

Weekly Dispatch

11 March, 2020

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 (IDSA)



INDIAN PUGWASH SOCIETY



INSTITUTE FOR DEFENCE
STUDIES & ANALYSES
रक्षा अध्ययन एवं विश्लेषण संस्थान

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Mars probe passes tests for signal transmission

Zhao Lei

China Daily, March 11, 2020

Chinese scientists and engineers finished a major test on Tuesday in Beijing to verify the compatibility between ground control and China's first Mars probe, according to the Beijing Aerospace Control Center. The center said in a statement sent to China Daily that the test, the first of its kind in the country, successfully examined the signal transmission and interfaces between the ground systems and the robotic probe, which is scheduled to start its journey to the red planet before the end of this year. Technical plans and statuses as well as related hardware and software were put to comprehensive trial runs, the statement said, adding that all procedures were similar to those that will be used in the mission.

Cui Xiaofeng, head of the center's Mars mission control team, explained that the farthest distance between the Earth and Mars is about 400 million kilometers, so a probe will travel about seven months before it reaches the Martian atmosphere. During the probe's flight toward Mars, the technical statuses inside the spacecraft's equipment will change. In addition, the environment in deep space is highly sophisticated. All of these factors will make command and control very difficult and challenging, he noted. According to the China National Space Administration, the country's first Martian probe will conduct scientific investigations about the planet's soil, geological structure, environment and atmosphere as well as possible water sources.

<https://www.chinadaily.com.cn/a/202003/11/WS5e6734e0a31012821727dd95.html>

China's navy shipbuilders are 'outbuilding everybody'

Dave Makichuk

Asia Times, March 11, 2020

An amphibious assault ship is a type of warship which military analysts believe could play a crucial role in reunifying the island of Taiwan by force, if it comes to that, and even more are needed. Welcome to another headache for the Pentagon — it appears China has grasped accelerated shipbuilding technologies and related aircraft development as its march toward an imposing blue water navy continues unabated. According to the Global Times, China is reportedly set to launch its second Type 075 amphibious assault ship soon following the launch of the first one in September. An amphibious assault ship is a type of warship which military analysts believe could play a crucial role in reunifying the island of Taiwan by force, if it comes to that, and even more are needed, the report said.

The second Type 075 amphibious assault ship, being built in Hudong Zhonghua shipyard in Shanghai, is about to be launched, as its construction, including the hull and flight deck, is already complete, Ordnance Industry Science Technology, a Xi'an-based periodical on the national defense industry. The ship is still in dark red due to the anti-corrosive priming paint and is not yet painted with the standard naval gray, the report said. It is only half a year since the first Type 075 was launched, which is much faster than usual, the Ordnance Industry Science Technology reported, noting that this means China has mastered the technology of building amphibious assault ships, the report said.

Another reason for the Type 075s' fast production is that the aviation combat equipment to be used on them is seeing smooth progress, as the Navy already has the naval versions of Z-8 and Z-9 helicopters and mass production for the naval version of the Z-20 is also expected to start in a few years, the periodical said. The modernization of the Chinese navy, also known as the PLA Navy, has been underway since the 1990s, and its fleet has greatly expanded, National Defense reported.

<https://asiatimes.com/2020/03/chinas-navy-shipbuilders-are-outbuilding-everybody/>

PLA Army to host "Crossing Obstacles 2020" land-based unmanned system competition
China Military Online, March 11, 2020

The Armament Department of the Chinese PLA Army will host "Crossing Obstacles 2020" land-based unmanned system competition between the coming September and October, in a bid to further promote the innovation and development of the PLA Army's unmanned system equipment. The competition will be open to research teams and individuals from domestic universities, research institutes and enterprises. Further information can be found on the PLA Weaponry & Equipment Acquisition Information Network (<http://www.weain.mil.cn/>). Registration will be officially accepted from April to May after the announcement of the competition guide is published. It is learned that the competition will comprise two parts, for ground and water vehicles separately.

The ground competition will include 15 events, such as unmanned vehicle reconnaissance, assault and patrol, materials loading and unloading, mobile power-supply, formation maneuver in the field, and high-mobility transportation in mountain terrain. Furthermore, events of mobile support of bionic robot, air-ground coordinated reconnaissance and strike of cluster unmanned systems, and underground unmanned system reconnaissance and search are also included. In addition, high-level forum and equipment exhibitions will be carried out at the same time.

http://english.chinamil.com.cn/view/2020-03/11/content_9766029.htm

Chinese military slams US provocative acts in South China Sea

SourceChina Military Online, March 11, 2020

A US guided-missile destroyer USS McCampbell trespassed into Chinese territorial waters off the Xisha Islands without permission on Tuesday. In response, the Southern Theater Command (STC) of the Chinese People's Liberation Army (PLA) organized naval and air forces to track, verify, identify, and warn the ship away, Senior Colonel Li Huamin, spokesperson for the PLA STC, said in a statement on Wednesday. Snr. Col. Li pointed out that the US has kept flexing muscles and stirring up troubles in the South China Sea under the pretext of freedom of navigation. He denounced the US provocative acts as supremacy violating international law and called the US a “source of chaos” that threatens the peace and stability in the South China Sea. "China owns indisputable sovereignty over the Xisha Islands and their adjacent waters," Snr. Col. Li said, reaffirming that the Chinese military will stay on high alert and take all necessary measures to protect national sovereignty and security and safeguard peace and stability in the South China Sea.

http://english.chinamil.com.cn/view/2020-03/11/content_9765812.htm

China to launch 2nd amphibious assault ship soon: reports

Global Times, March 10, 2020

China is reportedly set to launch its second Type 075 amphibious assault ship soon following the launch of the first one in September, leading analysts to say that China has grasped related shipbuilding technologies. The development of aircraft to be used on the ships is also progressing smoothly, they said. An amphibious assault ship is a type of warship which analysts believed will play a crucial role in reunifying the island of Taiwan by force, if it comes to that, and even more are needed, analysts noted. The second Type 075 amphibious assault ship, being built in Hudong Zhonghua shipyard in Shanghai, is about to be launched, as its construction, including the hull and flight deck, is already complete, Ordnance Industry Science Technology, a Xi'an-based periodical on the national defense industry, reported on Monday, citing photos circulating on Chinese social media and foreign reports. The ship is still in dark red due to the anti-corrosive priming paint and is not yet painted with the standard naval gray, the report said.

Comparing its current construction progress to the construction and launch process of the first Type 075, the report said the second Type 075 only has a few final adjustments to do and should be ready for launch soon. This could potentially be the first known Chinese warship launch since the novel coronavirus (COVID-19) epidemic broke out, military observers said.

It is only half a year since the first Type 075 was launched, which is faster than usual compared to China's tradition of developing and building warships, the Ordnance Industry Science Technology reported, noting that this means China has mastered the technology of building amphibious assault ships, as China has garnered experience that can be applied with the building of Type 071 amphibious landing docks and aircraft carriers. Another reason for the Type 075s' fast production is that the aviation combat equipment to be used on them is seeing smooth progress, as the Navy already has the naval versions of Z-8 and Z-9 helicopters and mass production for the naval version of the Z-20 is also expected to start in a few years, the periodical said, noting that China may also develop tiltrotor aircraft, a type of larger helicopter, and short takeoff and vertical landing fighter jets in the future.

<http://www.globaltimes.cn/content/1182190.shtml>

China launches new BeiDou navigation satellite

Xinhua, March 9, 2020

China launched a new satellite of the BeiDou Navigation Satellite System (BDS) from the Xichang Satellite Launch Center in southwest China's Sichuan Province at 7:55 p.m. Monday (Beijing Time), only one step away from completing the whole global system. The satellite, the 54th of the BeiDou family, was sent into a geostationary orbit as planned by a Long March-3B carrier rocket. The satellite and the carrier rocket were developed by the China Academy of Space Technology (CAST) and the China Academy of Launch Vehicle Technology, respectively. Monday's launch was the 327th mission of the Long March rocket series.

http://www.xinhuanet.com/english/2020-03/09/c_138859679.htm

India's attempt to provoke China over Da Cui Yun incident must be countered

Liu Zongyi

Global Times, March 8, 2020

Chinese vessel Da Cui Yun has made Indian headlines once again. According to the Hindustan Times, Hong Kong-registered cargo ship Da Cui Yun with China COSCO Shipping Corporation Limited, bound for Port Qasim in Karachi, Pakistan, had been detained by Indian security and customs authorities at Deendayal Port, Kandla, Gujarat on February 5. India claimed it had received intelligence that the vessel was transporting cargo that could be used to make nuclear missiles. After the ship docked, Indian port authorities conducted a search and found a so-called industrial dryer, which Indian authorities said can be used to manufacture long-range missiles. However, other equipment related to manufacturing missiles was not discovered. On February

20, the Chinese vessel was released after being forced to hand over the "industrial dryer." But the matter did not end here.

When the Chinese company was considering how to claim compensation from India through legal channels, the Hindustan Times reported on Thursday that "scientists from India's Defence Research and Development Organisation who examined the heavy industrial equipment confirmed that the equipment could be used for the manufacture of very long-range ballistic missiles or satellite launch rockets." Indian officials also said India's national security authorities could notify the UN pursuant to relevant Security Council legal instruments to expose the nuclear proliferation nexus between China and Pakistan. At this point, India's efforts to deliberately turn the incident into another diplomatic dispute and to blackmail China were fully exposed.

The focus now is whether the "industrial dryer" could be used for both civilian and military purposes. According to the manufacturer of the equipment, a private company based in Shandong, the equipment is not an "industrial dryer," but rather a heat-treating furnace system which is mainly used in the production of rubber products such as tires for large construction machinery, anti-collision airbags used at shipping ports, rubber liquid storage tanks, and rubber pipes. It's not a dual-use item covered by China's nonproliferation export control regime. The private company in Shandong has no ties to the Chinese military. The company's Pakistani clients also have nothing to do with the military. Anyone with common sense knows that if China wanted to aid Pakistan's weapons and equipment manufacturing, it would not ship equipment through Indian ports. This move by India is a direct insult to China. It seems India could even determine that a steel plate exported by China to Pakistan is a piece of equipment used in the manufacturing of Pakistani missiles.

<http://www.globaltimes.cn/content/1181914.shtml>

Chinese Air Force intensifies jet training for pilots

Liu Xuanzun

Global Times, March 9, 2020

Jet fighter pilot cadets at a Chinese People's Liberation Army (PLA) Air Force flight school have received intensified training with the newly commissioned JL-10 Falcon, an aircraft designed to familiarize cadets with the country's top combat planes like the J-16 and J-20.

Chen Ming, a member of the first pilot cadet class at Shijiazhuang Flight Academy with the PLA Air Force used the JL-10 to learn basic flying techniques in 2019, and has been participating in solo tactical training since the Spring Festival holidays ended, the PLA Air Force Online

reported Thursday. In late 2018, Chen's group was the first to use the new plane, a domestically developed training aircraft at the academy. Flight school officials spent six months developing the program, which trains flight instructors on how to teach cadets, the report said. The report offered detailed information on the academy's training, and a photo reveals at least seven JL-10s flying in formation.

The report found that the Shijiazhuang Flight Academy was satisfied with the JL-10 and recognized its performance during the specialized training, said Weihutang, a columnist on military affairs affiliated with China Central Television, on Thursday. The JL-10 is an incubator for third- and fourth-generation jet fighter pilots, Weihutang explained. The third- and fourth-generation in Chinese standard equals to fourth- and fifth-generation in international standard, which includes fighter jets like J-10, J-11, J-16, and J-20.

<http://www.globaltimes.cn/content/1181985.shtml>

Upgraded Type 053H3 frigate joins real combat scenario exercise

Liu Xuanzun

Global Times, March 5, 2020

With a new anti-aircraft missile system and a new type of close-in weapon system, an upgraded Type 053H3 frigate participated in a recent naval exercise, and analysts expect it to become a powerful addition to China's offshore defense force. The Type 053H3 frigate, which underwent a midlife modernization program, was seen for the first time after the upgrade participating in a real combat scenario exercise in an official report, Weihutang, a column on military affairs affiliated with China Central Television, reported on Wednesday. The official report Weihutang mentioned is a statement the Chinese People's Liberation Army East China Sea Fleet released on its WeChat public account on Tuesday, which included a video showing the warship during the drills.

Weihutang said that the Type 053H3 frigate had replaced its old HHQ-7 short-range surface-to-air missile with the more advanced HHQ-10 anti-aircraft missile system, identifiable through the video. It is also equipped with a new type of close-in weapon system, believed to be developed from the Russian AK-630 naval close-in weapon system based on a six-barreled 30 mm rotary cannon, Weihutang said. After the midlife modernization program, the Type 053H3 has become significantly more powerful, Weihutang said, noting that the fact it is still equipped with short-range weapons means the ship is more likely to conduct offshore defense missions, partnering the more advanced but smaller Type 056 corvette.

<http://www.globaltimes.cn/content/1181727.shtml>

China's newly commissioned destroyer, frigate achieve battle readiness

Liu Xuanzun

Global Times, March 4, 2020

Two recently commissioned warships of the Chinese People's Liberation Army (PLA) Navy are now ready to do battle after passing an all-subject training examination, the Navy announced on Wednesday, as experts said the service has done well in its sailor training program while receiving more and more warships. The PLA Northern Theater Command Navy recently organized a three-day-long, all-subject training examination at sea featuring two recently commissioned warships simultaneously, and the two proved to be combat-ready, according to a statement the PLA North China Sea Fleet released on its Sina Weibo account on Wednesday. The two warships are Type 052D guided missile destroyer Guiyang and Type 054A guided missile frigate Zaozhuang, which both joined military service in February 2019, China Central Television (CCTV) reported on Tuesday.

During the training examination, which aimed to test the warships' capability to deal with multiple types of threats at the same time and emergency situations, the two ships formed a flotilla with other vessels and sailed into a designated area in the Yellow Sea, CCTV said. Other surface vessels, submarines, fighter jets, early warning aircraft, helicopters, observation stations and jamming units also participated either as support units or mock enemies. Dozens of combat scenarios were simulated, including aerial targets interception and anti-submarine, CCTV reported.

<https://www.globaltimes.cn/content/1181587.shtml>

PLA top epidemiologist-led team achieves breakthrough in COVID-19 vaccine R&D: report

Global Times, March 4, 2020

A research team led by a Chinese military major general who is a veteran in fighting SARS and Ebola has achieved a major breakthrough in developing a vaccine to the novel coronavirus (COVID-19), Chinese state broadcaster reported on Tuesday. The military medical expert team has worked in Wuhan, the coronavirus epicenter, for more than a month, and the team led by Chen Wei, academician at the People's Liberation Army (PLA) Academy of Military Medical Sciences, is seizing every minute and second and focusing all efforts on this emergency scientific research, China Central Television (CCTV) reported on Tuesday. Chen's team has achieved a key progress in developing a vaccine to the novel coronavirus, the report said. "We are doing all

we can to put the recombinant vaccine that we are developing into clinical application," Chen said on CCTV.

Chen, 53 who is also a PLA major general, used to develop the world's first gene-based vaccine on the Ebola in 2014. Chen was well-known for her efforts in combatting the SARS outbreak from 2002 to 2003, and her research on broad-spectrum antiviral drug had played a key role in fighting the disease, according to domestic industry news site sciencenet.cn. She also worked as the head of epidemic prevention and control work during the Wenchuan earthquake in 2008 and led the team in working on Ebola vaccine in 2014. The CCTV report also outlined a series of research achievements made by the Academy of Military Medical Sciences, including virus testing kits, medicines and vaccine.

<http://www.globaltimes.cn/content/1181507.shtml>

China's J-10C fighter jet uses homemade engine: report

Liu Xuanzun

Global Times, March 3, 2020

A J-10C fighter jet with a domestically developed WS-10 Taihang engine. Photo: Screenshot from China Central Television A newly built J-10C fighter jet is reportedly equipped with a domestically developed WS-10 Taihang engine and ready to join military service, a sign that the homemade engine has become technically mature and reliable, experts said. China will no longer rely on foreign fighter jet engines and the more advanced J-20 fighter jet could also start to use homemade engines soon, Chinese experts predicted.

A J-10C developed by an arm of a Chinese major aerospace firm was seen using a domestically developed WS-10 Taihang engine instead of a Russian-made AL-31 engine previous J-10s were installed with, Weihutang, a column on military affairs affiliated with China Central Television, reported on Monday. The WS-10 Taihang is China's first high-performance, high-thrust turbofan engine with intellectual property rights, Weihutang reported. The column Weihutang was referring to a video released over the weekend by Chengdu Aircraft Industrial (Group) Co. Ltd. under the state-owned Aviation Industry Corporation of China (AVIC), which showed a J-10C fighter jet painted with Chinese military aircraft insignia taxiing on an airfield before take-off.

Chengdu Aircraft Industrial (Group) has resumed work since February 10 from the extended holidays due to the novel coronavirus outbreak, and recently conducted its first flight operations, the company said in the video released on its WeChat public account on Saturday. Installing the J-10C with the WS-10 engine shows this engine has reached a very high technical level and can

fulfill combat demands in terms of reliability and thrust, reaching the same standard as foreign products, Wei Dongxu, a Beijing-based military expert, said. China will continue to improve the engine and will no longer rely on imported products, Wei said.

<https://www.globaltimes.cn/content/1181486.shtml>