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Russia's Tsirkon hypersonic missile completes trial phase

On 24 December 2021, Russia test-fired around 10 new Tsirkon (Zircon) hypersonic cruise missiles from a frigate and two more from a submarine. During a joint meeting of the State Council and the Council for Science and Education, President Putin said, "Last night or, to be more exact, this morning, the Tsirkon hypersonic system was salvo-launched," said Putin. "This is our latest missile that can strike both naval and ground targets. The tests were successful and impeccable. This is a big event in the country's life and a considerable step towards enhancing Russia's security and its defence capability." Putin asked Industry and Trade Minister Denis Manturov "to convey his best regards and congratulations" to Tsirkon's manufacturer, NPO Mashinostroyeniya.



Earlier in December, Chief of the Russian General Staff Valery Gerasimov had stated that the missile is nearing the end of state trials. "The trials of the Tsirkon shipborne missile system have completed," Gerasimov said. "These trials proved the possibility of launching this hypersonic missile both from a surface ship and a nuclear-powered submarine from

the submerged position."

Also known as Zircon and SS-N-33 (NATO Nomenclature), the 3M22 Tsirkon is a winged, hypersonic anti-ship cruise missile. Tsirkon was among the five new weapons unveiled by Putin during his 2018 state-of-the-nation address. Putin announced that Russia was developing a series of hypersonic weapons including the Avangard that "could hit almost any point in the world and evade a U.S.-built missile shield." The missile can reportedly reach speeds of up to Mach 9, or just under 7,000 miles per hour, and features an operating range of roughly 1,000 kilometres. The missile had already completed at least eight tests firing aboard the Northern Fleet's Admiral Gorshkov, the lead ship of the Project 22350 Admiral Gorshkov-class frigates, from the beginning of 2020.

The high-tech missile was test-fired from a submarine for the first time in October 2021. According to a

statement from the Russian Defence Ministry, The missile was launched from the Severodvinsk nuclear submarine from a depth of 131 feet and hit a test target in the Barents Sea. Russian News agency Tass had reported in Nov 2021 that further tests from submerged platforms were "planned to be resumed no sooner than in 2024". The latest test firing from a submarine indicates that the Russian



submarine may be equipped with this hypersonic missile sooner than earlier assessed.

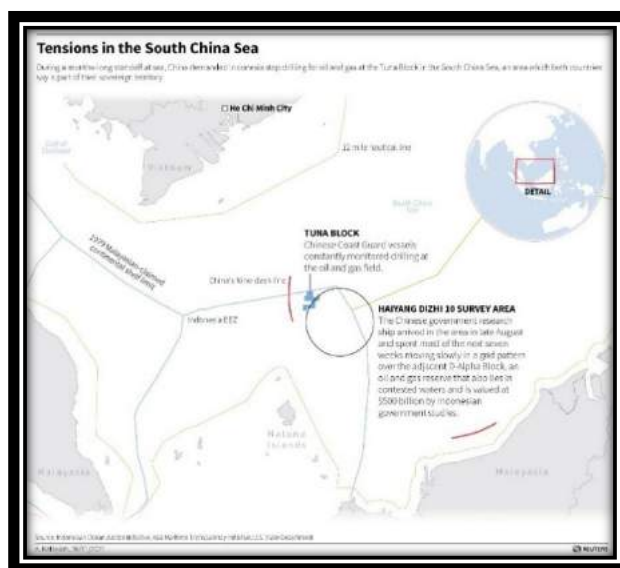
Russian Defence Minister Sergei Shoigu announced that the statutory certification process for the missile was drawing close and the missile will be inducted into service sometime in 2022. According to earlier Russian media reporting, Admiral Golovko, the third Admiral Gorshkov-class frigate, will be the first Russian vessel to carry Tsirkon missiles. The missile is expected to make its way to a wide swathe of Russia's latest and most advanced vessels, including the Admiral Grigorovich-class and Admiral Gorshkov-class frigates, Gremyashchiy-class and Buyan-class corvettes, the battlecruisers Admiral Nakhimov and Pyotr Velikiy and Project 885M nuclear-powered submarine.

Defying Chinese objection, Indonesia completes drilling project in Natuna Sea

Indonesia's Maritime Security Agency (Bakamla) hailed the completion of a six-month drilling project on Indonesia's continental shelf in the North Natuna Sea as a "victory" over China's constant objections. Bakamla chief Vice Adm Aan Kurnia said that Indonesia had "scored a point" by completing the drilling activities despite interventions from China through a "grey hull" naval approach and diplomatic threats. Indonesian patrol vessels were occasionally found shadowed by Chinese Coast Guard vessels 4-5 nautical miles from the drilling site. "The point is, they [Chinese vessels] did not disturb us physically and the drilling was completed," Vice Adm Aan told reporters during a year-end review of the agency's work on 22 Dec 2021,

The past five years have seen frequent incursions of Chinese fishing and maritime militia vessels into Indonesia's EEZ around the Natunas Island, where Indonesia's 200-nautical-mile Exclusive Economic Zone overlaps with the southernmost reaches of China's expansive "nine-dash line" maritime claim. In response to the Chinese incursions, the Indonesian government has bolstered its military presence on Natuna Island and has also beefed up the presence of its Maritime Security Agency (Bakamla).

The latest standoff began in late June, when a semi-submersible rig, the Noble Clyde Boudreaux, arrived and begin drilling two appraisal wells in Indonesia's Tuna block, located approximately 140 nautical miles north of Natuna. China responded by sending a vessel to patrol close to the rig which resulted in the counter deployment of Indonesian Navy and MSA ships. Over the next four months, Chinese and Indonesian ships shadowed each other around the oil and gas field, frequently coming within 1 nautical mile of each other.



In late August 2021, China has deployed its research ship, Haiyang Dizhi 10, for a survey in the contested area for nearly seven weeks.

As per Reuters, Chinese diplomats sent a letter to Indonesia during the crisis ordering it to halt drilling at a temporary offshore rig because the region was “Chinese territory.” This unprecedented demand by China was undoubtedly the most forthright assertion of its claims over the areas lying within Indonesia’s EEZ. Equally notable was Indonesia’s refusal to concede and the forthright defence of its sovereign rights under international law even while playing down the tension of the standoff publicly. During the visit to Natuna Island in late November 2021, Indonesian security minister Mahfud M.D. had remarked that his visit had nothing to do with China but said in a public statement that Indonesia would “never surrender an inch” of territory.

Indonesia’s has thus far maintained a rather stoic approach on its South China Sea tensions with China, refusing even formally to acknowledge the existence of a dispute, while asserting its clear sovereignty over its EEZ under UNCLOS. Indonesia is economically dependent on China who is its biggest trading partner and a major source of investment. Thus far, Jakarta has managed to keep its flourishing economic ties with China fairly isolated from the periodic stand-offs and tensions offshore. However, in the face of intensifying Chinese assertiveness, as the recent event has shown, Indonesia may find challenging to sustain the balancing act in long term.

Japan Approves record defence budget for Fiscal Year 2022

On December 24, the Japanese Cabinet approved a defence budget of ¥5.4 trillion (US \$47.2 billion) for FY 2022, marking a continued northward movement for the last 8 years. This figure includes expenditures related to hosting American bases. It represents a nominal increase of 1.09 per cent annual spending.

In a related development, on December 21, Tokyo decided to enhance support for American forces stationed in Japan under a fresh five-year US-Japan cost-sharing agreement starting in FY 2022. Under the new agreement, Tokyo is expected to pay about US\$9.3 billion for five years, starting in April. Following discussions at an ordinary Diet session, the cost-sharing agreement will be signed. It reportedly encompasses utility bills, labour costs, and expenses for procuring equipment and materials needed for US-Japan joint exercises etc.



Given the severe security situation surrounding Japan, especially threats emanating from China and North Korea, this latest budget is focused on bolstering defence capacity. There is a considerable increase in R&D spending as ¥291.10 billion is allocated, up ¥79.60 billion or 37.6 per cent from the previous year. The focus is on advanced technologies including investing in crewless planes using artificial intelligence. With regard to

space, Japan intends to spend ¥117.70 billion to carry out research, for instance, using satellite constellations for detecting and following hypersonic glide weapons. Japan aims to spend ¥ 6.50 billion for developing “future rail guns” for targeting hypersonic guided missiles and ¥ 7.20 billion to invest in advanced technologies to shoot down drones with microwaves. Moreover,

Japan aims to spend ¥127.80 billion to get 12 more F-35 advanced stealth fighter jets and ¥10.20 billion for transport ships to defend the south-western remote island, where the Self Defence Forces have deployed missile units. Additionally, ¥ 52.00 billion is allotted for upgrading 70 F-15 fighter jets.

The budget has also earmarked ¥10.2 billion to get a 1,700-ton logistic support vessel (LSV) and a new class of 350-ton landing craft utility (LCU) vessels aimed at improving transportation to bases in any emergency in the south-western island. Japan allocated ¥6.1 billion to carry on modification in two Izumo-class carriers, including JS Izumo and JS Kaga, which will be capable of permitting F-35B fighter aircraft operations. Around ¥3.6 billion is likely to be used for equipping Izumo with a landing navigation system for F-35Bs. Another ¥20.2 billion is kept for acquiring SM-6 air-defence missiles to equip two Maya-class Aegis-equipped destroyers. Japan will also invest ¥ 39.30 billion for standoff missiles that can fly 900kms. Furthermore, it has allocated ¥5.80 billion to adapt radars for new ships equipped with Aegis missile interceptors.

Japan has reportedly kept ¥100.1 billion to carry on developing next-generation F-X fighter aircraft, including ¥10.1 billion for the conceptual design of the unmanned aircraft. Japan and the UK have decided to jointly develop engine technology for both the UK-led Tempest and Japan’s F-X future combat aircraft programmes. Rolls-Royce and IHI Corporation are involved in the programme.

In its threat assessment, the annual defence white paper has underscored China’s unilateral attempts to alter the status quo in the East and South China Seas and North Korea’s nuclear and ballistic missile development programme posing imminent security challenges for Japan. Difficult policy decisions are staring at Prime Minister Kishida’s administration as the call for doubling Japan defence spending gains traction at a time when government debt stands at 266 per cent of GDP.