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A Fortnightly Newsletter from the Indian Pugwash Society

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- South Korea, U.S. start war games amid North Korea missile flurry

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A. India

Union Minister Dr Jitendra Singh says, EOS-02 satellite will be launched in second quarter of 2022

PIB, April 7, 2022

Dr Jitendra Singh said, EOS-02 is Technology demonstration satellite for various new technologies with applications that include agriculture, forestry, geology, hydrology, miniaturised power electronics, reaction wheels etc. and forming the payload for SSLV-1. He informed that the slated date of launch was during Quarter-4 of 2021, but the onset of the pandemic and consequent lock down and disruption in global as well as domestic supply chain were factors for the delay of spacecraft realisation due to non-availability of components, man power and facilities. Dwelling on the reasons for the failure of the launch of the EOS-3 satellite, Dr Jitendra Singh said, initial investigations with the post-flight data conducted immediately after the launch indicated that an anomaly in the Cryogenic Upper Stage led to failure of the mission.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1814390>

India provides data on its nuclear power development

Nuclear Engineering International, April 7, 2022

India has imported just over 7600 tons of uranium over the past three years, mostly from Kazakhstan and Canada, according to official figures released by the government.

Minister of State Jitendra Singh presented these data, as well as data on domestic uranium production and an update on nuclear power plant projects, in written responses to questions in the Indian government's upper house, the Rajya Sabha on 6 April. As of February 2022, the uranium resources identified by the Atomic Minerals Exploration and Research Authority (AMD) of the Indian Atomic Energy Department (DAE) are 369,042t U3O8 in 45 uranium deposits located in Andhra Pradesh, Telangana, Jharkhand, Meghalaya, Rajasthan, Karnataka,

Chhattisgarh, Uttar Pradesh, Uttarakhand, Himachal Pradesh and Maharashtra. Seven uranium mines in Jharkhand produced a total of 1,592,292t U3O8 and one mine in Andhra Pradesh produced 671,560t U3O8.

<https://www.neimagazine.com/news/newsindia-provides-data-on-its-nuclear-power-development-9611717>

DRDO successfully flight-tests Solid Fuel Ducted Ramjet technology off Odisha coast

PIB, April 8, 2022

Defence Research and Development Organisation (DRDO) successfully flight tested Solid Fuel Ducted Ramjet (SFDR) booster at the Integrated Test Range (ITR), Chandipur off the coast of Odisha on April 08, 2022. The test successfully demonstrated the reliable functioning of all critical components involved in the complex missile system and met all the mission objectives. The SFDR-based propulsion enables the missile to intercept aerial threats at very long range at supersonic speeds. The performance of the system has been confirmed from the data captured by a number of range instruments like Telemetry, Radar and Electro Optical Tracking Systems deployed by ITR.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1814813>

Pinaka Mk-I (Enhanced) Rocket System and Pinaka Area Denial Munition Rocket Systems successfully flight-tested by DRDO & Indian Army

PIB, April 9, 2022

Pinaka Mk-I (Enhanced) Rocket System (EPRS) and Pinaka Area Denial Munition (ADM) rocket systems have been successfully flight-tested by Defence Research and Development Organisation (DRDO) and Indian Army at Pokhran Firing Ranges. A total of 24 EPRS rockets were fired for different ranges during the last fortnight. Required accuracy and consistency was achieved by the rockets

meeting all trial objectives satisfactorily. With these trails, the initial phase of technology absorption of EPRS by the industry has successfully been completed and the industry partners are ready for user trials/series production of the rocket system. The Pinaka rocket system has been developed by Armament Research and Development Establishment, Pune supported by High Energy Materials Research Laboratory, another Pune-based laboratory of DRDO.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1815236>

Anti-Tank Guided Missile 'HELINA' successfully flight tested

PIB, April 11, 2022

Indigenously developed helicopter launched Anti-Tank Guided Missile 'HELINA' was successfully flight tested on April 11, 2022 at high-altitude ranges as part of user validation trials. The flight-test was jointly conducted by the teams of scientists from Defence Research and Development Organisation (DRDO), Indian Army and Indian Air Force (IAF). The flight trials were conducted from an Advanced Light Helicopter (ALH) and the missile was fired successfully engaging simulated tank target. The missile is guided by an Imaging Infra-Red (IIR) Seeker operating in the Lock on Before Launch mode. It is one of the most advanced anti-tank weapons in the world.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1815644>

'Have not decided on sanctions or waivers to India under CATSAA', says US on New Delhi buying S-400 missile defence system from Russia

The New Indian Express, April 12, 2022

The US has not yet made any decision on potential sanctions or waivers to India under CATSAA law for its purchase of the S-400 missile defence system from Russia, Secretary of State Antony Blinken has said.

The US administration is required under its domestic law, Countering America's

Adversaries through Sanctions Act (CAATSA) to impose sanctions on any country that has significant transactions with Iran, North Korea or Russia. "We continue to urge all countries to avoid major new transactions for Russian weapons systems, particularly in light of what Russia is doing to Ukraine. We've not yet made a determination on potential sanctions or potential waivers under the CATSAA law," Blinken said. Blinken's comments came during a joint news conference with Defence Secretary Lloyd Austin along with their Indian counterparts – External Affairs Minister S Jaishankar and Defence Minister Rajnath Singh after the 2+2 Ministerial here on Monday.

<https://www.newindianexpress.com/world/2022/apr/12/havenot-decided-on-sanctions-or-waivers-to-india-under-catsaa-says-us-on-new-delhi-buyings-400-missile-defence-system-from-russia-2441097.html>

Second successful high-altitude flight-test of Anti-Tank Guided Missile 'HELINA'

PIB, April 12, 2022

As part of the ongoing user validation trials, indigenously-developed Anti-Tank Guided Missile 'HELINA' was again successfully flight-tested from Advanced Light Helicopter on April 12, 2022. Teams of Indian Air Force and Indian Army, along with Defence Research and Development Organisation (DRDO), conducted the trial at the high altitude range. This is the second successful flight-test in successive days. Today's trial was carried out for different range and altitude. As per the plan, the missile engaged the simulated tank target accurately. The trials were witnessed by senior Army Commanders and scientists of DRDO. With the flight-test, consistent performance of the complete system, including Imaging Infra-Red Seeker, has been established, which will enable the induction of the 'Helina' into the Armed Forces.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1815979>

From space to underwater, US and India vow to step up defence ties

The Economic Times, April 13, 2022

India and the US have vowed to step up defence cooperation in multiple areas, from underwater to space domain awareness, as the two sides acknowledged shared interests in the Indo-Pacific area and discussed the growing Chinese military footprint in the region. Increased cooperation in evolving domains like space, artificial intelligence and cyber security were central to the 2+2 dialogue in the defence sector, with the two sides agreeing that the respective navies have been the driving force in advancing mutual interests. Domain awareness - the ability to predict, monitor and react to an adversary - was a central theme at the dialogue held in the US, with an agreement signed for space situation awareness as well as discussions on cooperation in underwater capabilities.

https://economictimes.indiatimes.com/news/defence/from-space-to-underwater-us-and-india-vow-to-step-up-defence-ties/articleshow/90807214.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

Govt looks to extend validity of green clearance for nuclear, hydro projects

Hindustan Times, April 15, 2022

The Union environment ministry is planning to extend the validity of green clearances granted to nuclear projects, hydro power projects and mines by several years, people familiar with the matter said, triggering concerns among experts about the environmental and social impacts of such a move. A draft notification issued by the ministry on April 12 said environmental clearances granted to hydro projects will be valid for 13 years. The clearances given to nuclear projects will last for 15 years and for mining projects, upto 50 years. "Based on the past experiences, it is noted that nuclear power projects and hydro power projects have high gestation period due to various issues such as geological surprises, delay in forest clearance, land acquisition, local issues, rehabilitation and resettlement,

etc., which are often beyond the control of project proponents and in this context, the Central Government deems it necessary to extend the validity of Environmental Clearance (EC) for such projects," the draft notification, seen by HT, said.

<https://www.hindustantimes.com/india-news/centre-looks-to-extend-validity-of-environmental-clearance-for-nuclear-hydro-projects-101649959890650.html>

Amid Ukraine war, Russia starts delivery of second S-400 missile system to India

WION, April 15, 2022

Amid the Ukraine war and sanctions, Russia has begun delivering the second squadron of S-400 advanced surface-to-air missile defence system to India, ahead of schedule, officials said. By end of this month, the delivery of the critical system will be completed and thereafter it will be deployed. The first squadron of the S-400 system arrived in India in December 2021 and has been deployed on the Punjab border to thwart any air strikes from both Pakistan and China.

<https://www.wionews.com/india-news/amid-ukraine-war-russia-starts-delivery-of-second-s-400-missile-system-to-india-471183>

Launch of sixth Scorpene Submarine 'Vagsheer' at Mazagon Dock Limited (MDL), Mumbai

PIB, April 20, 2022

Yard 11880, the sixth and last submarine of the Indian Navy's Kalvari class submarines of Project 75 has been launched today at the Kanhoji Angre Wet Basin of Mazagon Dock Limited (MDL). Dr Ajay Kumar, Defence Secretary was the Chief Guest at the ceremony and the submarine named 'Vagsheer' was launched by Mrs Veena Ajay Kumar, in keeping with Naval traditions of launch/naming by a lady. The ceremony was attended by senior naval officers including Flag Officer Commanding-in-Chief

Western Naval Command Vice Admiral AB Singh, Vice Chief of the Naval Staff Vice Admiral SN Ghormade and dignitaries both from Integrated Headquarters Ministry of Defence (Navy), Headquarters Western Naval Command and officials from Director General De À Armament, France and Naval Group, France.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1818422>

AERB nod for excavation for building 700MW nuclear power plants at Kaiga

The Economic Times, April 21, 2022

India's nuclear regulator has granted permission for commencing the excavation for building two 700 MW atomic power plants at Kaiga Generating Station in Karwar district of Karnataka. The consent for excavation for building Units 5 and 6 at Kaiga marks the beginning of a new generation of indigenously developed 700 MW Pressurised Heavy Water Reactors (PHWRs), which have emerged as the mainstay of India's nuclear power programme. The consent for site excavation of Kaiga Unit 5 and 6 was granted by the Atomic Energy Regulatory Board (AERB) on March 31. The AERB had granted siting consent for the two nuclear power plants in November 2020.

<https://economictimes.indiatimes.com/industry/energy/power/aerb-nod-for-excavation-for-building-700mw-nuclear-power-plants-at-kaiga/articleshow/90977334.cms>

India's activities in nuclear fusion

Nuclear Engineering International, April 21, 2022

Fusion power is seen as an important part of India's long-term energy supply. The government hopes to build domestic demonstrators by mid-century.

Apart from creating some tokamak 'assets' such as the Aditya and the Steady-State Superconducting Tokamak (SST-1), India's fusion-related activities have been heavily

focused on domestic sub-systems development, given the country's history of being subject to abrupt technology denials. Domestic efforts in sub-systems development and basic research related to advanced tokamaks since the 1980s have positioned India to be a major partner in the International Thermonuclear Experimental Reactor (ITER) project, which is expected to yield the world's largest tokamak-based reactor. India's Department of Atomic Energy (DAE), which believes that fusion power is an important component of the country's long-term energy security, aims to fund a few demonstrators of its own with a view to commence building two 1000MWe grid-connected fusion reactors by 2050.

<https://www.neimagazine.com/features/featureindias-activities-in-nuclear-fusion-9640516/>

OneWeb signs pact with ISRO arm for satellite launches

The Economic Times, April 21, 2022

Bharti-backed OneWeb has inked an agreement with New Space India Ltd (NSIL), the commercial arm of Indian Space Research Organisation (ISRO), to launch its low-earth Orbit (LEO) satellites. "The first launch with NSIL is likely this year from the Satish Dhawan Space Centre (SDSC)-SHAR, Sriharikota," OneWeb said in a media statement Thursday. The upcoming launches will add to OneWeb's total in-orbit constellation of 428 satellites, 66% of the planned total fleet, to build a global network that will deliver high-speed, low-latency satellite broadband services in rural and remote regions globally, including in India. OneWeb is setting up a global constellation of 648-odd LEO satellites.

https://economictimes.indiatimes.com/industry/telecom/telecom-news/oneweb-inks-pact-with-isro-commercial-arm-for-satellite-launches/articleshow/90972654.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

B. Russia

Russia has evidence Kiev plots more chemical provocations – Foreign Ministry

TASS, April 7, 2022

Russia has reliable evidence that Kiev has been plotting more chemical provocations with support from US advisers, as follows from a statement by the chief Russian delegate to the Vienna talks on military security and arms control, Konstantin Gavrilov, uploaded to the Foreign Ministry's website. "Kiev regime is fundamentally wrong if it thinks that international law gives it a free hand to commit mass violent actions, including outright terror against civilians. On April 5, the Ukrainian army before leaving Rubezhnoye, in the Lugansk People's Republic, exploded a cistern with chemicals on the premises of the Zarya industrial plant.

<https://tass.com/defense/1434315>

Russia fired Ramjet powered SS-N-26 Strobile missiles at Ukraine

Bulgarian Military, April 8, 2022

The Ministry of Defense of the Russian Federation announced on April 6 that the Black Sea coast crews, operators of the mobile coastal defense missile system K-300P Bastion-P, fired two SS-N-26 Strobile [P-800 Oniks in English Onyx] missiles at ground targets in Ukraine. "The crew of the coastal missile system Bastion from the Black Sea coast fired two high-precision missiles Onyx on certain ground targets in Ukraine," said in a press release by the Ministry of Defense of the Russian Federation. The strikes were carried out using high-precision surface-to-surface and air-to-surface missiles.

<https://bulgarianmilitary.com/2022/04/08/russia-fired-ramjet-powered-ss-n-26-strobile-missiles-at-ukraine/>

Russia has no chemical weapons, they have been disposed of – Federation Council speaker

TASS, April 13, 2022

Russia disposed of all stockpile of chemical weapons; all allegations about a chemical weapon attack in Ukraine being prepared by Russia are a lie, Russian Federation Council Speaker Valentina Matviyenko told reporters Wednesday. "Today, there are attempt to smear the Russian army, smear Russia, imitate this kind of allegedly Russian activities with alleged use of chemical weapons. This all is, of course, a lie. Russia has no chemical weapons, Russia fulfilled all its obligations; in 2017, we completed total disposal of chemical weapons, unlike the US, who still have not disposed of their stockpile of chemical weapons," Matviyenko said. According to the speaker, Ukrainian authorities are complicit in the spread of this disinformation in this case.

<https://tass.com/politics/1437119>

Ukrainian Tu-143 UAV downed by Russian air defense systems – Russian defense ministry

TASS, April 15, 2022

A Ukrainian Tu-143 Reis unmanned aerial vehicle was downed by Russian air defense systems, Russian Defense Ministry Spokesman Igor Konashenkoc said on Friday. "Russian air defense systems downed a Ukrainian Tu-143 Reis unmanned aerial vehicle near the settlement of Oktyabrsky," he said. The Tu-143 Reis is a Soviet heavy reconnaissance UAV. Its mass production kicked off in the 1970s. The vehicle is equipped with special sensors, photo, television and infra-red instruments.

<https://tass.com/defense/1438489>

Russian Navy's Bastion missile systems practice massive strike in Baltic drills

TASS, April 15, 2022

The combat teams of the Baltic Fleet's Bastion coastal defense missile systems stationed in the Kaliningrad and Leningrad Regions held drills to deliver a massive missile strike on a hypothetical enemy's warships in various areas of the Baltic Sea, the Fleet's press office reported on Friday. "Battalions of Bastion coastal defense missile systems, naval and aerial reconnaissance systems of the Baltiysk and Leningrad naval bases were involved in combat training measures," the press office said in a statement.

<https://tass.com/defense/1438423>

Russia warns of nuclear, hypersonic deployment if Sweden and Finland join NATO

Reuters, April 15, 2022

One of Russian President Vladimir Putin's closest allies warned NATO on Thursday that if Sweden and Finland joined the U.S.-led military alliance then Russia would deploy nuclear weapons and hypersonic missiles in a European exclave. Dmitry Medvedev, deputy chairman of Russia's Security Council, said that should Sweden and Finland join NATO then Russia would have to strengthen its land, naval and air forces in the Baltic Sea.

<https://www.reuters.com/world/europe/russia-warns-baltic-nuclear-deployment-if-nato-admits-sweden-finland-2022-04-14/>

Vladimir Putin's nuclear bomber planes called 'Bears' fly in Ukraine striking distance

Mirror, April 18, 2022

Several Russian planes that used to carry the country's nuclear weapons have been spotted flying within striking distance of Ukraine. The aircraft are believed to be Russian TU-95s, known as Bears, and were seen over the Kaluga region between Moscow and the Ukraine border. Videos

caught four of the aircraft flying within striking distance of possible targets in Ukraine. Moscow's defence ministry has not confirmed the purpose of the flights. The propeller-powered Bears have been used previously to strike targets in Ukraine with non-nuclear weapons such as Kh-55 and Kh-101 air-launched cruise missiles. The super-loud Tu-95 is the only propeller-powered strategic bomber still in operational use today, and the plane first flew 70 years ago.

<https://www.mirror.co.uk/news/world-news/vladimir-putins-nuclear-bomber-planes-26735218>

Russia Is Against Use of Nuclear Bombs in Ukraine, Lavrov Says

Bloomberg, April 19, 2022

Russia is committed to avoiding nuclear war, Foreign Minister Sergei Lavrov said, after he was quizzed repeatedly about the possible use of atomic weapons in Ukraine. Lavrov made the comments in an interview Tuesday with India Today TV in which he avoided a direct answer on the subject. He isn't responsible for military decision-making. In the weeks leading up to Russia's invasion, the foreign minister regularly denied the Kremlin planned a military operation against Ukraine. Russia and the U.S. issued a statement last year in which they agreed "there must be no nuclear war, don't even think about it," Lavrov said.

<https://www.bloomberg.com/news/articles/2022-04-19/russia-will-not-use-nuclear-weapons-in-ukraine-lavrov-says>

Russia successfully test-launches Sarmat ICBM from Plesetsk spaceport – top brass

TASS, April 20, 2022

Russia successfully conducted the first launch of a Sarmat intercontinental ballistic missile (ICBM) from the Plesetsk cosmodrome in the Arkhangelsk Region, Russia's Defense Ministry reported on Wednesday. "Today, at 15:12 Moscow time, a Sarmat silo-based intercontinental

ballistic missile was successfully test-launched from a silo launcher at the Plesetsk state testing cosmodrome in the Arkhangelsk Region," the ministry said in a statement.

<https://tass.com/defense/1440631>

The chain of command for a potential Russian nuclear strike

Al-Jazeera, April 21, 2022

Here is how Russia's chain of command would work in the event of a nuclear weapon launch. A 2020 document called "Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence" says the Russian president takes the decision to use nuclear weapons. A small briefcase, known as the Cheget, is kept close to the president at all times, linking him to the command and control network of Russia's strategic nuclear forces. The Cheget does not contain a nuclear launch button but rather transmits launch orders to the central military command – the General Staff. The Russian General Staff has access to the launch codes and has two methods of launching nuclear warheads. There is also a back-up system, known as Perimetr, which allows the General Staff to initiate the launch of land-based missiles directly, bypassing all the immediate command posts.

<https://www.aljazeera.com/news/2022/4/21/the-chain-of-command-for-a-potential-russian-nuclear-strike>

Russian Smerch rocket launchers wipe out camouflaged Ukrainian arms depots – top brass

TASS, April 21, 2022

Combat teams of Russian Smerch multiple launch rocket systems wiped out Ukrainian arms and ammunition depots at a camouflaged airfield, Russia's Defense Ministry reported on Thursday. Smerch multiple launch rocket systems reliably eliminate targets and reconnaissance squads report exceptionally pinpoint surgical strikes by the rocket troops, the Russian Defense Ministry stressed.

<https://tass.com/defense/1440961>

Russia test-fires 'world's most powerful' nuclear-capable missile | All you need to know

India Today, April 21, 2022

Nearly two months after it invaded Ukraine, Russia test-launched the Sarmat missile, a new nuclear-capable intercontinental ballistic weapon, on Wednesday. Russian President Vladimir Putin said the weapon would "provide food for thought" for those who try to threaten his country while the defence ministry claimed it was the "world's most powerful" missile. Here's all you need to know about the Sarmat missile. The Sarmat missile is a new nuclear-capable intercontinental ballistic missile. It was test-launched for the first time from Plesetsk in northwest Russia and hit targets in the Kamchatka peninsula, nearly 6,000 km (3,700 miles) away. The missile weighs more than 200 tonnes and can transport more than ten warheads, it is believed.

<https://www.indiatoday.in/world/story/russia-tests-nuclear-capable-ballistic-missile-sarmat-putin-1939970-2022-04-21>

C. China

China's ambassador for disarmament affairs: Banning biological weapons, US should set example rather than exception

China Military Online, April 7, 2022

On April 4, local time, Li Song, China's ambassador for disarmament affairs, led the Chinese delegation to attend the second meeting of the preparatory committee for the Ninth Review Conference of the Biological Weapons Convention (BWC). He pointed out that the US, as a depository state of the BWC, should set an example rather than an exception in the field of strict implementation of all the obligations under the BWC. Li Song said that the Biological Weapons Convention is the cornerstone of global biosecurity governance. On the occasion of the 50th anniversary of the opening for the signature of the BWC, the State Parties should commit themselves to negotiating

and establishing the verification mechanism of the BWC at an early date, strengthening the mechanism for confidence-building measures (CBM), promoting international cooperation and assistance, advocating responsible biological scientific research, and coordinating and strengthening the biosecurity mechanism.

http://english.chinamil.com.cn/view/2022-04/07/content_10146378.htm

Defense spokesperson: US arms sales to Taiwan gravely undermine China's sovereignty and security interests

China Military Online, April 7, 2022

Senior Colonel Tan Kefei, spokesperson for China's Ministry of National Defense: The US arms sales to the Taiwan region of China seriously violate the one-China principle and the stipulations of the three China-US joint communiques, especially the August 17 Communique, grossly interfere China's internal affairs, gravely undermine China's sovereignty and security interests, and severely harm the relations between the two countries and their militaries, also gravely sabotage peace and stability across the Taiwan Strait. China is firmly opposed to this and makes solemn representations to the US side. Taiwan is an inalienable part of Chinese territory. The Taiwan question concerns China's core interests and brooks no foreign interference. China urges the US to abide by the one-China principle and the stipulations of the three China-US joint communiques, revoke the arms sales plan and stop military ties with Taiwan, to avoid causing further damage to the relations between the two countries and their militaries.

http://english.chinamil.com.cn/view/2022-04/07/content_10146469.htm

China's UK embassy responds to the joint statement by the US, the UK and Australia

China Daily, April 8, 2022

In recent days, the United States, the UK and Australia have used the Ukraine crisis

as an excuse to declare that the US and the UK will provide nuclear-powered submarines to Australia and the three countries will cooperate on developing advanced military technologies such as hypersonic weapons. This further reveals the deep-seated Cold-War mindset of the three countries, and their malicious intention to instigate bloc confrontation and create conflict and division. It once again proves that this coterie will deal a severe blow to the international non-proliferation system, intensify the arms race and undermine the peace and stability in the Asia-Pacific. China strongly opposes this. All Asia-Pacific countries should stay on high alert.

<https://www.chinadaily.com.cn/a/202204/08/WS624f1967a310fd2b29e55a7a.html>

Chinese space tracking ship Yuanwang-6 escorts Gaofen-3 03 satellite into orbit

China Military Online, April 8, 2022

The Long March 4C carrier rocket carrying the Gaofen-3 03, a new Earth-observation satellite, was launched from the Jiuquan Satellite Launch Center in northwestern China at 7:47 on April 7. It was later accurately captured by the space-tracking ship Yuanwang-6 of the China Satellite Maritime Tracking and Controlling Department (CSMTC), which was on standby in the predetermined waters of the Indian Ocean. Whereafter, the ship served to provide reliable measurement and control support for key actions such as rocket place into orbit and satellite orbit determination. According to Xu Rong, the deputy captain of Yuanwang-6, the ship was to undergo equipment maintenance to ensure the smooth completion of the subsequent plans set.

http://english.chinamil.com.cn/view/2022-04/08/content_10146785.htm

Chinese tests show nuclear bunkers are not what they used to be, with earth-penetrating weapons on the rise

South China Morning Post, April 8, 2022

China has built a new research facility to simulate an attack by nuclear bunker-busting weapons and learn how they damage defence facilities, even those built at extreme depths, according to military scientists involved in the project. In the past, shelters buried several hundred metres deep were rated nuclear-proof but the Chinese test facility shows that a tunnel more than 2km (1.24 miles) under the surface could be destroyed, according to the researchers. In one test, the simulated tunnel almost crumbled after taking hits the effective equivalent of five consecutive strikes by earth-penetrating nuclear weapons, an outcome that would have once been considered impossible.

<https://www.scmp.com/news/china/military/article/3173478/chinese-tests-show-nuclear-bunkers-are-not-what-they-used-be>

DSA 2022: China's Poly Defence displays GAM-10X anti-tank guided missile system

Janes, April 8, 2022

State-owned Chinese company Poly Defence displayed its indigenously developed GAM-10X anti-tank guided missiles (ATGMs) at the Defence Services Asia (DSA) 2022 exhibition in Kuala Lumpur. The GAM-10X series consists of the GAM-100 and GAM-102. The former is a short-range ATGM with an effective range of 200–2,500 m, while the latter is a medium-range system with an effective range of 300–4,000 m.

<https://www.janes.com/defence-news/weapons-headlines/latest/dsa-2022-chinas-poly-defence-displays-gam-10x-anti-tank-guided-missile-system>

China Is Accelerating Its Nuclear Buildup Over Rising Fears of U.S. Conflict

Wall Street Journal, April 9, 2022

China has accelerated an expansion of its nuclear arsenal because of a change in its assessment of the threat posed by the U.S., people with knowledge of the Chinese leadership's thinking say, shedding new light on a buildup that is raising tension between the two countries. The Chinese nuclear effort long predates Russia's invasion of Ukraine, but the U.S.'s wariness about getting directly involved in the war there has likely reinforced Beijing's decision to put greater emphasis on developing nuclear weapons as a deterrent, some of these people say.

<https://www.wsj.com/articles/china-is-accelerating-its-nuclear-buildup-over-rising-fears-of-u-s-conflict-11649509201>

China accelerates work on more than one hundred missile silos that could house nuclear weapons capable of reaching U.S. soil: Leaders see buildup as way to deter America from intervening in conflict over Taiwan

Daily Mail, April 10, 2022

China is accelerating its construction on more than 100 missile silos that can house nuclear weapons capable of reaching the United States, a move that the country's leaders say is meant to deter American forces from intervening in a potential future conflict over Taiwan. Although Beijing has accelerated its expansion of nuclear weaponry in recent months, the government claims its plan is to only maintain enough arsenal necessary to ensure the nation's security interests. Estimates by intelligence analysts and private-sector firms put China's nuclear arsenal somewhere in the 'hundreds' - far less than either the U.S. or

Russia, which hold more than 4,000 each. Pentagon officials say that if China continues developing its technology at the current pace, it will have just over 1,000 warheads by 2030.

<https://www.dailymail.co.uk/news/article-10705137/China-accelerates-work-one-nuclear-missile-silos.html>

US claims of China's nukes 'excuse for own expansion'

Global Times, April 11, 2022

US military leaders, politicians and media have been repeatedly hyping the so-called China nuclear arsenal expansion, highlighted recently again by a report by the Wall Street Journal, and these speculations are an excuse for the US to expand its own nuclear arsenal and push the "China threat" theory, Chinese experts said on Monday. China has accelerated the expansion of its nuclear arsenal because of a change in its assessment of the threat posed by the US, the Wall Street Journal reported on Saturday, citing people "with knowledge of the Chinese leadership's thinking."

<https://www.globaltimes.cn/page/202204/1259065.shtml>

China's military looks for new drones and intelligent vehicles for logistics

South China Morning Post, 12 April 2022

China's military has brought together hundreds of arms makers to showcase their products as the PLA looks for new drones and intelligent vehicles to boost logistics, according to state television. The event – organised by the People's Liberation Army's Joint Logistics Support Force and held at an unspecified location – was highlighted on state broadcaster CCTV on Sunday, though it did not say when it took place.

<https://www.scmp.com/news/china/military/article/3174026/chinas-military-looks-new-drones-and-intelligent-vehicles>

China expanding UAV usage network along border, say officials

The Hindu, April 17, 2022

China continues to expand its unmanned aerial vehicles (UAV) network and usage in areas close to the Line of Actual Control (LAC). There is a significant increase in their use for a variety of tasks from intelligence, surveillance and target acquisition and reconnaissance (ISTAR) capabilities and logistics support, official sources said citing intelligence inputs. This follows an increasing trend in UAV deployment by the People's Liberation Army (PLA) in Tibet and along the LAC since the standoff began in eastern Ladakh in May 2020.

<https://www.thehindu.com/news/national/china-expanding-uav-usage-network-along-border-say-officials/article65329175.ece>

New-type remote-controlled vehicle-mounted weapon station in plateau training

China Military Online, April 20, 2022

Recently, a combined-arms regiment assigned to the PLA Xinjiang Military Command organized a comprehensive live-fire assessment of a new-type remote-controlled vehicle-mounted weapon station to test the troops' combat capability. This new-type weapon station has exquisite structure design, is fitted with strong and precise firepower, and can annihilate light armored or animate force with a shooter manipulating the fire control system onboard.

http://eng.chinamil.com.cn/view/2022-04/20/content_10149326.htm

Chinese navy shows off hypersonic anti-ship missiles in public

South China Morning Post, April 20, 2022

The Chinese navy has shown off an advanced anti-ship missile ahead of celebrations to mark its 73rd anniversary

this weekend. It was the first time footage has been released of the YJ-21, or Eagle Strike-21, hypersonic missile, which can be carried by ships or warplanes. The missile is estimated to have a range between 1,000 to 1,500km (600 to 930 miles), and is believed to be capable of hitting a whole carrier strike group.

<https://www.scmp.com/news/china/military/article/3174946/chinese-navy-shows-hypersonic-anti-ship-missiles-public>

Russian missteps in Ukraine offer China lessons in better military strategy, stronger troop morale

South China Morning Post, 21 April 2022

With a history of military mentorship by Moscow and the use of Russian hardware, the PLA's biggest takeaway should be humility, says one expert. Another conclusion China could draw: redouble the commitment to expand its nuclear arsenal to counter US leverage.

<https://www.scmp.com/news/china/military/article/3174926/ukraine-war-china-can-learn-much-russias-invasion-and-not-just>

Foreign media reports on China's ship-launched, air-launched anti-ship ballistic missiles 'merely speculative'

Global Times, 21 April 2022

After commissioning the road-mobile DF-21D and DF-26 anti-ship ballistic missiles, the Chinese People's Liberation Army (PLA) also has ship- and air-launched variants of such hypersonic weapons in its arsenal that can keep US carrier strike groups at a distance, foreign media recently reported. These reports are merely speculative, Chinese military experts said on Thursday, noting if China does have such weapons, they are defensive in nature and would provide greater deterrence and deeper maritime defense against hostile warships, and only those with evil intentions would fear them.

<https://www.globaltimes.cn/page/202204/1259992.shtml>

D. Pakistan

Pakistan Tests Shaheen-III, Its Nuclear-Capable Missile With Longest Effective Range

Swarajya, April 9, 2022

Pakistan has tested its Shaheen-III nuclear-capable ballistic missile, which has a range of 2,750 kilometres, Inter-Services Public Relations (ISPR), the propaganda arm of the Pakistan military, has said. Shaheen-III, a mobile, solid-fueled platform, has the longest effective range of all of Pakistan's ballistic missile systems. "The test flight was aimed at revalidating various design and technical parameters of the weapon system," ISPR said. Pakistan claims that the missile's long range makes it capable of reaching the farthest point in India's northeastern states and the Andaman and Nicobar Islands in the eastern Indian Ocean. The missile, which was first tested in March 2015, is not operationally deployed.

<https://swarajyamag.com/news-headlines/watch-pakistan-tests-shaheen-iii-its-nuclear-capable-missile-with-longest-effective-range>

Pakistan FM says accidental missile firing by India could have led to war

The Economic Times, April 9, 2022

Speaking on the no-confidence motion against the Imran Khan government, Foreign Minister Shah Mahmood Qureshi on Saturday raised the issue of the accidental misfire of a missile from India into Pakistan in early March, saying that the accidental firing of the missile could have escalated into a full-fledged war between the two nuclear countries. "They said that it was an accidental fire... I have written to the President of the Security Council, and I have written to the Secretary-General of the United Nations... that accidental fire, could have led to an accidental war, between two neighbours who are atomic powers," Qureshi said, adding that "the reaction time is not hours,

its just minutes... It's such a dangerous game that India has played."

https://economictimes.indiatimes.com/news/international/world-news/pakistan-fm-says-accidental-missile-firing-by-india-could-have-led-to-war/articleshow/90747261.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

"Nukes Not Safe" Under Shehbaz Sharif, Alleges Imran Khan. Pak Army Reacts

NDTV, April 15, 2022

Pakistani Army on Thursday rubbished former prime minister Imran Khan's allegations raising doubts over the country's capability to safeguard its nuclear assets. During a roadshow in Peshawar on Wednesday, Khan who was ousted after the recent no-confidence motion against his government, questioned whether Pakistan's nuclear weapons were safe in the hands of what he called "robbers" and "thieves", referring to the newly elected Shehbaz Sharif regime. Meanwhile, addressing a press briefing today, Major General Babar Iftikhar, the Director-General (DG) of Inter-Services Public Relations (ISPR)- the media wing of the Pakistan army- dismissed Khan's allegations stating that Pakistan's nuclear assets do not belong to just one individual.

<https://www.ndtv.com/world-news/nukes-not-safe-under-shehbaz-sharif-alleges-imran-khan-pak-army-reacts-2889324>

Taliban Warns Pakistan After Rocket Attacks Kill 5 Afghan Children

NDTV, April 16, 2022

The Taliban authorities warned Pakistan on Saturday after five children and a woman were killed in Afghanistan in alleged rocket attacks by the Pakistani military in a pre-dawn assault along the border. Border tensions between Pakistan and Afghanistan have risen since the Taliban seized power last year, with Islamabad claiming militant groups were carrying out attacks from Afghan soil. An Afghan government official and a resident in Afghanistan's eastern Kunar province bordering Pakistan said

Pakistani forces fired rockets early on Saturday that left six people dead. "Five children and a woman were killed and a man wounded in Pakistani rocket attacks in Shelton district of Kunar," provincial director of information Najibullah Hassan Abdaal told AFP.

<https://www.ndtv.com/world-news/taliban-warns-pakistan-after-rocket-attacks-kill-5-afghan-children-2894336>

Karachi 3 passes acceptance tests

World Nuclear News, April 19, 2022

Unit 3 of the Karachi nuclear power plant in Pakistan passed acceptance tests on 18 April, marking the Chinese-supplied Hualong One reactor's entry into commercial operation, China National Nuclear Corporation (CNNC) announced. A ceremony held to mark the end of acceptance tests was attended by representatives of CNNC and the Pakistan Atomic Energy Commission (PAEC), including CNNC President Gu Jun and PAEC Chairman Ali Raza. "At the meeting, both China and Pakistan expressed that nuclear energy is playing an increasingly important role in promoting Pakistan's economic and social development, improving people's livelihood, and boosting green and low-carbon transformation," CNNC said.

<https://www.world-nuclear-news.org/Articles/Karachi-3-passes-acceptance-tests>

E. Sri Lanka

IAEA Reviews Sri Lanka's Nuclear Power Infrastructure Development

IAEA, April 14, 2022

An International Atomic Energy Agency (IAEA) team of experts has concluded a six-day mission to Sri Lanka to review the country's infrastructure development for a nuclear power programme. The Integrated Nuclear Infrastructure Review (INIR) was carried out from 4 to 11 April at the request of the Government of Sri Lanka. Sri Lanka is seeking to increase and diversify its power production capacity.

The Government is looking at nuclear power as a reliable and low carbon option for its energy mix as it aims to achieve carbon neutrality of the electricity sector by 2050.

<https://www.iaea.org/newscenter/pressreleases/iaea-reviews-sri-lankas-nuclear-power-infrastructure-development>

F. Europe

Switzerland plans to bury spent nuclear fuel deep underground in clay

The Straits Times, April 9, 2022

Storing radioactive waste above ground is a risky business, but the Swiss think they have found the solution: Burying spent nuclear fuel deep underground in clay. The Mont Terri international laboratory was built to study the effects of burying radioactive waste in clay which sits 300m below the surface near Saint-Ursanne in the northwestern Jura region. The underground laboratory stretches across 1.2km of tunnels. Niches along the way, each around 5m high, are filled with various storage simulations, containing small quantities of radioactive material monitored by thousands of sensors. More than 170 experiments have been carried out to simulate the different phases of the process - positioning the waste, sealing off the tunnels, surveillance - and to reproduce every imaginable physical and chemical effect. According to experts, it takes 200,000 years for the radioactivity in the most toxic waste to return to natural levels.

<https://www.straitstimes.com/world/europe/switzerland-plans-to-bury-spent-nuclear-fuel-deep-underground-in-clay>

China delivers missiles to Serbia in veiled operation

Daily Sabah, April 10, 2022

Serbia received a batch of sophisticated Chinese anti-aircraft systems in a semi-secret operation this weekend, as Western countries worry that an arms buildup in the Balkans could pose a threat to regional peace due to Russia's ongoing war against Ukraine. The arms delivery over the territory

of at least two NATO member states, Turkey and Bulgaria, was seen by experts as a demonstration of China's growing global reach.

<https://www.dailysabah.com/world/asia-pacific/china-delivers-missiles-to-serbia-in-veiled-operation>

Romanian, Belgian leaders meet on European energy market

Xinhua, April 12, 2022,

Romanian President Klaus Iohannis said on Tuesday that his country has decided to extend the capacity of nuclear energy by building small and modular nuclear power plants in a relatively short time. "We, in Romania, have decided to invest also in renewable energy, but also in civilian nuclear energy," Iohannis told a joint press conference with visiting Belgian Prime Minister Alexander De Croo. According to him, the country will also finance and develop green energy, "we will have renewables and certainly we will have a higher and higher production in hydrogen."

<https://english.news.cn/20220413/337209411a604ff7b0653395049175a0/c.html>

IAEA's Regulatory Review in Slovenia Finds Mature Safety Framework, Suggests Actions for Improved Performance

IAEA, April 14, 2022

An International Atomic Energy Agency (IAEA) mission found that Slovenia is continuously working to further strengthen its mature nuclear and radiation safety framework, including by holding emergency exercises with cyber security scenarios. The IAEA team also said that the Government should consider allotting sufficient funding and human resources to the regulators to guarantee their sustained independence and performance. The Integrated Regulatory Review Service (IRRS) team today concluded an 11 day mission to assess the governmental, legal and regulatory framework for nuclear and radiation

safety in Slovenia. The mission was requested by the Government of Slovenia. It was hosted by the Slovenian Nuclear Safety Administration (SNSA), the country's nuclear regulatory authority, and the Slovenia Radiation Protection Authority (SRPA) which regulates radiation safety in medicine and veterinary practices.

<https://www.iaea.org/newscenter/pressreleases/iaeas-regulatory-review-in-slovenia-finds-mature-safety-framework-suggests-actions-for-improved-performance>

Serbia defends China FK-3 missile deal, 'no threat' to neighbours

South China Morning Post, April 14, 2022

Serbia's President Aleksandar Vucic has rejected criticism its Chinese FK-3 surface-to-air missiles could pose a threat to its neighbours and described the purchase as "legitimate, completely regular and transparent". In a video statement on his official website, Vucic said the weapons system posed no threat, with Serbia surrounded by Nato members, and that Montenegro and Kosovo needed to let his country chart its own course.

<https://www.scmp.com/news/china/military/article/3174239/serbia-defends-china-fk-3-missile-deal-no-threat-neighbours>

G. Ukraine

Update 45 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 7, 2022

The International Atomic Energy Agency (IAEA) is aware of recent drone footage said to be showing trenches made by Russian troops in a contaminated area near Ukraine's Chornobyl Nuclear Power Plant (NPP) and it is ready to visit the site as soon as it is possible to assess the radiation situation and to provide other safety assistance as needed, Director General Rafael Mariano Grossi said. The IAEA is still not able to confirm reports last week of Russian forces receiving high doses of radiation while being in the Chornobyl Exclusion Zone set up after the 1986 accident. Russia took control of the area on 24 February and held

it for five weeks before withdrawing last Thursday. Ukraine has told the IAEA that the process of resuming regulatory control of the NPP has begun.

<https://www.iaea.org/newscenter/pressreleases/update-45-iaea-director-general-statement-on-situation-in-ukraine>

Update 46 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 8, 2022

The International Atomic Energy Agency (IAEA) is preparing comprehensive assistance packages and finalizing logistical preparations for several nuclear safety, security and safeguards missions to Ukraine in the coming weeks, Director General Rafael Mariano Grossi said today.

Stressing the urgent need to deliver technical support to reduce the risk of a nuclear accident during the conflict, the Director General said he is consulting and coordinating closely with Ukraine on both the specific content of the IAEA's assistance to its nuclear facilities as well as on the schedule for the expert missions that are expected to start later this month.

<https://www.iaea.org/newscenter/pressreleases/update-46-iaea-director-general-statement-on-situation-in-ukraine>

Update 47 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 9, 2022

Ukraine informed the International Atomic Energy Agency (IAEA) today that it was gradually restoring regulatory control of nuclear and radiation safety at the Chornobyl Nuclear Power Plant (NPP) but that the site was still lacking personnel for maintenance and repair work that was halted when Russia took control of the plant in late February, Director General Rafael Mariano Grossi said. Providing an update about the situation at the Chornobyl NPP after Russian forces withdrew from the site last week, Ukraine

said that despite “the increase in the level of radioactive contamination ... due to non-conformity with requirements of radiation safety and strict access procedures”, the radiation situation is “within the limits” for the site.

<https://www.iaea.org/newscenter/pressreleases/update-47-iaea-director-general-statement-on-situation-in-ukraine>

Update 48 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 10, 2022

Ukraine informed the International Atomic Energy Agency (IAEA) today that it had carried out the first staff rotation at the Chernobyl Nuclear Power Plant (NPP) in three weeks and only the second since late February when Russian forces seized the site, Director General Rafael Mariano Grossi said. The Director General welcomed the news as a much-needed positive step for the wellbeing of the NPP’s personnel and their families, who have been living and working under extremely stressful and difficult circumstances during the conflict. The shift change was also important for the safe and secure operation of the Chernobyl NPP, which was controlled by the Russian military for five weeks until they withdrew on 31 March, he said.

<https://www.iaea.org/newscenter/pressreleases/update-48-iaea-director-general-statement-on-situation-in-ukraine>

Update 49 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 11, 2022

Ukraine informed the International Atomic Energy Agency (IAEA) today that there had been no significant new developments related to nuclear safety and security over the past 24 hours, Director General Rafael Mariano Grossi said. Regarding Ukraine’s 15 operational reactors at four nuclear power plants, seven are currently connected to the grid compared with eight yesterday, including two at the Russian-controlled Zaporizhzhya NPP, two at the Rivne NPP, two at the South Ukraine NPP, and one at

the Khmelnytsky NPP. The eight other reactors are shut down for regular maintenance or held in reserve. Safety systems remain operational at the four NPPs and they also continue to have off-site power available.

<https://www.iaea.org/newscenter/pressreleases/update-49-iaea-director-general-statement-on-situation-in-ukraine>

Update 51 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 13, 2022

Director General Rafael Mariano Grossi said today that he is working closely with Ukraine to finalize the dates and other arrangements for the upcoming International Atomic Energy Agency (IAEA) mission to help ensure safety and security at the country’s Chernobyl Nuclear Power Plant (NPP). The Director General will head the team of IAEA safety, security and safeguards experts that is expected to travel to the site in northern Ukraine later this month, a few weeks after he went to the South Ukraine NPP to meet with senior Ukrainian government officials and plant staff.

<https://www.iaea.org/newscenter/pressreleases/update-51-iaea-director-general-statement-on-situation-in-ukraine>

Update 52 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 14, 2022

Ukraine informed the International Atomic Energy Agency (IAEA) today that there had been no significant new developments related to nuclear safety and security over the past 24 hours, Director General Rafael Mariano Grossi said. Regarding Ukraine’s 15 operational reactors at four nuclear power plants, seven are currently connected to the grid, including two at the Russian-controlled Zaporizhzhya NPP, two at the Rivne NPP, two at the South Ukraine NPP, and one at the Khmelnytsky NPP. The eight other

reactors are shut down for regular maintenance or held in reserve. Safety systems remain operational at the four NPPs and they also continue to have off-site power available.

<https://www.iaea.org/newscenter/pressreleases/update-52-iaea-director-general-statement-on-situation-in-ukraine>

Ukrainian experts worry sunken Russian warship was carrying nukes

New York Post, April 15, 2022

The sunken Russian warship Moskva, which was destroyed by a Ukrainian missile strike, may have been carrying nukes when it went down, some experts warned Friday. Several Ukrainian experts have raised the possibility that the 12,500-ton Moskva could have been carrying nuclear weapons when it sank Thursday, though US officials disputed that assessment. US intelligence does not believe the ship was carrying nuclear arms, CNN reported Friday, citing two senior US officials.

<https://nypost.com/2022/04/15/ukrainian-experts-worry-sunken-russian-warship-was-carrying-nukes/>

Update 53 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 15, 2022

Ukraine informed the International Atomic Energy Agency (IAEA) today that there had been no significant new developments related to nuclear safety and security over the past 24 hours, Director General Rafael Mariano Grossi said. Regarding Ukraine's 15 operational reactors at four nuclear power plants, seven are currently connected to the grid, including two at the Russian-controlled Zaporizhzhya NPP, two at the Rivne NPP, two at the South Ukraine NPP, and one at the Khmelnytsky NPP. The eight other reactors are shut down for regular maintenance or held in reserve. Safety systems remain operational at the four NPPs and they also continue to have off-site power available.

<https://www.iaea.org/newscenter/pressreleases/update-53-iaea-director-general-statement-on-situation-in-ukraine>

Update 54 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 16, 2022

Ukraine informed the International Atomic Energy Agency (IAEA) today that there had been no significant new developments related to nuclear safety and security over the past 24 hours, Director General Rafael Mariano Grossi said. Regarding Ukraine's 15 operational reactors at four nuclear power plants (NPPs), seven are currently connected to the grid, including two at the Russian-controlled Zaporizhzhya NPP, two at the Rivne NPP, two at the South Ukraine NPP, and one at the Khmelnytsky NPP. The eight other reactors are shut down for regular maintenance or held in reserve. Safety systems remain operational at the four NPPs and they also continue to have off-site power available.

<https://www.iaea.org/newscenter/pressreleases/update-54-iaea-director-general-statement-on-situation-in-ukraine>

Update 57 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 19, 2022

Ukraine informed the International Atomic Energy Agency (IAEA) today that direct communications between the national regulator and the Chernobyl Nuclear Power Plant (NPP) had been restored, more than a month after such contact was lost when Russian forces controlled the site, Director General Rafael Mariano Grossi said. The Director General welcomed the re-establishment of phone communication between the State Nuclear Regulatory Inspectorate of Ukraine (SNRIU) and the Chernobyl NPP. He said it was another important step in the process of resuming Ukraine's regulatory control of the site of the 1986 accident, where various radioactive waste management facilities are now located.

<https://www.iaea.org/newscenter/pressreleases/update-57-iaea-director-general-statement-on-situation-in-ukraine>

Update 58 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 20, 2022

Ukraine informed the International Atomic Energy Agency (IAEA) today that the general situation in the area around the Chernobyl Nuclear Power Plant (NPP) “remained difficult” due to destroyed bridges and demining activities and that the national regulator had still not had an “opportunity to inspect” the facility, Director General Rafael Mariano Grossi said. Since Russian forces withdrew from Chernobyl on 31 March after five weeks, Ukraine has taken significant steps for the safe and secure operation of the site of the 1986 accident, carrying out the first rotation of staff in three weeks by boat from the nearby city of Slavutych and earlier this week re-establishing direct communications between the NPP and the regulator that had been down for more than a month, the Director General said.

<https://www.iaea.org/newscenter/pressreleases/update-58-iaea-director-general-statement-on-situation-in-ukraine>

Update 59 – IAEA Director General Statement on Situation in Ukraine

IAEA, April 21, 2022

Ukraine informed the International Atomic Energy Agency (IAEA) today that staff rotation at the Chernobyl Nuclear Power Plant (NPP) was now “taking place regularly and according to plan”, three weeks after Russian forces withdrew from the site, Director General Rafael Mariano Grossi said. The Director General said the development represented major progress both for the well-being of the NPP’s personnel – who have been living and working under extremely stressful circumstances during the conflict – and for the safe and secure operation of the plant. Ukraine told the IAEA on 10 April that it had carried out the first staff rotation at the Chernobyl NPP in three weeks and only the

second since Russian forces seized the site on 24 February and held it for five weeks.

<https://www.iaea.org/newscenter/pressreleases/update-59-iaea-director-general-statement-on-situation-in-ukraine>

H. France

Le Pen’s “nuclear-only strategy not viable” – Macron

Montel News, April 21, 2022

France’s presidential candidates have clashed in a live TV debate, with incumbent Emmanuel Macron slamming far-right contender Marine Le Pen’s “nuclear-only strategy” as unsustainable. “The only way to meet the climate challenge is to develop both renewables and nuclear [power],” he added in the fiery clash, their only head-on debate, before Sunday’s vote. For her part, Le Pen, who has previously pledged to dismantle existing wind farms and hold a moratorium on new renewables development, dismissed wind turbines as an “ecological and economic nonsense”

<https://www.montelnews.com/news/1314511/le-pens-nuclear-only-strategy-not-viable-macron>

I. Germany

Germany to arm UAVs

Janes, April 7, 2022

Germany is to arm its medium-altitude long-endurance (MALE) unmanned aerial vehicles (UAVs) in a move intended for “improving the protection of soldiers on deployments abroad”, the Bundeswehr announced. The decision to weaponise the Israel Aerospace Industries (IAI) Heron TP MALE UAVs that Germany leases through Airbus Defence and Space brings to a head more than a decade of deliberations in Berlin on the subject of arming its current and future unmanned aircraft.

<https://www.janes.com/defence-news/industry-headlines/latest/germany-to-arm-uavs>

J. Hungary

Hungary receives nuclear fuel from Russia by air -foreign minister

Reuters, April 7, 2022

Hungary received the first shipment of nuclear fuel for its Paks nuclear plant from Russia by air on Wednesday, after the war in Ukraine made shipping by rail impossible, Foreign Minister Peter Szijjarto said on Thursday. Szijjarto reiterated that Hungary rejected any sanctions on Russian oil and gas, adding that imposing any sanctions on activities related to nuclear energy was also a "red line" for Hungary. "Fuel (for the Paks plant) has always come from Russia by rail via Ukraine, unfortunately ... this is no longer possible so we had to find an alternative way for shipping," Szijjarto said in a Facebook video from Brussels.

<https://www.reuters.com/world/europe/hungary-receives-nuclear-fuel-russia-by-air-foreign-minister-2022-04-07/>

Szijjarto: Hungary gets another delivery of Paks fuel by air

Visadegroup, April 20, 2022

Hungary has taken another delivery of fuel rods for the Paks nuclear power plant by air, Peter Szijjarto, the minister of foreign affairs and trade, said on Wednesday. The fuel rods were delivered by Volga-Dnepr on a flight that passed over Belarus, Poland and Slovakia before arriving in Hungary, Szijjarto said on Facebook prior to a cabinet meeting. Hungary got its first air delivery of fuel rods for the Paks plant about two weeks earlier.

<https://www.visegradgroup.eu/news/szijjarto-hungary-gets>

K. Lithuania

Russia already has nuclear weapons in Baltic region: Lithuania

Business Today, April 14, 2022

Russia already has nuclear weapons in the Baltic region, Lithuanian Defence Minister Arvydas Anusauskas said on Thursday. One

of Russian President Vladimir Putin's closest allies warned NATO on Thursday that if Sweden and Finland joined the US-led military alliance then Russia would have to bolster its defences in the region, including by deploying nuclear weapons. Anusauskas told Lithuania's BNS wire that nuclear weapons have been deployed in Russia's Kaliningrad exclave on the Baltic Sea since before the current crisis.

<https://www.businesstoday.in/latest/world/story/russia-already-has-nuclear-weapons-in-baltic-region-lithuania-329841-2022-04-14>

Last spent nuclear fuel removed from reactors at Ignalina

EBRD, April 21, 2022

International efforts to assist Lithuania with the decommissioning of its only nuclear power plant (NPP) have reached an important milestone today, with the last of the spent fuel being removed from the reactors at the Ignalina Nuclear Power Plant (INPP). The European Union and 14 European governments have supported the work through the Ignalina International Decommissioning Support Fund (IIDSF), which is managed by the European Bank for Reconstruction and Development (EBRD).

<https://www.ebrd.com/news/2022/last-spent-nuclear-fuel-removed-from-reactors-at-ignalina.html>

L. United Kingdom

Slovakia sets target to achieve 1.2 GW of Solar PV by 2030

Solar Quarter, April 7, 2022

Nuclear power, which currently accounts for over 50% of Slovakia's total power generation will maintain its dominance of the country's energy mix over the next decade, as it continues to be a net importer of electricity and thermal fuels, according to a recent report. The report expects nuclear power to account for 64.9% of Slovakia's generation mix by 2035.

The key sectors in Slovakia's power generation mix are thermal power which comprises gas, coal, and oil. Hydropower, nuclear power, and renewables include solar PV, biopower, and small hydropower.

<https://solarquarter.com/2022/04/07/slovakia-sets-target-to-achieve-1-2-gw-of-solar-pv-by-2030/>

Slovakia considers Bayraktar buy from Turkey

Janes, April 13, 2022

Slovakia is discussing with Turkey a potential procurement of the Baykar Bayraktar TB2 unmanned combat aerial vehicle (UCAV), it was disclosed on 13 April. The Minister of Defence of the Slovak Republic, Jaro Nad, made the announcement on his official Twitter account, saying that talks with the manufacturer Baykar, which he euphemistically referred to as 'Mr Bayraktar', were progressing as part of a wider plan to acquire international unmanned aircraft systems (UASs) for the Slovak Armed Forces. Slovakia does not field an unmanned aircraft capability, though this was a gap was identified by the Ministry of Defence (MoD) in its 2016 White Paper for Defence. Priorities laid out in this plan included new command-and-control systems for such air vehicles.

<https://www.janes.com/defence-news/industry-headlines/latest/slovakia-considers-bayraktar-buy-from-turkey>

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

Euractiv, April 25, 2022

Slovakia currently imports uranium from Russia's TVEL company – a subsidiary of state-owned giant Rosatom – which is the biggest fuel supplier for VVER-440 type reactors. Uranium is the main ingredient for producing nuclear fuel, and Russia – together with Kazakhstan – accounts for over half of the world's supplies. A current alternative to TVEL is US company Westinghouse, which received certification in 2018 and only signed its first contract last

year. While it has a production plant in Sweden, analysts worry about the company's ability to produce the necessary amount of fuel. Slovakia has two notable uranium deposits – both in the country's east.

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

M. United Kingdom

UK targets more nuclear, wind power – and fossil fuels – in bid for energy security

CNBC, April 7, 2020

The U.K. government has revealed details of its long awaited, "bold" energy security strategy, but critics have derided its inclusion of fossil fuels and what they view as a lack of ambition. In a release Wednesday, the government heralded a "major acceleration of homegrown power in Britain's plan for greater energy independence." The plans – known as the British Energy Security Strategy – mean that more "cleaner" and "affordable" energy will be produced in Great Britain, the government said, as the country seeks to "boost long-term energy independence, security and prosperity."

<https://www.cnn.com/2022/04/07/britain-eyes-nuclear-wind-fossil-fuels-in-bid-for-energy-security.html>

UK to build 8 nuclear power reactors amid new energy strategy

Economic Times, April 8, 2022

Britain plans to build eight new nuclear reactors and expand production of wind energy as it seeks to reduce dependence on oil and natural gas from Russia and other foreign suppliers following the invasion of Ukraine. Prime Minister Boris Johnson announced the plans Thursday as part of a new energy security strategy that will also accelerate development of solar power and hydrogen projects. The government said it wants to almost triple nuclear power generation capacity to 24

gigawatts by 2050. "We're setting out bold plans to scale up and accelerate affordable, clean and secure energy made in Britain, for Britain, from new nuclear to offshore wind, in the decade ahead," Johnson said. "This will reduce our dependence on power sources exposed to volatile international prices we cannot control."

<https://energy.economictimes.indiatimes.com/news/power/uk-to-build-8-nuclear-power-reactors-amid-new-energy-strategy/90719694>

Don't write off nuclear energy, say entrepreneurs Hunter and Haughey

Herald Scotland, April 11, 2022

Nuclear energy must be part of the UK's energy system in the future, two of Scotland's leading entrepreneurs believe. Sir Tom Hunter, speaking on yesterday's Go Radio Business Show with Hunter & Haughey, suggested the UK explores the model in France where 70 per cent of that country's electricity is derived from nuclear energy due to a longstanding policy based on energy security. The entrepreneur was discussing the UK Government's plans that could see up to 95% of the UK's electricity come from low-carbon sources by 2030.

https://www.heraldsotland.com/business_hq/20056751.dont-write-off-nuclear-energy-say-entrepreneurs-hunter-haughey/

UK military vaults upgraded to store new US nuclear weapons

The Gaurdian, April 12, 2022

Military bunkers in the UK are being upgraded so they can be used to store US nuclear weapons again after 14 years of standing empty, according to US defence budget documents. In the Biden administration's 2023 defence budget request, the UK was added to the list of countries where infrastructure investment is under way at "special weapons" storage sites, alongside Belgium, Germany, Italy, the Netherlands and Turkey - all countries where the US stores an estimated 100 B61 nuclear bombs. Hans Kristensen, the director of the nuclear information project at the Federation of American Scientists (FAS), who first reported on the budget item,

said he believed the British site being upgraded is the US airbase at RAF Lakenheath, 100 km north-east of London.

<https://www.theguardian.com/world/2022/apr/12/uk-military-vaults-upgraded-to-store-new-us-nuclear-weapons>

Elbit Systems UK showcases Skylark 3 Hybrid to RAF

Janes, April 13, 2022

Elbit Systems UK demonstrated its Skylark 3 Hybrid small tactical unmanned aerial system (STUAS) to the Royal Air Force (RAF) on 23 March, the company announced on 11 April. A series of flight demonstrations were conducted at RAF Upavon in support of the RAF Rapid Capabilities Office's (RCO's) future concept development programme, the company stated. The aircraft is powered by a new hybrid propulsion system and is Elbit Systems UK's contribution towards the UK Ministry of Defence's exploration of innovative sustainable technologies.

<https://www.janes.com/defence-news/industry-headlines/latest/elbit-systems-uk-showcases-skylark-3-hybrid-to-raf>

SMi MRAS 2022: XTEND pitches UAS capabilities to FCG

Janes, April 14, 2022

XTEND has pitched its Unmanned Aircraft Systems (UAS) capabilities for the UK Defence Equipment & Support (DE&S) Future Capability Group (FCG) Human Machine Teaming (HMT) nano UAS (nUAS) programme. Speaking to *Janes* at SMi Military Robotics and Autonomous Systems 2022 (SMi MRAS 2022) conference in London, Ido Bar-On, vice-president of business development and sales at XTEND, said that the company had pitched its UAS capabilities, including the Xtender, Wolverine, and their generic Robotics and Autonomous Systems (RAS) operating systems to the FCG nUAS project.

<https://www.janes.com/defence-news/air-platforms/latest/smi-mras-2022-xtend-pitches-uas-capabilities-to-fcg>

Britain accused of violating UN resolution

Beijing News, April 19, 2022

President Vucic has criticized Britain for allegedly shipping anti-tank missiles to Kosovo. Senior officials in Serbia have blasted Britain after a report in local media claimed that the country had secretly supplied advanced weapon systems to Kosovo, a breakaway region that Belgrade considers to be under its sovereignty. 'Novosti' claimed on Sunday that 50 NLAW shoulder-fired anti-tank missiles had arrived in the partially recognised statelet, with more weapons to come. Serbian President Aleksandar Vucic said the news highlights the hypocrisy of the Western position on Kosovo and its relationship with Serbia, particularly when it comes to weapons purchases.

<https://www.beijingnews.net/news/272492307/britain-accused-of-violating-un-resolution>

N. United States

North Korea could hold nuclear test next week, US envoy warns

The Guardian, April 7, 2022

North Korea could be planning its first nuclear weapon test in nearly five years, according to a senior US official who urged the regime to step back from further provocations following its recent long-range missile test. Sung Kim, the special representative for North Korea policy at the US state department, said Washington believes Pyongyang could demonstrate its growing nuclear weapons capacity on 15 April, an annual holiday held to celebrate the 110th anniversary of the birth of the country's founder, Kim Il-sung. "We are worried that in connection with the upcoming anniversary, the DPRK may be tempted to take another provocative action," Kim told reporters on Wednesday, using the country's official name, the Democratic People's Republic of Korea.

<https://www.theguardian.com/world/2022/apr/07/north-korea-could-hold-nuclear-test-next-week-us-envoy-warns>

Experts: North Korea's Nuclear Warning Likely to Toughen Washington-Seoul Stance

VOA News, April 7, 2022

South Korea and the United States are bracing for a possible North Korean nuclear test amid heightened tensions after this week's warning from Pyongyang that it is prepared to use nuclear weapons against its southern neighbor. A nuclear test would be North Korea's first since 2017, ending a self-imposed moratorium. Experts say that, combined with recent belligerent rhetoric from the North, is likely to push the Biden administration and the government of incoming South Korean President Yoon Suk-yeol to take a tougher stance on Pyongyang.

<https://www.voanews.com/a/experts-north-korea-s-nuclear-warning-likely-to-toughen-washington-seoul-stance-/6520413.html>

USAF, DARPA complete Lockheed Martin's HAWC test flight

Janes, April 7, 2022

Lockheed Martin's Hypersonic Air-breathing Weapon Concept (HAWC) completed a free flight test in mid-March, the US Defense Advanced Research Projects Agency (DARPA) announced on 5 April. The weapon was released from a Boeing B-52H Stratofortress bomber, a DARPA spokesperson told *Janes*. Then its Aerojet Rocketdyne supersonic combustion ramjet (scramjet) engine ignited and sent the prototype weapon to more than five times the speed of sound (Mach 5) for "an extended period of time", according to the agency. It hit altitudes of more than 65,000 ft and flew for more than 300 n miles.

<https://www.janes.com/defence-news/weapons-headlines/latest/usaf-darpa-complete-lockheed-martins-hawc-test-flight>

Navy League 2022: Problems with AARGM-ER first test addressed

Janes, April 7, 2022

The Pentagon's chief weapons tester disclosed that a July 2021 test of the US

Navy's new AGM-88G Advanced Anti-Radiation Guided Missile - Extended Range (AARGM-ER) from an F/A-18 Hornet resulted in "unexpected missile behaviour". This problem has been fixed and the changes validated in a recent test, according to Captain Alex Dutko, the programme manager for Direct and Time Sensitive Strike Program office. Capt Dutko, along with programme officials from Northrop Grumman, provided reporters with an AARGM-ER update during this year's annual Navy League conference and addressed missile problems disclosed in the "controlled unclassified information" version of the Director, Operational Test and Evaluation (DOT&E) annual report.

<https://www.janes.com/defence-news/industry-headlines/latest/navy-league-2022-problems-with-aargm-er-first-test-addressed>

Why Chinese military eyes will be on Ukraine test for Switchblade tank killer drones

South China Morning Post, April 7, 2022

The US is sending 10 "suicide drones" - also known as tank killers - to Ukraine in its latest package of weaponry for the Eastern European country in its fight against Russia's invasion. The Switchblade-600 drones, an integration of unmanned aerial vehicle (UAV) and missile technology, are in addition to 100 less powerful Switchblade-300s donated by the US last month. The Switchblades have been designed to hover over a battlefield and search for targets, which they can hit with missile-like built-in warheads. They can be carried and operated by small teams, or even individual infantry soldiers.

<https://www.scmp.com/news/china/military/article/3173436/chinese-military-eyes-will-be-ukraine-test-switchblade-tank>

CIA Warns Desperate Putin Poses Nuclear Threat

The Moscow Times, April 15, 2022

Russia's setbacks in its invasion of Ukraine could lead President Vladimir Putin to resort to using a tactical or low-yield nuclear weapon, CIA director William Burns said

Thursday. "Given the potential desperation of President Putin and the Russian leadership, given the setbacks that they've faced so far, militarily, none of us can take lightly the threat posed by a potential resort to tactical nuclear weapons or low-yield nuclear weapons," Burns said during a speech in Atlanta.

<https://www.themoscowtimes.com/2022/04/15/cia-warns-desperate-putin-poses-nuclear-threat-a77365>

US plan to upgrade its nuclear weapons facilities in the UK 'quietly' slipped into DoD military documents, says defense expert

Business Insider, April 16, 2022

The US ability to store nuclear weapons in the UK is to be upgraded with new money for military infrastructure, US defense documents show. Biden's 2023 Department of Defense budget request to NATO shows that the military alliance has added the UK to a list of countries receiving \$384 million in investments to store "special weapons." Other countries receiving this funding are Belgium, Germany, Italy, the Netherlands, and Turkey, where the USA stores an estimated 150 American B-61 nuclear gravity bombs, according to the Campaign for Nuclear Disarmament.

<https://www.businessinsider.in/international/news/us-plan-to-upgrade-its-nuclear-weapons-facilities-in-the-uk-quietly-slipped-into-dod-military-documents-says-defense-expert/articleshow/90882688.cms>

Portable nuclear device containing radioactive material goes missing in Pennsylvania

Sky News, April 16, 2022

A portable nuclear device containing radioactive material that could be a danger to public safety has gone missing in the US state of Pennsylvania. Authorities are currently searching for the device, which belongs to local construction inspection company KAKS and Company LLC. The state's Department of Environmental

Protection (DEP) said the device, a portable nuclear gauge, is often used at construction sites to “evaluate the properties of building and road-bed materials”. However, people could be exposed to radiation contamination if it is damaged or mishandled, the agency warned. It said that the nuclear density gauge was safely stored inside a vehicle reported stolen in the city of Philadelphia.

<https://news.sky.com/story/portable-nuclear-device-containing-radioactive-material-goes-missing-in-pennsylvania-12591928>

Ukraine conflict: AeroVironment to donate UASs to Ukraine

Janes, April 20, 2022

AeroVironment is to donate unmanned aircraft systems (UASs) to the armed forces of Ukraine, the company announced on 19 April. The US-based manufacturer said that it will deliver 50 of 100 of its Quantix Recon man portable vertical take-off and landing (VTOL) UASs immediately, with the remainder to follow. According to *Janes All the World's Aircraft: Unmanned*, AeroVironment's Quantix Recon UAS is designed to capture aerial imagery data autonomously. The UAS is intended for military applications and is an evolution of the commercially available Quantix Mapper. The system captures aerial high-resolution imagery of either a grid, or a linear zone, at an altitude between 150 and 800 ft.

<https://www.janes.com/defence-news/news-detail/ukraine-conflict-aerovironment-to-donate-uass-to-ukraine>

Biden launches \$6bn effort to save America's distressed nuclear plants

The Guardian, April 20, 2022

The Biden administration is launching a \$6bn effort to rescue nuclear power plants at risk of closing, citing the need to continue nuclear energy as a carbon-free source of power that helps to combat climate change.

On Tuesday, a certification and bidding process opened for a civil nuclear credit program that is intended to bail out financially distressed owners or operators of nuclear power reactors, the US energy

department told the Associated Press exclusively, shortly before the official announcement. It's the largest federal investment in saving financially distressed nuclear reactors. Owners or operators of nuclear power reactors that are expected to shut down for economic reasons can apply for funding to avoid closing prematurely. The first round of awards will prioritize reactors that have already announced plans to close.

<https://www.theguardian.com/us-news/2022/apr/19/biden-effort-nuclear-plants-energy-climate-crisis>

West Asia

O. Iran

Iranian Envoy Rejects Media Claims about IAEA Report

Fars News Agency, April 7, 2022

Iran's Acting Ambassador to the International Atomic Energy Agency Mohammad Reza Qa'ebi dismissed media claims about the IAEA's report on his country's implementation of the nuclear deal. Certain foreign media claims about the latest IAEA report on the verification of implementation of the 2015 Iran deal are “inaccurate, incorrect and biased”, Qa'ebi told reporters on Wednesday. He added the report was only a technical update presented by the Agency's director-general on monitoring the implementation of the multilateral deal, officially known as the Joint Comprehensive Plan of Action (JCPOA), in accordance with UN Security Council Resolution 2231, which endorses it. Qa'ebi said the report was drawn up to inform the Agency's members about the latest developments and new technical information on Iran's nuclear activities. Summarizing a confidential report to the IAEA member states, Reuters claimed on Wednesday that Iran has moved all its machines that make centrifuge parts from its mothballed workshop at Karaj to its sprawling Natanz site, just six weeks after it set up another site at Isfahan to make the same parts.

<https://www.farsnews.ir/en/news/14010118000206/Iranian-Envoy-Rejects-Media-Claims-ab-IAEA-Repr>

AEOI Head: Iran to Continue Progress in N. Industry Regardless of Israeli Threats

Fars News Agency, April 7, 2022

Head of the Atomic Energy Organization of Iran (AEOI) Mohammad Eslami said that the country will continue development of its peaceful nuclear industry without attention to the warnings and threats raised by Israel. "The Israeli regime resorts to producing fake documents, sabotage, including industrial sabotage, and terrorist operations [against Iran]," Eslami told reporters in a press conference on Wednesday. "These measures are neither condemned nor confronted, but are, to the contrary, [even] welcomed," he added. "Naturally, this is a battle between wrong and right. This battle remains in place. We too have goals here that we must pursue and not fall prey to such alarmism," Eslami said. He noted how the Israeli regime's claims regarding Iran's nuclear work had been proven wrong in the case of one location inside the Islamic Republic. "In one site, reference has been made to [a type of] uranium that does not exist in Iran at all," Eslami said. "It is the Zionist regime that takes these [adversarial] measures and conducts terrorist activities and whatever [other] vexatious measure that it can [against Iran]."

<https://www.farsnews.ir/en/news/14010118000231/AEOI-Head-Iran-Cnine-Prgress-in-N-Indsry-Regardless-f-Israeli-Threas>

Senior Cleric Underlines Iran's Right to Develop Nuclear Technology

Fars News Agency, April 8, 2022

Tehran's provisional Friday Prayers leader Hojjatoleslam Kazzem Seddiqi underlined Iran's right to make peaceful use of the nuclear technology and develop its nuclear industries. Addressing a congregation of people at Tehran's Imam Khomeini Grand Mosalla (congregational prayers site), Hojjatoleslam Seddiqi said, "As regards the Vienna talks, the Supreme Leader (of the Islamic Revolution Ayatollah Seyed Ali Khamenei) stresses distrust in the other side (the West) and securing guarantees and verifications on the removal of sanctions." The senior Iranian cleric pointed to a recent

letter from the Iranian lawmakers to President Seyed Ebrahim Rayeesi called on the government to secure concrete guarantees from the United States in the wake of the possible agreement in Vienna talks and said that the legislators demand is exactly what people want. "Nuclear energy is one of the necessities in today's world as it has many uses in the medical field, so possessing the industry is within our religious and legitimate right," he added.

<https://www.farsnews.ir/en/news/14010119000464/Senir-Cleric-Underlines-Iran's-Righ-Develp-Nclear-Technlgy>

Khamenei says Iran's future should not be tied to nuclear talks with world powers

Reuters, April 13, 2022

Iran's supreme leader said on Tuesday that his country's future should not be tied to the success or collapse of nuclear talks with world powers, Iranian state media reported, adding that the negotiations to revive a 2015 nuclear deal "are progressing well". Ayatollah Ali Khamenei, who has the last say on all state matters such as Iran's nuclear programme, made the comments about a month after almost a year of indirect talks between Iran and the United States stalled. Both countries blame each other for lack of "political will" to settle remaining issues. "Absolutely do not wait for nuclear negotiations in planning for the country and move forward," Khamenei told a gathering of senior officials, state TV reported.

<https://www.reuters.com/world/middle-east/khamenei-says-irans-future-should-not-be-tied-nuclear-talks-2022-04-12/>

President Underlines Iran's Right to Use Peaceful N. Technology

Fars News Agency, April 9, 2022

Iranian President Seyed Ebrahim Rayeesi stressed on Saturday that the country is entitled to use peaceful nuclear technology, adding that Iran's progress in this field is "irreversible". Iran's nuclear

technology is “irreversible” and research in the field will not be tied with others’ requests, Rayeesi said, addressing the unveiling ceremony of 9 nuclear achievements on the National Day of Nuclear Technology. “Relying on Iranian young people and scientists is a role model that always works and should be used in other areas as well, he added. Emphasizing the right to use peaceful nuclear energy, the President called Iran’s nuclear knowledge and technology in the nuclear field irreversible.

<https://www.farsnews.ir/en/news/14010120000536/Presiden-Underlines-Iran%E2%80%99s-Righ-Use-Peacefl-N-Techmlgy>

AEOI Head: Iran Expects IAEA Not to Surrender to Outside Pressures

Fars News Agency, April 9, 2022

Head of the Atomic Energy Organization of Iran (AEOI) Mohammad Eslami said that the country expects the International Atomic Energy Agency (IAEA) not to succumb to pressures exerted by Tehran’s enemies, specially Israel. Eslami made the remarks on Saturday, addressing a ceremony to celebrate the National Nuclear Technology Day also participated by President Seyed Ebrahim Rayeesi. He said that the AEOI has managed to prepare the Comprehensive Strategic Document of Iran’s Nuclear Industry for the next two decades with the collaboration of a group of Iranian experts. Iran’s nuclear chief also noted that the organization has planned to direct interactions with the IAEA towards a professional approach and to prepare the Country Program Framework (CPF) to submit it to the IAEA in order to prevent future allegations and psychological operations by the enemies on Iran’s nuclear activities. With the clarification policy adopted by Iran, Eslami underlined, Tehran expected the IAEA to be committed to implementation of its legal tasks and stop succumbing to excessive demands, pressure and malign operations from Iran’s enemies, the Israeli regime in particular.

<https://www.farsnews.ir/en/news/14010120000774/AEOI-Head-Iran-Expects-IAEA-N-Srrender-Aside-Pressres>

Pres. Raisi: Iran will never step back from its right in Vienna talks

Islamic Republic News Agency, April 9, 2022

Iranian President Ebrahim Raisi said on Saturday that the government will never step back from the rights of the Iranians in nuclear negotiations. Speaking at the National Nuclear Technology Day celebration on Saturday, President Raisi said that Iran’s nuclear scientists, and at the head of them nuclear martyrs, were people who actively faced numerous obstacles while they never succumbed. President Raisi noted that the enemies know well that nuclear weapons have no place in the Islamic Republic’s defense doctrine, and the IAEA has confirmed more than 15 times in its reports that there have been no violations of Iran’s nuclear activities. Stating that the will of the Islamic Republic of Iran is to defend the inalienable right of the Iranians, President Raisi highlighted that they will never allow the hegemonic powers to encroach upon Iranians’ inalienable rights, or slow down or stop Iran’s peaceful nuclear activities.

<https://en.irna.ir/news/84710560/Pres-Raisi-Iran-will-never-step-back-from-its-right-in-Vienna>

Iranian Scientists Develop Radiation Detection Devices

Fars News Agency, April 10, 2022

Iranian experts produced radiation detection machines to measure the level of ambient radiation pollution. Iran on Saturday unveiled the home-made radiation detection machines on the National Day of Nuclear Technology. The devices include dosimeters for measuring the level of ambient radiation pollution as well as individual radiation detection gates. They have been developed by the experts of Iran’s radiation defense base. The two new knowledge-based products significantly improve the speed of assessment when accidents are highly

likely and enhance the success rate of rescue operations when it comes to controlling the level of radiation contamination.

<https://www.farsnews.ir/en/news/14010121000445/Iranian-Scieniss-Develp-Radiain-Deecin-Devices>

AEOI Spokesman: Iran Plans Construction of More N. Power Plants

Fars News Agency, April 10, 2022

Spokesman of the Atomic Energy Organization of Iran (AEOI) Behrouz Kamalvandi said that the country plans to build several other nuclear power plants in different parts of Iran, including Darkhovin in Khuzestan province. The Iranian government has put on its agenda building the 360MW-Darkhovin plant, Kamalvandi said. He added that the European states have also accepted the fact that building nuclear plants is inevitable. Kamalvandi underlined the importance of building nuclear power plants, saying it is an essential part of the country's needs. He also lauded Iran's achievements in nuclear technology, saying that these achievements are divided into four categories of radiation, energy, fuel generation, and research and development.

<https://www.farsnews.ir/en/news/14010121000830/AEOI-Spkeman-Iran-Plans-Cnsrcin-f-Mre-N-Pwer-Plans>

AEOI Chief: Iran Plans Production of 10kMW of Nuclear-Powered Electricity

Fars News Agency, April 12, 2022

Head of the Atomic Energy Organization (AEOI) Mohammad Eslami announced that the newly-unveiled Comprehensive Strategic Document of Iran's Nuclear Industry has envisaged generation of 10,000MW of electricity by development of nuclear power plants. Eslami wrote on his twitter page on Monday that the Document would hopefully be an effective step towards removing obstacles and developing the nuclear industry. He added that the Document, which sets goals for the country's nuclear industry for the next 20 years, deals with different dimensions of nuclear technology in order to bring Iran a good world status in this regard. Eslami said

that the production of 10,000 megawatts of nuclear-powered electricity as well as the construction of a 360-megawatt power plant in Darkhovin, which will be built by Iranian scientists, are among other goals of the Document.

<https://www.farsnews.ir/en/news/14010123000276/AEOI-Chief-Iran-Plans-Prdcin-f-0kMW-f-Nclear-Pwered-Elecriciy>

Iran's supreme leader says stalled nuclear talks going well

Al-Monitor, April 13, 2022

During a speech to government officials today, Iran's Supreme Leader Ayatollah Ali Khamenei, who has final say on all state matters, discussed the ongoing nuclear negotiations and Iran's plans for moving forward with or without a nuclear deal. Khamenei said that the direction of the nuclear talks is going well. Khamenei presumably meant Iran's position in the nuclear talks is strong, since the talks are essentially stalled as the United States has been hesitant to remove the Islamic Revolutionary Guard Corps from its list of Foreign Terrorist Organizations. Khamenei praised Iran's foreign minister and nuclear negotiators for their reports about the state of the nuclear talks.

<https://www.al-monitor.com/originals/2022/04/irans-supreme-leader-says-stalled-nuclear-talks-going-well#ixzz7SFk146pq>

AEOI Spokesman: Iran Not to Provide IAEA with Data of Surveillance Cameras

Fars News Agency, April 17, 2022

Spokesman of the Atomic Energy Organization of Iran (AEOI) Behrouz Kamalvandi said that his country will not give the International Atomic Energy Agency (IAEA) the data recorded by the surveillance cameras at its nuclear installations before reaching an agreement in Vienna talks. The IAEA will have no access to data recorded by its surveillance cameras until Iran and the G4+1 group of countries reach an agreement on the

revival of the 2015 deal, known as the Joint Comprehensive Plan of Action (JCPOA) and removal of sanctions, Kamalvandi said in an interview with the Arabic-language al-Alam news channel on Saturday. Elsewhere, he said that Iran has transferred its centrifuge machines to a safe location nearly one year after an act of sabotage at TESA Karaj Complex, a centrifuge component manufacturing workshop near Tehran, damaged cameras at the site. "Given their high significance, centrifuge machines were moved to a safer location and are now in operation," Kamalvandi said.

<https://www.farsnews.ir/en/news/14010128000403/AEOI-Spkeman-Iran-N-Prvide-IAEA-wih-Daa-f-Srveillance-Cameras>

P. Saudi Arabia

SAMI announces joint venture agreement with Boeing

Saudi Gazette, April 10, 2022

SAMI group, a wholly owned subsidiary of the Public Investment Fund and the Kingdom's national defense localization champion, has announced a preliminary agreement with the Boeing Company, the world's largest aerospace company and leading manufacturer of commercial jetliners, defense, space and security systems, and provider of aviation services to both the commercial and defense sectors. Under the terms of the agreement, both companies will enter into a Kingdom-focused joint venture. The announcement was made at a signing ceremony during the inaugural World Defense Show in Riyadh. Commemorating the parties' intention to sign the definitive agreements in the coming weeks, the ceremony was attended by top officials from both sides, including Ahmed Al-Khateeb, minister of tourism and chairman of SAMI, Leanne Caret, executive vice president and senior advisor to Boeing Company and Ted Colbert, president and CEO of Boeing defense, space and security.

<https://saudigazette.com.sa/article/619212/SAUDI-ARABIA/SAMI-announces-joint-venture-agreement-with-Boeing>

Q. Israel

In 'game changer,' Israeli laser-based air defense shoots down drones

The Times of Israel, April 14, 2022

The Defense Ministry revealed Thursday that a laser air defense system it is developing successfully shot down drones, rockets, mortars, and anti-tank missiles in a first series of tests last month. According to the head of the ministry's research and development team, Brig. Gen. (res.) Yaniv Rotem, the tests were conducted at "challenging" ranges and timings. "The use of a laser is a 'game changer' and the technology is simple to operate and proves to be economically viable," he said. Its research and development department initially planned to deploy the anti-missile system by 2024, but the military has pushed for an earlier deployment. Prime Minister Naftali Bennett announced in February that Israel would deploy the system within the year.

<https://www.timesofisrael.com/laser-based-air-defense-shoots-down-drones-rockets-in-first-series-of-trials/>

Iran confirms moving centrifuge facility allegedly hit by Israel to underground site

The Times of Israel, April 17, 2022

Iran has confirmed it relocated a centrifuge facility to its underground Natanz nuclear site, state media reported, days after the UN atomic watchdog said it installed surveillance cameras to monitor the new workshop at Tehran's request. The late Saturday report by the official IRNA news agency comes as diplomatic efforts to restore Iran's tattered nuclear deal appear stalled. The news agency quoted the spokesman for Iran's atomic energy organization, Behrouz Kamalvandi, as saying authorities had moved the operation to a safer place. Iran's centrifuge facility in Karaj found itself targeted in what Iran described as a sabotage attack in June. Natanz itself has twice been targeted in sabotage attacks amid

uncertainty over the nuclear deal, assaults that Iran has blamed on Israel.

<https://www.timesofisrael.com/iran-confirms-moving-centrifuge-facility-allegedly-hit-by-israel-to-underground-site/>

R. Turkey

UK lifts defense export ban on Turkey, Canada may be next: Çavuşoğlu

Daily Sabah, April 8, 2022

Amid war in Ukraine, the United Kingdom has lifted the defense industry export ban imposed on Turkey, Foreign Minister Mevlüt Çavuşoğlu said Thursday. The minister hinted that Canada is also aiming to loosen the ban. Çavuşoğlu was speaking at a press conference in Brussels, where he attended the NATO foreign ministers' meeting. "We spoke with British Foreign Secretary Liz Truss. We followed up the issues that came to the fore in the meeting between U.K. Prime Minister Boris Johnson and President Recep Tayyip Erdoğan in this hall about 15 days ago," the minister said, emphasizing that one of the issues concerns engine procurement of the TFX National Combat Aircraft, Turkey's one of the most awaited defense projects.

<https://www.dailysabah.com/business/defense/uk-lifts-defense-export-ban-on-turkey-canada-may-be-next-cavusoglu>

Erdoğan promised Serbia Turkish Bayraktar TB2 drones: Vucic

Daily Sabah, April 10, 2022

Serbia has reiterated its intention to acquire Turkish combat drones as its president on Saturday vowed to further strengthen the country's defenses, amid tensions in the Balkans and the Russian invasion of Ukraine. "We will strengthen our aviation. We will also increase the number of drones," Serbian President Aleksandar Vucic was cited by the local media as telling reporters after Serbian military forces completed their exercise named "Fire Shield 2022." Vucic said that during their talks last week, he asked President Recep Tayyip

Erdoğan to supply Serbia with landmark unmanned aerial vehicles (UAVs) Bayraktar TB2s, which have provided successful results and made a meaningful impact in several regional conflicts.

<https://www.dailysabah.com/business/defense/erdogan-promised-serbia-turkish-bayraktar-tb2-drones-vucic>

S. East Asia

Experts: North Korea's Nuclear Warning Likely to Toughen Washington-Seoul Stance

VOA News, April 7, 2022

South Korea and the United States are bracing for a possible North Korean nuclear test amid heightened tensions after this week's warning from Pyongyang that it is prepared to use nuclear weapons against its southern neighbor. A nuclear test would be North Korea's first since 2017, ending a self-imposed moratorium. Experts say that, combined with recent belligerent rhetoric from the North, is likely to push the Biden administration and the government of incoming South Korean President Yoon Suk-yeol to take a tougher stance on Pyongyang. Kim Yo Jong, the sister of North Korean leader Kim Jong Un and vice department director of the Central Committee of the Workers' Party of Korea, ratcheted up the tension with widely reported remarks on Tuesday. "In case South Korea opts for military confrontation with us, our nuclear combat force will have to inevitably carry out its duty," she said.

<https://www.voanews.com/a/experts-north-korea-s-nuclear-warning-likely-to-toughen-washington-seoul-stance-/6520413.html>

South Korea seeks return of US nuclear bombers, unsure of China's influence over Kim Jong-un's weapons testing plans

South China Morning Post, April 7, 2022

South Korea's new leader is seeking the redeployment of US strategic assets such

as nuclear bombers and submarines to the Korean peninsula, amid warnings Pyongyang could conduct a nuclear weapons test next week. Incoming president Yoon Suk-yeol vowed to “increase the solidarity of the South Korea-US alliance and strengthen deterrence and the response posture against North Korea’s nuclear and missile threats” when he visited US army base Camp Humphreys in Pyeongtaek, 70km from Seoul, said his spokesperson Bae Hyun-jin on Thursday. On Wednesday, a team of Yoon’s foreign policy and security aides met US national security adviser Jake Sullivan in Washington to discuss the North’s mounting threat displayed by its intercontinental ballistic missile (ICBM) test in March. One of the advisers, four-term lawmaker Park Jin, said both sides discussed how North Korea’s nuclear and missile development posed a threat to the region.

<https://www.scmp.com/week-asia/politics/article/3173412/south-korea-seeks-return-us-nuclear-bombers-unsure-chinas>

Should Seoul Get Nukes? North Korea Tests Prompt Revival Of Old Debate

NDTV, April 14, 2022

After firing its largest-ever missile, North Korea is preparing to conduct a nuclear test, officials and analysts say, reviving a longstanding debate south of the border: should Seoul have nukes too? Pyongyang has conducted a blitz of sanctions-busting weapons tests this year, including launching an intercontinental ballistic missile (ICBM) at full range for the first time since 2017. It was a dramatic return to long-range testing after a years-long pause while leader Kim Jong Un embarked on a round of failed diplomacy with then-US president Donald Trump in 2018.

<https://www.ndtv.com/world-news/north-korea-nuclear-tests-kim-jong-un-should-seoul-get-nukes-north-korea-test-prompts-revival-of-old-debate-2887344>

US nuke envoy arrives in ROK for denuke talks

China Daily, April 18, 2022

A senior US nuclear envoy arrived in the Republic of Korea (ROK) on Monday for talks to denuclearize the Korean Peninsula, according to the ROK foreign ministry. Sung Kim, US special representative for the Democratic People’s Republic of Korea (DPRK), met in Seoul with Noh Kyu-duk, the ROK’s special representative for Korean Peninsula peace and security affairs. During the meeting, Kim was quoted by Yonhap news agency as saying Washington shared Seoul’s concerns about “the DPRK’s escalatory actions”. The US envoy noted that the United States and the ROK will continue to work closely to respond “responsibly and decisively to the provocative behavior in the united context and beyond”. Regarding the DPRK’s recent test-firing of a new tactical guided weapon, Noh said close cooperation between Seoul and Washington will be significant to go through the critical situation.

<https://www.chinadaily.com.cn/a/202204/18/WS625d4629a310fd2b29e57a59.html>

US envoy vows ‘decisive response’ to N. Korea missile, nuclear tensions

The Straits Times, April 18, 2022

The US envoy for North Korea said that Washington would act “responsibly and decisively” in response to “escalatory actions” after a series of test missile launches raised concerns that the North was preparing to resume nuclear testing. US Special Representative Sung Kim and his deputy, Dr Jung Pak, met with South Korean officials, including nuclear envoy Noh Kyu-duk, after arriving in Seoul early on Monday (April 18) for a five-day visit.

“We, of course, share your concerns about the DPRK’s escalatory actions and we will continue to work closely to respond responsibly and decisively to the

provocative behaviour," Mr Kim told Mr Noh as their talks began.

<https://www.straitstimes.com/asia/east-asia/us-envoy-in-seoul-for-talks-over-north-korea-missile-nuclear-tensions>

South Korea, U.S. start war games amid North Korea missile flurry

Nikkei Asia, April 18, 2022

South Korea and the U.S. began two weeks of joint military drills on Monday as North Korea ratchets up tensions on the peninsula ahead of the inauguration of a conservative president in Seoul.

<https://asia.nikkei.com/Spotlight/N-Korea-at-crossroads/South-Korea-U.S.-start-war-games-amid-North-Korea-missile-flurry>

T. Japan

Japan's nuclear tech exports shift focus from plants to parts

Nikkei Asia, April 7, 2022

Japan will start backing exports of nuclear power plant components under a new clean energy strategy, as cost and safety concerns derail new Japanese-built projects at home and overseas.

<https://asia.nikkei.com/Business/Energy/Japan-s-nuclear-tech-exports-shift-focus-from-plants-to-parts>

Kishida hints at further nuclear power use amid Ukraine crisis

The Japan Times, April 13, 2022

Prime Minister Fumio Kishida has hinted at further use of nuclear power as energy prices soar due to Russia's war in Ukraine.

Behind Kishida's move are growing concerns over how to ensure stable electricity supply following the government's decision to ban coal imports from Russia in stages as part of its sanctions on Moscow.

<https://www.japantimes.co.jp/news/2022/04/13/national/kishida-nuclear-hints/>

Tons of Japanese nuclear waste may be destined for overseas disposal

The Japan Times, April 17, 2022

Japan's nuclear power plants have over 57,000 tons of large equipment that have, or will in time, become radioactive industrial waste and may be destined to be disposed of overseas, a tally of electric power company data has shown. The scale of the would-be hazardous waste underscores an ongoing move within the government to re-examine a rule banning the exports of radioactive waste at a time when few municipalities are willing to accept such waste.

<https://www.japantimes.co.jp/news/2022/04/17/national/tons-japanese-nuclear-waste-may-destined-overseas-disposal/>

U. North Korea

North Korea could hold nuclear test on coming anniversary, US says

South China Morning Post, April 7, 2022

Pyongyang is ignoring US overtures for talks and could be planning its first nuclear weapon test in nearly five years for its April 15 holiday, the State Department's top North Korea envoy said on Wednesday.

Sung Kim, the Special Representative for North Korea Policy, said Washington thinks Pyongyang could be planning a big show of its growing nuclear weapons capacity on the annual holiday next week, which will celebrate the 110th anniversary of the birth of Kim Il-sung, who founded the modern Democratic People's Republic of Korea (DPRK). "We are worried that in connection with the upcoming April 15 anniversary, the DPRK may be tempted to take another provocative action," Kim told reporters, referring to North Korea's recent ballistic missile test launches.

<https://www.scmp.com/news/asia/east-asia/article/3173316/north-korea-could-hold-nuclear-test-coming-anniversary-us-says>

New satellite imagery shows activity at North Korean underground nuclear test site

CNN, April 7, 2022

New commercial satellite imagery is showing some of the clearest signs to date that North Korea is tunneling again at its remote underground nuclear test site in a way that could potentially shorten the time it needs for its next test. The April 3 imagery from Planet shows a new so-called crosscut tunnel, according to Jeffery Lewis, a weapons expert and professor at the Middlebury Institute of International Studies. "The telltale sign is the pile of spoil in front of the tunnel. That's rock from inside the mountain as they dig the new tunnel," Lewis said. This comes as North Korea may be preparing to take "another provocative action" next week in connection with Pyongyang's April 15 holiday celebrating the birthday of the country's founding father, Kim Il Sung, according to the State Department's special representative for North Korea, Sung Kim.

<https://edition.cnn.com/2022/04/07/politics/north-korea-nuclear-satellite-images/index.html>

US urges N Korea to engage in dialogue amid reports of nuclear test

Business Standard, April 9, 2022

The US has called on North Korea to refrain from further provocations and instead return to dialogue. Jalina Porter, principal deputy spokesperson for the State Department, made the remarks on Friday amid speculations that the North may be preparing to conduct its first nuclear test since September 2017, possibly next week when it will celebrate the 110th anniversary of the birthday of late founding leader Kim Il-sung, Yonhap news agency reported. "The Biden-Harris administration has no change in our policy and we continue to urge the DPRK to refrain from further destabilizing activities, and ... instead choose to engage in serious and sustained dialogue," she said, referring to North

Korea by its official name, the Democratic People's Republic of Korea.

https://www.business-standard.com/article/international/us-urges-n-korea-to-engage-in-dialogue-amid-reports-of-nuclear-test-122040900109_1.html

Satellite images show North Korea's path back to nuclear testing

Nikkei Asia, April 13, 2022

Recent satellite photos suggest that North Korea is preparing for what would be its first nuclear weapons test since September 2017, with work apparently underway on bringing the Punggye-ri underground testing site back into operation. Photos taken April 5 by U.S.-based Planet Labs and obtained by Nikkei show piles of material near Punggye-ri, believed to be debris from tunnel excavation. Jeffrey Lewis, a professor with expertise in East Asia nonproliferation at the Middlebury Institute of International Studies at Monterey, noted signs of repair work on tunnels to the underground facilities – a possible sign that nuclear testing may resume soon.

<https://asia.nikkei.com/Spotlight/N-Korea-at-crossroads/Satellite-images-show-North-Korea-s-path-back-to-nuclear-testing>

North Korean leader observes new weapons test to enhance nuclear capabilities: KCNA

The Straits Times, April 17, 2022

North Korean leader Kim Jong Un has observed the test firing of a new type of tactical guided weapon aimed at boosting the country's nuclear capabilities, the North's KCNA state news agency reported on Sunday (April 17). The report comes amid signs North Korea could soon resume nuclear testing according to South Korean and US officials and after Kim broke a self-imposed moratorium on intercontinental ballistic missile (ICBM) testing with a launch last month.

South Korea's military said on Sunday it had detected late on Saturday two projectiles launched from the North's east coast towards the sea which flew about 110km with an apogee of 25km and maximum speed of under Mach 4.

<https://www.straitstimes.com/asia/east-asia/north-korean-leader-observes-new-weapons-test-to-enhance-nuclear-capabilities-kcna>

North Korea reportedly launches new tactical guided missile

New York Post, April 17, 2022

North Korea successfully test-fired a new tactical guided missile, raising fears that President Kim Jong Un, who observed the launch, is focusing on bolstering the country's nuclear capabilities. The development comes as North Korea conducted a launch late last month of an intercontinental ballistic missile – its first since November 2017 – and could indicate that the Hermit Kingdom is ready to resume nuclear testing, South Korean and US officials said. The Korean Central News Agency, North Korea's media mouthpiece, didn't say when the launch occurred but noted that it was linked to the country's nuclear goals.

<https://nypost.com/2022/04/17/north-korea-reportedly-launches-new-tactical-guided-missile/>

North Korea's Kim observes missile test to boost nuclear capabilities

Nikkei Asia, April 17, 2022

North Korean leader Kim Jong Un observed the test firing of a new type of tactical guided weapon aimed at boosting the country's nuclear capabilities, the North's KCNA state news agency reported on Sunday. The report comes amid signs North Korea could soon resume nuclear testing according to South Korean and U.S. officials and after Kim broke a self-imposed moratorium on intercontinental ballistic missile (ICBM) testing with a launch last month. South Korea's military said on Sunday it had detected two projectiles launched on Saturday from the North's east coast towards the sea. The projectiles flew about 110 km (70 miles) with an apogee of 25 km

and maximum speed of less than Mach 4, indicating they were short-range missiles.

<https://asia.nikkei.com/Spotlight/N-Korea-at-crossroads/North-Korea-s-Kim-observes-missile-test-to-boost-nuclear-capabilities>

North Korea is committed to an 'alarming change' in its nuclear policy, professor says

CNBC, April 18, 2022

North Korea ultimately wants to have more nuclear weapons to use against the U.S. troops in South Korea and Japan in the event of an invasion, according to a professor at the Middlebury Institute of International Studies. North Korea currently has the ability to use a small number of nuclear weapons against the United States, said Jeffrey Lewis, a professor on arms control. "They have some deterrence, but what I think the North Koreans really, fundamentally want is the ability to use a much larger number of nuclear weapons against U.S. forces in South Korea and Japan if they thought an invasion was underway," he told CNBC's "Squawk Box Asia" on Monday.

<https://www.cnn.com/2022/04/19/north-korea-is-committed-to-an-alarming-change-in-nuclear-policy-professor.html>

Was North Korea's recent weapons test to 'improve tactical nukes' a warning of Kim Jong-un's future nuclear capabilities?

South China Morning Post, April 18, 2022

North Korea's fresh missile tests last weekend have raised concerns among analysts about whether the isolated regime is eyeing an escalatory move such as a nuclear test in the coming months. Pyongyang's state media reported on Sunday the military tested a new type of tactical guided weapon described to be of "great significance" in enhancing the operation of "tactical nukes". The tests came a day before a visit to Seoul on Monday by the US envoy for North Korea, Sung Kim, and his deputy Jung Pak, for talks to address Pyongyang's increased

missile launches and concerns over the possible resumption of nuclear testing.

<https://www.scmp.com/week-asia/politics/article/3174629/was-north-koreas-recent-weapons-test-improve-tactical-nukes>

V. Australia

Australia fast-tracks NSM Block 1A for RAN surface fleet

Janes, April 11, 2022

The Australian Department of Defence (DoD) is to fast-track the acquisition of the latest-variant Kongsberg Defence & Aerospace (KDA) Naval Strike Missile (NSM) Block 1A to replace the in-service RGM-84 Harpoon Block II anti-ship missile on the Royal Australian Navy's (RAN's) Anzac-class frigates and Hobart-class destroyers. The Harpoon replacement is part of a AUD3.5 billion (USD2.61 billion) accelerated improved weapon capabilities package for the Australian Defence Force (ADF) announced by the DoD on 5 April.

<https://www.janes.com/defence-news/news-detail/australia-fast-tracks-nsm-block-1a-for-ran-surface-fleet>

W. Opinions

India's Inadvertent Missile Launch Underscores the Risk of Accidental Nuclear Warfare

Zia Mian, M.V. Ramana

Scientific American, April 8, 2022

Last month, while most of the world focused on the war in Ukraine and worried that a beleaguered Russian leadership might resort to nuclear weapons, thus escalating the conflict into a direct war with the U.S.-led NATO nuclear-armed alliance, a nearly tragic accident involving India and Pakistan pointed to another path to nuclear war. The accident highlighted how complex technological systems, including those involving nuclear weapons, can generate unexpected routes to potential disaster – especially when managed by overconfident organizations. The firing of the BrahMos missile falls within a long history of accidents

involving military systems in India. Military aircraft have strayed across the borders during peacetime. Engagements between India and Pakistan can arise from such accidents, as in 1999 when a Pakistani military plane was shot down along the border by India, killing 16 people. Pakistan has had its share of accidents, including a Pakistani fighter jet crashing into the capital city in 2020.

<https://www.scientificamerican.com/article/indias-inadvertent-missile-launch-underscores-the-risk-of-accidental-nuclear-warfare/>

Outdated Nuclear Treaties Heighten the Risk of Nuclear War

Franklin C Miller

The Wall Street Journal, April 21, 2022

U.S. nuclear deterrence policy and U.S. nuclear arms-control policy have become dangerously disconnected. Longstanding deterrence policy requires that the U.S. have sufficient capacity to target what potential enemy leaders value most. Arms control is supposed to augment deterrence by limiting, and if possible reducing, the threats while allowing the U.S. to deploy a force that deters an attack on America or our allies. The policies were tightly linked throughout the closing decades of the Cold War, providing the U.S. and its allies with a credible deterrent and producing the Strategic Arms Reduction Treaties, known as Start 1 and Start 2, which were signed in 1991 and 1993 respectively and reduced the levels of U.S. and Soviet strategic nuclear weapons.

Today the U.S. is bound by the “New Start Treaty,” an accord signed in 2010, a time when Russia was seen as a competitor rather than a threat, and China was hardly a factor. The world is different now: darker, more dangerous and getting worse.

<https://www.wsj.com/articles/outdated-nuclear-treaties-new-start-treaty-russia-putin-china-xi-heighten-risk-nuclear-war-missile-test-ukraine-deterrence-11650575490>

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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