early-warning aircraft, air defense systems and tanker aircraft. In the future, the air force might be able to have a new generation stealth strategic bomber as well.

<https://www.globaltimes.cn/page/202411/1322788.shtml>

Philippines' so-called laws complicate situation in South China Sea

Xinhua, November 10, 2024

The Philippines stirred up trouble again by enacting two domestic laws which gravely infringed upon China's territorial sovereignty and maritime rights and interests in the South China Sea, sparking strong condemnation and serious protests from Beijing. The so-called "Philippine Maritime Zones Act" illegally includes China's Huangyan Dao, most of the islands and reefs of China's Nansha Qundao, and their relevant waters into the Philippines' maritime zones. Various parts of the "Philippine Archipelagic Sea Lanes Act" are incompatible with international law and resolutions of the International Maritime Organization.

<https://english.news.cn/20241110/7bf252deeff4b06a0de32134db5406e/c.html>

China releases baselines of territorial sea adjacent to Huangyan Dao

China Daily, November 10, 2024

The Chinese government delimited and announced the baselines of the territorial sea adjacent to Huangyan Dao, which is a natural step to lawfully strengthen marine management and is consistent with international law and common practices, a Foreign Ministry spokesperson said. The spokesperson said that Huangyan Dao has always been China's territory. In accordance with international law, such as the United Nations Convention on the Law of the Sea, and the Law of the People's Republic of China on the Territorial Sea and the Contiguous Zone, the Chinese government delimited and announced the baselines of the territorial sea adjacent to Huangyan Dao.

<https://www.chinadailyhk.com/hk/article/597383>

TSMC cannot afford to lose Chinese mainland market despite relentless US pressure

Song Lin and Zhang Weilan

Global Times, November 10, 2024

The US has reportedly "ordered" the Taiwan Semiconductor Manufacturing Co (TSMC) to halt sales of advanced chips, which are usually used in artificial intelligence (AI) applications, to Chinese mainland's customers. Analysts said that despite relentless US pressure, the chipmaker from the island of Taiwan cannot afford to lose the mainland market. The US Department of Commerce sent a letter to TSMC imposing export restrictions on certain sophisticated chips, of 7 nanometer or more advanced designs, destined for mainland that power AI accelerator and graphics processing units. In recent years, the US has relentlessly tightened restrictions on AI chip exports to China. However, businesses are driven by profit, and while TSMC may not be able to resist US pressure, it will undoubtedly seek ways to preserve some flexibility and room for negotiation, Ma Jihua, a veteran telecom industry observer, told the Global Times.

<https://www.globaltimes.cn/page/202411/1322805.shtml>

Sylloge on China is compiled by Mr. Niranjan C. Oak

Nuclear and Arms Control Centre, MP-IDSA