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SYLLOGE ON CHINA

Focus: Nuclear, Space, Missiles and other Security Issues

An Initiative by Indian Pugwash Society and Centre for Nuclear Issues and Arms Control (MP - IDSA)



INDIAN PUGWASH SOCIETY

China's gigantic telescope detects new fast radio burst from space

CGTN, October 11, 2023

Chinese scientists have detected a new fast radio burst (FRB) from elsewhere in the universe with the help of the world's largest radio telescope. FRBs are mysterious radio flashes lasting only a few thousandths of a second that were confirmed in 2016 to originate from the cosmos. There is still no explanation for their origins. Using the Five-hundred-meter Aperture Spherical Radio Telescope (FAST), located in southwest China's Guizhou Province, a local research team found the faint radio signal, namely FRB 20200317A, after an analysis of the massive survey data of FAST, and reported the discovery in late September to the international astronomical community through the Astronomer's Telegram.

<https://news.cgtn.com/news/2023-10-11/China-s-gigantic-telescope-detects-new-fast-radio-burst-from-space-1nO4FyI9Acg/index.html>

IAEA should play constructive role in establishing monitoring system for Fukushima wastewater: Chinese FM

Global Times, October 11, 2023

The International Atomic Energy Agency (IAEA) should play a constructive role in establishing a long-term effective international monitoring system and bear the responsibility of strict supervision over the Japanese side, Chinese Foreign Ministry said in response to IAEA's announcement of its scientists and international scientific observers including Chinese experts visiting Japan next week to collect ocean samples near the Fukushima Daiichi Nuclear Power Station. The IAEA announced that the IAEA scientists and international scientific observers will visit Japan next week to take marine samples near the Fukushima Daiichi nuclear power plant.

<https://www.globaltimes.cn/page/202310/1299655.shtml>

General highlights China's military advantages, disadvantages

David Vergun

US Department of Defence, October 11, 2023

There are three things that the Chinese military has that the U.S. military, allies and partners in the region do not have, said Army Gen. Charles A. Flynn, commander of U.S. Army Pacific. "They have interior lines," he said. He noted that they're just 100 miles from Taiwan, and they have anti-access, area-denial means to keep opposing forces at a distance—such as missiles, aircraft and ships, as well as cyber and space capabilities. "The second thing they have is mass," he said, meaning they have a very large military force. "The third thing they have is magazine depth," he said, which would include large quantities of stand-off munitions.

<https://www.defence.gov/News/News-Stories/Article/Article/3553901/general-highlights-chinas-military-advantages-disadvantages/>

China's computational power gains new strength with 255-detected-photon quantum computer

Xinhua, October 12, 2023

Chinese scientists unveiled a quantum computer prototype named "Jiuzhang 3.0" with 255 detected photons, once again pushing the boundaries of photonics quantum computing technology. Led by the renowned Chinese quantum physicist Pan Jianwei, the research team has successfully accomplished this quantum computing feat, achieving a speed that is 10 quadrillion times faster in solving Gaussian boson sampling (GBS) problems compared to the world's existing fastest supercomputers.

<https://english.news.cn/20231012/03dcd9a9bd3f45b59b47464e98cfa9ec/c.html>

China starts building new telescope for lunar, deep-space missions

CGTN, October 12, 2023

China started the construction of a 40-meter-aperture radio telescope in the Changbai Mountain area in the northeastern province of Jilin to support future lunar and deep-space probe missions. Developed by the Shanghai Astronomical Observatory under the Chinese Academy of Sciences, the optical instrument is designed to be a large, fully movable, high-precision multipurpose radio telescope.

<https://news.cgtn.com/news/2023-10-12/China-starts-building-new-telescope-for-lunar-deep-space-missions-1nPIhxAgJec/index.html>

US 'ill-prepared' for nuclear challenge from China and Russia, says report

Demetri Sevastopulo

Financial Times, October 12, 2023

The US must expand or restructure its nuclear arsenal to tackle the "existential challenge" posed by the growing nuclear threat from China and existing risk from Russia, a new report by a congressionally mandated commission has said. The bipartisan Congressional Commission on the Strategic Posture of the US, which is tasked with examining American strategic policy, warned that Washington was "ill-prepared" to tackle the challenge posed by having two peer nuclear adversaries for the first time.

<https://www.ft.com/content/cfff9f8-f99f-4637-8514-e43d25d4cdaf>

China achieves first commercial satellite-ground laser high-speed image transmission test, a significant communication breakthrough

Global Times, October 12, 2023

A laser communication ground station independently developed by a satellite manufacturer and constellation operator in Northeast China's Jilin Province has successfully carried out a satellite-based high-speed laser image transmission test using a propriety satellite Jilin-1 MF02A04 star-borne laser terminal. This is China's first successful test of a domestically developed, commercial satellite-based high-speed laser image transmission. The successful test signifies that Jilin Province has integrated engineering capabilities for the entire chain covering satellite-ground laser high-speed image transmission, highlighting that engineering application capacity has reached an advanced level in the world.

<https://www.globaltimes.cn/page/202310/1299711.shtml>

Across U.S., Chinese bitcoin mines draw national security scrutiny

Gabriel J.X. Dance and Michael Forsythe

The New York Times, October 13, 2023

When a company with Chinese origins broke ground last year on a crypto-mining operation in Cheyenne, Wyo., a team at Microsoft that assesses national security threats sounded the alarm. Not only was the site next door to a Microsoft data center that supported the Pentagon — it was about a mile away from an Air Force base that controlled nuclear-armed intercontinental ballistic missiles. The location could allow the Chinese to “pursue full-spectrum intelligence collection operations,” the Microsoft team wrote in an August 2022 report to the Committee on Foreign Investment in the United States, a federal body that monitors threats posed by overseas investors.

<https://www.nytimes.com/2023/10/13/us/bitcoin-mines-china-united-states.html>

Why Taiwan's defence priorities might need a rethink

Diego Laje

Channel News Asia, October 13, 2023

Taiwan's recent 2023 National Defence Report fails to grasp the realities of an evolving situation amid China's increasing military pressure. Recent arms deals and the unveiling of a domestically built submarine suggest the island's intent to beef up its defences, but Taipei is ignoring lessons from Ukraine at its own peril. Taiwan's President Tsai Ing-wen has said that the island seeks "peaceful coexistence" with China, saying in a National Day address on October 10 that peace is the "only option".

<https://www.channelnewsasia.com/commentary/taiwan-defence-spending-priorities-china-tension-submarines-weapons-3839896>

The path to AI arms control

Henry A. Kissinger and Graham Allison

Foreign Affairs, October 13, 2023

At this moment, there are just two AI superpowers: the United States and China are the only countries with the talent, research institutes, and mass computing capacity required to train the most sophisticated AI models. This offers them a narrow window of opportunity to create guidelines to prevent the most dangerous advances and applications of AI. U.S. President Joe Biden and Chinese President Xi Jinping should seize this opportunity by holding a summit—perhaps immediately after the Asia-Pacific Economic Cooperation’s meeting in San Francisco in November—where they could hold extended, direct, face-to-face discussions on what they should see as one of the most consequential issues confronting them today.

<https://www.foreignaffairs.com/united-states/henry-kissinger-path-artificial-intelligence-arms-control>

Could China surprise enemies with weapon that lies in wait on the seabed?

Stephen Chen

South China Morning Post, October 13, 2023

Chinese scientists say they are testing a prototype for a deep sea weapon that could lie in wait on the seabed thousands of metres below the surface, beyond the reach of most detection methods. The early prototype of the Abyss system passed several rounds of sea tests at undisclosed locations up to December last year, according to the project team from the Chinese Academy of Sciences’ Shenyang Institute of Automation. A paper by the team, whose institute is under US sanctions, was published in the peer-reviewed journal Robot and is the first public announcement of Abyss.

<https://www.scmp.com/news/china/science/article/3237570/could-china-surprise-enemies-weapon-lies-wait-seabed>

China’s no first use of nuclear weapons policy: change or false alarm?

Sari Arho Havrén

Royal United Services Institute, October 13, 2023

China recently released its proposal for a new global order: ‘Proposal of the People's Republic of China on the Reform and Development of Global Governance’. The blueprint repeats several earlier talking points on how China aims to change the global order. The pillars of the new order lean heavily on Xi Jinping’s Global Security Initiative, Global Development Initiative, and Global Civilisation Initiative. As an unprecedentedly open step towards a global order that mirrors the governance of a one-party state, the proposal deserves in-depth analysis beyond the scope of this article.

<https://www.rusi.org/explore-our-research/publications/commentary/chinas-no-first-use-nuclear-weapons-policy-change-or-false-alarm>

China issues ominous war warning to U.S.

Giulia Carbonaro

Newsweek, October 14, 2023

China has reacted to a recent U.S. report weighing up the possibility of simultaneous wars against both Moscow and Beijing by warning Washington that "those who play with fire will perish by it." The U.S. is not ready to face the challenge of the growing nuclear threat posed by Russia and China. This is according to a 145-page report released by the Congressional Commission on the Strategic Posture of the United States.

<https://www.newsweek.com/china-issues-ominous-war-warning-us-1834737>

When China's military lagged behind US, it pursued an 'assassin's mace' tactic. Smart weaponry and AI are changing that

Jack Lau

South China Morning Post, October 14, 2023

The Chinese military raised eyebrows in Washington with its "assassin's mace" weapons that aimed to blunt the United States' cutting-edge advantage at a time when Beijing's technology trailed behind its competitor. The term, which refers to a weapon from ancient Chinese folklore that targets an enemy's fatal weakness, has been applied by Chinese state media to the "carrier killer" DF-21D anti-ship ballistic missile that debuted in 2015 and by American military analysts to describe sea mines more than a decade ago.

<https://www.scmp.com/news/china/military/article/3237839/when-chinas-military-lagged-behind-us-it-pursued-assassins-mace-tactic-smart-weaponry-and-ai>

Borrell calls on China to treat EU as a 'geopolitical power' in its own right

Joe Leahy

Financial Times, October 14, 2023

The EU has called on China to take it seriously as a geopolitical power in its own right rather than look at the bloc "through the lens" of its ties with third powers, in a veiled reference to accusations from Beijing officials that Brussels follows the US on security issues. Speaking during his first visit to Beijing since the pandemic, the EU's chief diplomat Josep Borrell also warned his Chinese counterparts on the growing trade surplus between China and the EU, saying that it could lead to demands for "more drastic protectionist measures" from European voters.

<https://www.ft.com/content/d4fd8f5f-be0e-417e-bce6-f9219557e4a7>

China's DF-1000 missile a threat: defence officials

Chen Chih-cheng

Taipei Times, October 15, 2023

The Ministry of National Defence's latest report to the Legislative Yuan warned that China's DF-1000 medium-range supersonic cruise missile poses a severe threat to Taiwan's national security. Defence officials made the remarks in the ministry's budget report at the Legislative Yuan's Foreign Affairs and National Defence Committee, highlighting China's strength in rocket artillery systems, hypersonic ballistic missiles and long-range supersonic cruise missiles. These weapons are expected to be utilized to provide fire support for the People's Liberation Army's conducting of ambitious landing or air assault operations directed against Taiwan, they said.

<https://www.taipeitimes.com/News/taiwan/archives/2023/10/15/2003807718>

New Chinese submarine increases naval competition

Voice of America, October 15, 2023

China is developing a new generation of nuclear-armed submarines that, experts say, will be more difficult for the United States and its allies to find. The new submarines known as Type 096 will be quiet, aided in part by Russian technology. Military experts expect them to be ready within 10 years. Researchers met at the U.S. Naval War College and published their findings on the submarines in August. "The Type 096s are going to be a nightmare," said Christopher Carlson, one of the researchers. "They are going to be very, very hard to detect."

<https://learningenglish.voanews.com/a/new-chinese-submarine-increases-naval-competition/7308345.html>

China set to launch Shenzhou-17 spacecraft to its space station in October

CGTN, October 15, 2023

China is set to launch a new spacecraft, Shenzhou-17, to its space station in October from the Jiuquan Satellite Launch Center in northwest China. The spacecraft will dock with the forward port of the Tianhe core module of the China Space Station (CSS), forming a combination of three modules and three spaceships. The CSS currently consists of three modules – the core module Tianhe and two lab modules, Wentian and Mengtian.

<https://news.cgtn.com/news/2023-10-15/China-to-launch-Shenzhou-17-spacecraft-to-its-space-station-in-October-1nVyYC6tn3O/index.html>

BRI is only first step in China's strategy for a new world order

Niva Yau

Nikkei Asia, October 16, 2023

From the beginning, China branded the Belt and Road Initiative as a strategy to boost global connectivity. But what the BRI in its first decade has communicated the most is instead a firm belief that Beijing is prepared to offer its own vision for the world's future. The fundamental flaw in the BRI has not been with its implementation, though problems with corruption, environmental destruction and unsustainable debt have been widely reported. The real issue is that the whole project inherently carries forward President Xi Jinping's grand ambitions for global leadership.

<https://asia.nikkei.com/Opinion/BRI-is-only-first-step-in-China-s-strategy-for-a-new-world-order>

Philippines demands China halt “dangerous and offensive” actions in S.C. Sea

Missile Defence Advocacy Alliance, October 16, 2023

The Philippine military has demanded China stop “dangerous and offensive” actions in the South China Sea, after a Chinese navy ship shadowed and attempted to cut off a Philippine navy vessel conducting a resupply mission late last week. A Chinese People’s Liberation Army Navy (PLAN) vessel came as close as 350 yards (metres) as it tried to cross in front of the Philippine ship near Thitu island, Manila’s biggest and most strategically important outpost in the South China Sea, according to Philippines armed forces chief Romeo Brawner.

<https://missiledefenseadvocacy.org/threat-news/philippines-demands-china-halt-dangerous-and-offensive-actions-in-s-c-sea/>

PM Kakar arrives in Beijing to attend 3rd Belt and Road forum

Dawn, October 16, 2023

Caretaker Prime Minister Anwaarul Haq Kakar on Monday arrived in China to attend the “Third Belt and Road Forum (BRF) for International Cooperation”, being held in Beijing from October 17 to 18. The forum in Beijing marks the 10th anniversary of President Xi’s ambitious global infrastructure and energy initiative, billed as recreating the ancient Silk Road to boost global trade. According to the PMO, the prime minister, while representing Pakistan in the Belt and Road Forum, will reiterate the development achievements of the China-Pakistan Economic Corridor (CPEC) in the last ten years as well as future goals and Pakistan’s full cooperation on this key project.

<https://www.dawn.com/news/1781395>

U.S. to cut China off from more Nvidia AI chips

Nikkei Asia, October 17, 2023

The Biden administration said it plans to halt shipments to China of more advanced artificial intelligence chips designed by Nvidia and others, part of a suite of measures aimed at stopping Beijing from getting cutting-edge U.S. technologies to strengthen its military. The rules, described by senior administration officials in a press briefing, restrict a broader swathe of advanced chips and chipmaking tools to a greater number of countries including Iran and Russia, and blacklist Chinese chip designers Moore Thread and Biren.

<https://asia.nikkei.com/Politics/International-relations/US-China-tensions/U.S.-to-cut-China-off-from-more-Nvidia-AI-chips>

China ought to expand broader applications of space technology innovations, fend off space challenges

Wen Sheng

Global Times, October 17, 2023

China is set to ramp up research and development into advanced space technology that will boost the country's economy and national security. The country's lunar mission to bring back the first samples ever collected from the moon's far side is on schedule in 2024, and it is also planning to send Chinese astronauts to the moon by 2030 and build an international lunar research station there.

<https://www.globaltimes.cn/page/202310/1300001.shtml>

Chinese defence spokesperson refutes Canada's hype of military aircraft encounter

China Military Online October 18, 2023

"The relevant hype of the Canadian side ignores the facts and is intended to confuse the international public," said Chinese Defence Spokesperson Senior Colonel Wu Qian in a video statement. According to media reports, Canadian military officials said on October 16 that a reconnaissance plane of the Canadian Armed Forces was intercepted by Chinese military aircraft while carrying out a mission in international airspace near China, and the Canadian defence minister called China's behavior "dangerous and reckless".

http://eng.chinamil.com.cn/CHINA_209163/TopStories_209189/16259849.html

Allied spy chiefs warn of Chinese espionage targeting tech firms

Julian E. Barnes

The New York Times, October 18, 2023

The United States and its allies vowed to do more to counter Chinese theft of technology, warning at an unusual gathering of intelligence leaders that Beijing's espionage is increasingly trained not on the hulking federal buildings of Washington but the shiny office complexes of Silicon Valley. The intelligence chiefs sought to engage private industry in combating what one official called an "unprecedented threat" as they discussed how to better protect new technologies and help Western countries keep their edge over China. The choice of meeting venue — Stanford University, in Silicon Valley — was strategic.

<https://www.nytimes.com/2023/10/18/us/politics/china-spying-technology.html>

Full text of Xi Jinping's keynote speech at 3rd Belt and Road Forum for Int'l Cooperation

China Daily, October 18, 2023

Chinese President Xi Jinping on Wednesday delivered a keynote speech at the third Belt and Road Forum for International Cooperation. The following is the full text of the speech: Today, we are meeting here for the opening ceremony of the Third Belt and Road Forum for International Cooperation (BRF). On behalf of the Chinese government and Chinese people and in my own name, I wish to extend a very warm welcome to you all!

<https://www.chinadaily.com.cn/a/202310/18/WS652fa59aa31090682a5e94e1.html#:~:text=At%20this%20Forum%2C%20China%20will,people%2Dto%2Dpeople%20exchanges.>

Chair's Statement of the Third Belt and Road Forum for International Cooperation

Ministry of Foreign Affairs, the People's Republic of China, October 18, 2023

The BRF III is themed on "High-quality Belt and Road Cooperation: Together for Common Development and Prosperity". Three high-level forums were held under the topics of Connectivity in an Open World Economy, Green Silk Road for Harmony with Nature, and Digital Economy as a New Source of Growth, respectively. Six thematic forums with focuses on Trade Connectivity, Maritime Cooperation, Clean Silk Road, Think Tank Exchanges, People-to-People Bonds, and Subnational Cooperation were respectively convened. A CEO Conference was held on the eve of the BRF III.

https://www.fmprc.gov.cn/mfa_eng/zxxx_662805/202310/t20231020_11164505.html

China elaborates on its position on nuclear disarmament

China Military Online, October 18, 2023

Wu Jianjian, Counselor of the Permanent Mission of the People's Republic of China to the United Nations, elaborated on China's policy and position on the issue of nuclear disarmament at the meeting held by the Disarmament and International Security (First Committee), 78th Session of the United Nations General Assembly, on October 16. Wu said the global security situation is currently undergoing the most profound changes since the end of the Cold War.

http://eng.chinamil.com.cn/CHINA_209163/TopStories_209189/16259648.html

How China aims to counter US 'containment' efforts in tech

The Washington Post, October 19, 2023

The US is engaged in what it terms "strategic competition" with China, a full-throttled campaign to prevent the world's No. 2 economy from gaining an edge in state-of-the-art technology that could threaten both jobs and national security. On one track, President Joe Biden is using massive subsidies to support domestic industries seen as drivers of growth and innovation. Meanwhile, his administration is working to hobble China's efforts with trade restrictions, blacklists and investment curbs. In response, Chinese President Xi Jinping is harking back to the country's tradition of central planning, marshaling private companies and trillions of dollars in public money to drive research and development.

https://www.washingtonpost.com/business/energy/2023/10/19/explainer-how-china-aims-to-counter-us-containment-efforts-in-tech/ebdb4e96-6e72-11ee-b01a-f593caa04363_story.html

DOD's new China report details CCP's growing military arsenal

Greg Hadley

Air and Space Forces Magazine, October 19, 2023

China's military continues to expand its reach around the globe, building up strategic and tactical capabilities, especially its missile programs, according to a Pentagon report released Oct. 19. The updated annual China Military Power Report says the People's Liberation Army is developing: Air-to-air missiles that can strike from beyond visual range; Conventionally-armed intercontinental missile systems; and Increased numbers of nuclear warheads. While the 2021 edition of the China Military Power Report cited the PL-15 missile, a beyond-visual-range munition often compared to the U.S.'s AIM-120 AMRAAM, the update did not.

<https://www.airandspaceforces.com/new-dod-report-china-growing-military-missile/>

China expanding ways to target continental U.S., Pentagon report says

Ken Moriyasu

Nikkei Asia, October 19, 2023

China is expanding the ways it can hit the continental U.S., the Pentagon's annual report to Congress has revealed, including what would be the world's first conventionally armed intercontinental missile and submarine-launched weapons that can be fired from the safety of its littoral waters. Typically, an intercontinental ballistic missile (ICBM) is designed for the delivery of nuclear weapons. If a conventionally armed version was to be developed and fielded, such capabilities would allow China "to threaten conventional strikes against targets in the continental United States, Hawaii and Alaska," the report warns.

<https://asia.nikkei.com/Politics/International-relations/US-China-tensions/China-expanding-ways-to-target-continental-U.S.-Pentagon-report-says>

Report: Military and Security Developments Involving the People's Republic of China

US Department of Defence, October 19, 2023

The PRC's national strategy is to achieve "the great rejuvenation of the Chinese nation" by 2049. The strategy is a determined pursuit of political, social, and military modernity to expand the PRC's national power, perfect its governance, and revise the international order in support of the PRC's system of governance and national interests. The PRC views the United States as deploying a whole-of-government effort meant to contain the PRC's rise, which presents obstacles to its national strategy.

<https://media.defense.gov/2023/Oct/19/2003323409/-1/-1/1/2023-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF>

Pentagon report hypes 'China threat' to sustain own hegemony

Wang Qi

Global Times, October 20, 2023

The US' "China Military Power report," like its previous editions, ignores the facts and is filled with bias, spreading the "China threat" theory which only serves as an excuse to maintain its military hegemony, a Chinese Foreign Ministry spokesperson said, in response to a Pentagon report that warned Beijing is building up its nuclear and long-range missiles arsenal "faster than previous projections." The newly-released annual Pentagon document claimed that China has more than 500 operational nuclear warheads as of May 2023, surpassing earlier projections, and forecast that China would likely have more than 1,000 operational nuclear warheads by 2030.

<https://www.globaltimes.cn/page/202310/1300264.shtml>

China includes 3 graphite items on dual-use export control list

Zhong Nan

China Daily, October 20, 2023

China has decided to include three types of highly sensitive graphite items, such as spherical graphite, that were previously subject to temporary control on the dual-use items export control list, said the Ministry of Commerce in an online notice. At the same time, the country cancelled the temporary control on five kinds of low-sensitivity graphite items such as furnace carbon electrodes that are mainly used in steel, metallurgy, chemical and other basic industries, said a notice jointly issued by the Ministry of Commerce and the General Administration of Customs.

<https://www.chinadaily.com.cn/a/202310/20/WS6531f54da31090682a5e9c26.html>

US puts sanctions on three Chinese companies for missile parts supplies to Pakistan

Reuters, October 20, 2023

The United States is imposing sanctions on three China-based companies that it said have worked to supply missile-applicable items to Pakistan's ballistic missile program. A U.S. State Department statement identified the firms as General Technology Limited, Beijing Luo Luo Technology Development Co Ltd, and Changzhou Utek Composite Company Ltd. It said General Technology had worked to supply brazing materials used to join components in ballistic missile rocket engines and in the production of combustion chambers; Beijing Luo Luo had worked to supply mandrels and other machinery, which can be used in the production of solid-propellant rocket motors, the U.S. said.

<https://www.reuters.com/world/us-sanctions-three-china-based-companies-over-supplying-missiles-pakistan-2023-10-20/>

New US export limits on AI chips won't affect PLA immediately, analysts say

Minnie Chan and Seong Hyeon Choi

South China Morning Post, October 20, 2023

Washington's new export rules, intended to prevent the Chinese military from acquiring advanced AI chips for weapons development, would not have an immediate impact, but they might impede the PLA's modernisation drive, analysts said. "The People's Liberation Army's active weapons systems are predominantly supported by regular 45-nm and 28-nm chips. It doesn't need to use the advanced A100 and H100 chips made by [US chip maker] Nvidia listed in the new bans," said Zhou Chenming, a researcher with the Beijing-based Yuan Wang military science and technology think tank.

<https://www.scmp.com/news/china/military/article/3238558/new-us-export-limits-ai-chips-wont-affect-pla-immediately-analysts-say>

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