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SYLLOGE ON CHINA

Focus: Nuclear, Space, Missiles and other Security Issues

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China's second nuclear unit with Hualong One reactor reaches criticality

Global Times, December 12, 2021

China National Nuclear Corp's (CNNC) Fuqing nuclear power plant in East China's Fujian Province, the country's second nuclear unit using Hualong One technology, a domestically developed third-generation reactor design, reached criticality for the first time on December 11, marking its official entry into operation and an important step toward commissioning. Experts said that the unit will provide clean energy, boost the high-quality economic development, ensure power supplies and help the country reach its carbon emissions reduction goals.

<https://www.globaltimes.cn/page/202112/1241246.shtml>

China ramps up J-20 stealth fighter production after domestic engine switch

Liu Xuanzun

Global Times, December 12, 2021

The maker of the J-20, China's most advanced stealth fighter jet, revealed that it recently broke records in terms of aircraft delivery due to high demand, with experts saying that the J-20 has entered a mass production phase after it solved the last missing piece of the puzzle, the domestically developed WS-10 engine.

<https://www.globaltimes.cn/page/202112/1241309.shtml>

How Equatorial Guinea became a backdrop for China-US rivalry

Jevans Nyabiage

South China Morning Post, December 11, 2021

Equatorial Guinea sits on the west coast of Central Africa and is home to just 1.4 million people. But the tiny oil-rich nation is right at the centre of a geopolitical rivalry between two of the world's biggest powers – China and the United States. Equatorial Guinea has been propelled into the spotlight with suggestions that it could become home to a Chinese military base, a move that the US says might jeopardise its military ambitions on the Atlantic Ocean.

<https://www.scmp.com/news/china/diplomacy/article/3159253/how-equatorial-guinea-became-backdrop-china-us-rivalry>

Frigate Enshi breaches waves in South China Sea

China Military, December 10, 2021

The guided-missile frigate Enshi (Hull 627) attached to a frigate flotilla with the navy under the PLA Southern Theater Command steams in waters of the South China Sea during a maritime training exercise in late November, 2021

http://eng.chinamil.com.cn/view/2021-12/09/content_10113850_2.htm

US takes aim at China with Indo-Pacific military spending plans: analysts

Minnie Chan

South China Morning Post, December 10, 2021

US plans to channel US\$7.1 billion in defence spending to the Indo-Pacific region in the next financial year to counter a rising China will escalate confrontation between the two powers, analysts say. The spending package was part of the National Defence Authorisation Act, or NDAA, passed by the US House of Representatives. The legislation earmarks US\$768 billion for national defence, including US\$7.1 billion for the Pacific Deterrence Initiative (PDI), a US\$2.1 billion increase in the Pentagon's initial request.

<https://www.scmp.com/news/china/military/article/3159272/us-takes-aim-china-indo-pacific-military-spending-plans>

Chinese, Vietnamese troops conduct joint training before Peace Rescue-2021 exercise

Teng Huaijin

China Military, December 10, 2021

The Chinese and Vietnamese troops participating in the bilateral medical exercise "Peace Rescue-2021" started joint training for the first time in Mong Cai city, Quang Ninh province of Vietnam on December 8, 2021.

http://english.chinamil.com.cn/view/2021-12/10/content_10114189.htm

Hypersonic flight: Chinese scientists create prototype with an engine design abandoned by Nasa

Stephen Chen

South China Morning Post, December 09, 2021

A research team in China has built and tested a prototype hypersonic flight engine based on a bold design by a Nasa scientist more than two decades ago. Unlike most hypersonic aircraft with an engine at the belly, the Two Stage Vehicle (TSV) X-plane proposed by Ming Han Tang – then chief engineer of Nasa's hypersonic programme in the late 1990s – was driven by two separate engines on the sides. The engines could work as normal turbine jet engines at lower speed and then switch to a high-speed mode which has no moving parts as the aircraft accelerates to five times the speed of sound, or beyond.

<https://www.scmp.com/news/china/science/article/3158918/hypersonic-flight-chinese-scientists-create-prototype-engine>

Chinese sighting of 'cube' on moon rouses speculation

Reuters, December 09, 2021

A photograph of a cube-like object captured by a Chinese rover on the far side of the moon has fanned speculation over what it could be. The Yutu-2 caught an image of what seems like a large

cubic object on the horizon about 80 metres (87 yards) from its location, said Our Space, a Chinese government science website, citing the rover's last log on Dec. 3. The solar-powered Yutu, or "Jade Rabbit" in Chinese, will cover the distance of 80 metres in two to three lunar days, according to Our Space, or two to three Earth months. The robotic rover has been operating in the Von Karman Crater in the South Pole-Aitken Basin since its deployment in January 2019. The mission was a historic first, with no other nation having landed on the far side of the moon until then.

<https://www.reuters.com/lifestyle/science/chinese-sighting-cube-moon-rouses-speculation-inspires-memes-2021-12-08/>

US-China tech war: China to overtake America in core 21st century technologies within next decade, Harvard report predicts

Che Pan

South China Morning Post, December 09, 2021

China, which has displaced the United States as the world's top hi-tech manufacturer, is predicted to gain on – if it has not already overtaken – the world's largest economy within the next decade in the foundational technologies of the 21st century, including artificial intelligence (AI), 5G, quantum information science (QIS), semiconductors, biotechnology and green energy. That sweeping forecast was made in a new report, *The Great Rivalry: China vs the US in the 21st Century*, published on December 07 by the Belfer Centre for Science and International Affairs at the Harvard Kennedy School, the public policy institution of Harvard University in Cambridge, Massachusetts. "Today, China's rapid rise to challenge US dominance of technology's commanding heights has captured America's attention," said the report, which documents the competition between the two countries in the past 20 years.

<https://www.scmp.com/tech/tech-war/article/3159107/us-china-tech-war-china-overtake-america-core-21st-century>

Chinese military's largest amphibious assault ship passes assessment

Teddy Ng

South China Morning Post, December 08, 2021

An advanced amphibious assault ship of the Chinese navy has passed an assessment on multidimensional landing combat, in a boost to the military's readiness for action in the South China Sea or Taiwan Strait. State broadcaster CCTV reported on December 07 that a navy landing ship fleet had recently conducted an annual assessment in the South China Sea. During the assessment, the People's Liberation Army's (PLA's) first Type 075 amphibious assault ship, the Hainan, conducted various tests, including the loading and unloading of amphibious armoured vehicles. In the year-end exam, the Hainan inspected the loading and unloading of air-cushioned landing craft, amphibious armoured vehicles and other equipment, greatly reducing the time needed for loading and dispatching, the report said.

<https://www.scmp.com/news/china/military/article/3158942/chinese-militarys-largest-amphibious-assault-ship-passes>

US-China tech war: semiconductor links across Taiwan Strait face political headwinds

Che Pan

South China Morning Post, December 06, 2021

The long-standing bond between mainland China, the world's second-largest economy, and semiconductor powerhouse Taiwan faces its stiffest challenge in decades amid increased cross-strait tensions and growing friction between Beijing and Washington. While the close economic ties between the mainland and Taiwan are not expected to unravel, analysts warn that the strained cross-strait and US-China relations could bring more uncertainty to global supply chains after the disruptions caused by the Covid-19 pandemic and the ongoing chip shortage. Speculation about what could happen next is expected to rise this week when US President Joe Biden hosts the first of two Summits for Democracy on December 9-10. Taiwan is among 110 invitees to the virtual event, which brings together leaders from government, civil society and the private sector, according to the US State Department. China and Russia were not invited.

<https://www.scmp.com/tech/tech-war/article/3158673/us-china-tech-war-semiconductor-links-across-taiwan-strait-faces>

China's Type 055 destroyer holds anti-submarine drills amid US threats

Liu Xuanzun

Global Times, December 06, 2021

The Nanchang, the first ship of China's most powerful Type 055 large destroyers, recently held intensive anti-submarine drills and demonstrated its outstanding capabilities in a move that experts said on December 06 could keep US submarine threats away from waters near China. During the exercises, which lasted for four consecutive days and nights, the 10,000-ton class warship maneuvered in an undisclosed area in the Yellow Sea and carried out realistic scenario-oriented anti-submarine training courses, including vessel-aircraft integrated anti-submarine operations, fleet escort duties and blockades of straits and key sea lanes. In one of the exercises, the Nanchang dispatched a Z-9 vessel-borne helicopter to conduct a search in an area of suspected hostile submarine activity, and deployed sonar equipment as a complement to the chopper, so the search could cover a wide range, according to the report.

<https://www.globaltimes.cn/page/202112/1240790.shtml>

CGNPC takes steps to ensure ample fuel supply for projects

Zheng Xin

China Daily, December 06, 2021

China General Nuclear Power Corp, the country's largest nuclear operator, said its nuclear fuel assembly plant put into production in November will further ensure fuel supply to its projects at home and abroad. CGNPC Uranium Resources Co Ltd, a subsidiary of CGN, said the nuclear fuel assembly plant will supply 200 metric tons of uranium for fuel assembly each year for 20 years in China. The project is a joint venture with Kazakhstan's national atomic company Kazatomprom. CGNPC Uranium Resources owns a 49 percent stake and Kazatomprom holds

the rest. The plant is part of CGN's efforts to expand its nuclear fuel assembly supply as nuclear power installations in China have been expanding amid the country's ramped-up efforts in the transition to green energy.

<https://www.chinadaily.com.cn/a/202112/06/WS61ad6d2aa310cdd39bc798ba.html>

Chinese weapon makers take second biggest share of global sales as industry avoids pandemic slump

Kristin Huang

South China Morning Post, December 06, 2021

Chinese arms manufacturers again notched up the second highest global sales after US firms in 2020, as the industry remained largely unaffected by the Covid-19 pandemic. That is according to the latest report on the world's top 100 arms companies by the Stockholm International Peace Research Institute (SIPRI), released on December 06. The Swedish think tank said China's modernisation programme and push for self-reliance in defence had driven its arms producers and services companies to become more competitive.

<https://www.scmp.com/news/china/military/article/3158678/chinese-weapon-makers-take-second-biggest-share-global-sales>

WSJ report on China's military base on Africa's Atlantic coast 'not true,' says Chinese military expert

Guo Yuandan

Global Times, December 06, 2021

The report on China's plan to establish its first permanent military base in the Atlantic Ocean is not true and is the latest move of the US to hype the China threat, Chinese military experts said in response to a Wall Street Journal report, which cited US officials as saying China intends to set up a military base in the African country of Equatorial Guinea.

<https://www.globaltimes.cn/page/202112/1240819.shtml>

US coerces others to prevent Chinese warships' presence: Global Times editorial

Global Times, December 06, 2021

The Wall Street Journal (WSJ), citing US officials, reported that classified US intelligence reports suggest China intend to establish its permanent military presence in the Atlantic Ocean in the tiny Central African country of Equatorial Guinea. A source said it will enable China to get gas and groceries and to rearm and repair naval vessels. An official told WSJ that Washington has "made clear to Equatorial Guinea that certain potential steps involving [Chinese] activity there would raise national security concerns." China has not provided relevant information, nor has Equatorial Guinea confirmed what the US said. It is known that in Equatorial Guinea's Atlantic-facing port city of Bata, China has invested and built a deep-water commercial port, with which Gabon and the Central African Republic are connected by highways. As African countries are actively participating in the China-proposed Belt and Road Initiative, these practices seem quite normal.

Does China need to have a permanent naval base on the west coast of Africa? This is an interesting question. We certainly cannot see any reason for China to accelerate its military projection to the Atlantic in a bid to carry out a strategic great power game. That is inconceivable. But China has made huge investments in Africa and also intends to deter and combat piracy. If China were to establish a naval supply station for this end, it would be different from what the US has imagined. It will benefit the region without any harm.

<https://www.globaltimes.cn/page/202112/1240826.shtml>

PLA's new-type bomber practices island bombing, mine-laying in S.China Sea

Liu Xuanzun

Global Times, December 05, 2021

The H-6J, the latest type of bomber to enter service with the Chinese People's Liberation Army (PLA) Navy, recently participated in a live-fire exercise in the South China Sea, practicing bomb dropping on islands and sea mine-laying, which analysts said displayed the aircraft's traditional bombing capability in addition to its standoff strike competence. Affiliated with the Naval Aviation Force under the PLA Southern Theater Command, a regiment based in South China's Hainan Province organized a drill involving the actual use of high-explosive aerial bombs and sea bottom mines.

<https://www.globaltimes.cn/page/202112/1240700.shtml>

Chinese envoy calls for expanding consensus in Iran nuclear talks

Xinhua, December 04, 2021

Progress made in the negotiations of Iran nuclear talks this week should not be underestimated although "a breakthrough is far from being achieved," a senior Chinese envoy stated. China hopes that each party's consultation with their own governments during the adjournment of the talks until next week will inject new political impetus into the negotiations, said Wang Qun, Chinese envoy to the United Nations and other international organizations in Vienna. The talks helped other parties to increase their understanding of the position of the negotiation team of Iran's new government, Wang explained.

http://www.news.cn/english/2021-12/04/c_1310350684.htm

Nuclear heating project commissioned in south China

Xinhua, December 03, 2021

The first nuclear heating project in southern parts of China was put into operation on December 03 morning. With a total investment of about 940 million yuan (147.5 million U.S. dollars), the project entered its trial operation phase on Nov. 15. It currently has the ability to provide winter heating for 464,000 square meters of residential property in Haiyan County, east China's Zhejiang Province. Built upon residual thermal power of the Qinshan Nuclear Power Station in

Zhejiang, the project helps produce heating for end-users in an eco-friendly way without carbon emissions.

It is expected to power the heating on a large scale for public facilities, residential communities and industrial parks in Haiyan County, according to Zhejiang Zero-Carbon Thermal Power Co., Ltd. The relevant nuclear heating technology is mature and has been widely used worldwide. Only heat exchange without any medium exchange will be generated during the whole heating process, thereby users can only be exposed to the fully safe water after layers of isolation, said the company.

http://www.news.cn/english/2021-12/03/c_1310349868.htm

Taiwan role expected for China's second Type 075 landing helicopter dock

Minnie Chan

South China Morning Post, December 03, 2021

China's second Type 075 landing helicopter dock is expected to be assigned to the Eastern Theatre Command, which oversees the Taiwan Strait, giving the frontline unit a powerful striking platform, a defence expert said. Dubbed a small aircraft carrier, the 40,000-tonne vessel was shown at the eastern command's home naval base in Zhoushan, Zhejiang province, in a photograph posted on social media last week by the local government. The photo showed the hull of the vessel, which is yet to be assigned a pennant number. The Hainan, its sister ship, joined the Southern Theatre Command in April.

<https://www.scmp.com/news/china/military/article/3158401/taiwan-role-expected-chinas-second-type-075-landing-helicopter>

Chinese and Vietnamese army medics to stage joint pandemic and emergency drill as Beijing seeks to boost Southeast Asian ties

Laura Zhou

South China Morning Post, December 03, 2021

The Chinese and Vietnamese militaries will stage their first joint medical drills next week as Beijing continues a drive to woo its Southeast Asian neighbours as it competes for influence with the United States. On December 06, 84 People's Liberation Army medics will join their counterparts from the Vietnamese People's Army in the seven-day Peace Rescue 2021 joint exercises in Mong Cai, a Vietnamese city bordering the southwestern Chinese region of Guangxi.

<https://www.scmp.com/news/china/military/article/3158345/chinese-and-vietnamese-army-medics-stage-joint-pandemic-and>

Chinese weapons, equipment win interest at Egypt defense expo

Liu Xuanzun and Deng Xiaoci

Global Times, December 02, 2021

The Chinese arms industry wrapped up its exhibition of advanced weapons and equipment, including tanks, artillery, warplanes, air defense missiles, drones and electronic warfare systems, at the largest international defense expo in Egypt. Under China's State Administration of Science, Technology and Industry for National Defense, seven Chinese arms trade companies participated in the second edition of the Egypt Defense Expo (EDEX 2021) in, aiming to promote China's advanced military weapons and equipment. Exhibits include weapons for air defense, land-to-land attack and mobile assault, smart munitions, fighter jets, advanced trainer aircraft, drones and anti-drone equipment, military electronic equipment, network security and information engineering systems, as well as equipment for counter-terrorism and peace maintenance.

<https://www.globaltimes.cn/page/202112/1240546.shtml>

China, US set for meeting of top military officials amid Taiwan tensions

Catherine Wong and Minnie Chan

South China Morning Post, December 02, 2021

China and the US are preparing for a meeting between their top military officials amid rising tensions over Taiwan and an arms race over the most lethal hypersonic weapons. Following last month's virtual call between presidents Xi Jinping and Joe Biden, the two militaries have been in touch to discuss the possibility of US Defence Secretary Lloyd Austin holding talks with Xu Qiliang, vice-chairman of the Central Military Commission, and Defence Minister Wei Fenghe, according to people familiar with the matter. "It is one of the consensus reached during the Xi-Biden summit," one of them said. "The two leaders have ordered the militaries to discuss the arrangements."

<https://www.scmp.com/news/china/military/article/3158072/china-us-set-meeting-top-military-officials-amid-taiwan>

China's Fujian sparks fears about Taiwan tensions with emergency drill for blackouts

Frank Tang

South China Morning Post, December 01, 2021

An emergency drill in preparation for potential blackouts in China's Fujian province has drawn widespread attention online amid high tensions with Taiwan. The exercise on November 30 simulated a large-scale power outage in the southeastern province – which is just across the Taiwan Strait from the self-ruled island – caused by a typhoon and "external damage". A level-two emergency response was also launched during the event for rescue and power restoration, the government-run Fujian Daily reported on its website.

<https://www.scmp.com/economy/china-economy/article/3158053/chinas-fujian-sparks-fears-about-taiwan-tensions-emergency>