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SYLLOGE ON CHINA

Focus: Nuclear, Space, Missiles and other Security Issues

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



Underlying challenges and near-term opportunities for engaging China

Tong Zhao

Arms Control Association, January 21, 2024

In the lead-up to the Xi-Biden summit in San Francisco in November, China and the United States engaged in a consultation on arms control and nonproliferation, the first such effort in recent years and one that occurred amid a severe downturn in their bilateral relationship. Beijing has attributed the intensifying rivalry to what it perceives as increased strategic hostility from Washington. This perception has led China to believe that expanding its nuclear capabilities is crucial to stabilizing bilateral relations and that it should avoid being lured into self-imposed restrictions.

<https://www.armscontrol.org/act/2024-01/features/underlying-challenges-near-term-opportunities-engaging-china>

The nuclear programs of Russia, China, North Korea, And Iran

Anya FinkTim DitterSarah VoglerElizabeth LeeMike ConnellMary ChesnutTim McDonnell

CNA, January 21, 2024

China is a rapidly maturing nuclear weapons state with a declared no-first-use employment policy. Historically, China maintained a relatively low number of nuclear weapons compared to the United States and Russia. People's Republic of China (PRC) leaders viewed this "lean and effective" arsenal as a part of the PRC's asymmetric strategic posture—maintaining low but sufficient numbers to ensure mutual vulnerability and to provide for a retaliatory strike if attacked with nuclear weapons. China's current perceptions of an evolving global strategic landscape appear to be encouraging the modernization and expansion of its nuclear arsenal as well as extending its suite of strategic options.

<https://www.cna.org/reports/2024/01/the-nuclear-programs-of-russia-china-north-korea-and-iran>

Private players make their mark with space missions

Zhao Lei

China Daily, January 22, 2024

In China, a commercial space mission generally refers to a space activity paid for by a business entity rather than a government department. Construction of the new center, which began in July 2022, was undertaken by China Aerospace Construction Group. The No 1 service tower is about 90 meters high and incorporates the latest rocket-launch technologies. It is specifically tasked with servicing Long March 8 carrier rockets. Developed by the China Academy of Launch Vehicle Technology, a subsidiary of China Aerospace Science and Technology Corp, the Long March 8 family consists of multiple medium-lift launch vehicles designated for commercial space missions.

<https://www.chinadailyhk.com/article/372662>

Rumours of China's decline are premature and dangerous

Richard Fontaine

The Washington Post, January 22, 2024

Speaking in Davos, Switzerland, last week, Chinese Premier Li Qiang pitched his country as a solid investment destination. The Chinese economy, Li said, has “huge potential,” and choosing it “is not a risk, but an opportunity.” His audience listened skeptically. After decades of unstoppable Chinese economic, demographic and military growth, the past two years have seen more trouble than triumphs. That has led some analysts to worry not about the rise of Chinese power but instead the irrevocable decline of China's economy. These fears are utterly premature. Worse, if they represent the assumptions on which U.S. policy is based, America will fail to rise to China's challenge. The chief near-term risk is not that Beijing's ascent will fizzle, but rather that Washington will fail to muster the strength necessary for an adequate response.

<https://www.washingtonpost.com/opinions/2024/01/22/china-decline-davos-fontaine/>

Chinese scientists bring US Navy's 'dream bullet' to life

Stephen Chen

South China Morning Post, January 22, 2024

Chinese naval scientists claim to have created a smart shell for kinetic energy weapons that could reshape the military landscape. This shell, propelled by a formidable electromagnetic gun, soars through the sky at a staggering speed of Mach 7. Throughout this dramatic process, it can stably receive signals from the BeiDou satellite navigation system and continuously adjust its flight path, maintaining an error of less than 15 metres (49 feet) until it hits its target. Achieving such high accuracy at such high speeds is not easy, as the shell can travel 2,500 metres (8,200 feet) in just one second. While its precision may still be insufficient for small moving targets like tanks, it is more than enough for larger targets such as warships or ports.

<https://www.scmp.com/news/china/science/article/3249048/chinese-scientists-bring-us-navys-dream-bullet-life>

China buys near-record \$40 billion of chip gear to beat US curbs

Bloomberg, January 22, 2024

China's imports of chipmaking machines jumped last year as firms ramped up investment in an attempt to get around US-led efforts to hobble the nation's semiconductor industry. Imports of the machinery used to make computer chips rose 14% in 2023 to almost \$40 billion — the second largest amount by value on record in data going back to 2015, according to Bloomberg calculations based on official customs data. The increase came despite a 5.5% drop in total imports last year,

underscoring the importance that the Chinese government and the nation's chip industry have placed on becoming self-sufficient.

<https://www.bloomberg.com/news/articles/2024-01-22/china-buys-near-record-40-billion-of-chip-gear-to-beat-us-curbs>

New appointments in China's PLA highlight the direction of Xi's military reform

Masaaki Yatsuzuka

Australian Strategic Policy Institute, January 23, 2024

Last December, the Standing Committee of the 14th National People's Congress (NPC) appointed Dong Jun, former commander of the People's Liberation Army navy (PLAN), as China's new defence minister more than two months after his predecessor was dismissed. The NPC also announced the disqualification of nine senior PLA officers. Prior to this, two leaders of the Rocket Force (RF) had been replaced in a surprise shake-up and Strategic Support Force (SSF) leaders were under investigation. Such big shuffles in the PLA highlight the direction in which Xi Jinping is taking his military reform and the problems he still faces. Looking ahead, Xi Jinping will continue to strengthen his power base in the PLA by personally reviewing senior military leadership appointments and boosting his anti-corruption campaign. Xi's tight control over the military will continue to stoke a power struggle among military cadres scrambling to gain his trust, which could jeopardise the effectiveness of his reforms.

<https://www.aspistrategist.org.au/new-appointments-in-chinas-pla-highlight-the-direction-of-xis-military-reform/>

Commercial aerospace firm sends 5 satellites into orbit

Fan Wei and Tao Mingyang

Global Times, January 23, 2024

The Lijian-1 carrier rocket, developed by Chinese commercial aerospace company CAS Space, sent five satellites into planned orbit, the company told the Global Times, consolidating China's launching capacity of low- and middle-orbit satellites. The five satellites carried by the Lijian-1 were developed by Beijing Minospace Technology Co. The Taijing-4 03 satellite, one of the five, is equipped with synthetic aperture radar and artificial intelligence processors, which can realize rapid detection and identification of targets at sea and airports via real-time image transmission. The satellite can be used in disaster and environment monitoring, natural resource exploration, agricultural yield projection and land and sea mapping.

<https://www.globaltimes.cn/page/202401/1305903.shtml>

A moment of historic danger: It is still 90 seconds to midnight - 2024 Doomsday Clock Statement

John Mecklin

Bulletin of Atomic Scientists, January 23, 2024

The United States and China are on the verge of a major nuclear arms race. One significant development in the United States is debate about whether the US nuclear arsenal may have to increase over the next decade to counter China's expansion. The argument for an expanding US nuclear arsenal was articulated recently in a consensus report by the bipartisan Congressional Commission on the Strategic Posture of the United States, which argued that the United States and its allies must be ready to "deter and defeat" both Russia and China—simultaneously. The report recommended "fully and urgently executing the US nuclear modernization."

<https://thebulletin.org/doomsday-clock/current-time/nuclear-risk/>

Rocket-powered corruption: why the missile industry became the target of Xi's purge

Elliot Ji

War On the Rocks, January 23, 2024

The People's Liberation Army is experiencing yet another wave of purges by Chinese leader Xi Jinping. Since July 2023, about 15 military and defense industry officials have been taken down by Xi, including defense minister Li Shangfu, the commander and commissar of the Rocket Force, and several high-ranking officers and civilian leaders in the defense industry. On Dec. 27, the Standing Committee of the National People's Congress expelled nine senior cadres from the country's nominal law-making body without explanation, further adding to the suspicion that a large-scale corruption scheme that democratically touched many levels of the military and the Chinese defense industry had been discovered by Xi.

<https://warontherocks.com/2024/01/rocket-powered-corruption-why-the-missile-industry-became-the-target-of-xis-purge/>

Nauru's resumption of diplomatic ties with China makes one fact stronger and clearer: Global Times editorial

Global Times, January 24, 2023

Foreign ministers of China and Nauru signed the Joint Communiqué on the Resumption of Diplomatic Relations Between the People's Republic of China and the Republic of Nauru in

Beijing. The two sides have resumed diplomatic relations at the ambassadorial level effective Wednesday. Nauru has officially become the 183rd country to establish diplomatic relations with China. This was an anticipated development since Nauru announced its decision to sever the so-called "diplomatic relations" with Taiwan region on January 15. However, the information and reality conveyed by the latest move are still worth deep understanding and careful consideration by the Democratic Progressive Party (DPP) authorities and Lai Ching-te's team, the few remaining so-called "diplomatic allies" of Taiwan island, and external forces that persistently interfere in the situation across the Taiwan Straits.

<https://www.globaltimes.cn/page/202401/1306031.shtml>

China takes its chip war to space as it uses Tiangong space station to test processors and gain a tech edge

Stephen Chen

South China Morning Post, January 24, 2024

The chip war between China and the United States now extends beyond the Earth and into space. According to scientists directly involved in China's extraterrestrial chip programme, China's Tiangong space station can now test more than 100 computer processors simultaneously. More than 20 new high-performance chips spanning the 28 to 16-nanometre process range have already passed testing. They are considerably more advanced than chips used by other countries in space.

<https://www.scmp.com/news/china/science/article/3249569/china-takes-its-chip-war-space-it-uses-tiangong-space-station-test-processors-and-gain-tech-edge>

China's nuclear power to accelerate clean energy initiatives

Zheng Xin

China Daily, January 24, 2024

China General Nuclear Power Corp has accelerated its clean energy initiatives both domestically and internationally throughout 2023, continuously increasing the share of renewable energy in the company's power generation portfolio. As the main force in China's clean energy development, CGN has been vigorously developing nuclear, wind and solar energies in recent years, with the installed capacity of clean energy in operation and under construction exceeding 100 million kilowatts last year, said the country's largest nuclear operator during a press conference held in Beijing.

<https://www.chinadaily.com.cn/a/202401/24/WS65b0d32fa3105f21a507e1c0.html>

White House science chief signals US-China co-operation on AI safety

Madhumita Murgia

Financial Times, January 25, 2024

The US will work with China on the safety of artificial intelligence systems in the coming months, the White House's top science adviser has said, signalling a rare co-operation between the two powers. Arati Prabhakar, director of the White House Office of Science and Technology Policy, told the Financial Times that, despite Sino-US trade tensions over AI, the countries would work together to lessen its risks and assess its capabilities. "Steps have been taken to engage in that process," Prabhakar said of future collaboration with China on AI. "We have to try to work [with Beijing]."

<https://www.ft.com/content/94b9878b-9412-4dbc-83ba-aac2baadafd9>

China-Europe freight train service bolsters good start of Chinese economy in 2024

Belt and Road Portal, January 25, 2024

Many China-Europe freight trains have departed from Chinese cities such as Hefei, Xi'an, Chifeng and Lianyungang to destinations in the Europe since the beginning of 2024, injecting new vitality into the Chinese economy. The China-Europe freight train service has been enchanting more and more goods owners due to better safety and higher efficiency, noted Bai Ming, a researcher with the Chinese Academy of International Trade and Economic Cooperation (CAITEC). The China-Europe freight train routes have been denser and denser since the Belt and Road Initiative was put forward, and the service is developing fast now, added Bai.

<https://eng.yidaiyilu.gov.cn/p/082HUMPE.html>

US still posing main threat to global cybersecurity: report

Guo Yuandan and Liu Caiyu

Global Times, January 25, 2024

A cybersecurity report for 2023 released by a Chinese company said that global advanced persistent threat (APT) activities remain at a severe level. APT organizations are primarily distributed in countries and regions such as the US and India, with the US continuing to pose the main threat to global cybersecurity. The report – released by Antiy Labs, one of China's foremost cybersecurity companies – summarized the distribution and activity of global APT organizations and activities in 2023. The US dominates the 556 APT organizations globally, and the highest

level of attacks, known as A2PT attacks. APT organizations that pose a threat to China and neighboring countries also operate in India and Taiwan island.

<https://www.globaltimes.cn/page/202401/1306121.shtml>

China's waterlogged missiles don't matter

Heather Williams

Centre for Strategic and International Studies, January 25, 2024

While Xi's purge and questions about the state of the Chinese arsenal may not change anything in U.S. strategic planning, they do reinforce the need for cooperative arms control and risk reduction with Beijing. Transparency and arms control traditionally work hand in hand, as states are reluctant to sign up to agreements without having some means of confirming compliance. Additionally, however, transparency can reduce risks of misperception and escalation. Historically, China has consistently rejected efforts at bilateral or trilateral engagement on its nuclear arsenal. In the final year of the Trump administration, for example, China refused to engage with the United States and Russia in discussing potential limitations on nuclear warheads.

<https://www.csis.org/analysis/chinas-waterlogged-missiles-dont-matter>

Philippine S. China Sea claims opposed

Jiang Chenglong

China Daily, January 26, 2024

China resolutely opposes the Philippine side conducting any form of construction on China's islands or reefs in the South China Sea that the Philippines have illegally occupied, a defence spokesman said. Senior Colonel Wu Qian, a spokesman for the Ministry of National Defence, made the remark at a news conference in Beijing in response to recent comments made by senior Philippine military officials. There are media reports saying the chief of staff of the Philippine Armed Forces claimed the Philippines is planning to develop South China Sea islands and acquire more ships and radars. Some analysts have said the Philippine side intends to build outposts in the South China Sea. Wu said China has indisputable sovereignty over the Nansha Islands and their adjacent waters, which he stressed is fully backed on a historical and jurisprudential basis.

<https://www.chinadaily.com.cn/a/202401/26/WS65b30961a3105f21a507e744.html>

US stirs up 'China space threat' to expand space military power, maintain military hegemony

Ministry of Foreign Affairs, the People's Republic of China, January 26, 2024

The US has long been repeatedly hyping up China as a “threat in outer space” to smear and attack China, which is only an excuse for the US to expand its forces in outer space and maintain military hegemony. In fact, the US openly characterized outer space as a “battlefield,” made great effort to develop outer space military and provoke major-power rivalry, making itself the biggest factor in militarizing outer space and turning it into a battlefield, and the biggest threat to outer space security. The US has long been abusing space technology and maliciously tracking and approaching other countries’ spacecraft in a dangerous manner, which increases the collision risk in space and is seriously irresponsible. China sticks to the peaceful use of outer space and opposes the arms race there.

https://www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/2511_665403/202401/t20240126_11234179.html

Xi Jinping exchanges congratulatory messages with French President Emmanuel Macron on the 60th anniversary of the establishment of diplomatic relations between China and France

Ministry of Foreign Affairs, the People's Republic of China, January 27, 2024

Xi Jinping pointed out that 60 years ago, China and France broke the ice of the Cold War and bridged the divide between different blocs to establish diplomatic relations at the ambassadorial level. This historical event has pushed the global landscape to evolve in the right direction of dialogue and cooperation, which still offers inspiration for today. Over the past 60 years, the two countries have adhered to making strategic choices independent of external influence and have always been committed to achieving common development through mutually beneficial cooperation, promoting mutual learning among civilizations through exchanges on an equal footing, and jointly addressing global challenges through multilateral coordination.

https://www.fmprc.gov.cn/mfa_eng/zxxx_662805/202401/t20240128_11234702.html

China's nuclear power collaboration with France remains promising four decades later

Xinhua, January 27, 2024

Four decades of nuclear power collaboration remains a noteworthy feature of the France-China relationship and continues to hold potential as the two countries mark the 60th anniversary of establishing diplomatic ties. Nuclear energy cooperation between China and France dates back to

the establishment of the Daya Bay Nuclear Power Plant. The power plant in the southern Chinese city of Shenzhen had its roots in the early 1980s when China was opening up. France, which became one of the first major Western countries to recognize the People's Republic of China and whose nuclear industry had been enjoying a golden age since the 1970s, was approached.

<https://english.news.cn/20240127/f00daa140c6446b5a1c98d54118e83c0/c.html>

The U.S.-China relationship is back on track. Let's hope it stays that way

Fareed Zakaria

The Washington Post, January 27, 2024

U.S. national security adviser Jake Sullivan's meeting with China's top diplomat, Wang Yi, for private talks this week is one more sign of a thaw in relations that in 2021 had both sides yelling at each other in Anchorage. Military-to-military talks have resumed. Treasury Secretary Janet L. Yellen and Commerce Secretary Gina Raimondo have both had constructive trips to China. The U.S. Indo-Pacific Command noted earlier this month that since the Biden-Xi summit in November, Chinese military planes seem to have stopped their dangerous maneuvers. Over the prior two years, since the fall of 2021, there had been nearly 300 such incidents against U.S. aircraft and those of U.S. allies and partners. And the Taiwanese elections, while going against China's hopes, were handled maturely by both sides.

<https://www.washingtonpost.com/opinions/2024/01/27/us-china-relations-repair-summit/>

China's PLAN exercises with YJ-62 Anti-Ship Missile

Kosuke Takahashi

Naval News, January 27, 2024

According to the drill's one-minute-plus video footage released by Chinese state-owned broadcaster China Central Television (CCTV), the brigade was seen exercising with four 8×8 WS2400 transporter-erector-launchers (TELs) – each equipped with three YJ-62 ASCMs – and a single 8×8 command post vehicle. The YJ-62 missiles have so far been deployed mainly in the Eastern Theatre Command headquartered in Nanjing City of Jiangsu Province, which has jurisdiction over Taiwan, and the Southern Theatre Command headquartered in Nanjing City of Guangdong Province, which has jurisdiction over the South China Sea. It is likely that the missiles were deployed for the first time to units in the Northern Theatre Command.

<https://www.navalnews.com/naval-news/2024/01/chinas-plan-exercises-with-yj-62-anti-ship-missile/>

Top Chinese diplomat meets U.S. national security advisor

Xinhua, January 27, 2024

Wang Yi, a member of the Political Bureau of the Communist Party of China (CPC) Central Committee, held a new round of talks with U.S. National Security Advisor Jake Sullivan. During the talks, the two sides had candid, substantive and fruitful strategic communication on implementing the consensus reached by leaders of the two countries in San Francisco and properly handling important and sensitive issues in China-U.S. relations. Wang noted that as this year marks the 45th anniversary of the establishment of diplomatic relations between China and the U.S., both sides should take this opportunity to draw experience and lessons, treat each other as equals rather than condescendingly, seek common ground while reserving differences rather than accentuate differences, genuinely respect rather than undermine each other's core interests, and work together to respect each other, live together in peace, and pursue win-win cooperation, finding the right way for China and the United States to get along with each other.

<https://english.news.cn/20240127/17cc70e5d7ce4c9e84ea29de73e08819/c.html>

Western nations need a plan for when China floods the chip market

Chris Miller

Financial Times, January 28, 2024

On a recent quarterly earnings call, the chief executive of Semiconductor Manufacturing International Corporation, China's leading chipmaker, predicted a "global supply glut" in the types of semiconductors his company produces. Simultaneously, he announced a \$7.5bn increase in capital expenditure. It isn't guaranteed that Chinese companies will win market share in every sector. For example, the painful pandemic-era shortages have already induced some western automakers to sign long-run supply deals, so they are less likely to buy more from Chinese suppliers even if their prices are lower.

<https://www.ft.com/content/2bd1c1a3-931a-4e95-9ea2-e1e8c635ff50>

Progress of China-US talks on AI hinges on if US has right mind-set

Global Times, January 28, 2024

In the evolving landscape of international relations, the collaboration between the US and China in the realm of Artificial Intelligence (AI) technology, particularly with an emphasis on security concerns, emerges as a critical juncture that could significantly influence the stability of China-US ties. This issue gained prominence in November of last year when, during a landmark meeting in California, President Xi Jinping and President Joe Biden heralded the inception of new bilateral channels for consultation on AI. This initiative was further highlighted in remarks by Arati Prabhakar, director of the White House Office of Science and Technology Policy and chief science

advisor, who disclosed forthcoming plans for the US to engage with China on AI system security, as reported by the Financial Times.

<https://www.globaltimes.cn/page/202401/1306233.shtml>

Chinese coastguard allows Philippines to deliver supplies to disputed Second Thomas Shoal

South China Morning Post, January 28, 2024

The Chinese coastguard said it had made “temporary special arrangements” to allow the Philippines to deliver supplies to troops at a grounded World War II-era vessel at a disputed reef. China’s coastguard has previously deployed vessels to block missions by the Philippines to supply troops on the transport ship, which has become a military outpost at the Second Thomas Shoal. Known as Renai Reef in China and Ayungin Shoal in the Philippines, the feature lies about 190km (118 miles) off the Philippine island of Palawan. In a statement on its official WeChat account, the Chinese coastguard said it had allowed necessary supplies, but also that it would resolutely defend China’s sovereignty and maritime rights and interests at the Second Thomas Shoal and its adjacent waters.

<https://www.scmp.com/news/china/military/article/3250078/south-china-sea-chinese-coastguard-allows-philippines-deliver-supplies-disputed-second-thomas-shoal>

China approves over 40 AI models for public use in past six months

Josh Ye

Reuters, January 29, 2024

China has approved more than 40 artificial intelligence (AI) models for public use in the first six months since authorities began the approval process, as the country strives to catch up to the U.S. in AI development, according to Chinese media. Chinese regulators granted approvals to a total of 14 large language models (LLM) for public use last week, Chinese state-backed Securities Times reported. It marks the fourth batch of approvals China has granted, which counts Xiaomi Corp (1810.HK), opens new tab, 4Paradigm (6682.HK), opens new tab and 01.AI among the recipients.

<https://www.reuters.com/technology/china-approves-over-40-ai-models-public-use-past-six-months-2024-01-29/>

Is China sincere about peace in Ukraine?

Vita Golod

Foreign Policy, January 29, 2024

In 2023, Chinese President Xi Jinping made some gestures toward Ukraine, speaking with Zelensky on April 26 and appointing diplomat Li Hui as a representative to Kyiv, Moscow, and

Europe in May. Yet China's official rhetoric hasn't changed, accusing NATO and the United States of "providing weapons and triggering proxy wars." Li attended the second Ukrainian peace summit in Jeddah, but he refused to come to the third such peace summit in Malta and has been virtually invisible since. Experts from well-known Chinese universities and think tanks have published numerous articles and essays on "the Ukraine crisis," claiming that the Russia-Ukraine conflict is forcing the countries to choose sides in the international system (Gu Wei), strengthening the Japanese-U.S. alliance (Lu Hao), increasing the risk of a Russian-U.S. nuclear war (Zhao Huasheng), and intensifying conflicts between Russia and the West (Zhang Hong).

<https://foreignpolicy.com/2024/01/29/china-ukraine-russia-war-peace-mediation-grain/>

China's Hypersonic missiles are a huge threat to the U.S. military

Brandon J. Weichert

The National Interest, January 29, 2024

The Chinese military strategy for achieving dominance in the Indo-Pacific is simple: keep the U.S. military juggernaut back long enough to solidify China's regional dominance, and to catch up technologically with the United States. Once achieved, Beijing will solidify its newfound dominant position to crush potential challengers (like Australia, Japan, India, or Vietnam), and use the Indo-Pacific as a launching pad for pushing deeper into other parts of the world—notably the Western Hemisphere, America's proverbial backyard.

<https://nationalinterest.org/blog/buzz/china%E2%80%99s-hypersonic-missiles-are-huge-threat-us-military-208947>

China urges breakthroughs in GPUs, robotics, quantum computing and brain interfaces to drive 'future industries'

Coco Feng

South China Morning Post, January 30, 2024

Chinese authorities have reiterated the need for technological breakthroughs in a range of hi-tech areas, including graphics processing units (GPUs), quantum computing, humanoid robots and brain-computer interfaces, in Beijing's latest effort to seek control of "the industries of the future". A document issued by the Ministry of Industry and Information Technology, the Ministry of Science and Technology, the Chinese Academy of Sciences and other departments, urges the country to "grasp the opportunities of a new round of scientific and technological revolution" at a time when the US is doubling down on a "small yard, high fence" approach to block China's access to key technologies.

<https://www.scmp.com/tech/article/3250195/china-urges-breakthroughs-gpus-robotics-quantum-computing-and-brain-interfaces-drive-future>

The Defence Department's China Military Power Report: The threat is worse than advertised

Robert Peters and Wilson Beaver

The Heritage Foundation, January 30, 2024

The Defense Department's latest annual China Military Power Report gets a lot right. It accurately identifies the scope of China's global ambitions and many of the structural changes being implemented by Xi Jinping to make China the preeminent military power in Asia and the Pacific. Even so, the report appears to undersell the threat posed by China and what will be required from the U.S. to counter it. The report focuses correctly on the extent of China's military buildup and modernization program. In 2022, the Chinese navy continued to beef up what is already the world's largest fleet, working on delivering its third aircraft carrier and third amphibious assault ship, as well as additional guided missile destroyers, cruisers, and frigates. Beijing's navy will soon be able to conduct long-range precision strikes against land targets from both its submarine and surface combatants.

<https://www.heritage.org/defense/commentary/the-defense-departments-china-military-power-report-the-threat-worse-advertised>

LandSpace rules out 'explosion' at Shanghai base, three workers 'slightly scratched' in an experiment

Fan Wei and Tao Mingyang

Global Times, January 30, 2024

China's private aerospace company LandSpace said that an online rumored "explosion" in its research center in Shanghai was caused by a normal experiment at its rocket fuel storage tank, and three workers onsite were slightly scratched, with no serious injuries reported. LandSpace denied the rumored "explosion," as the company told the Global Times, noting that the blast was caused by a low-temperature static blasting experiment targeting fuel storage tank of its private rocket, being conducted by the company's research team. During the experiment, the storage tank undertook normal blast experiment, under a pressure of 0.65 megapascals and the control process of the experiment performed normally, while some glass was damaged, leaving three workers on site slightly scratched with no serious injuries, LandSpace said.

<https://www.globaltimes.cn/page/202401/1306337.shtml>

China's nuclear arsenal could grow to 1,500 weapons by 2035

Andrea Stricker and Anthony Ruggiero

Foundation for Defence of Democracies, January 30, 2024

China's nuclear weapon stockpile may grow to 1,500 nuclear warheads by 2035, according to a new estimate by a U.S. scientific group. The finding increases the urgency to address U.S.

preparedness to deter two near-peer nuclear competitors — China and Russia — for the first time in American history. The report, released on January 15 by the Federation of American Scientists (FAS), projected that China will likely field around 850 nuclear warheads by 2035. However, the study concluded that the figure could be as high as 1,500 warheads, depending on several factors. That worst-case scenario fits with a previous projection by the Department of Defense (DoD). “If China continues the pace of its nuclear expansion, it will likely field a stockpile of about 1,500 warheads by” 2035, the Pentagon wrote in a 2022 report to Congress.

<https://www.fdd.org/analysis/2024/01/30/chinas-nuclear-arsenal-could-grow-to-1500-weapons-by-2035/>

China's most powerful spectral telescope expected to work in '26

China Daily, January 31, 2024

China's most powerful spectral telescope with an aperture of 4.4 meters is expected to be completed and put into use by 2026, reported Science and Technology Daily. According to the report, Shanghai Jiao Tong University plans to build the large-aperture multi-functional spectral telescope named Jiaotong University Spectroscopic Telescope (JUST) at Lenghu Astronomical Observation Base located on Saishiteng Mountain in the northwestern Qinghai province. With a lightweight design and equipped with multiple spectrometers, the JUST will be capable of swiftly switching target sources and conducting timely spectroscopic observations.

<https://www.chinadailyhk.com/article/374404>

China's top fabless chip firms estimate big 2023 losses despite push for greater self-sufficiency in semiconductors

Che Pan

South China Morning Post, January 31, 2024

China's leading chip companies, from Loongson Technology to Cambricon Technologies, expect to log huge losses for 2023 in spite of Beijing's push for greater self-sufficiency in semiconductors, according to corporate filings. Loongson Technology, a fabless chip firm that is a firm advocate for domestic semiconductor development, is estimating a full-year loss of 310 million yuan (US\$43.36 million) against a 51.8 million yuan profit in 2022. It also expects 2023 revenue to come in at about 508 million yuan, down 31 per cent year-on-year, according to an earnings release. Industry professionals and analysts say the strict US sanctions and limited product catalogues at Chinese firms are hindering this domestic development, along with a tougher environment in 2023.

<https://www.scmp.com/tech/tech-war/article/3250465/chinas-top-fabless-chip-firms-estimate-big-2023-losses-despite-push-greater-self-sufficiency>

Construction of China's first domestic medical isotope test reactor starts

People's Daily Online, January 31, 2024

The construction of the world's most powerful solution-type medical isotope test reactor commenced in Southwest China's Sichuan Province, according to information obtained by the Global Times from the China National Nuclear Corporation (CNNC). This development aims to better address the diagnostic and treatment requirements of tens of millions of people in China. After becoming operational, this reactor, constructed by the Nuclear Power Institute of China under CNNC, is projected to have an annual production capacity of 100,000 curies of molybdenum-99 and 20,000 curies of iodine-131. This will address the longstanding reliance on imports and the bottleneck issue concerning these two isotopes.

<http://en.people.cn/n3/2024/0131/c90000-20128919.html>

China ousts top rocket scientist from key political body in widening military purge

Nectar Gan

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China has expelled a leading rocket scientist from its top political advisory body, the latest sign of a widening purge in the Chinese military's missile force and aerospace contractors. The Chinese People's Political Consultative Conference (CPPCC) removed Wang Xiaojun at a meeting in Beijing – just a year after he was appointed a member, state news agency Xinhua reported, without offering an explanation. Wang, 54, until recently led the China Academy of Launch Vehicle Technology (CALT), a prestigious state-run institute known as the birthplace of China's aerospace industry.

<https://edition.cnn.com/2024/01/31/china/china-rocket-scientist-ousted-cppcc-intl-hnk/index.html>

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