

Nuclear, Missile & Space Digest

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A Fortnightly Newsletter from the Indian Pugwash Society

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- Biden to discuss North Korea on Asia trip -White House

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A. India

India, UK plan new initiatives in civil nuclear energy, defence coproduction; free trade deal expected by October-end

The Tribune, April 23, 2022

India and the UK agreed to take their post-Brexit relationship to new heights, especially in the areas of trade, defence co-production, civil nuclear energy, financing climate change and improving mobility, during delegation-level talks between Prime Minister Narendra Modi and his visiting UK counterpart Boris Johnson. The two leaders agreed to finalise agreements and oversaw the inking of MoUs that would give a fillip to intensification of India UK ties. They also agreed upon the early conclusion of negotiations of a fresh India-UK Nuclear Cooperation Agreement to promote joint nuclear energy studies, radioactive applications, nuclear security and safety.

<https://www.tribuneindia.com/news/nation/pm-modi-holds-talks-with-british-counterpart-boris-johnson-388522>

India 3rd largest military spender, 50% defence exports go to Myanmar, shows data from SIPRI

The Print, April 26, 2022

India's military spending in 2021 is the third highest in the world at Rs 5.87 lakh crore or \$76.6 billion – behind the United States and China but ahead of the United Kingdom and Russia – data released Monday by the Stockholm International Peace Research Institute (SIPRI) showed. The SIPRI data also shows that roughly 50 per cent of India's defence exports from 2017 to 2021 were to its immediate neighbour Myanmar, followed by Sri Lanka at 25 per cent and Armenia at 11 per cent. Another SIPRI report released last month said although one of the most high-profile export deals that India inked this year is the \$375 million – or Rs 2,872 crore – deal with the Philippines to export BrahMos supersonic missile, the biggest

beneficiary of India's defence exports in the last five years is Myanmar.

<https://theprint.in/defence/india-3rd-largest-military-spender-50-defence-exports-go-to-myanmar-shows-data-from-sipri/930570/>

ISRO Gives Us First Look At Chandrayaan-3 Lander, Mission To Launch In August This Year

News 18, April 27, 2022

Indian space agency ISRO has showed us the first glimpse of India's third moon mission, Chandrayaan-3. The third lunar mission is expected to be launched in August this year and is currently in the assembly phase. ISRO gave the first glimpse of Chandrayaan-3 in a documentary titled 'Space on Wheels.' The documentary, posted on ISRO's website showcases the 75 satellites launched by India as part of the 'Azadi ka Amit Mahotsav.' The documentary shows the lander of the Chandrayaan-3 that will make the second attempt at India's moon landing. The documentary also shows other ISRO missions like Gaganyaan, Venus orbiter, and project NISAR, a US and India joint venture.

<https://www.news18.com/news/tech/isro-gives-us-first-look-at-chandrayaan-3-lander-mission-to-launch-in-august-this-year-5061247.html>

Excavation for two 700 MW nuclear power plants in Karnataka's Kaiga begins

The Print, April 28, 2022

Excavation work for two 700 MW indigenously developed nuclear power plants in Karnataka's Kaiga began on Thursday, the Nuclear Power Corporation of India Limited (NPCIL) said. The ground-breaking ceremony was held in the presence of NPCIL Chairman and Managing Director Bhuwan Chandra Pathak at the Kaiga Generating Station in Karwar district of Karnataka. "Kaiga 5&6 reactors are the first set of 10 indigenously developed 700 MW Pressurised Heavy Water

Reactors sanctioned by the government to be set up in fleet mode," the NPCIL said in a statement. The present installed capacity of the Kaiga site is 880 MW with four units of 220 MW each. With the completion of Kaiga 5&6, the capacity of the Kaiga site will increase to 2,280 MW.

<https://theprint.in/india/excavation-for-two-700-mw-nuclear-power-plants-in-karnatakas-kaiga-begins/934989/>

Russia helps set up reactor vessel at TN nuclear plant

The Times of India, May 2, 2022

Achieving another milestone in the Tamil Nadu-based Kudankulam nuclear power plant, plant developer Nuclear Power Corporation of India with help from state-run Russian atomic energy corporation Rosatom has installed the reactor vessel at unit-3. The assembly of the reactor vessel is significant as it will spur further activities for the assembly of the plant equipment allowing to speed up the construction of unit-3. India, for the first time during the assembly of VVER-type units, assembled the reactor vessel by the "open top" method. This technology makes it possible to significantly reduce the time period of the project implementation due to optimisation and reduction of the duration and number of assembly operations, a statement from Rosatom said.

<https://timesofindia.indiatimes.com/india/russia-helps-set-up-reactor-vessel-at-tn-nuclear-plant/articleshow/91241983.cms>

Explained: Submarine tech that India wants

The Indian Express, May 4, 2022

On April 30, France's Naval Group, one of five shortlisted Original Equipment Manufacturers (OEM) for the Navy's P-75 India (P-75I) project to build six conventional submarines within the country, announced it would not bid for the project. The reason, Naval Group said, was that the Request for Proposal (RFP) "requires that the fuel cell AIP be sea proven, which is not the

case for us yet since the French Navy does not use such a propulsion system."

<https://indianexpress.com/article/explained/submarine-tech-that-india-wants-aip-technology-7900043/>

ISRO plans mission to Venus, eyes Dec 2024 launch window

Deccan Chronicle, May 5, 2022

After sending missions to the Moon and Mars, ISRO is now readying a spacecraft to orbit Venus to study what lies below the surface of the hottest planet in the solar system and also unravel the mysteries under the sulfuric acid clouds enveloping it. Addressing a day-long meeting on Venusian science, ISRO Chairman S Somnath said the Venus mission has been conceived, project report has been made and money has been identified, and urged scientists to focus on high impact outcomes. "Building and putting a mission on Venus is possible for India in a very short space of time, as the capability today exists with India," Somnath said in his inaugural address.

<https://www.deccanchronicle.com/nation/current-affairs/050522/isro-plans-mission-to-venus-eyes-dec-2024-launch-window.html>

France and India aim to progress EPR project in coming months

World Nuclear News, May 5, 2022

The French company EDF last year submitted to Nuclear Power Corporation of India Ltd (NPCIL) its binding techno-commercial offer to build six EPRs at Jaitapur in Maharashtra state and the project was among the bilateral issues backed during talks between President Emmanuel Macron and President Narendra Modi. The two leaders met at the Élysée Palace in Paris on Wednesday for wide-ranging talks on global security issues, including events in Ukraine, as well as cooperation in space and action to tackle carbon emissions. A statement issued by President Macron's office after the talks said: "Both sides reaffirmed the

commitment to the success of the strategic Jaitapur EPR project for access to reliable, affordable and low-carbon energy, and welcome the progress achieved over the last months. "They will increase the contacts in the coming months to achieve new progress."

<https://www.world-nuclear-news.org/Articles/France-and-India-aim-to-progress-EPR-project-in-co>

B. Russia

US Boeing X-37 may carry weapons of mass destruction – Head of Roscosmos

TASS, April 23, 2022

US Boeing X-37 orbital spacecraft may carry reconnaissance tools or weapons of mass destruction, Director General of Roscosmos Dmitry Rogozin said on Saturday. "It may carry some kind of reconnaissance tools or weapons of mass destruction. This is a new category of carriers of mass destruction weapons. Attacks from space pose the most serious danger," he said in an interview with Rossiya 24 TV channel, mentioning the vehicle returning from space.

<https://tass.com/defense/1442045>

Russian Defense Ministry reports drone chemical attack on Russian troops in Ukraine

TASS, April 23, 2022

The Russian Defense Ministry reported a drone attack on the positions of Russian troops in Ukraine using toxic substances, Chief of Russian Radiation, Chemical, and Biological Protection Force Igor Kirillov announced on Saturday. "On April 21, 2022, an unmanned aerial vehicle dropped onto the position of Russian troops a container with ampoules. According to him, the ampoules are currently being analyzed.

<https://tass.com/defense/1442035>

US prepares provocations to accuse Russia of using tactical nuclear weapons

TASS, April 23, 2022

The United States is preparing provocations to accuse the Russian side of using chemical, biological, or tactical nuclear weapons, Chief of Russian Radiation, Chemical, and Biological Protection Force Igor Kirillov announced on Saturday. According to Kirillov, the plan is a reaction to Russia's success in the special operation. "In March-April of this year alone, the leadership of Western countries regularly made provocative statements about the possibility of Russia using weapons of mass destruction," he said.

<https://tass.com/defense/1442031>

Russia's Sarmat missile can hit targets at virtually unlimited ranges

TASS, April 23, 2022

Russia's Sarmat intercontinental ballistic missile (ICBM) will be able to hit targets at virtually unlimited distances in comparison with the Voyevoda missile, Director General of Roscosmos Dmitry Rogozin said in a video published on Saturday.

"The Sarmat missile, compared to the Voyevoda (Satan) missile, is capable of hitting targets at virtually unlimited ranges," he said.

<https://tass.com/defense/1442015>

Kiev regime plotting to pin WMD false flag on Moscow to further isolation, says Russia

TASS, April 23, 2022

A plot by the Kiev regime to employ a false flag involving weapons of mass destruction (WMDs) is aimed at accusing Russia of using prohibited types of

weapons in a bid to isolate Moscow politically and economically, Chief of Russian Radiation, Chemical, and Biological Protection Force Igor Kirillov announced on Saturday.

<https://tass.com/defense/1442033>

US has three ways to accuse Russia of using mass destruction weapons in Ukraine - ministry

TASS, April 23, 2022

The United States plans to use three scenarios to accuse Russia of using chemical, biological, or tactical nuclear weapons in Ukraine, Chief of Russian Radiation, Chemical, and Biological Protection Force Igor Kirillov announced on Saturday. He also added that at the beginning of 2022 Ukraine purchased more than 50 devices for spraying various substances, including chemicals, from drones.

<https://tass.com/defense/1442037>

Russian S-350 missile system capable of striking future air attack weapons – defense firm

TASS, April 25, 2022

The S-350 'Vityaz' short-to-medium-range battlefield surface-to-air missile system engineered by the Almaz-Antey defense manufacturer is capable of striking future air attack weapons, Company CEO Yan Novikov said on Monday. "We have developed a good and compact system that performs all of its functions far better than its predecessors. As its fundamental difference from all other similar systems, the Vityaz is capable of quickly aiming its missiles and scanning the space.

<https://tass.com/defense/1442533>

Russian defense firm working on improved Kalibr cruise missile – CEO

TASS, April 25, 2022

Russia's Almaz-Antey defense manufacturer is working on the improved version of the Kalibr cruise missile that will feature better

performance and higher combat efficiency, Company CEO Yan Novikov said on Monday. The Kalibr is a Russian cruise missile developed and produced by the Yekaterinburg-based Novator design bureau (part of the Almaz-Antey Group). Currently, the Russian troops use two modifications of Kalibr cruise missiles: the shipborne Kalibr-NK and the submarine-launched Kalibr-PL.

<https://tass.com/defense/1442489>

Russia begins batch production of S-500 Prometheus air defense system

TASS, April 25, 2022

Russia's newest missile air defense system S-500 Prometheus, developed by the Almaz-Antey concern, has begun to be batch-produced and will be provided for the armed forces within the deadlines established under the state defense order, the company's CEO, Yan Novikov, has said. "At the moment, the S-500 system, boasting the latest achievements in domestic science and engineering, has begun to be batch-produced. Its combat capabilities surpass by far those of the previously created air defense systems.

<https://tass.com/defense/1442491>

Russian forces strike Ukrainian armor by Iskander precision missiles

TASS, April 25, 2022

The Russian Defense Ministry posted a clip showing Iskander tactical missile systems delivering pinpoint strikes on hangars with Ukrainian military hardware and ammunition during Russia's special military operation in Ukraine. According to reconnaissance data, Ukrainian armaments, military hardware and ammunition were concentrated on the territory of depots in hangars for troop supplies. Iskander tactical missile systems delivered strikes on the depots," the ministry said.

<https://tass.com/defense/1442363>

Russian defense firm expects Saudi Arabia to show interest in S-400 missile system

TASS, April 25, 2022

Russia's advanced S-400 medium-to-long-range surface-to-air missile system engineered by the Almaz-Antey defense manufacturer can evoke the interest of military specialists from Saudi Arabia by its high performance characteristics, Company CEO Yan Novikov said on Monday.

<https://tass.com/defense/1442759>

Modernized Irkutsk nuclear-powered sub to be back in service in 2023 – source

TASS, April 28, 2022

The Russian Pacific Fleet's Project 949A 'Antey' multirole nuclear-powered submarine Irkutsk may be back in service in 2023, a source in the Russian ship-building industry told TASS on Thursday.

"Under the existing plans, the nuclear-powered submarine Irkutsk will be back on combat duty within the Russian Navy in 2023," the source said, adding that after the modernization the submarine will be able to carry 48 new cruise missiles of the Kalibr-PL, Oniks and Tsirkon class instead of 24 Granit anti-ship missiles.

<https://tass.com/defense/1444535>

Angara-1.2 rocket launched from Plesetsk spaceport in Russian Defense Ministry's interests

TASS, April 30, 2022

An Angara-1.2 light carrier rocket carrying a space module for the Russian Defense Ministry has been launched for the first time from the Plesetsk space center in the Archangelsk Region, the ministry told reporters on Friday. It is the second launch of a light version of the Angara rocket family.

<https://tass.com/defense/1445729>

'Operating normally': Russia shows seized Ukraine nuclear plant

France 24, May 2, 2022

Russian forces seized the site amid fighting in early March that caused a large fire at a training facility at the plant, which sits along the Dnipro river south of the Ukrainian-held city of Zaporizhzhia. There was no spike in radiation, but the clashes nonetheless caused deep worries, especially in the country that was the site of the world's worst nuclear accident at Chernobyl in 1986. Rafael Grossi, the head of the UN's nuclear watchdog, the International Atomic Energy Agency, said last week that it was "extremely important" for IAEA monitors to be able to access the site, which was built in the early 1980s but modernised in recent years.

<https://www.france24.com/en/live-news/20220502-operating-normally-russia-shows-seized-ukraine-nuclear-plant>

Nobel laureate decries Russian propaganda arguing for nuclear weapons use

Euractiv, May 4, 2022

Russian journalist and Nobel Peace Prize laureate Dmitry Muratov decried Tuesday (3 May) Russian propaganda arguing for using nuclear weapons in the Ukraine conflict, warning that would mark "the end of humanity".

"I would not rule out the possibility that nuclear weapons might be used," Muratov told journalists in Geneva, speaking through a translator. The Kremlin said it had placed Russian nuclear forces on high alert shortly after its invasion of Ukraine began 24 February.

<https://www.euractiv.com/section/global-europe/news/nobel-laureate-decries-russian-propaganda-arguing-for-nuclear-weapons-use/>

Russia practises NUCLEAR-capable missile strikes with simulated attacks in Baltic Sea enclave between Poland and Lithuania

Daily Mail, May 5, 2022

Russia carried out drills using nuclear-capable missiles, defence ministry says. Simulated missile launches took place in enclave of Kaliningrad on Wednesday. Troops rehearsed firing the missiles before moving their vehicles to avoid getting struck back, though no actual rockets were launched. Comes amid fears Putin could unleash nukes as Ukraine war goes against him.

<https://www.dailymail.co.uk/news/article-10785041/Russia-practises-NUCLEAR-capable-missile-strikes-Baltic-Sea-training-drill.html>

What is Russia's Poseidon nuclear drone and could it wipe out the UK in a radioactive tsunami?

Euro news, May 5, 2022

A popular Russian state TV anchor has warned that Moscow could wipe Britain off the map with a nuclear tsunami in retaliation for supporting Ukraine. In his Sunday evening primetime show on Channel One, one of the most-watched in Russia, Dmitry Kiselyov claimed on May 1 that a strike by the country's Poseidon nuclear underwater drone could drown the UK under a 500-metre tidal wave of radioactive seawater.

<https://www.euronews.com/next/2022/05/04/what-is-russia-s-poseidon-nuclear-drone-and-could-it-wipe-out-the-uk-in-a-radioactive-tsun>

Thermonuclear missiles roll through Red Square as Putin sends chilling warning to the West: Russia prepares for Victory Day parade while its army continues its carnage in Ukraine

Daily Mail, May 7, 2022

Nuclear missiles have rolled through Moscow's Red Square in a chilling warning

to the West as dictator Vladimir **Putin** prepares for his annual Victory Day parade on Monday. The warring president will hope to celebrate a triumph in Ukraine at the annual celebration, which marks Russia's victory over Nazi Germany in World War Two, raising fears of increased attacks on the war-torn country over this weekend.

<https://www.dailymail.co.uk/news/article-10792127/Putin-shows-nukes-Victory-Day-parade-rehearsal-chilling-warning-West.html>

Ukrainian forces hit Kherson Region with tactical missile - Russian Defense Ministry

TASS, May 8, 2022

Ukrainian forces fired a Tochka-U tactical ballistic missile at civilians in Golaya Pristan, Kherson Region, Saturday, Russian Defense Ministry announced Sunday.

"The criminal missile strike on the settlement of Golaya Pristan, Kherson Region, was carried out by Ukrainian Armed Forces' servicemen, endangering lives of civilians," the Ministry said.

<https://tass.com/defense/1448363>

Update 72 - IAEA Director General Statement on Situation in Ukraine

IAEA, May 4, 2022

The Director General of the International Atomic Energy Agency (IAEA), Rafael Mariano Grossi, today met with Alexey Likhachev, Director General of Russian state nuclear company Rosatom, and other senior Russian officials in Istanbul. Director General Grossi said he was continuing timely and professional discussions where he stressed the urgency of ensuring the safety of Ukraine's Zaporizhzhya Nuclear Power Plant (NPP). The IAEA is ready to play its indispensable role, he added. Ukraine separately informed the IAEA today that there had been no significant

developments related to nuclear safety and security in the country over the past 24 hours.

<https://www.iaea.org/newscenter/pressreleases/update-72-iaea-director-general-statement-on-situation-in-ukraine>

C. China

China greenlights 6 new nuclear reactors in shift away from coal

Shunsuke Tabeta

Nikkei Asia, April 22, 2022

The Chinese government has approved the construction of six reactors as part of a plan to reduce carbon dioxide emissions by more than doubling nuclear power capacity this decade. Three nuclear power plants in coastal provinces will each receive two new reactors, according to local media. Construction costs are estimated at 120 billion yuan (\$18.7 billion) for all six reactors combined, Chinese media report. China ranks third in the world in terms of installed nuclear power capacity after the U.S. and France. But nuclear energy accounts for only a little over 2% of the nation's power generating capacity, and just 5% of overall electricity output last year.

<https://asia.nikkei.com/Business/Energy/China-greenlights-6-new-nuclear-reactors-in-shift-away-from-coal>

Type 055 destroyers carry out combat training

China Military Online, April 22, 2022

Three Type 055 destroyers that have entered service since last year, Lhasa, Anshan and Wuxi, took part in a combat training exercise organized by a warship training center of the PLA Navy. The exercise involved nighttime anti-sea main gun shooting, nighttime anti-air secondary gun shooting, and joint search and rescue by ships and aircraft.

http://eng.chinamil.com.cn/view/2022-04/22/content_10150135.htm

Russia's Sarmat and China's YJ-21: What the missile tests mean

Al Jazeera, April 22, 2022

One day before the Russian Sarmat was tested, China launched its brand new hypersonic missile from a heavy Type 055 cruiser. The YJ-21, ultra-fast with an unpredictable flight pattern, is part of a family of Chinese missiles designed to be 'carrier killers'. Long aware of the potency of American aircraft carrier groups and their ability to roam the world's oceans, destroying both naval targets and those on land, Chinese scientists have worked hard to ensure they have the means to defeat these heavily-defended mobile airfields. With a range of up to 1,500km (930 miles), the YJ-21 can deliver a large warhead, moving so fast it punches straight through the flight deck of an aircraft carrier, destroying it instantly. Normally air-launched from a bomber, this launch is significant as it blasted off from the type of cruiser that would normally be used to defend Chinese aircraft carrier strike groups. It is significant that the missile's range is greater than the combat range of the US's new carrier-borne stealth fighter, the F-35C. This will now force American carrier groups to sail closer in so the F-35s can reach their targets, meaning the carrier groups will be vulnerable to attack.

<https://www.aljazeera.com/features/2022/4/22/russias-sarmat-and-chinas-yj-21-what-the-missile-tests-mean>

PLA Navy celebrates 73rd birthday with half dozen new warships, conspicuous hint on third aircraft carrier

Global Times, April 23, 2022

The Chinese People's Liberation Army (PLA) Navy celebrated its 73rd anniversary by announcing, over the past days, the commissioning of half a dozen powerful warships and two types of advanced vessel-based helicopters, which have already started training to form combat capabilities. An official video

introducing China's aircraft carrier program released on Friday also gave a very obvious hint that the country's third aircraft carrier will be officially revealed soon. Media reports revealed before the Navy's birthday that at least six new surface vessels were commissioned, namely a Type 075 amphibious assault ship, three Type 055 large destroyers and two Type 052D destroyers.

<https://www.globaltimes.cn/page/202204/1260104.shtml>

China to build asteroid monitoring & defense system, to conduct tests as early as 2025

Global Times, April 24, 2022

China is planning on building an asteroid monitoring and defense system, and plans to carry out a technical experiment as early as 2025 on a threatening asteroid by closely tracking and attacking it to change its orbit, China National Space Administration (CNSA) deputy head Wu Yanhua disclosed on this year's Space Day of China. Experts noted that China's asteroid defense system could be an important supplement in addressing the threats of asteroids hitting Earth, and it is another practical solution that China proposes to build a community with a shared future for mankind. China will proceed to set up a near-Earth asteroid monitoring and defense system to deal with the threat of asteroid impacting on spacecraft, and contribute to protect the safety of the Earth and mankind, Wu said during an interview with the China Central Television.

<https://www.globaltimes.cn/page/202204/1260181.shtml>

Chinese FM elaborates on China-proposed Global Security Initiative, stresses nation will always be the backbone of guarding world peace

Global Times, April 24, 2022

As Chinese President Xi Jinping proposed for the first time a Global Security Initiative at the opening ceremony of the Boao Forum for Asia Annual Conference 2022, Chinese

State Councilor and Foreign Minister Wang Yi gave a detailed elaboration on the initiative in an article published on People's Daily on Sunday, answering to the question: "What kind of security concept does the world need and how can countries achieve common security?" "The initiative contributes Chinese wisdom to make up for the present peace deficit," Wang said in the article, in which he stressed that China will never claim hegemony, seek expansion or spheres of influence, nor engage in an arms race.

<https://www.globaltimes.cn/page/202204/1260149.shtml>

China's next space goal: to target a dangerous asteroid and nudge it off course

South China Morning Post, April 24, 2022

China plans to hit an asteroid and change its orbit in the next few years in another bold step for the nation's space programme, according to the China National Space Administration CNSA vice administrator Wu Yanhua said the country had started building a defence system against near-Earth asteroids that risked hitting the planet. He said China aimed to conduct close observation of a threatening asteroid and "implement an asteroid impact" to change its orbit "at the end of the 14th five-year plan (2021-2025), or 2025, 2026". "We will start to improve land- and space-based monitoring and early warning systems for asteroids. To do this, we will need to compile a list and, crucially, analyse which are of the greatest risk," Wu said.

<https://www.scmp.com/news/china/science/article/3175362/chinas-next-space-goal-target-dangerous-asteroid-and-nudge-it>

12 chief commanders and designers of China's missiles make their public debut after retirement

Global Times, April 25, 2022

Twelve chief commanders and designers of China's missiles who remained

undisclosed made their public debut for the first time after retiring and ending a period of secrecy. The life stories of the 12 experts are recorded in the book *Missile Life*, which was first released by the Second Academy of China Aerospace Science and Industry Corporation (CASIC) at the Space Day. The 12 commanders and designers have been responsible for China's first-generation surface-to-air missiles, HQ-1, HQ-2, JL-1, HQ-7 and HHQ-7, as well as China's third-generation air defense weapon system. Many of them have made outstanding contributions to several areas of military science, especially missiles in various generations.

<https://www.globaltimes.cn/page/202204/1260215.shtml>

China space laser zaps competition with data speed record: paper

South China Morning Post, April 26, 2022

A team of engineers in Beijing has developed a small space laser that they say will allow satellites to communicate over long distances at significantly faster speeds than similar technology currently available. The technology is fast enough to send six high-definition films from Seattle to New York in less than a second, according to research team leader Yang Jian, director of advanced communication technology with defence industry contractor the Beijing Institute of Remote Sensing Equipment. Beijing-based team says its technology can connect satellites from a device smaller than a suitcase. Engineers use 'rule-breaking' innovations to achieve transmission speeds of 10 gigabits per second in on-ground testing.

<https://www.scmp.com/news/china/science/article/3175419/china-space-laser-zaps-competition-data-speed-record-paper>

China's first amphibious assault ship ready for amphibious operations

China Military Online, April 26, 2022

The Type-075 amphibious assault ship Hainan, China's first independently-built

landing helicopter dock ship, has preliminarily formed the ability to perform amphibious operations. Commissioned on April 23, 2021, it has undergone training courses such as underway replenishment-at-sea, hovercraft docking and undocking, ship-borne helicopter take-off and landing, live-fire shooting, and multi-dimensional force delivery.

http://eng.chinamil.com.cn/view/2022-04/26/content_10150571.htm

No one wants to see a World War: China on Russia's nuclear conflict warning

Business Standard, April 26, 2022

China played down Russian Foreign Minister Sergey Lavrov's warning of a "serious" possibility of nuclear conflict over the Ukraine war, saying no one wants to see a 3rd World War. "No one wants to see the outbreak of a 3rd World War," Chinese Foreign Ministry spokesman Wang Wenbin told a media briefing here reacting to Lavrov's remarks of the real threat of a 3rd World War breaking out following the Russia-Ukraine conflict. "We hope that relevant parties can keep cool-headed and exercise restraint, prevent escalation of tension, realise peace as soon as possible and avoid inflicting a heavier price on Europe and the world," Wang said.

https://www.business-standard.com/article/international/no-one-wants-to-see-a-world-war-china-on-russia-s-nuclear-conflict-warning-122042601230_1.html

IAEA chief expects deepened cooperation with China on nuclear law

Xinhua, April 27, 2022

Rafael Grossi, director-general of the International Atomic Energy Agency (IAEA), spoke highly of China's nuclear law system, saying he expects the "constructive and permanent conversation" with China on nuclear energy to further deepen in the future. In an exclusive interview with Xinhua on the

sidelines of the agency's first International Conference on Nuclear Law: The Global Debate, Grossi said he appreciates the "emphasis on safety" in China's nuclear law system, which covers relevant standards in production, transportation, waste and radiological protection, among others. He noted that all these aspects are also covered in the atomic energy law that China is currently formulating.

<https://english.news.cn/20220427/dbc07f282a2c42ff901aef147b0c6b45/c.html>

CMSI China Maritime Report: The PLA Army Amphibious Force: Missions, Organization, Capabilities, and Training

China Maritime Studies Institute (CMSI), April 28, 2022

This report examines the amphibious forces of the PLA Army and their preparations for large-scale amphibious operations, particularly concerning Taiwan.

<https://www.andrewerickson.com/2022/04/cmsi-china-maritime-report-20-the-pla-army-amphibious-force-missions-organization-capabilities-and-training/>

U.S., Japan slammed for "China space threat" propaganda

Xinhua, April 28, 2022

A Chinese defense ministry spokesperson on Thursday accused the United States and Japan of ignoring facts and fabricating the so-called "China space threat." The propaganda is merely an excuse for the two countries to expand their militaries and seek predominance in the space, said Tan Kefei, a spokesperson for China's Ministry of National Defense. The United States has continued to promote the process of space militarization with a Cold War mentality, establishing a space command, and developing and deploying offensive space weapons, Tan said. Noting that Japan has also been progressive in its military construction in space, Tan said that the moves of the two countries have raised the risk of weaponization and an arms race in

outer space, and negatively affected global strategic stability.

<https://english.news.cn/20220428/a15aedd4f6bc475385716eeb44cafb11/c.html>

Chinese radar 'is watching missile threats from Korean peninsula and Japan'

South China Morning Post, May 2, 2022

A large radar in eastern China that was captured on a satellite camera is intended to monitor missile activity in northeast Asia, a Chinese military source has confirmed. An image of the radar was taken by commercial satellite imagery company Maxar Technologies in February and published on Google Earth. The picture's geolocation information shows it is on a mountain top in Yiyuan county in Shandong, an eastern province that faces the Korean peninsula across the Yellow Sea. The satellite pictures show that the radar is pointing towards the northeast and was built sometime after November 2019. Phased array radars are an integral part of China's missile warning and space tracking network. They are computer-controlled systems that scan the horizon with waves of radio beams without needing to rotate the antenna and can be used to track multiple targets over a long range. The new radar is built next to one that faces south and can monitor missile activities from Taiwan. The US website Defence News said that Google Earth images suggested the older radar had been built around 2013 or 2014.

<https://www.scmp.com/news/china/military/article/3176163/chinese-radar-watching-missile-threats-korean-peninsula-and>

PLAN aircraft carrier battle group trains in west Pacific

China Military Online, May 3, 2022

Recently, a Chinese naval aircraft carrier battle group headed by the aircraft carrier Liaoning conducted open-sea combat training in the waters of the western Pacific Ocean, according to Senior

Captain Gao Xiucheng, the spokesperson for the Chinese People's Liberation Army Navy (PLAN). The spokesperson said that it was a routine training exercise within the annual work plan of the PLAN and designed to improve the aircraft carrier battle group's ability to fulfill its missions. The training complied with relevant international law and practice, not targeting any party, Gao added.

http://eng.chinamil.com.cn/view/2022-05/03/content_10152032.htm

All six generators of Hongyanhe nuclear power plant come into operation in Northeast China

Global Times, May 4, 2022

The sixth generator of the Hongyanhe nuclear power plant in Liaoning Province - the last unit of the first nuclear power plant in Northeast China - was successfully connected to the grid, paving way for the unit to enter commercial operation as scheduled within 2022, Hongyanhe Nuclear Power said. The step indicates that the sixth unit has the capacity to generate electricity. All major indexes linked to the unit are normal and up to the standards, with the unit also running quite well during the grid connecting process, and a series of tests will be carried out to further demonstrate the generator meet conditions for entering commercial operation. Construction of the fifth and sixth units - the second phase of Hongyanhe nuclear power plant project - began in 2015, and the fifth unit entered production in July 2021. Both of the units adopt ACPR 1000 technology that includes the major technical advances and safety features of the third-generation nuclear power generators.

<https://www.globaltimes.cn/page/202205/1264777.shtml>

Xi promotes exploration of outer space, advances global cooperation

Xinhua, May 4, 2022

Ahead of China's Youth Day, Chinese President Xi Jinping wrote back to a youth team working on space station construction,

encouraging them to contribute more to the exploration of space and advance aerospace science and technology through innovation. Over the past years, Xi has been striving to promote the development of China's space industry and pledged to deepen cooperation with other countries in this field, which has yielded fruitful outcomes.

<https://english.news.cn/20220504/22e3c04236a742fdb9eddf66c05038a2/c.html>

Flagship Chinese space telescope to unravel cosmic mysteries

Xinhua, May 5, 2022

China's flagship telescope, slated to be launched at the end of 2023, is expected to provide humankind with fresh knowledge about distant galaxies, mysterious dark matter and dark energy, and the past and future evolutions of the universe. Chinese Survey Space Telescope, also known as the Chinese Space Station Telescope (CSST) and Xuntian Space Telescope, is a space-based optical observatory for astronomers to carry out sky surveys, capturing a general map or images of the sky. The CSST is a bus-sized facility with a length equal to that of a three-storied building. It has an aperture of two meters, a bit smaller than the Hubble Space Telescope, but its field of view is 350 times larger than Hubble in area, said Liu Jifeng, deputy director of National Astronomical Observatories Of China (NAOC), in an exclusive interview with Xinhua.

<https://english.news.cn/20220505/085b587357ae40e08f0b9279a6c850d2/c.html>

Aircraft carrier Liaoning hosts fighter jet drills in Philippine Sea, 'displays confidence'

Global Times, May 5, 2022

The aircraft carrier *Liaoning* of the Chinese People's Liberation Army (PLA) Navy hosted fighter jet drills in the Philippine Sea on Tuesday, Japan's defense ministry said on Wednesday, soon after the PLA Navy announced the carrier group sailed

into the West Pacific for a routine, realistic combat far sea training mission. By hosting fighter jet drills right in front of monitoring by Japanese and potentially US forces, the PLA Navy showed its confidence amid its rising capabilities, experts said on Thursday. A total of seven PLA Navy vessels, namely the aircraft carrier Liaoning, the Type 052D guided missile destroyers Xining, Urumqi and Chengdu, the Type 052C guided missile destroyer Zhengzhou, the Type 054A guided missile frigate Xiangtan and the Type 901 comprehensive supply ship Hulunhu, were spotted on Tuesday sailing in the Philippines Sea, south to Japan and east to the island of Taiwan, according to a press release by Japan's Ministry of Defense Joint Staff on Wednesday.

<https://www.globaltimes.cn/page/202205/1264832.shtml>

US eyes 'nuclear freedom' by hyping China's 'nuclear threat': Global Times editorial

Global Times, May 6, 2022

Charles Richard, the head of US Strategic Command, which oversees the nuclear arsenal, warned Congress Wednesday that Washington faces a "heightened nuclear deterrence risk when it comes to Russia and China," claiming that China is "watching the war in Ukraine closely and will likely use nuclear coercion to their advantage in the future." He also warned the lawmakers that the US is facing "a crisis deterrence dynamic right now that we have only seen a few times in our nation's history." Sensationalizing China's "nuclear threat" to justify actual US nuclear expansion has become a familiar trick of Washington. Last month, Richard told lawmakers at a closed-door hearing that China's "breathtaking expansion" of its strategic and nuclear arsenal is a quickly escalating risk for the US. If the efforts are to expand the budget for the department he's in charge, Richard made it - according to the Biden administration's recently submitted fiscal year 2023 defense budget, total spending on nuclear weapons and systems research and procurement grew to

\$34.4 billion from \$27.7 billion for fiscal year 2022.

<https://www.globaltimes.cn/page/202205/1264929.shtml>

D. Pakistan

China cements its place as Pakistan's largest supplier of major arms: Report

Hindustan Times, April 26, 2022

China, between 2017 and 2021, has cemented its place as Pakistan's largest supplier of major arms, including fighter aircraft, warships, submarines and missiles, data compiled by an independent institute focusing on arms transfers and conflict said. Between 2017 and 2021, Beijing met 72% of Islamabad's demand for major arms, data from Sweden's Stockholm International Peace Research Institute (SIPRI) published in March showed. Conversely, 47% of all the major arms exported by China went to Pakistan during that period, SIPRI said. Though several of the deals are labelled "co-production" or "joint programme" - implying significant Pakistani research and design (R&D) input - in reality, in most cases, the R&D is mainly or all Chinese even for specific Pakistani requirements, according to SIPRI's analysis.

<https://www.hindustantimes.com/world-news/china-cements-its-place-as-pakistan-s-largest-supplier-of-major-arms-report-101650973184494.html>

E. Europe

Defuelling of Ignalina units completed

World Nuclear News, April 22, 2022

The final cask of used fuel has been transferred from the reactor buildings at Lithuania's shut down Ignalina nuclear power plant (INPP) to an on-site interim storage facility. The last container of fuel was transported to the INPP New Interim Spent Fuel Storage Facility (ISFSF) on 21 April, bringing the total number of casks

stored there to 190, loaded with 15,555 used fuel assemblies from Ignalina's two RBMK reactors and storage ponds. The fuel in this facility is stored in CONSTOR RBMK-1500/12 containers, each of them 4.5 metres in height, 2.6 metres in diameter and weighing about 118 tonnes. Each container holds 91 fuel assemblies. After interim storage - up to 50 years - in the dry-type ISFSF, all used fuel will be disposed of in a deep geological repository.

<https://www.world-nuclear-news.org/Articles/Defuelling-of-Ignalina-units-completed>

Korea offers six reactors to Poland

World Nuclear News, April 25, 2022

Korea Hydro and Nuclear Power (KHNP) has submitted to Poland what the country called a "technical and price offer" for the construction of six APR-1400 reactors. The KHNP delegation was led by CEO Jeong Jaehoon with support from head of business development Yoosik Nam. Their offer provided for "the construction of six APR1400 reactors with a total capacity of 8.4 GW, the first of which could start operating in accordance with the schedule adopted in the Polish Nuclear Power Programme, i.e. in 2033," said the Polish Ministry for Climate and Energy. Jeong carried a letter from the Korean Minister of Trade, Industry and Energy, Moon Seungwook, which "conveyed the full support of the Korean government" for the offer. They were received by Polish Deputy Minister for Climate and Environment Adam Guibourgé-Czetwertyński and the country's Plenipotentiary for Strategic Energy Infrastructure, Piotr Naimski.

<https://www.world-nuclear-news.org/Articles/Korea-offers-six-reactors-to-Poland>

Slovakia looks to home-grown uranium to cut Russian nuclear dependence

Euractiv, April 25, 2022

Uranium mining in the country's east could be a solution to cutting dependency on Russia's nuclear fuel supplies, Economy Minister Richard Sulík has said. Slovakia currently imports uranium from Russia's

TVEL company. Uranium is the main ingredient for producing nuclear fuel, and Russia - together with Kazakhstan - accounts for over half of the world's supplies.

https://www.euractiv.com/section/politics/short_news/slovakia-looks-to-home-grown-uranium-to-cut-russian-nuclear-dependence/

EU says Russia's war risks nuclear disaster on Chernobyl anniversary

Euractiv, April 26, 2022

The European Union warned Tuesday (26 April) that Russia's invasion of Ukraine risks setting off a fresh nuclear disaster in Europe, 36 years after the accident at the Chernobyl plant. "Today, Russia's illegal and unjustified aggression in Ukraine again jeopardises nuclear safety on our continent," the European Commission said in a statement. It said Moscow's forces had "targeted and occupied Ukrainian nuclear sites, recklessly damaging the facilities."

<https://www.euractiv.com/section/global-europe/news/eu-says-russias-war-risks-nuclear-disaster-on-chernobyl-anniversary/>

Nuclear vessel 'could be floating charging station for electric cruise ships'

World Nuclear News, April 29, 2022

Norwegian shipbuilder Ulstein has launched the design concept for a replenishment, research and rescue vessel - referred to as *Thor* - that will feature a thorium molten salt reactor. Molten salt reactors (MSRs) use fuel dissolved in a molten fluoride or chloride salt, which functions as both the fuel (producing the heat) and the coolant (transporting the heat away, and ultimately to the electricity generating equipment). There are a number of different MSR design concepts, and a number of interesting challenges in the commercialisation of many, especially with thorium (to breed fissile uranium-233).

<https://www.world-nuclear-news.org/Articles/Ulstein-touts-nuclear-concept-for-decarbonising-cr>

Serbia displays 'powerful, affordable' Chinese air defense missiles for the 1st time, 'not meant as a threat but rightful natl defense devt'

Global Times, May 1, 2022

Serbia displayed its latest addition to its arsenal, the Chinese-made FK-3 air defense missile system, to the general public for the first time on Saturday, after concentrated sorties of Y-20 large transport aircraft from the Chinese Air Force delivered the weapon to the European country in April.

<https://www.globaltimes.cn/page/202205/1260709.shtml>

Serbia showcases modernised combat aircraft, debuts armed UAV

Janes, May 4, 2022

Serbia showcased its first modernised MiG-29 'Fulcrum' and SOKO Orao combat aircraft, and debuted the Pegaz armed unmanned aerial vehicle (UAV) at the Štit (Shield) 2022 military power demonstration held on 30 April at Batajnica air base. 10 MiG-29s were seen at the event near Belgrade. Of Serbia's fleet of 11 single-seat and 3 twin-seat aircraft, six single-seat jets have to date been modernised to the MiG-29SM standard with Russian assistance.

<https://www.janes.com/defence-news/air-platforms/latest/serbia-showcases-modernised-combat-aircraft-debuts-armed-uav>

Backlash in Dublin after Russian TV simulates nuclear attack on Ireland, UK

Euractiv, May 5, 2022

Political leaders in Dublin have expressed outrage after simulations of nuclear attacks on Ireland and the UK were shown on Russian TV over the weekend. Environment Minister Eamon Ryan described the broadcast on Wednesday (4 May), which depicted the destruction of Ireland and the UK by Russian weapons, as "shocking and unacceptable," echoing comments made the previous day by Taoiseach Micheál

Martin who said the images were a "very sinister, intimidatory-type tactic by the Russian Federation."

https://www.euractiv.com/section/politics/short_news/backlash-in-dublin-after-russian-to-simulates-nuclear-attack-on-ireland-uk/

F. Ukraine

Update 60 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 22, 2022

Director General Rafael Mariano Grossi announced today that he will head an International Atomic Energy Agency (IAEA) expert mission to Ukraine's Chernobyl Nuclear Power Plant (NPP) next week to step up efforts to help prevent the danger of a nuclear accident during the current conflict in the country. The team of IAEA nuclear safety, security and safeguards staff will be in Chernobyl from 26 April to deliver vital equipment and conduct radiological and other assessments at the site, which was held by Russian forces for five weeks before they withdrew on 31 March.

<https://www.iaea.org/newscenter/pressreleases/update-60-iaea-director-general-statement-on-situation-in-ukraine>

IAEA Chief Grossi to Head Assistance Mission to Ukraine's Chernobyl Nuclear Power Plant Next Week

IAEA, April 22, 2022

The Director General of the International Atomic Energy Agency (IAEA), Rafael Mariano Grossi, will head an expert mission to Ukraine's Chernobyl Nuclear Power Plant (NPP) next week to step up efforts to help prevent the danger of a nuclear accident during the current conflict in the country. The team of IAEA nuclear safety, security and safeguards staff will be in Chernobyl from 26 April to deliver vital equipment and conduct radiological and other assessments at the site, which was held by Russian forces for

five weeks before they withdrew on 31 March. "The IAEA's presence at Chornobyl will be of paramount importance for our activities to support Ukraine as it seeks to restore regulatory control of the plant and ensure its safe and secure operation," Director General Grossi said. "It will be followed by more IAEA missions to this and other nuclear facilities in Ukraine in the coming weeks."

<https://www.iaea.org/newscenter/pressreleases/iaea-chief-grossi-to-head-assistance-mission-to-ukraines-chornobyl-nuclear-power-plant-next-week>

The military showed the use of British MANPADS LMM Martlet

Military, April 22, 2022

The Ukrainian military has shown how to shoot down a drone with British MANPADS. The Military informs about it. According to the published video, the military uses LMM Martlet MANPADS. The LMM Martlet is a light multi-role missile designed for the British military Thales Air Defense. It began to be developed as an air-to-ground missile. But now there are options for use from air, sea and ground platforms to impress a wide range of purposes.

<https://mil.in.ua/uk/news/vijskovi-pokazaly-vykorystannya-brytanskogo-pzrk-lmm-martlet/>

Update 61 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 23, 2022

Ukraine has provided the International Atomic Energy Agency (IAEA) with a comprehensive list of equipment the country says it needs for the safe and secure operation of its nuclear facilities during the current conflict, Director General Rafael Mariano Grossi said today. The Director General said the detailed equipment requirements submitted through the IAEA's Unified System for Information Exchange in Incidents and Emergencies (USIE) – a secure web site for the exchange of notifications and other emergency-related information between countries – would

enable the Agency to effectively coordinate and implement the delivery of support to Ukraine. Many IAEA Member States have expressed readiness to offer such assistance to the country.

<https://www.iaea.org/newscenter/pressreleases/update-61-iaea-director-general-statement-on-situation-in-ukraine>

Ukraine will receive high-precision Excalibur long-range projectiles for 155-mm howitzers from Canada

Military, April 23, 2022

Canada will hand over M777 howitzers and shells to Ukraine, including the latest high-precision Excalibur munitions. The Military reports with reference to CBS . The media received confirmation from three sources that four 155-mm towed M777 howitzers were sent to Ukraine. It is worth noting that Canada has a total of 37 such guns. Ukraine will receive weapons from the reserves of the 1st Regiment of the Royal Canadian Cavalry Artillery. Among other things, Ukraine will receive high-precision long-range shells Excalibur. Some of this ammunition remained in Canada after the war in Afghanistan.

<https://mil.in.ua/uk/news/ukrayina-otrymaye-vid-kanady-vysokotochni-dalekobijni-snaryady-excalibur-dlya-155-mm-gaubytz/>

In Ukraine, the Russian military is struck by shock drones "Warmate"

Military, April 24, 2022

Ukrainian defense forces are likely to use Warmate ammunition against the Russian military. This was reported by Military with reference to the Polish newspaper Wiadomoœci Gazeta. The Warmate strike drone was developed by the Polish company WB Electronics, part of the WB GROUP. Impact drone "Warmate" is a device made of composite materials with an electric motor. The projectile can be launched from portable launchers or from

air carriers. The UAV is controlled and guided by the operator. The device can be equipped with various types of warheads with a mass of explosives.

<https://mil.in.ua/uk/news/v-ukrayini-vijskovyh-rf-urazhayut-za-dopomogoyu-udarnyh-bpla-warmate/>

Update 63 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 25, 2022

The Director General of the International Atomic Energy Agency (IAEA), Rafael Mariano Grossi, is today travelling to Ukraine to lead the IAEA's first full-fledged assistance mission of safety, security and safeguards experts to the country. The team will arrive at the Chernobyl Nuclear Power Plant (NPP) on Tuesday to deliver equipment, conduct radiological assessments and restore safeguards monitoring systems. In his opening remarks earlier today at the First International Conference on Nuclear Law in Vienna, when referring to nuclear safety and security, Director General Grossi said: "In the case of Ukraine, we are working within, and to a great extent thanks to, the existing framework of norms and procedures through the IAEA's Incident and Emergency Centre, including through the Agency's Response and Assistance Network (RANET), which has been operating for a long time."

<https://www.iaea.org/newscenter/pressreleases/update-63-iaea-director-general-statement-on-situation-in-ukraine>

Ukraine gets 155mm M982 guided shells: PBX warhead, 23-70 km range

Bulgarian Military, April 25, 2022

The Canadian government has decided to send to the Ukrainian armed forces an unknown number of towed M777 howitzers, as we announced just days ago. BulgarianMilitary.com has learned that this delivery to Kyiv includes 155mm GPS-guided artillery shells M982 Excalibur, formerly known as XM982. The information was confirmed by an additional press release

issued by the Canadian Ministry of Defense.

<https://bulgarianmilitary.com/2022/04/25/ukraine-gets-155mm-m982-guided-shells-pbx-warhead-23-70-km-range/>

Update 64 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 26, 2022

The Director General of the International Atomic Energy Agency (IAEA), Rafael Mariano Grossi, today arrived at Chernobyl Nuclear Power Plant (NPP), with an IAEA team of nuclear safety, security and safeguards staff, to deliver equipment, conduct radiological assessments and restore safeguards monitoring systems. "Today marks 36 years since the Chernobyl nuclear power plant accident, the most severe in the history of nuclear power. I am here to pay respect to the victims of the nuclear accident and to all those who have worked tirelessly to rebuild and protect this place," Director General Grossi said. Director General Grossi and his team were updated by Ukraine counterparts on the current nuclear and radiation safety, and nuclear security, situation of Ukraine's nuclear facilities.

<https://www.iaea.org/newscenter/pressreleases/update-64-iaea-director-general-statement-on-situation-in-ukraine-0>

Update 65 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 27, 2022

Nuclear safety, security and safeguards experts from the International Atomic Energy Agency (IAEA) are continuing to work at the Chernobyl nuclear power plant (NPP) this week to deliver equipment, conduct radiological assessments and restore safeguards monitoring systems. The experts arrived at the site on Tuesday as part of an IAEA assistance mission led by Director General Rafael Mariano Grossi who later the same

day travelled to Kiev for high-level talks with the Ukrainian President Volodymyr Zelenskyy and the Minister of Energy, Herman Halushchenko.

Director General Grossi is returning to IAEA Headquarters in Vienna and will hold a press conference tomorrow, April 28, at 2.30 pm.

<https://www.iaea.org/newscenter/pressreleases/update-65-iaea-director-general-statement-on-situation-in-ukraine>

‘Very dangerous’: Chernobyl marks anniversary amid Ukraine-Russia war

South China Morning Post, April 27, 2022

This week marks 36 years since the world’s worst civil nuclear disaster at Chernobyl. Russian troops occupied the site for a month after launching February 24 invasion. The road toward Chernobyl is still littered with Russian soldiers’ discarded ration boxes and occasional empty bullet shells in a subtle but harrowing warning of the invasion’s terrible risk for the infamous nuclear site. Tuesday marked the 36th anniversary of what is considered the worst ever nuclear disaster, and there was relief the hulking so-called sarcophagus covering the reactor’s radioactivity remains was back under Ukrainian control.

<https://www.scmp.com/news/world/europe/article/3175669/very-dangerous-chernobyl-marks-anniversary-amid-ukraine-russia>

Update 66 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 28, 2022

The Director General of the International Atomic Energy Authority (IAEA), Rafael Mariano Grossi, today returned from Ukraine to the IAEA Headquarters in Vienna and held a press conference, where he briefed journalists on his visit to the Chornobyl nuclear power plant (NPP), including the results of initial radiation monitoring conducted by IAEA experts in the Chornobyl Exclusion Zone, and his talks with Ukrainian President Volodymyr

Zelenskyy. The Director General today also published a report which provides a summary of the situation in Ukraine regarding safety, security and safeguards of nuclear facilities, and activities involving radioactive sources in Ukraine. It includes actions taken by the IAEA in response to Ukraine’s request for assistance, and some initial findings of the IAEA expert missions to Ukraine led by the Director General.

<https://www.iaea.org/newscenter/pressreleases/update-66-iaea-director-general-statement-on-situation-in-ukraine>

Update 67 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 29, 2022

Ukraine formally informed the International Atomic Energy Agency (IAEA) today about the situation at the Zaporizhzhya Nuclear Power Plant (NPP), which is controlled by Russian forces but still operated by its Ukrainian staff, Director General Rafael Mariano Grossi said. Ukraine said its nuclear specialists “continue to perform their duties and maintain, as far as possible during the war, the safety of the nuclear facilities” in the country. Ukraine also said that Rosenergoatom – a unit of Russian state nuclear company Rosatom – had sent a group of nuclear specialists to the Zaporizhzhya NPP, naming eight.

<https://www.iaea.org/newscenter/pressreleases/update-67-iaea-director-general-statement-on-situation-in-ukraine>

The Navy showed how Bayraktar destroyed the Strela-10 SAM on Zmiiny

Militarny, May 3, 2022

The Bayraktar multi-role drone destroyed the Russian aggressors’ Strela-10 anti-aircraft missile system on Snake Island. The video of the drone’s work on enemy equipment was published today on the Facebook page of the Naval Forces of the Armed Forces of Ukraine. The Bayraktar

TB2 strike drone struck Russian positions on the captured Black Sea Snake Island. Bayraktar TB2, which neutralized enemy equipment, belongs to the Ukrainian Navy. The Ukrainian military said that as a result of the strike, three Strela-10 anti-aircraft missile systems and a communication vehicle - a server with telecommunications equipment - were destroyed.

<https://mil.in.ua/uk/news/vms-pokazaly-yak-bayraktar-znyshhyyo-zrk-strela-10-na-zmiyjinomu/>

Update 73 – IAEA Director General Statement on Situation in Ukraine

IAEA, May 5, 2022

The Director General of the International Atomic Energy Agency (IAEA), Rafael Mariano Grossi, today met with the head of Ukraine's regulatory body, Oleh Korikov, to discuss the Agency's efforts to help ensure the safety and security of the country's nuclear facilities during the current conflict. In their meeting at the IAEA's headquarters in Vienna, Director General Grossi and Korikov, Chair of the State Nuclear Regulatory Inspectorate of Ukraine (SNRIU), also spoke about the situation at the Zaporizhzhya Nuclear Power Plant (NPP) in southern Ukraine.

<https://www.iaea.org/newscenter/pressreleases/update-73-iaea-director-general-statement-on-situation-in-ukraine>

Update 74 – IAEA Director General Statement on Situation in Ukraine

IAEA, May 6, 2022

Ukraine has informed the International Atomic Energy Agency (IAEA) about continuing operational challenges at the Chernobyl Nuclear Power Plant (NPP) due to the Russian occupation of the site between 24 February and 31 March, Director General Rafael Mariano Grossi said today. Five weeks after Russian forces withdrew from the Chernobyl NPP, Ukraine said several facilities at the site still cannot operate normally because of, for example, disrupted logistical routes for the supply of equipment and spare parts, and lack of safe access for the necessary number

of personnel to ensure safe operation. As a result, the regulatory body has been taking regulatory action including suspending some of the licences at this site.

<https://www.iaea.org/newscenter/pressreleases/update-74-iaea-director-general-statement-on-situation-in-ukraine>

G. United Kingdom

UK to offer next-generation defense weapons to India

Daily Sabah, April 22, 2022

British Prime Minister Boris Johnson is expected to help move India away from its dependence on Russia by expanding economic and defense ties when he meets with his Indian counterpart Friday, officials said. A British High Commission statement on Friday said Britain is expected to offer next-generation defense and security collaboration across five domains – land, sea, air, space and cyber – to face complex new threats. This includes support for new Indian-designed and -built fighter jets, offering the best of British know-how on building aircraft. Britain will also seek to support India's requirements for new technology to identify and respond to threats in the Indian Ocean, the statement said.

<https://www.dailysabah.com/business/defense/uk-to-offer-next-generation-defense-weapons-to-india>

Chinese agents use drones to spy on UK nuclear bases, defence chiefs warn

Mirror, April 23, 2022

Chinese agents are using drones to spy on our nuclear bases, defence chiefs warn. They believe Beijing spooks are behind 18 drone sightings above military sites and power stations in just two years. The disclosure follows warnings by intelligence chiefs that China is intent on stealing our most sensitive secrets. One of the sites was the nuclear sub base in Faslane, Scotland – the most sensitive military establishment in the UK. It is home to Trident submarines

and nuclear weapons are stored at the Royal Naval Armament Depot on the same base. The Atomic Weapons Establishment in Aldermaston, Berks, where nuclear warheads are designed and made, is also said to have been targeted.

<https://www.mirror.co.uk/news/uk-news/chinese-spies-use-drones-spy-26781649>

Great Britain will hand over to Ukraine drones capable of delivering cargo to the forefront – media

Military, May 4, 2022

The United Kingdom will hand over to the Armed Forces of Ukraine Malloy T150 drones, which are capable of delivering equipment and ammunition to the troops on the front line. The possibility of sending these drones, Sky News reported. The drones are part of a new package of military aid announced by Prime Minister Boris Johnson. The drones have a range of 70 km and can transport up to 68 kg of cargo. The British company Malloy Aeronautics manufactures Malloy T150 drones.

<https://mil.in.ua/uk/news/velyka-brytaniya-peredast-ukrayini-bezpilotnyky-yaki-zdatni-dostavyty-vantazh-na-peredovu-zmi/>

Boris Johnson says ‘Sizewell C is certainly on the agenda’

BBC, May 4, 2022

Plans for a £20bn large-scale nuclear plant on the east coast of England will be brought forward “as fast as possible”, Boris Johnson has said. The prime minister said Sizewell C in Suffolk was “certainly on the agenda” and the government planned to build a nuclear reactor every year. There has been opposition to the plant from those who argue big nuclear is slow, expensive and threatens wildlife. The official decision on Sizewell C is due later this month.

<https://www.bbc.com/news/uk-england-suffolk-61319151>

H. United States

The United States is working to provide Ukraine with an opportunity to hit its targets at a long distance – Austin

Military, April 29, 2022

The United States is working to provide Ukraine with the ability to hit long-range enemy targets. This was stated by US Secretary of Defense Lloyd Austin during a joint briefing with the Secretary of Defense of Canada on April 28, 2022. According to Austin, the Ukrainian side is convinced that the ability to hit the enemy at great depth will be key in the next stage of the war with Russia. The US Secretary of Defense did not specify which systems are meant.

<https://mil.in.ua/uk/news/ssha-pratsyuyut-nad-zabezpechennyam-ukrayini-mozhlyvosti-vrazhaty-tsili-na-dalekij-vidastani-ostin/>

US sends secretive Phoenix Ghost ‘suicide drones’ to Ukraine

South China Morning Post, April 30, 2022

The Ukrainian military will soon begin tracking and attacking Russian forces with a secret new “suicide drone” produced by Aevex Aerospace, a little-known Solana Beach, California, company that has considerable experience with unmanned aerial systems.

<https://www.scmp.com/news/world/united-states-canada/article/3176108/us-sends-secretive-phoenix-ghost-suicide-drones>

Pentagon: Ukraine will have American naval drones

Military, May 3, 2022

The Armed Forces of Ukraine will have American naval drones for coastal defense. This was announced at a briefing on May 2, US Defense Department spokesman John Kirby, writes LIGA.net. According to the Pentagon speaker, the United States

Army has already trained a group of UAF servicemen to use "some unmanned coastal defense vessels." Washington believes that these unmanned naval complexes will help Ukraine defend its coastline from encroachment by Russian invaders. Asked if these drones had already been delivered, a Pentagon spokesman declined to answer.

<https://mil.in.ua/uk/news/pentagon-ukrayina-matyne-amerykanski-morski-bezpilotnyky/>

The United States will hand over 5,000 Javelin anti-tank missiles to Ukraine by Friday

Military, May 3, 2022

The United States will hand over an additional 5,000 anti-tank missiles to the Javelin complex to Ukraine. Pentagon spokesman John Kirby said the handover during a briefing. Anti-tank weapons will be delivered to Ukraine by Friday, May 6. Javelin ATGM is a third-generation portable anti-tank missile system manufactured by the American companies Raytheon and Lockheed Martin. It belongs to the class of "shoot and forget" systems, which has been in the armed forces of the United States and a number of other countries since the 1990s. The complex is designed to destroy armored vehicles and air targets at low altitudes (helicopters, UAVs).

<https://mil.in.ua/uk/news/ssha-do-p-yatnytsi-peredadut-ukrayini-5000-protytankovyh-raket-javelin/>

Northrop Grumman releases new future UAV concept art

Janes, May 5, 2022

Northrop Grumman has released new concept art of a future unmanned aerial vehicle (UAV), which shows a sleeker design to that previously shown in late 2021. The artist's rendering, released to *Janes* on 5 May, shows an unmanned version of the Model 401 manned experimental prototype developed by Northrop Grumman subsidiary, Scaled Composites.

<https://www.janes.com/defence-news/air-platforms/latest/northrop-grumman-releases-new-future-uav-concept-art>

Farewell to arms control

Washington Examiner, May 5, 2022

For decades, nuclear deterrence was seen as the key to keeping the peace among the superpowers and preventing a Third World War. "If Russia gets away with this cost-free, then so goes the so-called international order," Milley said. "And if that happens, then we're heading into an era of seriously increased instability."

<https://www.washingtonexaminer.com/policy/defense-national-security/farewell-to-arms-control>

Could the US military dominate space via Starlink's satellite network?

South China Morning Post, May 6, 2022

The international community should be on high alert for the US Armed Forces' potential domination of outer space via SpaceX's Starlink satellite internet system, the official newspaper of the Chinese military said on Thursday. "The Starlink project has decided to increase the planned 12,000 satellites to 42,000, underscoring that it is widely distributed, flexible and could be reconfigured quickly," a PLA Daily commentary said. "The ambition to militarise Starlink and its barbaric expansion deserve high alert from the international community." Starlink could allow the US military to gain 'situational awareness while keeping adversaries in the dark'.

<https://www.scmp.com/news/china/military/article/3176641/could-us-military-dominate-space-starlinks-satellite-network>

New Tactical Nuclear Weapons? Just Say No.

Arms Control, May 2022

Russian President Vladimir Putin's brutal war on Ukraine, along with his implied threats of nuclear weapons use against any who would interfere, has raised the spectre of nuclear conflict. As the war drags on, it is vital that Russian, NATO, and U.S. leaders maintain lines of

communication to prevent direct conflict and avoid rhetoric and actions that increase the risk of nuclear escalation.

<https://www.armscontrol.org/act/2022-05/focus/new-tactical-nuclear-weapons-just-say-no>

I. West Asia

US, Armenia sign civil nuclear pact, launch strategic dialogue

Yenisafak, May 3, 2022

The US and Armenia launched a bilateral strategic dialogue Monday with Secretary of State Antony Blinken pledging a “further strengthening” of diplomatic ties. Blinken hosted Armenian Foreign Minister Ararat Mirzoyan at the State Department for a meeting in which the two nations signed an agreement on civil nuclear cooperation, which the State Department said “improves our cooperation on energy security and strengthens our diplomatic and economic relationship.” The department said in a separate statement that the agreement is aimed at helping Armenia diversify its energy supplies.

<https://www.yenisafak.com/en/world/us-armenia-sign-civil-nuclear-pact-launch-strategic-dialogue-3594915>

J. Iran

President expresses willingness to enhance defensive cooperation with China

Tehran Times, April 29, 2022

On Wednesday, Iranian President Ebrahim Raisi met with visiting Chinese State Councilor and Minister of National Defense Wei Fenghe. During the meeting, Raisi urged for increasing the two countries’ areas of cooperation and strengthening overall cooperation, including military cooperation. Iran and China have comparable viewpoints in international issues and mutually support each other, according to Raisi. Iran, which opposes unilateralism, hegemony, and external intervention, firmly supports China in defending its essential interests, according to Raisi, while thanking China for its long-

term support and help through Iran’s difficult times. Wei stated that President Xi Jinping and Raisi have exchanged phone calls and letters since last year, resulting in new progress in the two countries’ comprehensive strategic partnership.

<https://www.tehrantimes.com/news/472203/President-expresses-willingness-to-enhance-defensive-cooperation>

Iran unveils world’s longest-range tactical ballistic missile

Tehran Times, April 30, 2022

Iran’s newest ballistic missiles, called “Kheiber-Shekan” and “Emad-3”, were unveiled during the Quds Day march in Tehran on Friday. Kheiber-Shekan is the world’s longest-range tactical ballistic missile with a range of 1,450 km. The last Friday of Ramadan, titled “International Quds Day”, aims to highlight the Palestinians’ struggle to get rid of the Israeli occupation and suppression.

<https://www.tehrantimes.com/news/472208/Iran-unveils-world-s-longest-range-tactical-ballistic-missile>

Iran looks to launch new power plants

Azernews, May 2, 2022

Iran is working to launch 12 new power plants in the current Iranian year (started March 21, 2022), Trend reports citing Fars News Agency. The construction of 12 thermal power plants is underway. Overall, the construction includes a total of 18 thermal and steam units with a production capacity of 4,500 megawatts, which will be launched by the end of spring. The mentioned power plants are part of the government’s plan to develop the country’s thermal power sector, reaching generation of 6,000 megawatts of electricity. The government is looking to eliminate the issue of power outages in summer.

<https://www.azernews.az/region/193240.html>

Senate adopts measure against efforts to revive nuclear deal

Tehran Times, May 6, 2022

Senators voted late Wednesday to endorse a Republican-led measure stating that any nuclear agreement with Tehran should also address what they claimed Iran's support for terrorism in the region, and that the U.S. should not lift sanctions on a branch of the Iranian military, the Islamic Revolution Guard Corps (IRGC). 16 Democrats voted with almost all Republicans to approve Sen. James Lankford's (R-Okla.) motion. While the measure itself was non-binding, the vote was hailed as a modest victory for Republicans who have pushed the Biden administration to walk away from the talks in Vienna. Lawmakers from both parties said it was a warning shot to Biden's negotiating team, who have all but acknowledged in private that an agreement that goes beyond curtailing Iran's nuclear program is no longer possible, according to multiple people familiar with classified Hill briefings on the subject.

<https://www.tehrantimes.com/news/472276/Senate-adopts-measure-against-efforts-to-revive-nuclear-deal>

K. Saudi Arabia

CENTCOM chief hits out at Iran, says US committed to Middle East partners

Alarabiya, May 12, 2022

The top US military general for the Middle East said in a recent interview that Iran was the "most destabilizing force" in the region, noting that countering this threat needed regional cooperation. "I view Iran as the most destabilizing force in the Middle East. The United States' position is that we will not allow a nuclear Iran. However, our concerns about Iran go beyond its nuclear capability," US Central Command (CENTCOM) chief Gen. Erik Kurilla told Al Arabiya during Tuesday's interview in Saudi Arabia. Asked about his trip to Saudi Arabia, the US general said it was part of a "listening tour" and that he would be making several more trips back to the

kingdom. He was in Egypt before heading to Saudi Arabia. "This visit to the CENTCOM region... is largely an opportunity to glean insights from our partners here. In so doing, I'm looking for gaps, risks, and opportunities in security for our partners and for the region," Gen. Kurilla said.

<https://english.alarabiya.net/News/middle-east/2022/05/12/CENTCOM-chief-hits-out-at-Iran-says-US-committed-to-Middle-East-partners>

L. Israel

Israel attends US-led summit on sending more arms to Ukraine

The Times of Israel, April 26, 2022

Israel is among 40 countries attending a meeting of Western countries to discuss supplying more weaponry to Ukraine to help it fend off Russia's invasion of the country. Israel's attendance at the meeting Tuesday, hosted by the US at Ramstein Air Base in Germany, reflects an ongoing shift as Jerusalem appears to discard its policy of only supplying humanitarian aid to the embattled country in order to keep ties with Moscow intact. The meeting, held at the invitation of the United States, is "focused on doing things to generate additional capability and capacity for the Ukrainian forces," according to US Defense Secretary Lloyd Austin.

<https://www.timesofisrael.com/israel-attending-us-led-summit-on-supplying-ukraine-with-more-arms/>

US close to admitting failure of Iran nuclear talks, Israeli officials claim

The Times of Israel, April 26, 2022

With Israel's national security adviser in Washington to meet his counterpart, Israeli officials have reportedly said the chances of world powers signing a new nuclear deal with Iran are greatly diminished. According to reports in the Israel Hayom newspaper and the Kan public broadcaster on Tuesday, US administration officials are closer than ever

to admitting defeat on US President Joe Biden's stated goal to return to the 2015 deal. "The possibility that the parties will sign an agreement in the foreseeable future is dwindling at an exponential rate," an official told Israel Hayom. A source cited by Kan suggested that the White House "is much more willing these days, then it was in the past" to admit the talks are likely to fail.

<https://www.timesofisrael.com/us-close-to-admitting-failure-of-iran-nuclear-talks-israeli-officials-claim/>

M. Turkey

Turkey could buy 2nd S-400 unit from Russia: SSB's Demir

Daily Sabah, April 27, 2022

Turkey could acquire the second part of the S-400 air defense system purchase from Russia, the country's top defense body head said late Tuesday. Ismail Demir, chairperson of the Presidency of Defense Industries (SSB), speaking to the public broadcaster TRT, said the purchasing of the second batch of the Russian-made system was on the table from the very beginning. Turkey's decision is what it has always been, it didn't change according to what others have said, he noted. Ankara's purchasing S-400 air defense systems, of which the first delivery arrived in July 2019, has been a point of long-standing contention between Turkey and the United States.

<https://www.dailysabah.com/business/defense/turkey-could-buy-2nd-s-400-unit-from-russia-ssbs-demir>

Arms sales to Turkey should be expedited, hurdles removed: Blinken

Daily Sabah, April 29, 2022

U.S. top diplomat has said foreign military sales to key Washington partners like Turkey and India should be sped up and bureaucratic hurdles removed. Asked during a congressional testimony what the

Biden administration can do "to cut through the red tape to help our work with our allies such as Turkey and India," Secretary of State Antony Blinken acknowledged that the processes need to be hurried at both the executive and congressional levels. "I think that we can and should do better in sales, particularly in the rapidity with which we're able to do things, review things. I think that's on us in the executive branch. It's also on Congress," he told the House Appropriations Committee.

<https://www.dailysabah.com/business/defense/arms-sales-to-turkey-should-be-expedited-hurdles-removed-blinken>

East Asia

N. Japan

Japan outlines neighbors' threats in annual diplomatic report as China 'needs to be on guard'

Global Times, April 23, 2022

The Japanese Foreign Ministry said in its Diplomatic Bluebook presented to a Cabinet meeting on Friday that the world has shifted to an era of full-scale competition among countries, notably between China and the US. Chinese experts said on Saturday that despite the tough stance against Russia and relatively restrained China stance in the bluebook regarding the 50th anniversary of bilateral ties in 2022, it does not mean that China is not a main target of Japan, which is increasingly dominated by right-leaning conservative politicians, using every opportunity to justify its expansion ambitions. The bluebook basically maintained the view on China from the 2021 edition, expressing Japan's concerns on China's "unilateral attempt to change the status quo" in waters near China's Diaoyu Islands. However, it also called on efforts to build constructive and stable relations.

<https://www.globaltimes.cn/page/202204/1260115.shtml>

Japan warned of worsening regional, global security as FM promises a stronger military in visit to US carrier

Xu Keyue and Zhang Changyue

Global Times, April 24, 2022

Japanese media reported that Japanese Foreign Minister Yoshimasa Hayashi and US Ambassador to Japan Rahm Emanuel inspected the US nuclear-powered aircraft carrier USS Abraham Lincoln on Saturday. A strike group led by the vessel held joint drills with Japan's Maritime Self-Defense Force in waters near the country earlier this month. Hayashi said Japan will continue to closely work with the US to further enhance their alliance's deterrence and response capability. He added Japan will also comprehensively strengthen its defense capability, media reported. According to analysts, Japan is fractious in closely working with the US to strengthen their alliance's deterrence in the Asia-Pacific region, which has sparked deep concern among its neighbors as the US-Japan aggressive military cooperation would worsen the security environment in the region.

<https://www.globaltimes.cn/page/202204/1260214.shtml>

IAEA Releases First Report on Safety of Planned Water Discharge from Fukushima Daiichi Site

IAEA, April 29, 2022

The International Atomic Energy Agency (IAEA) Task Force, which is reviewing Japan's policy to discharge treated water from the Fukushima Daiichi nuclear power station against relevant international safety standards, today released its first report. The report summarizes the overall progress in the technical preparations for the water discharge. It compiles the initial findings from the Task Force's first review mission to Japan's Tokyo Electric Power Company (TEPCO), the Fukushima Daiichi nuclear power station operator, and the Ministry of

Economy, Trade and Industry (METI) in February 2022.

<https://www.iaea.org/newscenter/pressreleases/iaea-releases-first-report-on-safety-of-planned-water-discharge-from-fukushima-daiichi-site>

Delegation from Japanese ruling party's Youth Division visits Taiwan this week

Taipei Times, May 2, 2022

A delegation from the Youth Division of Japan's ruling Liberal Democratic Party (LDP) is arriving in Taiwan tomorrow on a five-day trip that includes a meeting with President Tsai Ing-wen and a visit to the grave of former president Lee Teng-hui to pay their respects. The 11-person delegation, led by division head Masanobu Ogura, a member of the Japanese House of Representatives for Tokyo's 23rd District, are also to meet with other senior government officials before they leave on Saturday, the Ministry of Foreign Affairs said. In addition to paying their respects at Lee's grave in a New Taipei City military cemetery, the group is to visit Taipei, Taoyuan and Hsinchu, it said.

<https://www.taipeitimes.com/News/taiwan/archives/2022/05/02/2003777567>

O. North Korea

Analysis: North Korea could 'go small' with tactical nukes

Reuters, April 22, 2022

If North Korea resumes nuclear testing, it could include development of smaller "tactical" warheads meant for battlefield use and designed to fit on short-range missiles such as the one tested last weekend, analysts said. South Korean and U.S. officials say there are signs that North Korea is seeking to resume operations in an underground tunnel at its Punggye-ri Nuclear Test site, which was officially shuttered in 2018. On Saturday, the North test-fired a new, short-range missile that state media said was for "enhancing the

efficiency in the operation of tactical nukes,” marking the first time North Korea has linked a specific system to tactical nuclear weapons. Analysts say putting small warheads on short-range missiles could represent a dangerous change in the way North Korea deploys and plans to use nuclear weapons. It means Pyongyang can field more of them, and instead of threatening a few cities to deter an attack, could use them against a wide range of military targets in the South.

<https://www.reuters.com/business/aerospace-defense/nkorea-could-go-small-with-tactical-nukes-if-it-resumes-testing-2022-04-22/>

Kim warns North Korea could ‘pre-emptively’ use nuclear weapons

The Hindu, April 30, 2022

North Korean leader Kim Jong Un warned again that the North could preemptively use its nuclear weapons if threatened, as he praised his top army officials for a massive military parade in the capital, Pyongyang, this week. Mr. Kim expressed “firm will” to continue developing his nuclear-armed military so that it could “preemptively and thoroughly contain and frustrate all dangerous attempts and threatening moves, including ever-escalating nuclear threats from hostile forces, if necessary,” the North’s official Korean Central News Agency said Saturday.

<https://www.thehindu.com/news/international/kim-warns-north-korea-could-preemptively-use-nuclear-weapons/article65369957.ece?homepage=true>

North Korea preparing for imminent nuclear test, US says

Deutsche Welle, May 6, 2022

The US warned Friday that North Korea could be ramping up its nuclear activities. “The United States assesses that the DPRK is preparing its Punggye-ri test site and could be ready to test there as early as this month,” State Department deputy spokeswoman Jalina Porter told journalists, using the formal acronym for North Korea. “This assessment is consistent with

the DPRK’s own recent public statements. We have shared this information with allies and partners and will continue closely coordinating with them as well.” The Punggye-ri site had been officially closed since 2018, but both the US and South Korea have recently said there has been new construction there. North Korea last tested a nuclear bomb in 2017.

<https://www.dw.com/en/north-korea-preparing-for-imminent-nuclear-test-us-says/a-61715842>

Biden to discuss North Korea on Asia trip -White House

Reuters, May 6, 2022

U.S. President Joe Biden will discuss North Korea’s nuclear and missile programs with his counterparts in South Korea and Japan during a trip to those two countries later this month, White House press secretary Jen Psaki told reporters on Thursday. Psaki said Biden will also discuss holding Russia accountable for its invasion of Ukraine during the trip, which will also include talks in Tokyo with the leaders of the Quad grouping of nations, the United States, Australia, Japan and India.

<https://www.reuters.com/world/asia-pacific/biden-discuss-north-korea-asia-trip-white-house-2022-05-05/>

P. Australia

Australia needs its own nuclear weapons

The Canberra Times, April 26, 2022

I’ve been opposed to Scott Morrison using national security as a campaign platform as national security in Australia has traditionally been bipartisan. Simply, Australia has limited room for manoeuvre. Whoever has lead a political party has usually made little difference to our national security agenda. However, I will accept that I may be wrong. National security policy may be the biggest issue in this election. The Solomon Islands - China deal, a development most likely motivated by Australia’s participation in AUKUS

and movement towards nuclear subs, requires strong leadership and a considered response to restore Australia's weight in the balance of power in the Pacific region.

<https://www.camberraitimes.com.au/story/7711758/australia-needs-the-security-of-its-own-nuclear-umbrella/>

Australia to build drone submarines in \$2 billion deal

9News, May 5, 2022

Defence Minister Peter Dutton will today announce a \$2 billion investment to build unmanned submarines for the Royal Australian Navy amid rising tensions in the Indo-Pacific. The Defence Department and military technology company Anduril Australia will co-fund a project to develop three Extra Large Autonomous Undersea Vehicles (XLAUVs) over the next three years. Mr Dutton said the unmanned vessels would enhance the navy's surface and submarine fleet and help maintain stability in the Indo-Pacific region. "XLAUVs are cutting-edge uncrewed robotic vessels," Mr Dutton said. "They are a stealthy, multi-role, undersea capability, typically between 10 to 30 metres long, with the capacity to carry various military payloads over long distances." The Federal Government also previously announced a \$2 billion investment to purchase Evolved Sea Sparrow Missiles.

<https://www.9news.com.au/national/australia-to-develop-unmanned-submarines-upgrade-missiles/9dc91a93-aa37-4111-8fb8-b69d694cac3e>

Q. Opinions

Time to consider N-option

Ajit Ranade

Deccan Herald, May 3, 2022

The bulk of India's electricity comes from burning coal. One consequence of excessive dependence on coal is the implication for global warming and the net-zero targets announced for emissions, most recently at the Glasgow Summit. As we wait for

renewables like solar power and hydrogen to become economic and available in abundance, the world may have to explore an increase in nuclear energy. Countries like France and Japan are largely dependent on nuclear power, although after the Fukushima accident, there was a temporary stoppage. That freeze on nuclear power expansion needs to be re-examined, and India too must keep the nuclear expansion option open.

<https://www.deccanherald.com/opinion/comment/time-to-consider-n-option-1106222.html>

Bold and Unprecedented Moves: Building a US-Taiwan Defense Strategy in the Strait of Taiwan and South China Sea

Lt Col Julian Thomas

Journal of Indo-Pacific Affairs, May 5, 2022

This article argues that through revised national policy, the United States should enforce an explicit security guarantee for Taiwan, leverage Integrated Air and Missile Defense (IAMD) capabilities, and employ a counter antiaccess/area-denial (A2/AD) strategy to curtail China's aggressive overtures within the South China Sea (SCS). First, this article examines why US national policy makers should explicitly guarantee the defense of Taiwan. It also highlights the impact of the United States' current "strategic ambiguity" policy language upon the backdrop of China's ambitions to reclaim Taiwan. Second, this text deliberates how Taiwan can leverage US joint force capabilities such as IAMD to inject uncertainty, fear, and high cost into China's calculus to seize and hold Taiwan. Third, this narrative explains how Taiwan should employ a counter A2/AD zone strategy to deter or resist China's use of force within the SCS. Fourth, this manuscript examines opposing views on how increasing the United States' joint force efforts with Taiwan could create an unnecessary flashpoint between the United States and China. Finally, this text concludes that the

concepts mentioned above could lead to greater regional interoperability to curtail China's aggressive overtures within the SCS.

<https://www.airuniversity.af.edu/JIPA/Display/Article/3019529/bold-and-unprecedented-moves-building-a-us-taiwan-defense-strategy-in-the-strai/>

Contribute Articles

Indian Pugwash Society welcomes research articles from students, researchers and faculties on Space, Missile, nuclear technology, WMD proliferation, arms control, disarmament, export controls and other related issues. Articles should be crisply written and should address contemporary debates in the policy arena. Manuscripts submitted for the consideration of the Indian Pugwash Society should be original contributions and should not have been submitted for consideration anywhere else. For further assistance, please contact us at : indianpugwashsociety@gmail.com

The Indian Pugwash Society aims to promote the study, discussion, and knowledge of and to stimulate general interest in, and to diffuse knowledge in regards to problems relating on WMD proliferation, arms control, disarmament, space security, export controls, nuclear technology and other related issues. This newsletter is part of the project "Emerging Nuclear Order in Asia: Implications for India" sanctioned to us by Department of Atomic Energy-Board of Research in Nuclear Sciences (DAE-BRNS).

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