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SYLLOGE ON CHINA

Focus: Nuclear, Space, Missiles and other Security Issues

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China vows to take powerful measures against US' latest arms sale to Taiwan island

Guo Yuandan and Liu Xuanzun
Global Times, February 08, 2022

China on February 08 vowed to take countermeasures after the US announced a plan to sell \$100 million worth of Patriot missile upgrades to the island of Taiwan, which would be the first US arms sale to the island in 2022 and the second under the Biden administration. The arms sale, again leeching money from Taiwan, will not bring safety to "Taiwan independence" secessionists but instead push the island further toward catastrophe, said experts. The sales of weapons by the US to China's Taiwan severely violates the one-China principle and the regulations of the three Joint Communiqués between China and the US, especially those in the August 17 communiqué, Zhao Lijian, a spokesperson at China's Ministry of Foreign Affairs, stated.

<https://www.globaltimes.cn/page/202202/1251755.shtml>

US-China tech war: Beijing calls the America Competes Act a product of Cold War mentality

Yaling Jiang
South China Morning Post, February 08, 2022

Following the passage of a US bill that stands to intensify a technology rivalry with China by trying to boost American competitiveness, state media and officials across the Pacific criticised the document as evidence of Washington's "Cold War mentality". The America Competes Act of 2022, a 3,000-page bill passed by the House of Representatives, earmarks US\$52 billion in funding for semiconductors, US\$45 billion to strengthen supply chains of critical goods, and US\$160 billion for scientific research and innovation.

It also includes a long list of motions addressing concerns over alleged human rights abuses in Xinjiang, a crackdown on democracy in Hong Kong and heightened tensions over Taiwan. Chinese foreign ministry spokesman Zhao Lijian said that China firmly opposes the bill because it is "filled with a Cold War and zero-sum mentality, undermines China's development paths and policies, champions the rhetoric of competing against China, and makes indiscreet remarks on Taiwan, Xinjiang, Hong Kong and Tibet".

<https://www.scmp.com/tech/tech-war/article/3166151/us-china-tech-war-beijing-calls-america-competes-act-product-cold-war>

Australia's hasty nuclear submarine plan to be outpaced by China's development: experts

Liu Xuanzun and Leng Shumei
Global Times, February 08, 2022

In an attempt to contain China, Australian Defense Minister recently said that Australia could get the first nuclear submarine under the framework of AUKUS before 2038. However, Chinese military experts said on February 08 that this delivery schedule is too hasty and China's rapid development during this period will outpace the Australian one. "From a technological perspective, it is possible that Australia could get its first nuclear submarine by 2038 since the US and the UK are indeed capable of building this kind of submarine," Zhang Junshe, a senior research fellow at the Naval Research Academy of the People's Liberation Army, stated.

<https://www.globaltimes.cn/page/202202/1251779.shtml>

UK regulators approve China's UK HPR1000 design

World Nuclear News, February 07, 2022

The UK HPR1000 reactor is suitable for construction in the UK, the Office for Nuclear Regulation (ONR) and the Environment Agency have concluded. The UK HPR1000 is the Hualong One design that General Nuclear Services (GNS) - a subsidiary of EDF and China General Nuclear (CGN) - proposes to use at a prospective new nuclear power plant in Bradwell, England.

<https://www.world-nuclear-news.org/Articles/UK-regulators-approve-China-s%C2%A0UK-HPR1000-design>

Why China's J-20 Mighty Dragon may lack the firepower to use laser weapons

Kristin Huang

South China Morning Post, February 06, 2022

China's ambitions to arm its most advanced fighter jet with hi-tech weapons, such as lasers or particle beams, may be frustrated by its underpowered engines, according to military analysts. An increasing number of countries are researching cutting-edge directed-energy weapons (DEW), including the United States which is looking into their use to target hypersonic missiles and gliders. The J-20, which is central to the country's plans for military modernisation, would be an obvious choice to be armed with these weapons – which can attack a variety of targets from long-range using highly focused energy such as lasers, microwaves, particle beams, and sound beams.

<https://www.scmp.com/news/china/military/article/3165856/why-chinas-j-20-mighty-dragon-may-lack-firepower-use-laser>

Has China taken a step towards a US-style pre-emptive strike policy?

Minnie Chan

South China Morning Post, February 06, 2022

China's shift towards joint operations in space, cyberspace and nuclear technology point to a "proactive defense" strategy that could include a pre-emptive strike, according to a new international study. This more aggressive strategy could destabilise regional security as China gains strength but its similarities with the approaches taken by the United States and Russia could help the three powers better understand each other, and eventually encourage conflict prevention and crisis management talks, according to a report by the Stockholm International Peace Research Institute (SIPRI). "Changes to China's postures and technologies indicate that its concept and practice of 'active defense' may be converging with more forward-leaning and even pre-emptive 'proactive defense'," the report said.

<https://www.scmp.com/news/china/military/article/3165984/has-china-taken-step-towards-us-style-pre-emptive-strike-policy>

Xi meets Putin, stressing strategic coordination to better tackle external interference

Global Times, February 04, 2022

Chinese President Xi Jinping met with Russian President Vladimir Putin on February 04, stressing the further deepening of "back-to-back" strategic coordination in upholding international fairness and justice and adhering to the four consensuses in supporting each other's sovereignty, security and development interests to better tackle external interference and regional threats, as they exchanged views on a series of major issues regarding global strategic security and stability. The two countries also share serious concerns over AUKUS, the pact among the US, the UK and Australia, calling on the countries to fulfill their nuclear and missile non-proliferation commitments in good faith and to work together to safeguard peace, stability and development in the region.

<https://www.globaltimes.cn/page/202202/1251396.shtml>

IAEA Supports China in Nuclear Security Efforts for Winter Olympics

IAEA, February 03, 2022

The International Atomic Energy Agency (IAEA) is supporting China in its efforts to protect the Winter Olympics against any criminal or terrorist activities involving nuclear or other radioactive material. In the last two months, the IAEA held virtual seminars and training on nuclear security measures and equipment performance verification with the China Atomic Energy Authority (CAEA). The Agency also lent personal radiation detectors, radionuclide identification devices and portable radiation scanners to support the Games.

<https://www.iaea.org/newscenter/pressreleases/iaea-supports-china-in-nuclear-security-efforts-for-winter-olympics>

Electron beam plan to keep frozen imports COVID-free in China

World Nuclear News, February 01, 2022

China General Nuclear's subsidiary CGN Nuclear Technology Development (CGNNT) stated that its research phase had proved a success. Electron beam technology has also been used by Tsinghua University - with experts from the China Atomic Energy Authority and China General Nuclear to sterilise millions of pieces of medical equipment by treating medical wastewater. In that case the technology accelerated electrons to interact with DNA and RNA molecules in the water to kill microorganisms and destroy viruses, including the coronavirus that caused COVID-19. It also breaks down antibiotics in the water, which is something traditional sterilisation methods cannot do.

<https://www.world-nuclear-news.org/Articles/t>

What Tonga aid mission tells us about China's military modernisation

Kinling Lo

South China Morning Post, February 01, 2022

China's relief mission to Tonga after last month's devastating volcanic eruption and tsunami has highlighted the People's Liberation Army's ability to conduct long-range operations, according to observers. The relief force involved navy and air force units from the PLA's Southern Theatre Command and included two Y-20 transport planes and two warships – the Type 071 amphibious landing ship Wuzhishan, and Type 901 fast combat support ship Chaganhu.

<https://www.scmp.com/news/china/military/article/3165499/what-tonga-aid-mission-tells-us-about-chinas-military>

China Starts Up First Fourth-Generation Nuclear Reactor

Sonal Patel

Power, February 01, 2022

The first of two units at China's much-watched high-temperature gas-cooled modular pebble bed (HTR-PM) demonstration project was successfully connected to the grid on Dec. 20. The achievement marks a major milestone for fourth-generation advanced nuclear technology. Grid-connection of Unit 1 at the "national project" at the Shidao Bay site in Rongcheng, Shandong Province, will be soon followed by Unit 2. When commercially operational as expected in mid-2022, the two HTR-PMs will drive a single 210-MWe steam turbine.

<https://www.powermag.com/china-starts-up-first-fourth-generation-nuclear-reactor/>

Chinese AI team claims big win in battle to teach dogfights to drones

Stephen Chen

South China Morning Post, February 01, 2022

Researchers in southwest China say they developed an artificial intelligence system that can teach Chinese combat drones to win dogfights thousands of times faster than comparable American technology. In domestic peer-reviewed journal *Acta Aeronautica et Astronautica Sinica*, the researchers said the higher learning speed could help the drone identify “cheating manoeuvres” by human pilots, reduce a computer chip’s workload and outperform opponents in complex, large-scale air combat. “The algorithm in this paper can be extended to an air combat with multiple AI agents, which will be closer to the real situation in a battlefield,” the researchers at the China Aerodynamics Research and Development Centre in Mianyang, Sichuan province, said.

<https://www.scmp.com/news/china/science/article/3165330/chinese-ai-team-claims-big-win-battle-teach-dogfights-drones>

Could China’s new combat drone be a rival to the US Army’s Grey Eagle?

Minnie Chan

South China Morning Post, January 30, 2022

China’s newest combat drone – aimed at competing with the American MQ-1C Grey Eagle – has completed its maiden flight, as its state-owned developer adds to its fleet, and potentially its overseas market. After the Wing Loong-1E’s test flight on January 18, Aviation Industry Corporation of China (Avic) said the new drone would “give wings to the Chinese unmanned combat aerial vehicle [UCAV] family”. State media highlighted the development, with broadcaster CCTV saying the multi-purpose drone met advanced international standards and had been “optimised and upgraded based on the proven technologies of its predecessors”.

<https://www.scmp.com/news/china/military/article/3165186/could-chinas-new-combat-drone-be-rival-us-armys-grey-eagle>

Frigate Tongling steams in northwestern South China Sea

China Military, January 29, 2022

The guided-missile frigate Tongling (Hull 629) attached to a frigate flotilla with the navy under the PLA Southern Theater Command steams in the sea during a maritime training exercise in mid-January, 2022.

http://english.chinamil.com.cn/view/2022-01/29/content_10127687.htm

South China Sea: pulling crashed US Navy fighter jet out of water will be tough job, Chinese experts say

Amber Wang

South China Morning Post, January 29, 2022

Salvage operations for a US Navy fighter jet that crashed in the South China Sea will be a tough task, with the extent of damage to the jet, the depth of the wreckage and subsurface conditions all potentially affecting recovery work, according to Chinese military experts. This comes after the US Navy said it was working to recover a F-35C fighter jet that had fallen into the South China Sea following a “landing mishap” on the USS Carl Vinson aircraft carrier.

<https://www.scmp.com/news/china/military/article/3165004/south-china-sea-pulling-crashed-us-navy-fighter-jet-out-water>

China promotes mass application for BeiDou navigation system

Global Times, January 29, 2022

China promotes mass application for BeiDou navigation system China's Ministry of Industry & Information Technology (MIIT) vows to promote the application of the country's self-developed BeiDou Navigation Satellite System (BDS) to the wider market, including expanding its application scale on vehicle-mounted terminals, encouraging qualified regions, car firms and service providers to use the system.

The notice, posted on the official website of MIIT, said that it encourages vehicles to be equipped with BeiDou terminals as standard equipment to increase the system's penetration rate in related applications. Also, it encourages exploring the one-key emergency rescue mode for BeiDou positioning, short messages, 4G/5G, and car companies and service providers with conditions to try first. MIIT said expanding the application penetration rate for BeiDou has become important tasks in promoting the development of the system and ensuring national security after the BDS-3 global navigation satellite system is opened.

<https://www.globaltimes.cn/page/202201/1250221.shtml>

US has eye on Chinese navy with new warship in the works, analysts say

Kristin Huang

South China Morning Post, January 29, 2022

US plans to build a new warship are a clear response to the growing power of the Chinese navy to deter US operations, especially in disputed waters in the western Pacific, according to analysts. The United States is expected to start building its next-generation DDG(X) warship in 2028 to replace older vessels, according to a US Congressional Research Service report released on January 13. USNI News, the online news service of the US Naval Institute, reported that it would be the biggest warship the US Navy had tried to build in more than 20 years.

<https://www.scmp.com/news/china/military/article/3165202/us-has-eye-chinese-navy-new-warship-works-analysts-say>

Chinese drones in demand as Algeria and Egypt eye orders from world's leading UAV exporter

Minnie Chan

South China Morning Post, January 29, 2022

More Chinese drones will be delivered to North Africa after Algeria confirmed an order of six of the new Caihong variant unmanned aerial vehicles (UAVs), while a new delivery of Wing Loong UAVs to Egypt is in the pipeline, according to reports. Defense analysts said the new deals showed China's "successful drone market strategies" overseas, reflecting accessible pricing and payment methods, the suitability of the goods and a readiness by China to fill the gap left by the US' new drone export policy, which from 2020 restricted sales to close allies only. According to Mena Defense, a military website covering defense news in the Middle East and North Africa, Algeria confirmed the order of half a dozen Caihong-5 UAVs. Price details were not disclosed, but it said the new drones would be delivered in March.

<https://www.scmp.com/news/china/military/article/3165183/chinese-drones-demand-algeria-and-egypt-eye-orders-worlds>