

Tuesday Dispatch

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# SYLLOGE ON CHINA

Focus: Nuclear, Space, Missiles and other Security Issues

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## **Military developing airborne laser attack pod, says report**

Liu Xuanzun

Global Times, January 7, 2020

The Chinese military is procuring a laser attack pod, which Chinese media speculated could be an aircraft-based tactical weapon. If equipped on aircraft, the laser could potentially protect against incoming missile attacks and dominate in close-range combat, analysts said. The procurement plan for the laser attack pod was revealed Saturday in a notice released on the Chinese military's weapon and equipment procurement website weain.mil.cn, Weihutang, a column on military affairs affiliated with China Central Television, reported on Monday.

The notice included the title of the procurement, but the details remained confidential. Weihutang speculated that the laser attack pod was likely an airborne tactical laser, noting that if the weapon was used to guide bombs rather than directly attack, it would be called a laser guidance pod. The report said China has already developed a prototype for an airborne laser weapon, citing a publically available academic thesis. Since a laser travels at the speed of light, it shoots where it is aimed - with no time delay - a significant advantage over missiles and bullets, a military expert who asked not to be named told the Global Times on Monday.

This makes a laser a great tool for aerial interception, he said. An airborne laser weapon could intercept incoming missiles and shoot down hostile aircraft in a dogfight, the expert said. China has already developed land-based laser weapons. At Airshow China 2018, state-owned China Aerospace Science and Industry Corporation (CASIC) showcased the LW-30 laser defense weapon system, which could use a directional-emission high-energy laser to intercept aerial targets such as photoelectric guidance equipment, drones, guided bombs and mortars, according to a CASIC statement sent to the Global Times. The US has been researching airborne laser weapons since the 1990s and made significant progress in related technologies, Weihutang reported. However, this genre of weapon has not yet seen wide deployment due to remaining technical difficulties including power supply and energy loss problems, analysts said.

<http://www.globaltimes.cn/content/1175931.shtml>

## **China's cosmic ray observatory half functional**

China Daily, January 7, 2020

A giant observatory to search for the origin of cosmic rays in Southwest China's Sichuan province was half completed and thousands of its detectors have been put into operation, said the Chinese Academy of Sciences (CAS). The project, known as the Large High-Altitude Air Shower Observatory (LHAASO), is located 4.41 km above sea level on Haizi Mountain in Sichuan. Since

April 2019, it has launched over two thousand detectors that will probe cosmic rays and provide statistics for scientists to analyze. Cosmic rays are highly penetrative rays from outer space. Their collisions with atmospheric particles create a variety of different particles including neutrons, mesons and hyperons.

<https://www.chinadaily.com.cn/a/202001/07/WS5e13f907a310cf3e35582f00.html>

### **Are China's civilian satellites being used to spy on a Japanese airbase?**

Kristin Huang

South China Morning Post, January 7, 2020

Photographs of a Japanese military base have been published on Chinese social media, suggesting that China's civilian satellites are being used to gather intelligence for military purposes. Three animated GIFs were posted on microblogging platform Weibo on Thursday by an account called China Aerospace – also the name of the Chinese space programme's main contractor. The account is not officially that of the company, but features news and videos closely related to its work. The GIFs showed planes taking off from and landing at a Japanese air force base in Naha, in southern Japan's Okinawa prefecture. A zoomed-in image showed more than 10 planes stationed at the Japan Air Self-Defence Force base, and vehicles could be seen driving past the base.

China's completes core network of GPS rival Beidou with latest satellite launch

The images were credited to Chang Guang Satellite Technology, China's first commercial remote sensing satellite company, which owns the Jilin-1 satellites. The three images were taken on December 14, according to the Weibo post. In recent years, Japan has used the Naha base to dispatch its fighter jets to expel foreign aircraft, especially after the Chinese air force stepped up its activities in the East China Sea. Chinese military aircraft were involved in 638 of the 999 interceptions in the 2018-19 financial year, Japanese officials said last April. Nearly all of those incidents were in airspace close to the disputed Diaoyu Islands, which are claimed by China but controlled by Japan, which knows them as the Senkaku archipelago.

<https://www.scmp.com/news/china/military/article/3044908/are-chinas-civilian-satellites-being-used-spy-japanese-airbase>

### **China nuclear missile development steps up a gear with test of weapon capable of hitting US mainland**

Minnie Chan

South China Morning Post, January 7, 2020

China has moved to speed up development of its most advanced submarine-launched nuclear missile, a weapon capable of striking the US mainland, military sources have said. Two independent sources told the South China Morning Post that the Chinese navy had tested the JL-3, or Julang (or “Big Wave”) missile – which it ultimately intends to pair with its next-generation nuclear submarines. It was launched from Bohai Bay in the Yellow Sea late last month, with the warhead landing in the northwest Gobi Desert in Xinjiang. Unlike the previous three tests, which used a conventional Type 032 submarine, the latest launch was conducted using the Type 094 nuclear submarine, according to one source. But the military ultimately plans to arm the Type 096 submarine with the missiles, a process that could take years to complete.

The JL-3 test was first reported by The Washington Times on Christmas Eve in an article that cited Pentagon sources who said the launch had been conducted on December 22 and monitored by US satellites and other intelligence platforms. Chinese military observers said Beijing’s missile tests were in response to moves from US President Donald Trump to target the country – along with Russia and North Korea – in his deterrence strategy. “Construction work on the Type 096 nuclear ballistic missile submarine is not finished. In order to speed up the JL-3’s full development, missile testing and submarine development have been separated,” said the source, who requested anonymity due to the sensitivities surrounding the topic.

“Theoretically, the range of the JL-3 is now over 10,000km [6,000 miles], fulfilling the original target of hitting the US if the missile was launched from the Chinese near shore.” China has already built six Type 094, or Jin-class, nuclear ballistic missile submarines, four of which featured in April’s parade to mark the 70th anniversary of the PLA Navy. China conducted five flight tests of the JL-2, the predecessor of the JL-3 which has a range of 7,000km before its full deployment to the navy in 2015. Each Type 094 submarine is able to carry 16 JL-2 missiles, but the upgraded Type 096 will be able to carry 24 JL-3s, according to the most recent Pentagon report on China’s military capabilities.

Another military insider said even when the JL-3 was ready it would still take at least five years to integrate it into the 096 operating system. “Compared with the American Ohio-class submarines that carry Trident II ballistic missiles, there is a big gap for China to catch up in sub technology,” the person said. The source continued that the Type 094 had a “weird hogback” design based on the old Soviet Delta class nuclear submarines to get round space constraints that limited its missile capacity. The Russian navy has since solved the problem in the design of the Borei-class nuclear submarines, which can carry 16 Bulava missiles.

<https://www.scmp.com/news/china/military/article/3044674/china-nuclear-missile-development-steps-gear-test-weapon>

## **Most advanced satellite starts orbital operations**

Zhao Lei

China Daily, January 7, 2020

China's biggest, heaviest and most advanced satellite has started its formal orbital operations to conduct demonstrations and verifications for advanced satellite and communication technology. Shijian 20, a technology demonstration satellite developed by the China Academy of Space Technology in Beijing, was lifted by a Long March 5 carrier rocket at the Wenchang Space Launch Center in Hainan province on Dec 27 and reached its preset position in a geosynchronous orbit about 36,000 kilometers above the Earth on Sunday, according to China Aerospace Science and Technology Corp, the nation's major space contractor.

The satellite performed seven orbital maneuvers before flying into orbit. Its components functioned well during those processes, the company said in a statement. Shijian 20 is the second satellite based on China's new-generation satellite platform, the DFH 5, after the Shijian 18 that was lost during Long March 5's failed second flight in July 2017.

<https://www.chinadaily.com.cn/a/202001/07/WS5e13d881a310cf3e35582d1b.html>

## **Nine cities sign agreement on civil air defense coordination**

Tan Li, Cheng Wang and Li Jing

China Military Online, January 7, 2020

On New Year's Eve, nine cities in South-East China's Pearl River Delta, including Guangzhou, Shenzhen, Zhuhai, Foshan and Huizhou, signed in Guangzhou the Framework Agreement of Pearl River Delta City Cluster on Coordinated Civil Air Defense Development. The signing officially kicked off the coordinated construction of civil air defense facilities in the Pearl River Delta (PRD) region. With the development of air assault weapons, it's possible in future warfare that multiple locations will be attacked at the same time with one of them being the key target. In that case, resources have to be shared in civil air defense efforts in order to form a powerful synergy to protect the people.

Bearing this in mind, the Guangzhou Office of Civil Air Defense actively explored coordinated civil air defense training in the Pearl River Delta city cluster in recent years. It has carried out joint training and cross-region assistance operations with peer units in surrounding areas multiple times on such subjects as establishing communication network, protecting important economic targets and removing air assault consequences. They have obtained the ability to provide mutual assistance once any one party is under air attack.

[http://english.chinamil.com.cn/view/2020-01/07/content\\_9711674.htm](http://english.chinamil.com.cn/view/2020-01/07/content_9711674.htm)

### **At UN, China's top envoy calls for calm amid US-Iran strife**

Hong Xiao

China Daily, January 7, 2020

China's top envoy to the United Nations said the country is committed to playing a constructive role in maintaining peace and stability in the Middle East and the Gulf region. Concerning the escalation of tensions between the United States and Iran and the situation in the Middle East and the Gulf region, Ambassador Zhang Jun, China's permanent representative to the United Nations, said at UN headquarters in New York on Monday that "China follows the situation very closely, and the pressing task at the moment is to prevent the situation from further escalating and running out of control."

Zhang said that as a permanent member of the Security Council, China is carrying out active diplomatic efforts.

"State Councilor and Foreign Minister Wang Yi has had telephone conversations with the Russian, French and Iranian foreign ministers in firm commitment to regional peace and stability," he said. The UN Secretary-General Antonio Guterres called on world leaders to de-escalate geopolitical tensions, which he described as being "at their highest level this century" as the new decade dawns, according to the UN News website.

[http://english.chinamil.com.cn/view/2020-01/07/content\\_9711680.htm](http://english.chinamil.com.cn/view/2020-01/07/content_9711680.htm)

### **China, Pakistan kick off "Sea Guardians-2020" naval drill in Karachi**

Dong Zhaohui

China Military Online, January 6, 2020

The PN-PLAN Bilateral Exercise, code-named Sea Guardians-2020, kicked off at the Pakistan Navy Dock Yard in Karachi, Pakistan on the morning of January 6, local time. According to the consensus reached between Chinese and Pakistani Navies, the joint drill will be held from January 6 to 14 in waters of northern Arabian Sea, with the purpose of enhancing security cooperation between the two countries, consolidating the development of the all-weather strategic partnership, and promoting the joint construction of a safe marine environment.

The joint drill also aims to innovate the methods of conducting China-Pakistan joint naval drills and enhance the capabilities of the two navies to jointly cope with maritime terrorism and crime. The drill has nothing to do with the regional situation and is not targeted at any third party.

Vice Admiral Dong Jun, general director of the Chinese side and deputy commander of PLA Southern Theater Command, and Vice Admiral Asif Khaliq, general director of the Pakistani side and commander of the Pakistani Naval Fleet delivered speeches at the opening ceremony. VA. Khaliq then announced the start of the drill.

[http://english.chinamil.com.cn/view/2020-01/06/content\\_9710755.htm](http://english.chinamil.com.cn/view/2020-01/06/content_9710755.htm)

### **Old king coal fuels China's new tech revolution**

Gordon Watts

Asia Times, January 6, 2020

President Xi Jinping's "Chinese Dream" is being fuelled by an addiction to coal. Behind the headlines of high-tech prowess in 5G, AI, or artificial intelligence, and smart factories is a dirty secret linked to fossil fuels. To cope with an insatiable appetite for energy, the sectors of the future are being generated by the power of the past. Despite assurances from the world's biggest greenhouse gas emitter after the Paris Agreement in 2016, China is building even more smog-choking coal-fired plants to counter the rising demand for electricity.

Last month, Beijing's 10-year energy plan came under scrutiny before the United Nations climate change conference in Madrid. Concerns circulated that Xi's administration was back-sliding on original pledges to cut CO2 emissions. Zhao Yingmin, the deputy minister of the environment and in charge of climate negotiations, failed to ease those fears during a media briefing. "We continue to work hard to advance the fight against climate change, but on the other hand, we are indeed facing multiple challenges such as developing the economy, improving the people's livelihoods, eliminating poverty and controlling pollution," he said.

<https://www.asiatimes.com/2020/01/article/old-king-coal-fuels-chinas-new-tech-revolution/>