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A Fortnightly Newsletter from the Indian Pugwash Society

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A. India

India, Pakistan exchange list of nuclear installations

The Hindu, January 1, 2021

Pakistan and India on Friday conducted the annual practice of exchanging the list of their nuclear installations under a bilateral arrangement that prohibits them from attacking each other's atomic facilities. The exchange was made in accordance with Article-II of the Agreement on Prohibition of Attacks against Nuclear Installations and Facilities between Pakistan and India, signed on December 31, 1988, the Foreign Office (FO) said in a statement here.

It said that "the list of nuclear installations and facilities in Pakistan was officially handed over to a representative of the Indian High Commission at the Ministry of Foreign Affairs today, at 1100 hrs (PST)." "The Indian Ministry of External Affairs in New Delhi handed over the list of Indian Nuclear installations and facilities to a representative of the Pakistan High Commission at 1130 hrs (IST)," it added.

<https://www.thehindu.com/news/national/india-pakistan-exchange-list-of-nuclear-installations/article33471376.ece>

More equipment shipped to Kudankulam

Nuclear Engineering, January 4, 2021

A ship carrying two batches of equipment for India's Kudankulam NPP left Russia for India on 28 December. Because ships of the required tonnage are traditionally in short supply in December, two consignments were loaded onto one ship, the Combi Dock I, said Vladimir Angelov, Director for Projects in India at Russia's ASE EC. These were the 22nd and 23rd consignments of equipment for the Kudankulam. This shipment totalling 9503 cubic metres comprised equipment intended for the second stage of the Kudankulam nuclear power plant - units 3&4. For unit 3, equipment with a long production cycle was shipped, such as cargo and service trolleys, which are parts of the polar crane, and for unit 4 the transport

gateway. The cargo included heat exchangers and gates, air passive heat removal systems, storage pool racks, pumps, fittings, storage equipment, pipelines, metal doors, electrical wiring blocks, filters, evaporator equipment, and low-voltage cabinets for complete devices for both units. The equipment is expected to arrive in India in late January.

Kudankulam is being constructed under a 1988 Russian-Indian agreement, which was amended in 1998. The general contractor (in terms of detailed design, equipment supply and technical assistance) is Atomstroyexport, the general designer is Atomenergoproekt. Atomenergomash is a supplier of key equipment. Kudankulam is one of the largest nuclear power projects in India and is scheduled to have six Russian VVER-1000 reactors. Units 1&2 (stage 1) are in operation, units 3&4 (stage 2) are under construction and units 5&6 (stage 3) are planned with preparatory works in progress.

<https://www.neimagazine.com/news/newsmore-equipment-shipped-to-kudankulam-8435843>

India's BHEL wins huge order for PHWR equipment from NPCIL

Nuclear Engineering, January 7, 2021

Bharat Heavy Electricals Limited announced that it has won a "prestigious order" from the Nuclear Power Corporation of India Limited (NPCIL) for the supply of 32 reactor header assemblies for India's indigenously-developed 700MWe pressurised heavy water reactors (PHWRs) to be set up at four different locations. This was the first order placed under NPCIL's Fleet Mode Procurement programme and will significantly boost domestic manufacturing.

India's government had approved fleet mode implementation of ten 700MWe PHWRs in 2017 at an estimated cost of \$16.3bn. BHEL said it has been associated with all the three stages of the Indian Nuclear Power Programme as the primary supplier to NPCIL for reactor headers,

steam turbines, steam generators, motors and other equipment. To date, all the reactor header assemblies for 700MWe PHWR projects in India have been supplied by BHEL. Currently, some 75% of PHWR based nuclear plants in India are equipped with BHEL-supplied turbine and generator sets. The ten planned reactors are units 5&6 at the Kaiga NPP in Karnataka state, units 1&2 at the Chutka NPP in Madhya Pradesh, units 1-4 at Mahi Banswara NPP in Rajasthan and units 1&2 at Gorakhpur NPP in Haryana state. Four 700MWe PHWRs are already under construction: Kakrapar 3&4 in Gujarat, and Rajasthan 7&8 in Rajasthan. India's PHWRs are a domestic design based on the Candu type reactor which uses heavy water and natural uranium but which do not require a reactor pressure vessel (RPV) - India does not have the manufacturing capability to produce the large forgings needs to make RPVs.

<https://www.neimagazine.com/news/newsindias-bhel-wins-huge-order-for-phwr-equipment-from-npcil-8442256>

Indian reactor connected to the grid

World Nuclear News, January 11, 2021

Kakrapar 3 was synchronised with the grid at 11.37am on 10 January, the Press Trust of India reported. "A true example of indigenous technology developed and built in India with 15 more such units to follow in fleet mode," Anil Kakodkar, former secretary of the Department of Atomic Energy, was quoted as saying.

In April 2007, the Indian government approved plans for the first four of eight planned 700 MWe PHWR units: Kakrapar units 3 and 4 and Rajasthan units 7 and 8, to be built by Hindustan Construction using indigenous technology. In mid-2009, construction approval was confirmed, and late in 2009 the finance for them was approved. Site works at Kakrapar were completed by August 2010. First concrete for Kakrapar 3 and 4 was in November 2010 and March 2011, respectively, after Atomic Energy Regulatory Board (AERB) approval.

The AERB approved Rajasthan 7 and 8 in August 2010, and site works then began. First concrete for those units was in July 2011. Construction had been expected to take 66 months.

<https://www.world-nuclear-news.org/Articles/Indian-reactor-connected-to-the-grid>

India produces first indigenous eye cancer treatment

World Nuclear News, January 15, 2021

The use of ruthenium plaques - curved metal discs containing the radioactive isotope - is a proven technique for the treatment of different types of eye cancers, but its availability in India has been limited owing to expensive imported sources, India's Department of Atomic Energy (DAE) has said. The availability of indigenously produced Ru-106 plaques will reduce the cost of treatment and help to save the vision of a large number of patients, it added. Chemically pure Ru-106 is obtained through a selective separation and purification process and is then electro-deposited over silver discs. It is subsequently sealed in a controlled atmosphere to produce the plaques.

The first batch of Ru-106 plaques, with a round configuration, were evaluated at Indian ophthalmic centres including the All India Institute of Medical Sciences (AIIMS) in New Delhi, and confirmed to meet international standards, the DAE said. A second batch, with a notched configuration, was also evaluated. The plaques were first used to treat a patient in September 2020 and were used successfully in 10 cases within two months. Ru-106 plaques are supplied to hospitals through India's Board of Radiation and Isotope Technology, which is an industrial unit of DAE.

<https://www.world-nuclear-news.org/Articles/India-produces-first-indigenous-eye-cancer-treatment>

B. China

PLA Navy develops new submarine escape immersion equipment

China Military Online, January 4, 2021

The new individual Submarine Escape Immersion Equipment (SEIE) has completed the combat performance test in the waters of a sea area of the East China Sea recently, indicating that the PLA Navy submariners' self-rescue and escape capabilities have reached the advanced international level. This new outfit is developed by the Special Medical Center of the PLA Naval Medical University. It comprises four components, including a fast floating escape suit, hood inflation system, escape suit detection device, and hood inflation detection device. Owing to the lightweight, wear-resistant, waterproof, and anti-aging new materials, and the design of the inner thermal liner and the individual life raft, the new SEIE is more convenient to use and provides better protection for the submariner on keeping warm and reaching for surface rescue.

Fast ascent and escape is a development direction widely recognized by the world for self-rescue and escape of submariners. The new SEIE takes into account two submarine escape modes, including rapid ascent escape and depressurized escape, which can be applied in various types of submarines of the PLA Navy. In the event of a submarine emergency, with the support of the one-person escape cabin onboard, the new SEIE allows survivors to quickly ascend and escape at depths down to 200 meters. It can also achieve a depressurized escape at depths down to 120 meters in combination with the existing depressurized escape breathing device.

http://eng.chinamil.com.cn/view/2021-01/04/content_9962642.htm

China urges calm and restraint after Iran enrichment announcement

Reuters, January 05, 2021

China urged calm and restraint on Tuesday after Iran said it had resumed 20% uranium enrichment at an underground nuclear facility, which breaches a 2015 nuclear pact

with major powers, including China. The enrichment decision, Iran's latest contravention of the accord, coincides with increasing tension between Iran and the United States in the last days of President Donald Trump's administration. Iran started violating the accord in 2019 in a step-by-step response to Trump's withdrawal from it the previous year and the reimposition of U.S. sanctions, which had been lifted under the deal.

<https://www.reuters.com/article/idUSKBN29A0NB>

China aims for 40-plus space launch missions in 2021, space station construction to be top priority: CASC

Global Times, January 05, 2021

China's biggest rocket contractor China Aerospace Science and Technology Corporation (CASC) has outlined its aim to conduct more than 40 space launch missions in 2021, and the construction of the country's first ever space station will be its top priority, according to a CASC official press release. The CASC held its annual work meeting. During the meeting, the Chinese space contractor said the space station construction has come to the implementation stage, and will be the focus of this year's space launch missions.

Tianwen-1, China's first Mars probe, which has traveled more than 400 million meters into its journey as of Sunday, was also mentioned in the outline. The probe aims to achieve orbiting, landing and roving on Mars. The probe is expected to reach Mars gravity by February. Research work on the experiment cabinets for the space station and on the manned lunar probe missions will also be carried out in 2021, the CASC said. Accelerating the application of the BeiDou Navigation Satellite System in other fields including civil aviation will also be a focus for 2021, it added.

<https://www.globaltimes.cn/page/202101/1211817.shtml>

China to launch core module of space station in first half of 2021

China Military Online, January 5, 2021

China plans to launch the core module of its manned space station in the first half of 2021, a senior official said. The core module will be sent by a Long March-5B Y2 rocket from the Wenchang Spacecraft Launch Site in Hainan Province, said Zhou Jianping, chief designer of China's manned space program, at a handover ceremony for the return capsule of the Shenzhou-10 manned spacecraft in Shaoshan, central China's Hunan Province.

"Subsequent space missions include the launches of Tianzhou-2 cargo craft and Shenzhou-12 manned craft after the core module is sent into orbit," Zhou said. Tests on the core module have been completed, and astronaut training is underway. The astronauts will carry out a number of extravehicular activities. China is scheduled to complete the construction of the space station around 2022. The construction project will be implemented in two phases. Six flight missions, including the launch of the core module, have been scheduled in the phase of key technology validation.

http://eng.chinamil.com.cn/view/2021-01/05/content_9963050.htm

China's military gives glimpse of updated long-range rocket system

Liu Zhen

South China Morning Post, January 9, 2021

Social media images show a new configuration of launchers on trucks as a backdrop to training drills. The system enables the PLA Ground Force to hit strategic targets with precision fire anywhere on the Taiwanese west coast. The People's Liberation Army marked the start of the new year by revealing a new variant of the powerful rockets it has targeting Taiwan.

The PCL-191 long-range multiple launch rocket system (MLRS), capable of firing 370mm rockets 350km (217 miles) or 750mm ballistic missiles 500km, was seen in the

background of the year-opening training session of an artillery brigade in the southern province of Guangdong, according to photos published on the 74th Group Army's official social media account. It was the first public display of the updated weapon, one of the world's most powerful of its kind, since its debut at China's National Day parade in 2019. The demonstration followed the purchase by Taiwan of a truck-based MLRS with a comparable range from the United States in October.

<https://www.scmp.com/news/china/military/article/3117044/chinas-military-gives-glimpse-updated-long-range-rocket-system>

High-resolution space reference system for panoramic images of China's western borders put into use

China Military Online, January 11, 2021

Recently, China's first high-resolution space reference system for border panoramic images along its western areas has been set up, which will provide forward-looking information about the geographic conditions and will contribute to the development of China's western regions and the Belt and Road Initiative (BRI). In western China's high-altitude areas, winter usually sees low temperature and heavy snowfall disasters. It's extremely hard to conduct disaster relief due to complicated terrain, poor transportation, lack of geographic information, and frequent deviations in navigation and positioning.

To solve this problem, a surveying and mapping team assigned to the PLA Western Theater Command has commenced the geographic survey and data collecting works in China's western borders since 2019. In the past two years, it undertook the signal monitoring via satellite navigation and completed the correction of geographic data across the territory.

http://eng.chinamil.com.cn/view/2021-01/11/content_9966247.htm

China plans to launch first space-based Sun-observing satellite by 2022: chief scientist

Deng Xiaoci

Global Times, January 12, 2021

Tests on the prototype of China's first spaceborne comprehensive solar observation satellite will come close to completion by the end of January, and the spacecraft is expected to be launched by 2022, according to Gan Weimin, chief scientist with the program. The satellite, codenamed Advanced Space-based Solar Observatory or ASO-S, is tasked with conducting long-term continuous solar observation for at least four years, and its main scientific goals include the formation of solar magnetic field, solar flare and titanic blasts known as coronal mass ejections, as well as their relationship in a simultaneous fashion. Gan, the program leader and research fellow with the Nanjing-based Purple Mountain Observatory under the Chinese Academy of Sciences (CAS), told the Global Times during an exclusive interview. The simultaneous observations could yield clues as to how those eruptions are triggered, he noted.

<https://www.globaltimes.cn/page/202101/1212567.shtml>

China's high-speed, armed reconnaissance drone completes maiden flight

Liu Zhen & Kristin Huang

South China Morning Post, January 13, 2021

China's new armed reconnaissance drone, the WJ-700, successfully completed its maiden flight on Monday, according to a newspaper report. Developer Haiying General Aviation Equipment, a subsidiary of China Aerospace Science and Industry Corp, did not disclose the location of the flight but said further tests would be required before the high-speed, high-altitude aircraft was ready to go into service with the military, China Space News reported on Tuesday.

The maiden flight of the unmanned aerial vehicle (UAV) came two years after it

appeared as a prototype at Airshow China 2018. WJ-700 takes to the skies at an undisclosed location two years after appearing as a prototype at Airshow China. With a top speed of 700km/h, the unmanned aircraft is capable of carrying out a range of missions, including strikes on land and sea targets.

<https://www.scmp.com/news/china/military/article/3117569/chinas-high-speed-armed-reconnaissance-drone-completes-maiden>

China and EU hold video consultation on arms control and non-proliferation

China Military Online, January 14, 2021

On January 13, 2021, Director-General of the Department of Arms Control of the Foreign Ministry Fu Cong and EU Special Envoy for Non-proliferation and Disarmament Marjolijn Van Deelen co-held via videolink a new round of China-Europe consultation on arms control and non-proliferation. Both sides exchanged views on topics of common interest covering nuclear disarmament and non-proliferation, biochemistry, outer space, export control, and conventional arms control.

http://eng.chinamil.com.cn/view/2021-01/14/content_9967607.htm

C. Pakistan

Pakistan conducts test flight of Fatah-1

Muhammad Anis

The News International, January, 2021

Pakistan on Thursday conducted a successful test flight of indigenously-developed Fatah-1 (Guided Multi Launch Rocket System), capable of delivering a conventional warhead up to a range of 140 kilometers. The new weapon system will give Pak Army capability of precision target engagement deep in enemy territory, the ISPR said.

<https://www.thenews.com.pk/print/771109-pakistan-conducts-test-flight-of-fatah-1>

Second Fuqing Hualong One reactor completes cold tests

World Nuclear News, January 11, 2021

Cold functional tests are carried out to confirm whether components and systems important to safety are properly installed and ready to operate in a cold condition. The main purpose of these tests is to verify the leak-tightness of the primary circuit and components - such as pressure vessels, pipelines and valves of both the nuclear and conventional islands - and to clean the main circulation pipes.

Construction of two demonstration Hualong One (HPR1000) units is also under way at China General Nuclear's Fangchenggang plant in the Guangxi Autonomous Region. Those units are expected to start up in 2022. CNNC has also started construction of two Hualong units at the Zhangzhou plant in Fujian province, plus the first of two units at Taipingling in Guangdong. Two HPR1000 units are under construction at Pakistan's Karachi nuclear power plant. Construction began on Karachi unit 2 in 2015 and unit 3 in 2016; the units are planned to enter commercial operation in 2021 and 2022.

<https://www.world-nuclear-news.org/Articles/Second-Fuqing-Hualong-One-reactor-completes-cold-t>

D. USA

Richard Thornburgh, governor during Three Mile Island nuclear crisis, dies at 88

Reuters, January 1, 2021

Richard Thornburgh, who rose to national prominence with his unruffled handling of the 1979 Three Mile Island nuclear crisis as Pennsylvania governor and later battled white-collar crime as U.S. attorney general, died on Thursday at the age of 88.

The Pennsylvania governor's office confirmed on Twitter that Thornburgh died on Thursday. It did not give details. During

the partial meltdown at Pennsylvania's Three Mile Island nuclear power plant, Thornburgh sought to put the public at ease, calling for a partial evacuation and overseeing cleanup efforts. It was the worst nuclear accident in U.S. history.

<https://www.reuters.com/article/us-usa-thornburgh-idUSKBN2951UW>

As Understanding of Russian Hacking Grows, So Does Alarm

David E. Sanger, Nicole Perlroth and Julian E. Barnes

The New York Times, January 2, 2021

On Election Day, General Paul M. Nakasone, the nation's top cyberwarrior, reported that the battle against Russian interference in the presidential campaign had posted major successes and exposed the other side's online weapons, tools and tradecraft. "We've broadened our operations and feel very good where we're at right now," he told journalists.

Eight weeks later, General Nakasone and other American officials responsible for cybersecurity are now consumed by what they missed for at least nine months: a hacking, now believed to have affected upward of 250 federal agencies and businesses, that Russia aimed not at the election system but at the rest of the United States government and many large American corporations. Three weeks after the intrusion came to light, American officials are still trying to understand whether what the Russians pulled off was simply an espionage operation inside the systems of the American bureaucracy or something more sinister, inserting "backdoor" access into government agencies, major corporations, the electric grid and laboratories developing and transporting new generations of nuclear weapons.

<https://www.nytimes.com/2021/01/02/us/politics/russian-hacking-government.html>

Biden Plans Renewed Nuclear Talks With Russia While Punishing Kremlin, Adviser Says

David E. Sanger

New York Times, January 3, 2021

President-elect Joseph R. Biden Jr.'s incoming national security adviser said on Sunday that the new administration would move quickly to renew the last remaining major nuclear arms treaty with Russia, even while seeking to make President Vladimir V. Putin pay for what appeared to be the largest-ever hacking of United States government networks. In an interview on "GPS" on CNN, Jake Sullivan, who at 44 will become the youngest national security adviser in more than a half century, also said that as soon as Iran re-entered compliance with the 2015 nuclear deal – which he helped negotiate under President Barack Obama – there would be a "follow-on negotiation" over its missile capabilities.

"In that broader negotiation, we can ultimately secure limits on Iran's ballistic missile technology," Mr. Sullivan said, "and that is what we intend to try to pursue through diplomacy."

<https://www.nytimes.com/2021/01/03/us/politics/biden-russia-iran.html>

U.S. accuses Iran of 'nuclear extortion' after enrichment statement

Reuters, January 5, 2021

The United States criticized Iran's statement that it had begun the process of enriching uranium to 20%, well above the limit set in the 2015 nuclear deal that Washington abandoned, as a form of "nuclear extortion."

"Iran enriching uranium to 20 percent at Fordow is a clear attempt to increase its campaign of nuclear extortion, an attempt that will continue to fail," said a State Department spokesperson on condition of anonymity. They were responding to a query about Iran's statement that it had

resumed 20% uranium enrichment at an underground nuclear facility.

<https://www.reuters.com/article/us-iran-nuclear-usa-idUSKBN2992E7>

Pre-demolition work starts at Lawrence Livermore reactor

World Nuclear News, January 5, 2021

Workers have begun activities to prepare for the demolition of a nuclear reactor at Lawrence Livermore National Laboratory (LLNL), in California, the Office of Environmental Management (EM) at the US Department of Energy announced on 22 December. A team from EM, the National Nuclear Security Administration, and the US Army Corp Engineers performed core drilling, surveying, sampling, and a study of potential demolition impacts last month.

The Livermore Pool Type Reactor operated for more than 20 years, supporting radiation research at what was then known as the Lawrence Radiation Laboratory. The reactor was cooled and moderated with light water, and its power came from a uranium chain reaction. The reactor was defueled and decommissioned in 1981.

<https://www.world-nuclear-news.org/Articles/Pre-demolition-work-starts-at-Lawrence-Livermore-r>

US flies two bombers to Middle East in another Iran deterrence mission

Barbara Starr and Jamie Crawford

CNN, January 7, 2021

The US military flew two B-52 bombers to the Middle East Thursday from their base in the United States – the fourth such deployment and show of force by the US Air Force aimed at sending a message to Iran in the past two months. This latest mission was to "demonstrate the U.S. military's continuing commitment to

regional security and deterrence to aggression,” the Air Force said in a statement and comes amid concerns Iran may still seek to retaliate for the assassination of Tehran’s top military commander in a US drone strike just over a year ago.

The move suggests there will be no let-up in the US deterrence campaign as tensions remain high less than two weeks before President-elect Joe Biden takes office. “The aircrews flew a 36-hour, non-stop mission from the 5th Bomb Wing’s home at Minot Air Force Base, N.D., to the Arabian Gulf and back to send a clear deterrent message by displaying the ability to deploy overwhelming combat power on short notice,” the statement said.

<https://edition.cnn.com/2021/01/07/politics/us-b52-bombers-iran-deterrence/index.html>

FDA approves novel non-uranium Mo-99 production process

World Nuclear News, January 7, 2021

FDA approval was granted through a Prior Approval Supplement to NorthStar’s original application for the RadioGenix System, which was approved in 2018. This will be the first commercial-scale application of cMo-98 technology, NorthStar said, and will also enable the production of higher activity source vessels, which will support enhanced radiopharmacy efficiencies. The company expects to begin shipments of larger capacity, multi-sized source vessels to customers “in the coming days”.

Stephen Merrick, president and CEO of NorthStar, said: “In conjunction with this approval, we also wish to recognise the important support that our partners at MURR [the University of Missouri Research Reactor], with whom we jointly produce Mo-99 in Columbia, Mo, have had in helping to progress cMo-98 development.”

<https://www.world-nuclear-news.org/Articles/FDA-approves-novel-non-uranium-Mo-99-production-pr>

Trump Administration adds Pentagon ‘Space Force’ to U.S. spy agency group

Mark Hosenball

Reuters, January 9, 2021

President Donald Trump’s Space Force established in 2019 will become a full member of the U.S. intelligence community, the administration said on Friday. John Ratcliffe, Trump’s director of National Intelligence, said the U.S. Space Force would become the 18th member of the U.S. intelligence community, which is led by Ratcliffe’s office and includes the CIA, FBI, National Security Agency and multiple agencies in the Defense, Treasury, Homeland Security and Energy departments. Making the Space Force a member of the intelligence community “breaks down barriers to information sharing and ensures that Space Force leadership has access to all the intelligence it needs to be successful,” the office said. A senior intelligence official told Reuters, “We now refer to outer space as a war fighting domain.”

<https://www.reuters.com/article/us-usa-spaceforce-idUSKBN29D2ST>

NuScale and UAMPS agreements progress plans for SMR plant

World Nuclear News, January 12, 2021

NuScale Chairman and CEO John Hopkins said: “This is the first step in a prudent deployment plan.” The Carbon Free Power Project (CFPP) will be a 720 MWe NuScale power plant, comprising up to 12 NuScale Power Modules, to be located at the US Department of Energy’s (DOE) INL site. The latest orders are the result of recently signed agreements to manage and de-risk the project. They include the Development Cost Reimbursement Agreement between UAMPS and NuScale, and the USD1.355 billion multi-year Financial Assistance Award from the DOE to CFPP LLC, which is a wholly-owned subsidiary of UAMPS.

UAMPS and Fluor Corporation have signed a cost-reimbursable development agreement to provide estimating, development, design and engineering services to develop the site-specific cost estimates for deployment of the NuScale technology at the INL site. UAMPS will continue to evaluate the size of the power plant as Fluor refines the engineering of alternatives to ensure that the plant is the best overall cost of energy and size to meet the needs of the project's participants, NuScale said. UAMPS CEO and General Manager Doug Hunter said. "We are confident that NuScale's small modular reactor will deliver affordable, stable, carbon-free energy to participating members, complementing and enabling large amounts of renewable energy in the region."

<https://www.world-nuclear-news.org/Articles/NuScale-and-UAMPS-agreements-progress-plans-for-SM>

DOE unveils strategy for US nuclear science and technology

World Nuclear News, January 12, 2021

Nuclear power supplies about 20% of US electricity generation and is by far the nation's largest source of carbon-free energy and the most reliable, operating at a capacity factor of more than 93%, the strategy notes. "However, many US reactors face economic challenges or are nearing the end of their planned operating lives. New construction of traditional reactors is costly and time consuming, and we need to demonstrate advanced reactor designs rapidly to provide clean energy and expand market opportunities before we lose access to key infrastructure and supply chain capabilities in the United States," the NE said.

The NE helps address these challenges as an applied energy research and development organisation, which invests in R&D that the private sector or other non-government stakeholders are unable to perform due to the cost, scale or timeframe required. It funds and creates opportunities for collaboration between researchers in industry, academia and the national laboratories, and leverages private-public partnerships and the national

laboratory system. It has identified five goals: enable continued operation of existing US nuclear reactors; enable deployment of advanced nuclear reactors; develop advanced nuclear fuel cycles; maintain US leadership in nuclear energy technology; and enable a high-performing organisation.

<https://www.world-nuclear-news.org/Articles/DOE-announces-strategy-for-US-nuclear-science-and>

US order promotes SMRs for space exploration and defence

World Nuclear News, January 13, 2021

"Nuclear energy is critical to United States national security. That is why I have taken a series of actions to promote its development and facilitate its use," President Donald Trump said in the Order, which was signed on 5 January and issued yesterday. The purpose of the Order is to "revitalise" the US nuclear energy sector, "reinvigorate" its space exploration programme, and to develop "diverse energy options for national defence needs". "It is the policy of the United States to promote advanced reactor technologies, including small modular reactors, to support defence installation energy flexibility and energy security, and for use in space exploration," the Order says.

Micro-reactors - described as a sub-set of small modular reactors, with a generation capacity of less than 10 MWe - have the potential to enhance energy flexibility and energy security at domestic military installations in remote locations, the Order says. It directs the Secretary of Defense to "establish and implement a plan" to demonstrate the capability and cost-effectiveness of a Nuclear Regulatory Commission-licensed micro reactor at a domestic military installation. If that demonstration is successful, the Secretary of Defense is then directed to identify opportunities for such capability at domestic military installations, which may have different requirements to the private sector such as the need to provide energy to facilities in the event that grid

connections are compromised; to operate for an extended period of time without refuelling; and resistance to disruption from electromagnetic pulse events. It also directs the Secretary of Defense to pilot a transportable micro-reactor prototype.

<https://www.world-nuclear-news.org/Articles/US-order-promotes-SMRs-for-space-exploration-and-d>

Schultz: Nuclear Icebreakers Are Not An Option for Coast Guard

Mallory Shelbourne

USNI News, January 13, 2021

The Coast Guard will not pursue nuclear-powered icebreakers, despite previous White House requests that the service assess the possibility, its top officer said Wednesday. Speaking at the Surface Navy Association's annual symposium, Coast Guard commandant Adm. Karl Schultz said the service and the Navy discuss what kind of icebreaking capability the sea services require, but that a nuclear-powered icebreaker is not possible for the U.S.

"We've moved off the nuclear-powered breaker. That capability – the ability to operate that in the Coast Guard – that just doesn't exist nor can we build out to that with all the demands on our plate," Schultz said. Schultz's comments come after the White House in a memo last year directed the Coast Guard and other government agencies to reexamine plans for the Polar Security Cutter fleet, even though the service in 2019 issued an award for the first ship in the class.

<https://news.usni.org/2021/01/13/schultz-nuclear-icebreakers-are-not-an-option-for-coast-guard>

U.S. imposes new sanctions on Iranian foundations in last days of Trump term

Humeyra Pamuk

Reuters, January 13, 2021

The United States on Wednesday blacklisted two Iranian foundations controlled by Supreme Leader Ayatollah Ali Khamenei, and their subsidies, saying the institutions

enabled Iran's elite to sustain a "corrupt" system of ownership over large parts of the economy.

The designations announced by the U.S. Treasury Department target Execution of Imam Khomeini's Order (EIKO) and Astan Quds Razavi (AQR), their leaders and subsidies. They are the latest action to reinforce the "maximum pressure" campaign on Iran pursued by President Donald Trump's administration. "These institutions enable Iran's corrupt leaders to exploit a system of ownership over a wide range of sectors of Iran's economy," U.S. Secretary of State Mike Pompeo said in a statement.

<https://www.reuters.com/article/iran-nuclear-usa-int/us-imposes-new-sanctions-on-iranian-foundations-in-last-days-of-trump-term-idUSKBN29I24L>

US environmental cleanup mission shares 2020 scorecard

World Nuclear News, January 14, 2021

EM released its list of priorities for 2020 early in the year. These included: achieving significant construction project milestones; executing key projects enabling its cleanup mission; reducing the footprint of the EM complex; awarding contracts that enable accelerated progress; and driving innovation and improved performance. Overall, 2020 was an inflection point for EM, the office said, with achievements including the completion of demolition at the East Tennessee Technology Park - the first site in the world to remove an entire uranium enrichment complex; the start of operations at the first-of-a-kind Salt Waste Processing Facility at the Savannah River Site; and the advancement of key components of DOE's tank waste treatment mission at other sites, including Hanford.

Significant accomplishments were also seen at smaller sites, EM said, such as the Moab Uranium Mill Tailings Remedial Action Project in Utah, workers reached the milestone of 11 million tons of mill tailings shipped from a former uranium

ore processing site in Moab to a disposal cell near Crescent Junction. “Our scorecard on EM’s 2020 mission priorities demonstrates remarkable progress by our cleanup workforce during a global pandemic,” EM Senior Advisor William White said. “I am inspired by the way the EM workforce pulled together in 2020, adapting and finding ways to boost productivity and teamwork while adhering to the COVID-19 protocols.”

<https://www.world-nuclear-news.org/Articles/US-environmental-cleanup-mission-shares-2020-score>

US grant made for Romanian SMR siting assessment

World Nuclear News, January 14, 2021

Nuclearelectrica said the USTDA grant will be used to fund the cost of services required in connection with the delivery of technical assistance for a preliminary assessment of new potential SMR-compatible nuclear sites in Romania, excluding the existing Cernavoda nuclear power plant site. The funds will also be used in the development of a licensing roadmap for SMRs. “In addition to the current development of reactors 3 and 4 [at Cernavoda], SNN is also interested in assessing the development of small modular reactors as a long-term solution to further develop the Romanian nuclear industry,” said Nuclearelectrica CEO Cosmin Ghita. “We are interested in features like flexibility, modularity and higher efficiency that could provide advantages for both the energy system and businesses after 2035.

“The grant awarded by USTDA will allow us to further explore siting and technology compatibility with the proper technical assistance and have this assessment process initiated in due time for further decision-making,” he added. “USTDA is an ideal partner for Romania as it seeks cutting-edge civil nuclear energy technology for its future energy needs,” said Todd Abrajano, USTDA’s chief operating officer and head of agency. “Our assistance will build stronger ties between our respective industries and create new business

opportunities for US industry in an important market.”

<https://www.world-nuclear-news.org/Articles/US-grant-for-Romanian-SMR-siting-assessment>

Ohio AG asks judge to block \$102 mln FirstEnergy surcharge in nuclear bailout scandal

Sebastien Malo

Reuters, January 15, 2021

The attorney general of Ohio on Thursday asked a state judge to stop First Energy Corp, the company at the center of a bribery scandal to bail out two of its nuclear power plants, from collecting \$102 million in 2021 in customer surcharges that were approved under the same controversial law that set up the now-aborted \$1.3 billion bailout attempt.

Ohio Attorney General Dave Yost asked the Court of Common Pleas for Franklin County in a motion for preliminary injunction to block the multi-year surcharge the Public Utilities Commission of Ohio (PUCO) approved on Dec. 30, arguing that it flows from the same enterprise that led to the adoption of House Bill 6 (HB6), the state law authorizing the bailout.

<https://www.reuters.com/article/usa-energy-lawsuit-idUSL1N2JP2II>

E. Europe

EU worried about Iran enrichment, aims to save nuclear accord

Reuters, January 05, 2021

The European Commission said on Tuesday it regretted that Iran has resumed 20% uranium enrichment at an underground nuclear facility, breaching a 2015 nuclear pact, but believed that the accord was worth saving. “We are highly concerned by the measures taken by Iran. This action is in breach of Iran’s nuclear commitments and will have serious

implications,” a spokesman for the Commission told a regular briefing. “It is regrettable but it is also highly important and ... that we maintain the agreement,” he said.

<https://www.reuters.com/article/idUSKBN29A16J>

NGOs urge EU Commission to value nuclear energy

World Nuclear Energy, January 5, 2021

A Brussels-based alliance of NGOs, weCARE, has written to the European Commission, Parliament and Council to urge “a more favourable evaluation at EU level” of nuclear energy for a larger projected share in the future very low-carbon energy mix, in combination with renewable sources, “thereby avoiding a gas lock-in effect”.

The group asks them to:

- promote and foster the revision of the concept of sustainability used for the Taxonomy, getting away from the short sighted “green sustainability” concept, towards “societal sustainability” as a balance between environment, economy and reliability;
- ensure that nuclear energy is explicitly and positively included in the relevant EU documents, starting with Policies and Roadmaps, but also in Implementation Instruments, such as the Delegated Acts under the Taxonomy, Directives and Regulations, and, Financing Instruments;
- and, ensure that the future EU Hydrogen Economy is based on very low carbon production of hydrogen, which, to be economic, needs to include recourse to nuclear energy. To foster this, the carbon footprint for the production of hydrogen should be set below 50 gCO₂/kWh.

<https://world-nuclear-news.org/Articles/NGOs-urge-EU-Commission-to-value-nuclear-energy>

Germany, France and UK press Iran over nuclear enrichment

DW, January 06, 2021

The three European countries have issued a joint condemnation of Iran’s return to enriching uranium to levels above those set in the 2015 nuclear deal. The latest developments appear to bring Iran closer to making weapons-grade level uranium. The foreign ministers of Germany, France and Britain on Wednesday jointly pressed Iran to reverse its decision to start enriching uranium to levels beyond the limits of a 2015 nuclear agreement.

Iran started enriching uranium to levels unseen since the landmark deal, having informed the International Atomic Energy Agency last week of its plans to increase enrichment to 20%. The development at Iran’s underground Fordo facility puts Tehran a technical step away from making weapons-grade levels of 90%. The three European countries said the “serious negative development” undermines assurances made by parties to the 2015 Joint Comprehensive Plan of Action (JCPoA) on December 21. In a statement, the three acknowledged their desire to uphold the deal and hailed the prospects of a US return to it under incoming President-elect Joe Biden. “We are deeply concerned that on January 4 in the subterranean uranium enrichment facility of Fordo, Iran, began enriching uranium to a level of 20 per cent,” read the statement, distributed by the German Foreign Office. “This action, for which there is no credible civilian justification, and which poses significant proliferation risks, is a clear violation of Iran’s obligations under the JCPoA and further undermines the agreement,” it added. The European ministers added that Iran’s decision “risks jeopardizing the important opportunity for a return to diplomacy with the incoming US administration.”

<https://www.dw.com/en/germany-france-and-uk-press-iran-over-nuclear-enrichment/a-56149431>

European powers say Iran enrichment move puts new diplomacy with U.S. at risk

Reuters, January 06, 2021

Britain, France and Germany warned Iran on Wednesday that its decision to restart uranium enrichment at 20 percent risked undermining hopes of reviving diplomacy when a new United States administration takes over later in January. Tehran said earlier this week it was pressing ahead with 20% uranium enrichment at an underground nuclear facility, breaching a 2015 nuclear pact with major powers and possibly complicating efforts by U.S. President-elect Joe Biden to rejoin the deal. Tehran often says it can quickly reverse its breaches if U.S. sanctions are removed.

The three powers urged Iran to stop enriching uranium to up to 20% without delay, reverse its enrichment programme to the limits agreed in the JCPoA and refrain from any further escalatory steps that would undermine diplomacy. "It's their tactical objective to pressure the Biden administration, but at one point if you fill the boat up too much it sinks," said one European diplomat, adding that for now the three powers would wait for the new U.S. administration to assess the situation. "If we threw the accord out of the window then it would be even harder to put back together again."

<https://www.reuters.com/article/idUSKBN29B1PU>

Studsvik signs new agreement with TVEL

Nuclear Engineering, January 7, 2021

Sweden's Studsvik announced on 4 January that its Fuel and Materials Technology business area had signed a contract with Russian fuel company TVEL (part of Rosatom) worth approximately SEK100 million (\$12m).

"The agreement further strengthens the business area's position on the Russian market," it said. "Fuel and Materials Technology have been working with Russia for many years and the last years the

cooperation has increased. The agreement creates a foundation for long-term business relations and strategic partnership. The services will be carried out the coming two years and will give improved capacity utilisation in the business area."

<https://www.neimagazine.com/news/newsstudsvik-signs-new-agreement-with-tvel-8442310>

E3 warn of risk from Iran's uranium enrichment

World Nuclear News, January 7, 2021

Iran and the E3/EU+3 (China, France, Germany, Russia, the UK and the USA - also referred to as the P5+1 - plus the European Union) signed the Joint Comprehensive Plan of Action (JCPoA) in July 2015. Under its terms, Iran agreed to limit its uranium enrichment to 3.67% U-235. The USA withdrew from the JCPoA in May 2018 and re-imposed economic sanctions on Tehran. "We are deeply concerned by the commencement by Iran on the 4th of January of uranium enrichment up to 20% at the underground facility of the Fordow Fuel Enrichment Plant," the E3 said in a joint statement. "This action, which has no credible civil justification and carries very significant proliferation-related risks, is in clear violation of Iran's commitments under the JCPoA and further hollows out the Agreement."

It added: "This is a serious negative development which undermines the joint commitment of JCPoA participants on 21 December to preserve the JCPoA. It also risks compromising the important opportunity for a return to diplomacy with the incoming US Administration. We strongly urge Iran to stop enriching uranium to up to 20% without delay, reverse its enrichment programme to the limits agreed in the JCPoA and to refrain from any further escalatory steps which would further reduce the space for effective diplomacy."

<https://world-nuclear-news.org/Articles/E3-warn-of-risk-from-Tehran-s-latest-violation-of>

Khmelnitsky expansion part of European 'renaissance', says Energoatom chief

World Nuclear News, January 8, 2021

Expansion of the Khmelnitsky plant is part of the Ukraine-European Union Energy Bridge - or Energomost - project, which would link Khmelnitsky 2 to Burshtyn Energy Island and connect with power lines to Rzeszów in Poland and Albertirsa in Hungary. "After the collapse of the Soviet Union, the whole world together with Ukraine decided to freeze the construction of nuclear power units. Thirty years have passed and the states are returning to the development of nuclear power plants because it is a cheap, environmentally friendly and stable source of energy. Ukraine should be among them," Kotin said.

These units were planned to be built using the proceeds of nuclear power exported from the Khmelnitsky plant to Poland as part of the Energomost project. "This project is almost ready. All that's left is to sign. The Ministry of Energy is to sign a partnership agreement with the Consortium comprising Westinghouse, EDF Trading and Polenergia. The consortium won the tender for participation in the project. The consortium has invested about EUR270 million (USD331 million) in the project to date, Kotin said.

<https://world-nuclear-news.org/Articles/Khmelnitsky-expansion-part-of-European-renaissance>

European organisation launched for cooperation in waste disposal

World Nuclear News, January 8, 2021

Before its establishment, the national organisations worked together for the past 10 years in the ERDO Working Group. This was founded with support of 10 Members States in 2009, following comprehensive feasibility studies (the SAPIERR projects) into multinational disposal in Europe, organised by the Arius Association and funded by the European Commission. Fourteen European countries were involved in SAPIERR and 13 are, or have been,

involved with ERDO work over the past decade.

ERDO was officially established yesterday in Vlissingen, the Netherlands by the signing of the articles of association by Dansk Dekommissionering (Dekom) from Denmark, Norsk Nukleær Dekommisjonering (NND) from Norway and the Central Organisation for Radioactive Waste (Covra) from the Netherlands. Other organisations from the working group will join the association over the coming weeks. These include Slovenia's Agency for Radioactive Waste Management; Austria's Bundesministerium für Landwirtschaft, Regionen und Tourismus; Italy's ENEA; and Croatia's Fond-NEK.

<https://world-nuclear-news.org/Articles/European-organisation-launched-for-cooperation-in>

UK HPR1000 design opened for public comment

World Nuclear News, January 11, 2021

Alongside the Office for Nuclear Regulation (ONR), the EA assesses the acceptability of new nuclear power plant designs in a process called Generic Design Assessment. General Nuclear System Limited, acting for China General Nuclear Group and EDF, began submitting the UK HPR1000 design to both the EA and the ONR in September 2017. This followed a request from the government for regulators to begin a GDA of the design. Bradwell Power Generation Company Limited, a joint subsidiary of China General Nuclear Group and EDF, is proposing to construct and operate a nuclear power station using twin UK HPR1000s at its site near the existing Magnox power station site at Bradwell in Essex.

The EA said it has found that "many of the environmental aspects of the design would be acceptable", but has also set out six potential issues and 40 assessment findings to be addressed before it would consider issuing a full statement of design

acceptability for the UK HPR1000. Alan McGoff, new reactors programme manager at the EA, said: "Only if we are satisfied that all the issues have been addressed would we consider issuing a full statement of design acceptability. If the issues are not resolved or new issues are identified but not resolved, then we would consider only issuing an interim statement of design acceptability. Our aim is to complete our detailed assessment of the design in early 2022."

<https://world-nuclear-news.org/Articles/UK-HPR1000-design-opened-for-public-comment>

Iran must undo uranium enrichment, help nuclear diplomacy, EU says

Reuters, January 12, 2021

Iran must reverse its decision to enrich uranium at higher levels and give international diplomacy a chance to save the 2015 nuclear accord, the European Union said in a statement. "The initiation of uranium enrichment to up to 20% by Iran at the underground Fordow Fuel Enrichment Plant ... is a very serious development and a matter of deep concern," the EU's 27 governments said in a statement released late.

"At this critical juncture, Iran's action also risks undermining efforts aimed at building upon the existing diplomatic process. We urge Iran to refrain from further escalation and reverse this course of action without delay." Iran started pressing ahead with plans to enrich uranium to 20% fissile strength at its underground Fordow nuclear plant last week, a level Tehran achieved before striking the deal with world powers to contain its disputed nuclear ambitions. The head of the global atomic watchdog told Reuters on Monday that world powers and Iran had weeks, not months to save the nuclear accord once U.S. President-elect Joe Biden takes office on Jan. 20.

<https://www.reuters.com/article/idUSKBN29H0ZU>

Final major contracts signed for Iter Tokamak Complex assembly

World Nuclear News, January 12, 2021

Following competitive global tender campaigns managed by ITER's Procurement & Contracts Division, two international groups - one incorporated as a consortium and the other as a commercial partnership - have been awarded contracts for installation activities inside the Tokamak Complex.

These phased, long-term contracts will cover the pre-assembly and installation of the millions of components that make up the plant systems supporting the Iter machine, including fuelling, vacuum, diagnostics, cooling, power and heating. The two assembly contractors for the Tokamak Complex will carry out similar types of installation tasks, notably mechanical and piping works (vessels, piping systems, heat exchangers, pumps, motors; cable trays and cable pulling; wave guides; piping thermal installation; pressure tests), and electrical and instrumentation and control-related works (DC busbars, switching equipment, power cables, I&C cables and cabinets).

<https://world-nuclear-news.org/Articles/Final-major-contracts-signed-for-Iter-Tokamak-Comp>

F. Russia

Russian Nuclear Power Plants Set Electricity Production Record in 2020, Rosenergoatom Says

Sputnik, January 1, 2021

Nuclear power plants in Russia produced over 215.7 billion kilowatt-hours of electricity in 2020 thus reaching an all-time-high, Rosenergoatom, a subsidiary of state nuclear energy corporation Rosatom, said. "We ended 2020 with an absolute record in the entire history of the Russian nuclear power industry, achieved previously only during the Soviet Union times in 1988, when all nuclear power plants produced 215.669 billion kilowatt-

hours (including nuclear power plants in Ukraine, Lithuania and Armenia),” Rosenergoatom General Director Andrey Petrov said in a statement.

<https://sputniknews.com/russia/202101011081625281-russian-nuclear-power-plants-set-electricity-production-record-in-2020-rosenergoatom-says/>

US ‘goes haywire’ with idea of its exceptionalism, Russian diplomat says

TASS News Agency, January 2, 2021

The US has gone haywire with the idea of its exceptionalism, Russian Foreign Ministry Spokeswoman Maria Zakharova said on Friday in an interview with the Youtube channel “Izolenta live.” “A nuclear power, a power that has gone haywire in recent years with the idea of its own exceptionalism, pulled out from many documents, treaties, international organizations that somehow got it within some international and legal norms. It’s like it shed all that. Maybe they will go back to some things now. But in any case, it [the US] <...> encouraged its population to think that they don’t owe anybody anything, that they should not obey anyone, not even the law or international rights,” the diplomat said.

<https://tass.com/politics/1241913>

Russia plans new generation of FNPPs

Nuclear Engineering, January 6, 2021

Russia is planning a new generation of floating nuclear power plants (FNPPs) based on the RITM reactor and already has some projects under consideration. The economic characteristics of the Russian project of a modernised floating nuclear power plant make it competitive in the global market, the head of Rosatom’s engineering division Atomenergomash, Andrey Nikipelov told the annual International Forum “Arctic: Today and the Future,” in St Petersburg.

“In the nuclear energy industry, each project is unique and the floating power plant Akademik Lomonosov is not an

exception. To replicate this experience and broaden the opportunities for its use, we have initiated the project to develop an optimised version of similar power plants, the prime cost and construction period of which are significantly lower...with the power capacity being increased,” he said. Atomenergomash has already developed a draft project for a modernised FNPP and is preparing to start its construction, he added. “Now we are shifting to the next phase – the implementation of a full-fledged project – and will actively cooperate with potential customers to carry out a more detailed study of their requirements,” he noted.

<https://www.neimagazine.com/news/newsrussia-plans-new-generation-of-fnpps-8442344>

Rosatom opens first in Russia Centre for Additive Technologies

Nuclear Engineering, January 7, 2021

The Centre for Additive Technologies (CAT) of Rusatom - Additive Technologies (RusAT) was opened at the site of the Moscow Polymetals Plant in December, as the first industrial production facility in the field of 3D printing using domestic technologies and equipment. CAT is equipped with Rusmelt 300M, Rusmelt 600M and Rusmelt 600 RM 3D printers for printing with metal powders using laser melting metal powder (SLM) technology. These printers are designed and manufactured by Rosatom, run on Russian software and have parameters and characteristics that meet international standards.

The Central Design and Technological Institute (JSC “TSPI”, part of TVEL) acted as the contractor for the design of the CAT. “The opening of the first Centre for Additive Technologies underlines the role of Rosatom in creating a new technological order in the country,” said Rosatom Director General Alexey Likhachev. “This is an extraordinary event not only in the industry, but also on a national scale. There is a lot of work ahead related to the creation of a whole network of such

centres, primarily in cities and regions where Rosatom enterprises are present.”

<https://www.neimagazine.com/news/newsrosatom-opens-first-in-russia-centre-for-additive-technologies-8443281>

Russia's OMZ manufactures components for China's Xudabao 4

Nuclear Engineering, January 7, 2021

Russia's OMZ manufactures components for China's Xudabao 4. Russia's OMZ-Spetsstal said on 28 December that it had manufactured pressure compensator elements for unit 4 of China's Xudabao NPP in China. The pressure compensator is used to create and maintain pressure in the primary circuit of a nuclear reactor. In an emergency, the unit limits pressure fluctuations and thus maintains the integrity of the system. Four shells are required to produce one vessel. The weight of each is 26-36 tons, length 1.82 to 3.16 metres, diameter 3.4 metres, and wall thickness 152 mm. All four shells are awaiting shipment to AEM-Technologies in Petrozavodsk where they will be used for the production of a pressure compensator.

Rosatom and the State Energy Administration of China also signed framework contracts for serial construction of the Xudabao units, the construction of the 4th stage of the Tianwan NPP (units 7&8), the supply of equipment and the provision of services for the construction of the Chinese CFR600 demonstration fast reactor and for the supply of radionuclide thermal blocks for space purposes.

<https://www.neimagazine.com/news/newsrussias-omz-manufactures-components-for-chinas-xudabao-4-8443378>

Russia's Kursk-II on schedule with RUB25bn invested in 2020

Nuclear Engineering, January 8, 2021

More than RUB25 billion (\$337m) was invested in the construction of Russia's Kursk-II NPP in 2020. The funds were used for construction of the main facilities including reactor buildings, turbines, cooling

towers, as well as auxiliary facilities such as administrative buildings, backup power supply buildings, a pumping station, as well as the purchase of equipment.

Fifteen key events were planned in 2020, according to Aleksey Buldygin, head of the Kursk-II Capital Construction Department. "All of them were completed on schedule, and some were even ahead of schedule," he said. Currently, 80 objects are under construction at the site. Next year we plan to start production of work at 33 more sites."

<https://www.neimagazine.com/news/newsrussias-kursk-ii-on-schedule-with-rub25bn-invested-in-2020-8443597>

Rosatom commissioned largest wind farm in Russia

TASS News Agency, January 11, 2021

Russian nuclear state corporation Rosatom has put into operation the Kochubeevskaya wind-driven power plant (WPP) with an installed capacity of 210 MW, Rosatom said in a statement. With 84 wind turbines, the Kochubeevskaya WPP is the largest wind farm in Russia. This is the second completed project by NovaWind (the Rosatom division in charge of wind energy projects). Earlier the company built the first wind farm in the republic of Adygea.

"Successful experience in the construction and operation of wind power plants, implementation of plans for the creation of serial production of components and assemblies of wind turbines in the Russian Federation, an effective supply chain, including with the participation of enterprises of the state corporation, allowed us to reach the systemic level of implementation of projects in wind energy and complete the project for the construction of Kochubeevskaya wind farm in two years. The Stavropol region has become our key region," NovaWind's CEO Alexander Korchagin said as quoted by the press service.

<https://tass.com/economy/1243591>

Gorbachev expects Biden to extend last Cold War arms deal, but says more needed

Andrew Osborn

Reuters, January 11, 2021

Mikhail Gorbachev, the last Soviet leader, said he expects U.S. President-elect Joe Biden to extend the last major nuclear arms control treaty between Moscow and Washington when it expires next month, but that the two countries have much more to do. In an interview with Russia's RIA news agency published on Monday, Gorbachev, 89, said he was counting on Biden, whom he said he had met many times, to extend the New START treaty.

The pact limits the number of strategic nuclear warheads, deployed missiles and heavy bombers the world's two biggest nuclear powers can have and is widely regarded as the cornerstone of global arms control.

<https://www.reuters.com/article/us-russia-usa-missiles-gorbachev-idUSKBN29G18E>

Russia wants UK, France to join nuclear disarmament process

TASS News Agency, January 12, 2021

Russia still wants the United Kingdom and France to join the nuclear disarmament process, Russian Ambassador to the United States Anatoly Antonov said on Tuesday during the online seminar on the prospects for arms control after the US elections.

"After the New START extension, we could also discuss how to possibly involve new participants into arms control agreements," he said. "At the same time Russia considers unjustified any attempts to put international pressure on countries in order to force them to participate in an arms control regime. Consultations and negotiations of this kind must be conducted on a free and voluntary basis with due regard for the legitimate interests of the parties."

<https://tass.com/defense/1244059>

New START extension to give time for talks on future arms control - Russian ambassador

TASS News Agency, January 13, 2021

A five-year extension of the New START Treaty will give time for comprehensive talks between Russia and the United States on future control over nuclear weapons, Russian Ambassador to the United States Anatoly Antonov said on Tuesday during the online seminar on the prospects for arms control after the US elections.

"The extension of New START for a 5-year period will allow us to maintain the current ceilings on strategic offensive weapons as well as the level of transparency and predictability in US-Russia strategic relations," the Russian embassy quoted him as saying on its Facebook account. "It is also equally important that we could use the time gained as a result of New START prolongation to hold comprehensive bilateral talks on the future of nuclear and missile arms control. In these discussions the sides would consider all the factors affecting strategic stability. Namely - missile defense, shorter-and intermediate-range ground-based missiles, Global Strike systems, hypersonic delivery vehicles, future space weapons, etc."

<https://tass.com/politics/1244079>

First turbine module delivered for Akkuyu plant

World Nuclear News, January 13, 2021

GE Steam Power is supplying the four nuclear turbine generator sets for Turkey's first nuclear power plant under a contract awarded to AAEM Turbine technology LLC (AAEM) in 2007. These include the Arabelle steam turbines, Gigatop 4-poles generators and condenser vacuum pumps. GE will also provide full design for its scope of supply, and basic design for AAEM's scope.

AAEM is a joint venture of Atomenergomash JSC, a mechanical engineering division of Russian state

nuclear corporation Rosatom, and General Electric. It was established in 2007 to offer comprehensive solutions for the conventional island of VVER plants. As part of the Akkuyu construction project, Atomenergomash is responsible for the complete supply of equipment for both the nuclear steam generating unit and turbine hall based on the Arabelle low-speed turbine.

Each Arabelle steam turbine will include three modules: the high pressure/intermediate pressure (HIP) module, and two low-pressure modules. In total, each Arabelle will be 60 metres long including generator and will deliver 1.2 GWe. GE announced yesterday that it had delivered the first HIP module to Atomenergomash for use at the Akkuyu plant. Manufacturing of the module began in June 2019.

<https://world-nuclear-news.org/Articles/First-turbine-module-delivered-for-Akkuyu-plant>

Consortium for development of new generation nuclear energy technologies created in Russia

TASS News Agency, January 13, 2021

Nine Russian research centers and universities have established a consortium for developing new generation nuclear power technologies, including closed nuclear fuel cycle facilities, fast reactors, new materials for energy technologies of the future and innovative nuclear power plant projects. "For creating and proliferating competitive centers of knowledge and mastering the best practices of research and innovative activities a scientific consortium has been created for the development of nuclear power technologies of a new generation in Russia's territory," the press-service of the consortium's initiator, National Nuclear Research University MIFI said on Wednesday.

The consortium will focus, among other things, on the development of new materials for 4th generation nuclear reactors and thermonuclear reactor DEMO, on expanding the bases of experimental data used in modelling physical processes in

nuclear power plants and on developing and using digital economy instruments.

<https://tass.com/defense/1244497>

Dmitry Donskoy submarine not to be decommissioned for five years at least, says source

TASS News Agency, January 14, 2021

The Dmitry Donskoy submarine strategic missile cruiser (Project 941) may be decommissioned no sooner than in five years, a source in the military told TASS Thursday. "There are military training events planned for 2021 involving the cruiser. Decommissioning of the submarine is an issue of five years, at least," the source said.

Previously, Sevmash CEO Mikhail budnichenko said in an interview that a contract was signed in 2020 for construction of two Project 955A strategic submarines. One of them will be named Dmitry Donskoy. According to the TASS source, construction of such submarines usually takes 7 to 8 years. Until recently, Dmitry Donskoy was considered the largest submarine in the world. Today, this title belongs to the Belgorod - a special purpose submarine, armed with Poseidon nuclear supertorpedoes.

<https://tass.com/defense/1244995>

'Nuclear blast in cyberspace': Diplomat slams Big Tech purge of Trump as blow to democracy

TASS News Agency, January 14, 2021

Silicon Valley's purge of incumbent US President Donald Trump's accounts across social media has harmed the democratic values regularly professed by the West, Russian Foreign Ministry Spokeswoman Maria Zakharova said on her Facebook page.

"The decision by US Internet platforms to block the accounts of the head of state can be likened to a nuclear explosion in cyberspace. The aftereffects are worse than destruction. A blow has been dealt to the

democratic values professed by Western society. Both darknet apologists and the advocates of harsh censorship have instantly gained a substantial argument. The media market has begun to be reshaped and a massive digital migration is afoot," she wrote.

<https://tass.com/politics/1244917>

Russia Says Trump Ban a 'Nuclear Blast in Cyber Space'

The Moscow Times, January 14, 2021

Russia on Thursday compared the decision of social media giants to suspend U.S. President Donald Trump's accounts to a "nuclear blast in cyber space" with the consequences hard to predict. "The decision of U.S. internet platforms to block the head of state can be compared to a nuclear blast in cyber space," Russian Foreign Ministry spokeswoman Maria Zakharova said on Facebook.

"It's not the destruction that's scary but the consequences," she added. "A blow has been dealt against democratic values proclaimed by the West." Trump's Facebook and Instagram accounts were suspended last week following the violent invasion of the U.S. Capitol by a mob of his supporters, which disrupted the certification of President-elect Joe Biden's election victory.

<https://www.themoscowtimes.com/2021/01/14/russia-says-trump-ban-a-nuclear-blast-in-cyber-space-a72614>

Russian robot helps to dismantle graphite reactors

Nuclear Engineering, January 14, 2021

Russia's Special Design and Technological Bureau of Applied Robotics (SKTB PR) at the Special Economic Zone (SEZ) Technopolis Moscow has developed a mobile robotic complex for dismantling the graphite stack of carbon-graphite reactors. The complex consists of a mobile robot, a remote control and a magazine with a special electric cutting tool. The system makes it possible to remotely undertake dismantling work on carbon-graphite

reactors, which were previously widely used at nuclear power plants and are now being decommissioned.

"This development removes the need for the presence of people in the zone with increased radiation. The operator remotely controls the robot, and with the help of the video system, which is part of the complex, directs the work. The robot manipulator is capable of lifting and carrying up to 100kg, which is sufficient to extract the graphite blocks," said Gennady Dyogtev, General Director of SEZ Technopolis Moscow.

<https://www.neimagazine.com/news/newsrussian-robot-helps-to-dismantle-carbon-graphite-reactors-8453958>

Kommersant: Russia to reconsider Open Skies Treaty membership

TASS News Agency, January 15, 2021

Moscow is set to announce plans to reconsider its membership in the Treaty on Open Skies, which allows signatory countries to conduct observation flights over each other's territory. The United States left the treaty last year, forcing Russia to search for a proper response. According to experts interviewed by Kommersant, Moscow may not just suspend its membership but pull out of the treaty altogether. Washington's European allies tried to persuade the US not to withdraw from the treaty but the Trump administration did not listen to them.

"In political terms, the Treaty on Open Skies is designed to maintain transparency and cooperative security in Europe. The United States is out of the agreement and the Europeans have turned out to be unable to make a grand gesture to support the treaty," PIR Center expert Andrey Baklitsky pointed out. "Given the current estrangement between Russia and Europe, as well as Moscow's difficult history of relations with Joe Biden, chances are that the Russian leadership will come to the conclusion that there is no one in Europe to build cooperative security with and then, the Treaty on Open Skies will share

the fate of the Treaty on Conventional Armed Forces in Europe," the expert added.

<https://tass.com/pressreview/1245131>

Russia announces exit from Open Skies treaty citing U.S. withdrawal

Reuters, January 15, 2021

Russia announced on Friday it was pulling out of the Open Skies treaty, saying that the pact, which allows unarmed surveillance flights over member countries, had been seriously compromised by the withdrawal of the United States. The move, announced by Russia's foreign ministry, comes days before U.S. President-elect Joe Biden's Jan. 20 inauguration amid fears of a burgeoning arms race. Moscow's last major nuclear arms pact with Washington is set to expire next month.

The United States left the Open Skies arms control and verification treaty in November, accusing Russia of violating it, something Moscow denied. Russia said in a statement that Moscow had made specific proposals to other members to mitigate against the impact of the U.S. exit but that those proposals were not backed by Washington's allies.

<https://www.reuters.com/article/us-usa-russia-openskies-exit-idUSKBN29K11C>

West Asia

G. Iran

Martyrdom spirit of General Soleimani proof of 'ultimate sacrifice': Iran's nuclear body

January 1, 2021

Iran's top nuclear organization has called Quds Force Commander Major General Qassem Soleimani an "exalted martyr" whose martyrdom was indicative of human freedom and sacrifices. "These days, the memory of General Soleimani martyrdom has filled our hearts with grief and doubled sorrow," the Atomic Energy Organization of Iran (AEOI) said in a tweet on Thursday. The AEOI added, "The martyrdom spirit of

that exalted martyr is a firm proof of human freedom, and ultimate sacrifice."

This week marks the first anniversary of the assassination of General Soleimani in an American drone strike near Baghdad's international airport on January 3, 2020. Abu Mahdi al-Muhandis, deputy head of the Iraqi Popular Mobilization Forces (PMF), who accompanied Soleimani upon his arrival in Baghdad, was also assassinated in the strike. With the assassination anniversary just a few days away, tensions between Tehran and Washington have soared in recent days. The U.S. has sent a submarine to the Persian Gulf and Israel is reportedly following suit. Iran has warned the U.S. against any aggression. "Intelligence from Iraq indicate plot to FABRICATE pretext for war. Iran doesn't seek war but will OPENLY & DIRECTLY defend its people, security & vital interests," Iranian Foreign Minister Mohammad Javad Zarif said in a tweet on Thursday.

<https://www.tehrantimes.com/news/456437/Martyrdom-spirit-of-General-Soleimani-proof-of-ultimate-sacrifice>

Diplomat says Iran's letter to IAEA is 'self-explanatory'

Tehran Times, January 2, 2021

The International Atomic Energy Agency (IAEA) has acknowledged that Iran plans to enrich uranium up to 20% at its Fordow facility, a month after the Iranian Parliament passed a bill that tasked the government with scaling up the country's nuclear program. The IAEA said Iran did not say when it planned to boost enrichment, though the agency "has inspectors present in Iran on a 24/7 basis and they have regular access to Fordo."

A spokesman for Tehran's mission to the United Nations has said Iran's letter to the IAEA that his country plans to enrich uranium to the purity of 20 percent is "self-explanatory". However, Alireza Miryousefi declined to answer questions about when the 20% enrichment would begin.

The IAEA acknowledged that Iran had informed its inspectors of the decision, amid heightened tensions between Iran and the U.S. in the waning days of the administration of President Donald Trump. "Iran has informed the agency that in order to comply with a legal act recently passed by the country's parliament, the Atomic Energy Organization of Iran intends to produce low-enriched uranium ... up to 20 percent at the Fordo Fuel Enrichment Plant," the IAEA said in a statement. Mikhail Ulyanov, Russia's permanent representative to the Vienna-based IAEA, wrote on Twitter on Friday that Tehran planned to resume enrichment up to 20%.

<https://www.tehrantimes.com/news/456495/Diplomat-says-Iran-s-letter-to-IAEA-is-self-explanatory>

Tehran dismisses Rouhani death threat against Trump as 'fake news'

Tehran Times, January 2, 2021

Iranian Foreign Ministry spokesman Saeed Khatibzadeh says the American daily Washington Times should know better than to publish fake news, making a reference to the daily's distortion of President Hassan Rouhani's remarks about his outgoing American counterpart.

"Cowardice in assassinating foreign leaders is a US-Israeli trademark; NOT Iranian," Khatibzadeh wrote in a tweet on Friday evening. "@WashTimes should know better than to publish #FakeNews & spread anti-Iran bigotry -even though it has featured PAID content by the outlaw MeK terrorist cult," he said. "Your readers deserve better!"

On Wednesday, the Washington Times falsely quoted Rouhani as issuing a death threat against U.S. President Donald Trump

"Trump will soon be dead," the Washington Times quoted the Iranian president as saying, while vowing blood vengeance for the assassination of top Iranian general, Qassem Soleimani.

Addressing a cabinet session on Wednesday, Rouhani said: "I said it once, and I repeat it, Trump was like Saddam. Saddam imposed eight years of war against us and he was

overthrown, and Trump imposed three years of economic war against us and he will be overthrown in the next few weeks, not just from office but from [political] life."

"One of the effects of the stupid and disgraceful act of assassinating Martyr Soleimani was that Trumpism ended, and in a few days, this murder's mandate is drawing to an end and he will go down into the dustbin of history," Rouhani added.

<https://www.tehrantimes.com/news/456465/Tehran-dismisses-Rouhani-death-threat-against-Trump-as-fake>

Iraq does not back any anti-Iran decision, says envoy

Tehran Times, January 3, 2021

Iraqi Ambassador to Tehran Nasir Abdul Mohsen Abdullah says his country does not support any decision against the Islamic Republic of Iran. "Iraq has been fundamentally against the proposal at the United Nations," Abdullah said in an interview with IRNA on Saturday, referring to a recent U.S. attempt to re-establish a team of experts within the UN to monitor sanctions on Tehran. He said Prime Minister Mustafa al-Kadhimi has sent a message to Iran to underline that Iraq does not support any decision against the Islamic Republic.

"Iran is a friendly and brotherly neighboring country and we have close relations with the Islamic Republic of Iran," Abdullah said.

"Iraq's strict policy has always been to oppose any decision or action against all its neighbors, especially the Islamic Republic of Iran," the Iraqi envoy added. On Thursday, the outgoing administration of U.S. President Donald Trump voted against the UN's budget of \$3.231 billion for 2021, citing disagreements on Israel and Iran. Only Israel sided with the U.S., as the other 168 nations voted in favor of the annual budget that is traditionally approved by consensus.

<https://www.tehrantimes.com/news/456557/Iraq-does-not-back-any-anti-Iran-decision-says-envoy>

Iran starts process of enriching uranium to 20% at Fordow, IAEA confirms

Reuters, January 04, 2021

Iran has begun the process of enriching uranium to 20% purity, a level it last reached before its 2015 deal with major powers, at its Fordow site dug into a mountain, the U.N. nuclear watchdog confirmed on Monday. "Iran today began feeding uranium already enriched up to 4.1 percent U-235 into six centrifuge cascades at the Fordow Fuel Enrichment Plant for further enrichment up to 20%," the International Atomic Energy Agency said in a statement on a report that was sent to member states on Monday afternoon.

<https://www.reuters.com/article/idUSKBN2991PU>

Iran resumes 20% enrichment at Fordow amid rising tensions with U.S.

Parisa Hafezi

Reuters, January 04, 2021

Iran has resumed 20% uranium enrichment at an underground nuclear facility, the government said on Monday, breaching a 2015 nuclear pact with major powers and possibly complicating efforts by U.S. President-elect Joe Biden to rejoin the deal. The enrichment decision, Iran's latest contravention of the accord, coincides with increasing tensions between Iran and the United States in the last days of President Donald Trump's administration. "A few minutes ago, the process of producing 20% enriched uranium has started in Fordow enrichment complex," government spokesman Ali Rabiei told Iranian state media. The U.N. nuclear watchdog confirmed that Iran had started the process of enriching uranium to 20% purity at its Fordow site.

"Iran today began feeding uranium already enriched up to 4.1 percent U-235 into six centrifuge cascades at the Fordow Fuel Enrichment Plant for further enrichment up

to 20%," the IAEA said in a statement on a report that was sent to member states. The step was one of many mentioned in a law passed by Iran's parliament last month in response to the killing of the country's top nuclear scientist, which Tehran has blamed on Israel.

<https://www.reuters.com/article/idUSKBN299101>

Iran tests drones in military exercise

Reuters, January 05, 2021

Iran launched exercises featuring a wide array of domestically produced drones on Tuesday, Iranian media reported, days after the anniversary of the U.S. killing of a top Iranian general by a drone strike in Iraq. Iran and the regional forces it backs have increasingly relied in recent years on drones in Yemen, Syria, Iraq and the Strait of Hormuz at the mouth of the Gulf. Iran's armed forces are to test combat drones used as bombers, interceptors and in reconnaissance missions in the two-day exercises in central Semnan province, the semi-official Fars news agency said.

"The fingers of our heroic armed forces are on the trigger, and if enemies commit the slightest mistake, the armed forces will surely respond fiercely," said Mohammad Baqeri, chief of staff of the armed forces, quoted by state media. Foreign Minister Mohammad Javad Zarif has said U.S. President Donald Trump may be trying to find an excuse to attack Iran in his last days in office, or Israel might try to provoke a war. Israel rejected the allegation. The exercises coincided with increased tensions between Iran and the United States, two days after the first anniversary of the killing of Iranian general Qassem Soleimani in a U.S. drone strike at Baghdad airport, and two weeks before President-elect Joe Biden takes office.

<https://www.reuters.com/article/idUSKBN29A1A5>

Iran nuclear move aims to restore balance

Tehran Times, January 5, 2021

Iran has embarked on a new nuclear policy aimed to restore the balance of rights and obligations in a nuclear deal that has long been implemented one-sidedly by Iran. The policy is aimed at persuading the European signatories to the 2015 Iran nuclear deal – France, Germany and the UK (E3) – that their poor track record in implementing their commitments under the deal is no longer acceptable to Iran. After years of strategic patience in the face of U.S. sanctions, Iran has ultimately moved to change the nuclear status quo by substantially raising the level of uranium enrichment up to 20%, an unprecedented development since the nuclear deal – officially known as the Joint Comprehensive Plan of Action (JCPOA) – was signed in 2015 between Iran and the P5+1, which includes the five permanent members of the UN Security Council – Russia, China, France, the UK and the U.S. – plus Germany.

“A few minutes ago, the process of producing enriched uranium to 20% purity has begun. And the first product of UF₆ enriched uranium will be produced in a few hours,” Iranian government spokesman Ali Rabiei announced on Monday morning, putting an end to a recent wave of speculation over how soon Iran will make the most significant nuclear move.

Iran had informed the International Atomic Energy Agency (IAEA) that it will start enriching uranium to 20% before it started the process of producing UF₆ enriched uranium. And the UN nuclear watchdog confirmed in a statement that it was informed by Iran of the country’s intent to start enriching up to 20%.

<https://www.tehrantimes.com/news/456669/Iran-nuclear-move-aims-to-restore-balance>

Iran says can produce 9 kg of 20% enriched uranium per month

Tehran Times, January 5, 2021 - 19:36

Iran has the capacity to produce up to 9 kilograms of uranium enriched with the

purity of 20 percent per month, the chief of the Atomic Energy Organization of Iran (AEOI) announced on Tuesday. “At present, we produce 17 to 20 grams of 20 percent [enriched] uranium every hour. We have a production capacity of 8 to 9 kilograms per month to reach the 120-kilogram limit stipulated in law,” Ali Akbar Salehi told reporters, according to Press TV.

Salehi, a nuclear physicist, said the 20%-enriched uranium is used in the Tehran Research Reactor, adding that Iran currently has enough fuel to run the reactor for five years.

He said the enriched uranium would be stored for future use.

<https://www.tehrantimes.com/news/456665/Iran-says-can-produce-9-kg-of-20-enriched-uranium-per-month>

Fakhrizadeh ‘frontrunner’ of resistance against nuclear threats: defense chief

Tehran Times, January 5, 2021

Mohsen Fakhrizadeh was the frontrunner of resistance against nuclear threats, Defense Minister Amir Hatami said on Tuesday on the 40th day after the assassination of the top nuclear scientist. “He left behind invaluable legacies in this field,” Brigadier General Hatami said.

He also said Fakhrizadeh was active in the field of nuclear defense, adding that the United States and the occupying Israeli regime possess hundreds of nuclear bombs and are considered a threat for the security of the people across the world. Fakhrizadeh, a senior nuclear and defense scientist, was assassinated in a small city east of Tehran on November 27.

His assassination is considered a serious blow to diplomatic efforts to salvage the 2015 Iran nuclear deal, which was abandoned by U.S. President Donald Trump in May 2018. Iran has blamed Israel, which has carried out assassination operations against Iranian nuclear scientists over the past decade. Immediately after the assassination,

Foreign Minister Zarif said in a tweet that the attack was carried out with “serious indications of Israeli role”.

<https://www.tehrantimes.com/news/456654/Fakhrizadeh-frontrunner-of-resistance-against-nuclear-threats>

Tehran: First batch of 20% enriched uranium products ready

Tehran Times, January 5, 2021

Tehran says it has produced its first UF₆ (uranium hexafluoride or hex) product a few hours after it announced the restarting of uranium enrichment at 20 percent in the Fordow nuclear site. Behrouz Kamalvandi, the spokesman for the Atomic Energy Organization of Iran (AEOI), announced on Monday evening that the process of injecting gas into the centrifuges and resuming uranium enrichment with purity of 20 percent started earlier in the day. Kamalvandi said Iran started the process after informing inspectors from the International Atomic Energy Agency (IAEA).

“Considering the previous experience of enrichment at the Fordow facility, the new production line for enriching uranium up to 20 percent was prepared very quickly,” the spokesman said.

He also said Iran is ready to enrich uranium at purity levels beyond 20 percent. The remarks came hours after government spokesman Ali Rabiei announced that Iran has started the process to enrich uranium to 20 percent purity at Fordow.

<https://www.tehrantimes.com/news/456634/Tehran-First-batch-of-20-enriched-uranium-products-ready>

Iran vows “decisive response” to any Israeli move against it

Reuters, January 06, 2021

Iran said it would deliver a “decisive response” to any Israeli move against it, after Prime Minister Benjamin Netanyahu said Israel would not allow Tehran to develop nuclear weapons, a news agency

close to the Revolutionary Guards said. Iran said it resumed 20% uranium enrichment at a nuclear facility, a move that coincides with rising tensions with the United States in the last days of President Donald Trump’s term. The decision is the latest of several Iranian breaches of a 2015 nuclear accord with world powers.

Netanyahu said the move was aimed at developing nuclear weapons and Israel would never allow Tehran to build them. Iran says it has never sought nuclear weapons. Iran’s Nour News quoted an unnamed security official as saying: “This regime (Israel) should be aware that any aggression against Iran’s interests and security from any side and in any way, whether (Israel) admits or denies responsibility, will face a decisive response from Iran against this regime.” The statement was widely carried by Iranian news agencies and state media.

<https://www.reuters.com/article/idUSKBN29A2D6>

Serious evidence shows Israeli role in Fakhriadeh assassination: Hatami

Tehran Times, January 6, 2021

Defense Minister Amir Hatami said on Wednesday that there is “serious evidence” about the role of the regime in Tel Aviv in the November assassination of Iran’s top nuclear scientist Mohsen Fakhriadeh. Pointing to the Israeli regime’s history of assassinating Iranian scientists, Brigadier General Hatami said there’s also serious evidence about the regime’s role in the Fakhriadeh assassination.

He made the remarks in a letter to his counterparts in over 60 countries about the prominent scientist’s assassination. Iran sees silence on this terrorist act as an excuse for its repetition and insecurity in the world, the minister emphasized, according to IRNA. He further announced that Iran preserves right to respond to the assassination. In his letter, General Hatami wrote about the scientific and research achievements and initiatives gained and

developed by Fakhrizadeh. Also, he stressed the need to put aside double-standard behavior towards the fight against “state terrorism”. Hatami called on global community to take part in the campaign against “this inhuman, illegitimate and felonious move.”

<https://www.tehrantimes.com/news/456702/Serious-evidence-shows-Israeli-role-in-Fakhrizadeh-assassination>

Rouhani: Iran will welcome U.S. repentance

Tehran Times, January 6, 2021

President Hassan Rouhani says if the United States repents, abandons its “glass breaking” behavior and returns to its nuclear agreement commitments, Iran will also return to compliance with the deal. “The administration that will come to power in the U.S. in the near future, that is Mr. [Joe] Biden’s administration, which will come to power in the next two weeks, if it says the U.S. has stopped breaking glass, repents and wants to follow the law and fulfills its obligations, and if it asks us, we will say if you fulfill your obligations we will fulfill all our obligations as well,” Rouhani said at a Wednesday cabinet session.

“And if you won’t fulfill your commitments, we won’t bow to you,” he said, adding, “If you fulfill your obligations, we won’t owe you anything. Rather, you had done something illegal, and then you regretted your illegal work and gave up and realized that you were wrong.”

Iran and six world powers, including the U.S., Russia, China, France, Britain and Germany, together with the European Union reached the nuclear deal, officially called the JCPOA, in 2015, under which Iran agreed to put certain restrictions on its nuclear program in exchange for termination of sanctions.

<https://www.tehrantimes.com/news/456703/Rouhani-Iran-will-welcome-U-S-repentance>

Iran’s Revolutionary Guards unveil underground missile base in Gulf: state media

Reuters, January 08, 2021

Iran’s elite Revolutionary Guards unveiled an underground missile base at an undisclosed Gulf location on Friday, Iranian state media reported, at a time of heightened tension between Tehran and the United States. “The base is one of several bases housing the Guards’ Navy’s strategic missiles,” the state media quoted the head of the Guards, Major General Hossein Salami, as saying.

Last year, the Guards said Iran had built underground “missile cities” along the Gulf coastline, warning of a “nightmare for Iran’s enemies”. “These missiles have ranges of hundreds of kilometres, enjoy pinpoint accuracy and huge destructive power, and can overcome the enemy’s electronic warfare equipment,” Salami said. He said the base was “one of several bases housing the Navy’s strategic missiles”.

<https://www.reuters.com/article/idUSKBN29D134>

Iran says will halt 20% enrichment if U.S. lifts sanctions

Tehran Times, January 8, 2021

Deputy Foreign Minister Abbas Araghchi has said Iran will stop enriching uranium to 20 percent purity if U.S. sanctions against the country are lifted. In an interview with Japan’s public broadcaster NHK on Wednesday, Araghchi said Iranians have suffered from the effects of U.S. sanctions over the past four years. He said that as a diplomat, he “would not lose a minute to ensure that sanctions are lifted once again.”

Government spokesman Ali Rabiei announced that Iran has started the process to enrich uranium to 20 percent

purity at Fordow. President Hassan Rouhani has ordered the implementation of a new law, dubbed the Strategic Action Plan to Counter Sanctions, which has been already approved by the Parliament, Rabiei said. Araghchi said if the sanctions are lifted and Iran can benefit from the nuclear deal, the country would return to its obligations, adding the 20 percent enrichment “can be easily and swiftly reversed.” Commenting on Washington possibly signing up to the pact again, Araghchi said, “It is up to them to decide,” adding that “we welcome their return, but we are not begging for their return.” Referring to the incoming administration of U.S. President-elect Joe Biden, Araghchi said Iran will wait “to see how they want to return” to the pact and its requirements.

<https://www.tehrantimes.com/news/456742/Iran-says-will-halt-20-enrichment-if-U-S-lifts-sanctions>

Qatar says deal with Saudis won't affect ties with Iran

Tehran Times, January 8, 2021

Following a landmark deal between Qatar and the so-called Arab quartet to end a three-year bitter Persian Gulf dispute, Doha announced that its decision to mend ties with the quartet will not affect its ties with Iran. Doha had agreed to cooperate on counter-terrorism and “transnational security” with Saudi Arabia and three other states that had imposed a regional embargo on Qatar, Qatari Foreign Minister Sheikh Mohammed bin Abdulrahman al-Thani told the Financial Times, adding that “bilateral relationships are mainly driven by a sovereign decision of the country . . . [and] the national interest.”

“So there is no effect on our relationship with any other country,” he continued. In June 2017, Saudi Arabia, Bahrain, Egypt, and the United Arab Emirates – commonly known as the Arab Quartet – severed diplomatic ties with Qatar, and imposed a total blockade on the tiny Persian Gulf nation. The four countries closed their airspace, land, and sea routes to Qatari planes, cars, and vessels, a move that

prompted Qatar to use Iranian airspace. Kuwait, a country stuck in the middle of the dispute between its neighbors, had studiously worked to reconcile the opposing sides and succeeded to do so only recently. Shortly after cutting ties with Qatar at the time, the Arab quartet submitted a list of 13 demands to Doha that included, among other things, shutting down Al Jazeera, the Qatar-funded satellite TV network, curbing its relations with Iran, closing a Turkish base in the Persian Gulf state, and halting all military cooperation with Ankara.

<https://www.tehrantimes.com/news/456757/Qatar-says-deal-with-Saudis-won-t-affect-ties-with-Iran>

Iran's Khamenei: Tehran in no rush for U.S. to rejoin 2015 nuclear deal

Reuters, January 08, 2021

Iran's Supreme Leader Ayatollah Ali Khamenei said on Friday Tehran was in no rush for the United States to rejoin a 2015 nuclear deal, but that sanctions on the Islamic Republic must be lifted immediately. “We are not insisting nor in a hurry for the U.S. to return to the deal,” Khamenei said in live televised remarks. “But what is logical is our demand, is the lifting of the sanctions. These brutal sanctions must be lifted immediately.”

<https://www.reuters.com/article/idUSKBN29D0XS>

Leader urges the West to alter misperceptions about Iran's view on U.S. return to JCPOA

Tehran Times, January 8, 2021

In a televised appearance on Friday, Leader of the Islamic Revolution of Iran Ayatollah Seyed Ali Khamenei sought to dispel some misperceptions in some Western political circles about an alleged Iranian rush to get the United States to return to a 2015 nuclear deal between Iran and major world powers.

“I will offer Tehran a credible path back

to diplomacy. If Iran returns to strict compliance with the nuclear deal, the United States would rejoin the agreement as a starting point for follow-on negotiations. With our allies, we will work to strengthen and extend the nuclear deal's provisions, while also addressing other issues of concern," then-presidential candidate Biden wrote in a September 13 op-ed for CNN. Biden reaffirmed this position after winning the election, though he once again refused to say how he plans to rejoin the deal. Biden also raised some other thorny issues while addressing the need for the U.S. to rejoin the nuclear deal.

<https://www.tehrantimes.com/news/456722/Leader-urges-the-West-to-alter-misperceptions-about-Iran-s-view>

Iran leader bans import of U.S., UK COVID-19 vaccines, demands sanctions end

Parisa Hafezi

Reuters, January 08, 2021

Iran's Supreme Leader on Friday banned the government from importing COVID-19 vaccines from the United States and Britain, labelling the Western powers "untrustworthy", as the infection spreads in the Middle East's hardest-hit country. In a live televised speech, Ayatollah Ali Khamenei raised the prospect of the two Western countries, long-time adversaries of the Islamic Republic, possibly seeking to spread the infection to other countries.

He added however that Iran could obtain vaccines "from other reliable places". He gave no details, but China and Russia are both allies of Iran. "Imports of U.S. and British vaccines into the country are forbidden ... They're completely untrustworthy. It's not unlikely they would want to contaminate other nations," said Khamenei, the country's highest authority.

<https://www.reuters.com/article/idUSKBN29D0YL>

Iran will expel U.N. nuclear inspectors unless sanctions are lifted: lawmaker

Reuters, January 09, 2021

Iran will expel United Nations nuclear watchdog inspectors unless U.S. sanctions are lifted by a Feb. 21 deadline set by the hardline-dominated parliament, a lawmaker said on Saturday. Parliament passed a law in November that obliges the government to halt inspections of its nuclear sites by the International Atomic Energy Agency and step up uranium enrichment beyond the limit set under Tehran's 2015 nuclear deal if sanctions are not eased. Iran's Guardian Council watchdog body approved the law on Dec. 2 and the government has said it will implement it.

"According to the law, if the Americans do not lift financial, banking and oil sanctions by Feb. 21, we will definitely expel the IAEA inspectors from the country and will definitely end the voluntary implementation of the Additional Protocol," said parliamentarian Ahmad Amirabadi Farahani. The comments, referring to texts governing the IAEA's mission and activities, were carried by several Iranian media outlets.

<https://www.reuters.com/article/idUSKBN29E0FQ>

Iran's UN ambassador: It's highly unlikely that Trump would resort to nukes against Iran

Tehran Times, January 10, 2021

Iran's envoy to the United Nations says it is highly unlikely that U.S. President Donald Trump would use nuclear arms against Iran during his last days in office. "The U.S. president has done a lot of weird things over the past years, raising concerns that he may do something unexpected, even in the final days of his presidency. But given the current international

atmosphere, including (the atmosphere) within the United States, towards Trump's possible decisions and measures in his final days in office, I personally find it highly unlikely that Trump would cause concerns, especially with regard to the issue of nuclear action," Majid Takht Ravanchi said in an interview with the Strategic Council on Foreign Relations website, Press TV reported. However, the Iranian envoy said, since Trump is an unpredictable person, nothing should be ruled out, and "we should be vigilant and ready." On the recent movements by the U.S. military in the Persian Gulf, Takht Ravanchi dismissed the moves as "mischievous" and said Iran should be ready to counter possible threats but anticipated no new act of adventurism.

He also noted that there is not much difference between the Democrats and Republicans when it comes to foreign policy. "For instance, the use of sanctions against Iran has continued under both Democratic and Republican administrations in the U.S.," he said. "Hence, to say that the new administration will abandon the use of sanctions may not reflect reality." Tehran's ambassador to the UN then pointed to Trump's humiliating actions towards European leaders and his harsh policies toward China, saying while the administration of president-elect Joe Biden may be subtler in its conduct, it will not completely change course. "We will see a series of policies that may be different on the surface, but they are, deep down, a continuation of the same policies and there will be no U-turn in this regard," the envoy said.

<https://www.tehrantimes.com/news/456829/Iran-s-UN-ambassador-It-s-highly-unlikely-that-Trump-would-resort>

Iran tells South Korea not to politicise seized vessel, demands release of funds

Reuters, January 11, 2021

Iran said on Sunday that South Korea should avoid politicising the seizure of its vessel by Iranian Revolutionary Guards in the Gulf, Iranian state media reported, while

pressing Seoul to release \$7 billion in funds frozen amid U.S. sanctions. South Korea's vice foreign minister, Choi Jong-kun, arrived in Tehran on Sunday to discuss the release of the South Korean-flagged MT Hankuk Chemi, which was seized by the Guards on Monday near the strategic Strait of Hormuz. Iran has denied allegations that the seizure of the tanker and its 20-member crew amounted to hostage taking, and said it was Seoul that was holding Iran's funds "hostage".

Iran's deputy Foreign Minister Abbas Araqchi told South Korea's Choi that Seoul "should refrain from politicising the issue and fruitless propaganda and allow the legal proceedings to proceed", Iran's state TV reported. Iran's government spokesman said on Tuesday the vessel was seized based on an Iranian court order for "environmental pollution". However, the ship's Busan-based operator, Taikun Shipping Co. Ltd., told Reuters there was nothing to indicate before the seizure of the vessel that Iranian authorities were probing possible violations of environmental rules.

<https://www.reuters.com/article/idUSKBN29F0LF>

IAEA chief says matter of weeks left to revive Iran nuclear diplomacy

Francois Murphy

Reuters, January 11, 2021

Reviving Iran's nuclear deal must happen within the coming weeks, U.N. atomic watchdog chief Rafael Grossi said on Monday after Tehran resumed 20% uranium enrichment and its parliament threatened to curb access for U.N. inspectors in February. "It is clear that we don't have many months ahead of us. We have weeks," Grossi said in an interview for the Reuters Next conference. Iran resumed enriching uranium to 20% fissile strength at the underground Fordow nuclear plant earlier this month in a further breach of the nuclear pact with major powers since the United States

withdrew from it in 2018, possibly complicating efforts by U.S. President-elect Joe Biden to rejoin the deal.

Its parliament passed a law in November that obliges the government to halt inspections of its nuclear sites by the International Atomic Energy Agency and step up uranium enrichment if U.S. sanctions are not eased. An Iranian lawmaker said on Jan. 9 said it would give the incoming Biden administration, which takes office on Jan. 20, until Feb. 21 to reverse sanctions. "I must take it seriously because it's the law," Grossi said, adding that he believed the Islamic Republic's government intended to implement it. Grossi said Iran was progressing "quite rapidly" in 20% enrichment and that based on estimations it would be able to reach about 10 kilograms a month at its facility in Fordow. Uranium refined to 20% fissile purity is well above the 5% generally regarded as suitable for producing civilian nuclear energy and shortens Iran's potential path to 90% purity required for a nuclear bomb. Iran denies any intent to weaponise enrichment. "There will have to be a clear understanding on how the initial terms and provisions of the JCPOA (nuclear deal) are going to be recomplied with," Grossi said.

<https://www.reuters.com/article/idUSKBN29G1B5>

Iran demands sanctions 'snapback' removed in any new nuclear talks

Reuters, January 12, 2021

Iran demands the removal of the so-called snapback mechanism in its nuclear accord, which could revive all U.N. sanctions against Tehran, in the event of new talks with world powers, a senior aide to Supreme Leader Ayatollah Ali Khamenei said. The accord includes the option of a snapback of U.N. sanctions if Iran breaches the deal, requiring Tehran to suspend all nuclear enrichment-related and reprocessing activities, including research development. "This (trigger) mechanism must be abandoned as an irrational principle in the event of further negotiations," Ali Akbar

Velayati, a top adviser to Khamenei, said in an interview posted on the Supreme Leader's website.

"From the beginning, the Supreme Leader was not satisfied with the issue of the trigger mechanism and this was done against his will," said Velayati, a former foreign minister. Iran has rejected Western calls for wider international talks over its nuclear and military ambitions after U.S. President Donald Trump withdrew from the deal in 2018 and reimposed sanctions. World powers and Iran have weeks to revive the 2015 nuclear deal after Tehran began to enrich uranium at higher levels and Iran's parliament threatened to curb the access of U.N. inspectors next month, the head of the global atomic watchdog said on Monday.

<https://www.reuters.com/article/idUSKBN29H17U>

Iran launches missile drill amid rising tensions with U.S.

Reuters, January 13, 2021

Iran's military launched a short-range naval missile drill on Wednesday, Iranian state TV reported, at a time of high tension between arch foes Tehran and Washington. Iran has one of the biggest missile programmes in the Middle East, regarding such weapons as an important deterrent and retaliatory force against U.S. and other adversaries in the event of war. The West sees Iran's missiles both as a conventional military threat to regional stability and a possible delivery mechanism for nuclear weapons should Tehran develop them.

The Iranian-made warship Makran, which state media described as Iran's biggest warship with a helicopter pad, and a missile-launching ship called Zereh (armour) were taking part in the two-day exercise in the Gulf of Oman.

<https://www.reuters.com/article/idUSKBN29I0WH>

H. Turkey

Sovcombank delivers loan for Akkuyu NPP as work continues

Nuclear Engineering, January 13, 2021

Akkuyu Nuclear, a subsidiary of Rosatom has received a loan from Sovcombank of up to \$300 million for a period of seven years to finance the construction of the Akkuyu nuclear power plant in Turkey.

“We value long-term partnerships and are pleased to expand our strategic cooperation with Sovcombank,” said Ilya Rebrov, Deputy General Director for Economics and Finance at Rosatom. “The construction of the Akkuyu NPP in Turkey is progressing well. In this context, the loan from Sovcombank is important to ensure timely financing of the project. In general, Rosatom is today engaged in the implementation of many projects that require the involvement of reliable financial partners, interested in supporting the sustainable development agenda. I am sure that Sovcombank will help us in solving these problems.”

<https://www.neimagazine.com/news/newssovcombank-delivers-loan-for-akkuyu-npp-as-work-continues-8453197>

I. Israel

Israel dismisses ‘nonsense’ Iran charge it seeks to trick U.S. into war

Reuters, January 03, 2021

An Israeli official on Sunday dismissed as “nonsense” an allegation by the Iranian foreign minister that Israel was trying to trick the United States into waging war on Iran. It was Israel that needed to be on alert for possible Iranian strikes on the one-year anniversary on Sunday of the assassination of Tehran’s top general, Qassem Soleimani, in a U.S. drone strike in Iraq, Energy Minister Yuval Steinitz said on Kan public radio. Washington blames Iran-backed militia for regular rocket attacks on U.S. facilities in Iraq, including near the U.S. embassy. No known Iran-backed groups have claimed responsibility.

<https://www.reuters.com/article/idUSKBN29808K>

Netanyahu says Iranian enrichment aimed at developing nuclear arms

Reuters, January 04, 2021

Israeli Prime Minister Benjamin Netanyahu said on Monday that Iran’s resumption of 20% uranium enrichment was aimed at developing nuclear weapons and that Israel would never allow Tehran to build them. In a statement, Netanyahu said Iran’s enrichment decision could be explained only as a bid to “continue to carry out its intention to develop a military nuclear programme”. He added: “Israel will not allow Iran to produce nuclear weapons.”

<https://www.reuters.com/article/idUSKBN29918N>

Iran ramps up uranium enrichment to 20%; Netanyahu: Proof it is seeking nukes

Times of Israel, January 4, 2021

An Iranian government spokesman said Tehran has begun enriching uranium up to 20% at an underground facility, prompting a warning from Israel. The state-run IRNA news agency on Monday quoted Ali Rabiei saying President Hassan Rouhani had given the order for the move at the Fordo facility. Enrichment at 20% is a short, technical step away from weapons-grade levels of 90%.

In response, Prime Minister Benjamin Netanyahu said the move proved that Iran is seeking nuclear weapons and that Israel would not allow this. “Iran’s decision to continue violating its commitments, raise the level of enrichment and advance its industrial capacities for underground uranium enrichment can not be explained in any way other than the further realization of its plans to develop a military nuclear program,” he said. “Israel will not allow Iran to produce nuclear weapons,” said Netanyahu.

<https://www.timesofisrael.com/in-first-since-nuclear-deal-iran-ramps-up-uranium-enrichment-to-20/>

Israel: army to devise new plan for attack on Iranian nuclear programme

Middle East Monitor, January 15, 2021

The Chief of Staff of the Israel Defence Forces has asked officers to draw up a new plan to attack Iran's nuclear programme, Israel Hayom reported on Thursday. General Aviv Kochavi has apparently asked the Strategy and Third Circle Directorate, also known as the Iran Directorate, to develop three alternate proposals for Israel to undermine Tehran's nuclear programme or, if necessary, to counter Iranian aggression. The plans will be presented to the government soon.

The newspaper did not elaborate on the alternatives, although it said that one of the proposals entails a military strike on Iranian nuclear sites. The development, it added, has been prompted by recent moves by Tehran, mainly its plans to accelerate the programme.

<https://www.middleeastmonitor.com/20210115-israel-army-to-devise-new-plan-for-attack-on-iranian-nuclear-programme/>

J. Saudi Arabia

Saudi Cabinet congratulates King Salman, Crown Prince on successful GCC summit

Saudi Gazette, January 06, 2021

Custodian of the Two Holy Mosques King Salman thanked leaders and heads of delegations of the Gulf Cooperation Council member states for making the AIUla summit a success while chairing a virtual meeting of the Cabinet. The Custodian of the Two Holy Mosques also briefed the Cabinet on the contents of the two messages he received from Kuwaiti Emir Sheikh Nawaf Al-Ahmad Al-Jaber Al-Sabah and Oman's Sultan Haitham bin Tariq. During the meeting, members of the Cabinet congratulated the Custodian of the Two Holy Mosques and the Crown Prince on the success of the summit as well as on the continuation of the cooperation march to achieve the joint interests of the GCC people

and enhance the security and stability of the region.

The Cabinet reiterated the contents of the Crown Prince's speech underscoring that the Saudi policy, led by the Custodian of the Two Holy Mosques, is based on a firm approach seeking to achieve "supreme interests" of the GCC states and Arab countries including their future plans and visions. The Cabinet quoted the Crown Prince as citing the Kingdom's ambitious developmental Vision 2030 seeks a strong unified GCC as a priority in addition to enhancing Arab and Islamic cooperation in a way that serves the security and stability of their member countries as well as the region at large. The Cabinet cited the Crown Prince as underscoring the importance of unifying the efforts to help advance the region and face the challenges engulfing it, citing the Iranian regime's nuclear program, ballistic missiles program, and subversive plots it is adopting through its clients in the region aiming to destabilize the region and the world at large using terrorist and sectarian activities. The Cabinet welcomed the AIUla Declaration signed by the leaders and heads of delegates of the GCC.

<https://saudigazette.com.sa/article/602199/SAUDI-ARABIA/Saudi-Cabinet-congratulates-King-Salman-Crown-Prince-on-successful-GCC-summit>

East Asia

K. North Korea

North Korea's Kim vows to boost military capabilities at rare party congress

Reuters, January 07, 2021

North Korean leader Kim Jong Un said he would expand military capabilities to better defend the country, state media reported on Thursday, during a rare party congress as the country faces international sanctions and pressure. The Eighth Party Congress, comes as North Korea faces increasing economic crises caused by a self-imposed border lockdown to prevent a coronavirus outbreak, a series of natural

disasters, and international sanctions over its nuclear weapons programme.

The gathering also comes just days before U.S. President-elect Joe Biden is due to take office, after unprecedented personal meetings between Kim and outgoing President Donald Trump failed to lead to a breakthrough in denuclearisation talks or a loosening of sanctions. In sessions on Wednesday, Kim discussed policies to make a “tangible turn in improving the people’s living standard,” a day after he admitted that previous economic goals had fallen short, state media reported. To secure a “peaceful environment” for the people and country, Kim called for “placing state defence capabilities on a much higher level, and put forth goals for realizing it.”

Since announcing a self-declared moratorium on nuclear testing and intercontinental ballistic missile (ICBM) launches from 2018, Kim has called for continued production of nuclear weapons for his arsenal, launched a series of smaller missiles, and unveiled what would be North Korea’s largest ICBM yet at a parade in October. North Korea has not officially confirmed any coronavirus infections, although it has reported thousands of “suspected cases” to the World Health Organization and imposed strident measures to prevent an outbreak. Photos of the congress released by state media show delegates sitting close together without wearing protective face masks.

<https://www.reuters.com/article/idUSKBN29C00P>

Kim calls US ‘biggest enemy,’ vows to continue nuclear development

Yonhap

Kore herald, January 9, 2021

North Korean leader Kim Jong-un has called the United States the “biggest enemy” of his country, threatening to continue to advance its nuclear capabilities, state media said. Kim added that Washington’s policy against Pyongyang won’t change regardless of who rules the White House, saying that an end to its hostile stance will be the key to future

relations between the two countries, according to the Korean Central News Agency. Kim made the remarks reporting to the eighth congress of the ruling Workers’ Party currently under way in Pyongyang, the first reference to transition of power in Washington since Joe Biden’s election as US president in November.

They also came days before Biden’s inauguration slated for Jan. 20. “The report said that the key to the establishment of new North Korea-US relations is the withdrawal of the US’ hostile North Korea policy,” KCNA said, declaring an “eye for an eye” principle against Washington. “Our external political activities going forward should be focused on suppressing and subduing the US, the basic obstacle, biggest enemy against our revolutionary development,” it added.

http://www.koreaherald.com/view.php?ud=20210109000061&ACE_SEARCH=1

North Korea’s Kim urges stronger military capabilities as party congress ends

Sangmi Cha

Reuters, January 12, 2021

North Korean leader Kim Jong Un called for increased military power and greater nuclear war deterrence, state news agency KCNA reported on Wednesday, as a rare ruling party congress came to a close after eight days of policy discussions. The Eighth Party Congress occurred less than two weeks before U.S. President-elect Joe Biden takes office and amid a prolonged gridlock in talks aimed at ending the North’s nuclear and missile programmes in return for U.S. sanctions relief. “We must do everything we can to increase nuclear war deterrence even further as we build the strongest military capability,” KCNA quoted Kim as saying at the conclusion of the congress.

Since announcing a self-declared moratorium on nuclear and intercontinental ballistic missile (ICBM) tests in 2018, Kim has called for continued

production of nuclear weapons for his arsenal, launched a series of smaller missiles, and unveiled what would be North Korea's largest ICBM yet at a parade in October. Separately, Kim Yo Jong, the leader's sister and a member of the party Central Committee, criticised South Korea's military for monitoring a parade in Pyongyang. The move was an expression of the South's "hostile approach" towards the North, she said in a separate statement carried by KCNA. South Korea's military said on Monday it had detected signs that North Korea held a night time military parade on Sunday for the congress.

<https://www.reuters.com/article/idUSKBN29H30I>

NK's nuclear aims a warning to Biden's US: experts

Ahn Sung-mi

Korea Herald, January 13, 2021

North Korea wrapped up a rare eight-day party congress, with its leader Kim Jong-un calling for stronger nuclear deterrence and maximum military power to round off one of the biggest political events in Pyongyang in the last five years. With only a week until US President-elect Joe Biden is sworn into office, Kim's outlining of ambitious military goals and a wish list of advanced weapons during the longer-than-usual congress is a message of defiance against Washington, experts say, with aims to pressure the new administration to accept Pyongyang as a nuclear state for future talks. "During the party congress, Kim focused on talking about the nuclear issue — not just nuclear capability, but a detailed portfolio of advanced nuclear weapons it plans to have," said Park Won-gon, a professor of international relations at Handong Global University. "This is to declare the North a de facto nuclear state and demand the US recognize Pyongyang as a nuclear power. Pyongyang will only consider arms control talks with Washington in the future, but has no intention of denuclearizing." Shin Jong-woo, a senior analyst at the Korea Defense and Security Forum, echoed a similar stance that Pyongyang's emphasis on nuclear

armament is part of the regime's quest for legitimacy of its nuclear weapons and to prepare for future negotiations with the US. "Kim has set a guideline for (future) North Korea-US talks," said Shin. "It's a warning that the North will not give up nuclear weapons and is asking the US to lift sanctions. If the US does not ease the sanctions, Kim will likely continue to go with a 'my way' strategy, such as developing nuclear-powered submarine."

Kim told the congress in his closing remark that it will strengthen nuclear deterrence while doing everything it can to build the strongest military, according to the Korean Central News Agency. Kim had called the US the "foremost principal enemy" of his country earlier during the week-long session, saying that the North's policy toward Washington "will never change, whoever comes into power," in an apparent message to the incoming Biden administration. Kim, however, did not completely shut the door on diplomacy with the US, but put the ball in Washington's court, demanding the US withdraw its "hostile policy" first in order for talks to proceed.

http://www.koreaherald.com/view.php?ud=20210113000800&ACE_SEARCH=1

NK leader pledges to strengthen 'nuclear war deterrent' as party congress closes

Yonhap

Korea Herald, January 13, 2021

North Korean leader Kim Jong-un called for strengthening the country's nuclear capabilities as he addressed the final-day session of the ruling party's rare congress, state media said. North Korea on Tuesday wrapped up the eighth congress of the Workers' Party, which had been held for more than a week since its opening on Jan. 5, according to the Korean Central News Agency (KCNA). "While further strengthening our nuclear war deterrent, we need to do everything to build the strongest military capabilities," Kim said. "By accelerating the push to make our

military more elite and strong, we need to have them thoroughly prepared to play their role against any form of threats or unexpected situations." On the economy, the North Korean leader called for a more "desperate struggle" to fulfill a new five-year development plan put forth during the party congress. "The future of our socialist achievement depends on how we carry forward the decisions made at this congress including the five-year plan for national economic development," he said.

http://www.koreaherald.com/view.php?ud=20210113000094&ACE_SEARCH=1

N. Korea displays new submarine-launched ballistic missile during parade

Yonhap

Korea Herald, January 15, 2021

North Korea showcased yet another new submarine-launched ballistic missile (SLBM) in just three months during a recent military parade, experts said. During the parade held on Thursday night at Kim Il-sung square in Pyongyang, the North rolled out SLBMs on transporter erector launchers (TEL), which it labeled as the Pukguksong-5E1, along with a new short-range ballistic missile and various other kinds of weaponry. The Korean letter "E1" appears to indicate that it is a sea-based system. "The world's most powerful weapon, submarine-launch ballistic missile, entered the square one after another, powerfully demonstrating the might of the revolutionary armed forces," the North's Korean Central News Agency (KCNA) said on Friday. The new missile looks longer than the Pukguksong-4E1 SLBM, which was first unveiled during a military parade in October last year. Experts say the newest one appears to be designed to fly longer and fit for larger-sized warheads. "North Korea is working to develop two kinds of SLBMs at the same time. Chances are that Pukguksong-4 is expected to be equipped with its 3,000-ton-class submarine, while Pukguksong-5 could be for a 4,000-ton one or larger," Lee Choon-geun, a senior research fellow at the Science and Technology Policy Institute, said.

North Korea has been building a new submarine believed to be a 3,000-ton one capable of carrying three SLBMs. It is also believed to have been developing a larger-sized submarine, which could be a nuclear-powered one. North Korea was known to have three types of Pukguksong missiles. As the upgraded version of the Pukguksong-1, the Pukguksong-3 SLBM is believed to have a flight range of 2,000 kilometers or longer, and the regime last carried out a flight test of the weapon in October 2019. Pukguksong-2 is a ground-based one, not an SLBM. The two latest derivatives have not been tested, according to experts. The parade, which was overseen by leader Kim Jong-un, took place two days after the North wrapped up its eight-day congress of the ruling Workers' Party. During the congress, Kim said that his country is developing new weapons systems, such as a nuclear-powered submarine, advanced warheads and hypersonic weapons, pledging to bolster its nuclear arsenal.

http://www.koreaherald.com/view.php?ud=20210115000096&ACE_SEARCH=1

North Korea shows off new submarine-launched missiles after rare party congress

Josh Smith, Sangmi Cha

Reuters, January 15, 2021

North Korea displayed what appeared to be a new submarine-launched ballistic missile (SLBM) at a parade on Thursday night, state media reported, capping more than a week of political meetings with a show of military might. Clad in a leather coat and fur hat, leader Kim Jong Un smiled and waved as he oversaw the parade in Pyongyang's Kim Il Sung Square, photos by state media showed. The parade featured rows of marching soldiers, as well as a range of military hardware including tanks and rocket launchers. At the end, a number of what analysts said appeared to be new variants of short-range ballistic missiles and SLBMs rolled into the square on trucks.

“The world’s most powerful weapon, submarine-launch ballistic missiles, entered the square one after another, powerfully demonstrating the might of the revolutionary armed forces,” news agency KCNA reported. North Korea has test-fired several SLBMs from underwater, and analysts say it is seeking to develop an operational submarine to carry the missiles. Photos released by state media showed the SLBM was labelled Pukguksong-5, potentially marking an upgrade over the Pukguksong-4 that was unveiled at a larger military parade in October. “The new missile definitely looks longer,” Michael Duitsman, a researcher at the California-based James Martin Center for Nonproliferation Studies (CNS), said on Twitter. Unlike that October parade, Thursday’s event did not showcase North Korea’s largest intercontinental ballistic missiles (ICBMs), which are believed to be able to deliver a nuclear warhead to anywhere in the United States.

<https://www.reuters.com/article/idUSL1N2JP39R>

L. South Korea

Navy chief calls for securing light aircraft carrier to boost capabilities

Yonhap

Korea Herald, January 4, 2021

The chief of South Korea’s Navy has vowed to make every effort to secure a light aircraft carrier and diverse military assets to boost defense capabilities. The Navy has sought to build a 30,000-ton-class light aircraft carrier, and the military authorities finalized a plan last week to push for the project in earnest starting this year. “We should expedite moves to secure diverse future military assets, including a light aircraft carrier, in a timely manner to be fully prepared for future security challenges and to advance our maritime power,” Chief of Naval Operations Adm. Boo Suk-jong said in his new year message. Under the 2 trillion-won (\$1.74 billion) project, South Korea seeks to put the ship into operation around 2033. Critics and some lawmakers have raised questions about the usefulness and cost-effectiveness of the project, arguing

that the deployment of a light aircraft carrier would not be very helpful in boosting the country’s defensive capabilities against North Korea. The Navy has refuted the claim, arguing that such an aircraft carrier will provide more flexibility in carrying out military maneuvering.

“A light aircraft carrier will play a role as a moving military base that can launch strikes from anywhere against enemies in case of emergency,” Jeong Seung-kyun, a two-star Navy officer, said. “It will be one of the key national strategic assets that helps our national interests and security.” The military is also working to introduce vertical take-off and landing (VTOL) jets for its envisioned light aircraft carrier. Around 20 units of the VTOL aircraft are expected to be introduced, and the exact type of VTOL aircraft is yet to be decided though many see South Korea’s choice would be the F-35B jets. South Korea is also working to locally build 6,000-ton class Aegis-equipped destroyers and secure a 3,000-ton submarine, which could be a nuclear-powered one, according to the officials.

http://www.koreaherald.com/view.php?ud=20210104000377&ACE_SEARCH=1

South Korean-flagged tanker seized by Iran, Seoul demands release

Parisa Hafezi, Hyonhee Shin

Reuters, January 05, 2021

Iran’s Revolutionary Guards Corps seized a South Korean-flagged tanker in Gulf waters and detained its crew, Iranian media said on Monday, amid tensions between Tehran and Seoul over Iranian funds frozen in South Korean banks due to U.S. sanctions. Seoul confirmed the seizure of a South Korean chemical tanker by Iranian authorities in the waters off Oman, and demanded its immediate release.

Several Iranian media outlets, including state TV, said the Guards navy captured the vessel for polluting the Gulf with

chemicals. "According to initial reports by local officials, it is purely a technical matter and the ship was taken to shore for polluting the sea," state television quoted Iranian Foreign Ministry spokesman Saeed Khatibzadeh as saying. The semi-official Tasnim news agency published pictures showing the Guards' speed boats escorting the tanker Hankuk Chemi, which it said was carrying 7,200 tonnes of ethanol.

<https://www.reuters.com/article/idUSKBN299188>

In-depth analysis needed to decide development of nuke-powered submarine: Seoul ministry

Yonhap

Korea Herald, January 11, 2021

The defense ministry said Monday that it has yet to decide whether to push for the development of a nuclear-powered submarine, amid security concerns sparked by North Korea's pursuit of the underwater naval platform. The ministry's deputy spokesperson Col. Moon Hong-sik made the comment in an answer to a reporter's question about Seoul's plan for the new asset, after North Korea said Saturday that its research into nuclear-powered subs is complete and in the final stages of examination. "We have yet to make a decision on such a propulsion system. It needed to be pushed for after a comprehensive review of our technology level and defense budgets," Moon said during a regular briefing. Last year, the Seoul ministry unveiled a plan to develop a 4,000-ton next-generation submarine as part of its longer-term defense projects. Some speculate that the military might weigh equipping its 4,000-ton-class Chang Bo Go-III submarine – currently under development – with a nuclear engine.

The Navy is also running a task force on the potential construction of a nuclear-powered submarine, stressing the need to introduce one to boost its defense capabilities. A nuclear-powered submarine is regarded as one of the most useful assets to be operated on the Korean Peninsula to counter threats

not only from North Korea but from neighboring countries as well, according to experts. The submarine is particularly useful from a deterrence perspective, as it is a key component of the country's "second-strike" capability, the ability to survive an initial nuclear attack from an enemy and strike back, they added.

http://www.koreaherald.com/view.php?ud=20210111000775&ACE_SEARCH=1

S. Korea plans underwater test of indigenous SLBM: source

Yonhap

Korea Herald, January 13, 2021

South Korea is expected to carry out underwater tests of a home-grown submarine-launched ballistic missile this year, having concluded ground tests, a source said Wednesday. South Korea is developing an SLBM based on the home-grown ground-to-ground Hyunmoo-2B ballistic missile with a flight range of around 500 kilometers. It will be used with envisioned 3,000-ton-class or larger submarines, according to defense officials. "Related agencies wrapped up ejection tests of the missile on the ground last year. They are to move on to the next stage of conducting underwater test launches," a military source said. It is yet to be decided exactly when and on which platform to carry out the tests, he added. It could either be a submersible test barge or a submarine.

The defense ministry refused to confirm those counts, and simply said, "Our military has secured advanced high-power assets, such as missiles, to support peace on the Korean Peninsula, and will continue to develop them." Currently, South Korea operates nine 1,200-ton-class submarines and nine 1,800-ton ones. It is working on a project to build three 3,000-ton-class Changbogo-III Batch-I submarines by 2023. The first one, the Dosan Ahn Changho, was launched in 2018 and is to be put into operational deployment this year, and the second one, named Ahn Mu, was launched in November. Both are equipped with six vertical launching tubes capable

of firing SLBMs. The country is also eyeing to build 4,000-ton-class next-generation submarines, with some speculating that the military might weigh equipping them with a nuclear-powered engine.

http://www.koreaherald.com/view.php?ud=20210113000989&ACE_SEARCH=1

S. Korea to boost capabilities to counter NK missile threats: defense ministry

Yonhap

Korea Herald, January 14, 2021

South Korea will further boost its military capabilities to counter North Korea's short-range missile threats, the defense ministry said Wednesday, after Pyongyang vowed to bolster its nuclear arsenal amid a deadlock in negotiations with the United States. Wrapping up an eight-day congress of the ruling Workers' Party on Tuesday, the North's leader Kim Jong-un called for enhancing the country's "nuclear war deterrent" and building "the most powerful military strength." Asked to comment on the South's preparations against such threats, defense ministry spokesperson Boo Seung-chan said an analysis is under way on the North's military build-up plan rolled out at the congress. "Through the modernization of forces, our military has the capabilities to counter North Korea's short-range missiles, and will further boost them down the road," Boo told a regular press briefing.

During the congress held for the first time in nearly five years, the North's leader ordered work to make "nuclear weapons small, lighter and tactical and steadily push ahead with the production of super large nuclear warhead." He also boasted of a new nuclear-powered submarine under development and called for improvement in its missile strike capabilities targeting objects in the range of 15,000 kilometers, apparently intended to be capable of reaching the mainland US.

http://www.koreaherald.com/view.php?ud=20210114000630&ACE_SEARCH=1

M. Misc

Nuclear Energy In A Post-Pandemic ASEAN

Gabriella Ienanto and Nadhilah Shani

The ASEAN Post, January 1, 2021

The unprecedented COVID-19 pandemic shocked the world in the first quarter of 2020 with no clear end in sight. Severe impact on the economy globally as well as in ASEAN was inevitable. Gross domestic product (GDP) growth in the ASEAN region is projected to decline by 2.7 percent in 2020, according to the Asian Development Bank (ADB). This economic slowdown has surely impacted all segments, including the energy sector.

There has been a significant drop in energy demand during the COVID-19 pandemic. Other than that, existing renewable energy projects experienced major delays and shut downs as COVID-19 impacted major industries, energy markets, and worker safety. Some of the halted renewable energy projects reported by the ASEAN Centre for Energy (ACE) in its COVID-19 vs ASEAN Energy Sector: Renewables report include the delay of the Philippines' 135 megawatt (MW) solar project, the shutting-down of palm oil plants in Malaysia, and suspended hydropower construction by the government of Lao PDR. The COVID-19 pandemic is indeed a crisis because it has placed the condition of the climate in uncertainty, slowing down energy transition, and disrupting the region's pursuit of energy security. But at the same time, it has provided an opportunity for ASEAN member states (AMS) to pave a different pathway to a greener and more sustainable energy future.

<https://theaseanpost.com/article/nuclear-energy-post-pandemic-asean>

Crazy: War Planners Wanted to Use Tactical Nukes to Beat Russia

Robert Farley

World Nuclear News, January 2, 2021

A RAND wargame several years ago on a potential Russian offensive into the Baltics brought talk of a “new Cold War” into sharp focus. The game made clear that NATO would struggle to prevent Russian forces from occupying the Baltics if it relied on the conventional forces now available.

These wargames have great value in demonstrating tactical and operational reality, which then informs broader strategic thinking. In this case, however, the headlines generated by the game have obscured more about the NATO-Russian relationship than they have revealed. In short, the NATO deterrent promise has never revolved around a commitment to defeat Soviet/Russian forces on NATO’s borders. Instead, NATO has backed its political commitment with the threat to broaden any conflict beyond the war that the Soviets wanted to fight. Today, as in 1949, NATO offers deterrence through the promise of escalation.

<https://nationalinterest.org/blog/crazy-war-planners-wanted-use-tactical-nukes-beat-russia-175487>

IAEA head set to report to members on Iran enrichment

Reuters, January 04, 2021

The head of the International Atomic Energy Agency is set to inform members on Monday about developments in Iran, the IAEA said, after the Tehran government said it had resumed 20% uranium enrichment at an underground nuclear facility. “Agency inspectors have been monitoring activities at the Fordow Fuel Enrichment Plant in Iran. Based on their information, Director General Rafael Mariano Grossi is expected to submit a report to IAEA Member States later today,” a spokesman for the nuclear watchdog said by email.

<https://www.reuters.com/article/idUSKBN29915G>

South Africa’s Eskom to impose power cuts after nuclear plant shutdown

Reuters, January 06, 2021

South Africa’s state power provider Eskom will implement scheduled power blackouts on Wednesday, after a shutdown of its nuclear power plant prompted by a rising leak rate in one of its steam generators. In a statement, Eskom said it had to shut down unit 1 of its Koeberg station, the only nuclear power plant in Africa, and another unit, earlier than planned. The power cuts were needed to recover and preserve emergency generation reserves. Eskom took Koeberg unit 1 offline for repairs after an increasing leak rate at one of three steam generators, adding that the unit is expected to return to service during May 2021. It added that there was no risk to plant, personnel or the environment.

<https://www.reuters.com/article/idUSKBN29B1C5>

A Nuclear Middle East

Muhammad Usman Ghani

Eurasia Review, January 7, 2021

The Middle East is the most complex region across the globe. Over the years, it is under the clutch of political turnovers, sectarian issues, and Islamic extremism and has witnessed conflicts after conflicts. The sour equation between the regional powers and foreign influence makes the region prone to instability and turmoil. The fraught links of the Islamic Republic of Iran with the Kingdom of Saudi Arabia, Israel, and the United Arab Emirates have pushed the region to the verge of turbulence. The proxy war between Iran and Saudi Arabia (in Yemen, Lebanon, Iraq, and Syria) stands for their desire to call shots in the Mideast and it is one of the leading cause of regional chaos. However, the quest of Iran, Saudi Arabia, and the UAE to acquire nuclear capabilities has stirred another concern for instability in the region.

Recently, Iran resumes enrichment of Uranium to 20 percent purity at Fordo. Enrichment to 20 percent was the latest development in the Iranian nuclear program following the Trump withdrawal from Joint Comprehensive Plan of Action (JCPOA). Iran said it has started to increase uranium enrichment at Fordo because it has a right to change its undertakings on enrichment due to US non-compliance and the EU's failure to trade with Iran. Iran's ambition in acquiring nuclear-capability moderated when the Obama administration came to terms with Iran by signing a nuclear deal JCPOA with Iran. But it was of no avail after Donald Trump scrapped the JCPOA, blaming Iran that it is not abiding by the deal. This action fanned Iranian sentiments to expedite its nuclear program. The Iranian move of the enrichment of Uranium has raised eyebrows in its regional rival Israel. Benjamin Netanyahu accused Iran of continuing to act on its intention to "develop a military nuclear program." "Israel will not allow Iran to manufacture nuclear weapons".

<https://www.eurasiareview.com/07012021-a-nuclear-middle-east-oped/>

Lebanon's Hezbollah chief says nuclear button in hands of 'crazy fool' Trump

Reuters, January 09, 2021

Lebanon's Hezbollah leader Sayyed Hassan Nasrallah said on Friday that recent events in the United States would have global repercussions and prayed that God protect the world until Jan. 20 when President-elect Joe Biden is inaugurated. "The nuclear button is in the hands of a crazy fool called Trump," the leader of the Iran-backed organization said in a televised address. "God protect the world from what he can do."

Nasrallah said the storming of the U.S. Capitol by President Donald Trump's supporters on Wednesday, following a rally at which Trump spoke, showed the president was ready to kill his own citizens to maintain power. Five people, including a Capitol Police officer and a woman shot by

police, died in the riots at the Capitol. "It is a small example of what Trump has committed in his four years in several other countries," Nasrallah said. There have been increasing tensions between the United States and Iran in the last days of Trump's administration, which coincided with the anniversary of the U.S. killing of top Iranian General Qassem Soleimani.

<https://www.reuters.com/article/idUSKBN29D2P3>

IAEA confined to 'piecemeal' updates from Iran, says Grossi

World Nuclear News, January 11, 2021

Murphy noted that the IAEA had won the Nobel Peace Prize in 2005 for its efforts to prevent nuclear energy from being used for military purposes, before asking Grossi for an update on the situation the agency now faces with Iran. At the turn of the year, Tehran informed Grossi it planned to start 20% uranium enrichment, which is a purity level five times that which it agreed under the Joint Comprehensive Plan of Action (JCPOA). The announcement followed the passing of a new law in December by the Majles, the Iranian parliament. This law requires the Atomic Energy Organisation of Iran (AEOI) to produce at least 120 kg of 20% enriched uranium annually at the Fordow nuclear site. The law also stipulates that Iran will no longer be bound by the NPT Safeguards Agreement and Additional Protocol it had signed with the IAEA, meaning that access to its nuclear sites by international inspectors would cease.

Grossi said it was unclear whether the communication he had received from Tehran on a further increase to uranium enrichment was "an intention or an actual decision", but that several days later, "they indicated that they would proceed with this process". An IAEA spokesperson told World Nuclear News last week that Grossi had informed IAEA Member States that on 4 January Iran had started feeding uranium already enriched up to 4.1% U-235 into six centrifuge cascades at the Fordow Fuel Enrichment Plant for further

enrichment up to 20%. IAEA inspectors were present at the site to detach the agency's seal from a cylinder with the feed material. The six cascades had been reconfigured as three sets of two interconnected cascades, comprising a total of 1044 IR-1 centrifuges.

<https://www.world-nuclear-news.org/Articles/IAEA-confined-to-piecemeal-updates-from-Iran-says>

The real challenges to nuclear are external, says panel

World Nuclear News, January 14, 2021

"Whether you look at the Intergovernmental Panel on Climate Change and their famous 1.5 degree report, or you look at the International Energy Agency and their scenarios, if you want to have a prayer to get anywhere close to the Paris climate targets of constraining the temperature rise to 2 degrees Centigrade over pre-industrial levels, then you need probably to at least double the contribution of nuclear," said Dan Poneman, president and CEO of Centrus Energy Corp.

"And if you think, as in the IPCC report, that 2 degrees is not enough, and if you want to get to 1.5 degrees, then the case [for nuclear] is that much stronger. And, to be clear, that assumes absolutely maximum deployment of solar and wind and battery storage. You just don't close the gap without a lot of new nuclear."

<https://www.world-nuclear-news.org/Articles/The-real-challenges-to-nuclear-are-external,-says>

Policy-makers should look at nuclear power option

Aliya Naz, Abhiroop Chowdhury, Armin Rosencranz

The Statesman, January 13, 2021

According to a recent report, India's energy consumption will rise by 156 per cent between 2017 and 2040. India generates more than 80 per cent of its energy from fossil fuels. These fuels – coal, oil and gas – create major greenhouse gas (GHG) emissions, causing air pollution, health

hazards and harsh climate impacts.

Global fossil fuel dependency is predicted to decrease by 13 per cent by 2040. To fill this gap, nonconventional and sustainable energy generation such as solar power, wind, hydro, geothermal and nuclear energy need to be pushed forward. Nuclear power can be an emerging clean energy source in India. It is a sustainable, environmentally friendly and economically viable option which can replace fossil fuel-derived energy and augment renewable energy sources.

<https://www.thestatesman.com/opinion/policy-makers-look-nuclear-power-option-1502946096.html>

N. Op-Ed

India

Delhi must integrate its UNSC engagement with broader national goals while adapting to changed realities

C. Raja Mohan

The Indian Express, January 5, 2021

As it enters the United Nations Security Council for the third time since the end of the Cold War, India finds a very different dynamic than the one it encountered during the earlier stints in 1991-92 and 2011-12. India, too, has changed over the last decade. The range of Indian interests has expanded and so has the circle of India's international partners.

Delhi's attitudes have also shifted from the reactive to the proactive. That, in turn, should make India's new stint at the UNSC more purposeful and pragmatic. Purposefulness is about tightly integrating its UNSC engagement with India's broader national goals. Pragmatism demands adapting to the changed conditions at the UNSC and avoiding overly ambitious goals.

<https://indianexpress.com/article/opinion/columns/india-elected-united-nations-security-council-7132965/>

China

Why did the PLA land its massive Y-20 warplane on Fiery Cross Reef?

Kristin Huang

South China Morning Post, January 1, 2021

China flew its biggest warplane, the Y-20 transporter, to Fiery Cross Reef in the disputed South China Sea on December 25, satellite images show. The huge aircraft was seen on the airstrip on the militarised reef in the Spratly Islands but was not observed loading or unloading cargo.

The images were posted on LinkedIn by Ken Joyce, director of product management at Maxar Technologies, an American space technology company.

“Y-20 transport observed at Fiery Cross Reef. Detected by DeepCore AI/ML,” he said. A Chinese military source confirmed the operation and said the Y-20 was deployed to test its capabilities. “It’s the first time China has deployed the Y-20 to the Spratlys,” the person said, without disclosing any further details.

<https://www.scmp.com/news/china/military/article/3116028/south-china-sea-why-did-pla-land-its-massive-y-20-warplane>

China blasts Nato with British aircraft carrier ‘heading to South China Sea’

Catherine Wong

South China Morning Post, January 1, 2021

China said it would take necessary measures to safeguard its sovereignty as it warned against the British navy dispatching warships to the disputed South China Sea. The remarks were made in response to expectations that Britain’s newest aircraft carrier, HMS Queen Elizabeth, will be deployed to the Pacific region, including the contentious sea, for its first operational mission. “The Chinese side believes that the South China Sea should not become a sea of great power rivalry dominated by weapons and warships,” defence ministry spokesman Tan Kefei said when asked about

Britain’s plans during a monthly press conference in Beijing on Thursday.

Former British defence minister Gavin Williamson had said in February 2019 that HMS Queen Elizabeth’s first operational mission would include the South China Sea, “making a global Great Britain a reality”. Washington’s hardened position on Beijing’s claims in South China Sea heightens US-China tensions. The aircraft carrier and its strike group are also expected to join forces with the American military and the Japanese Self-Defence Forces near Japan’s Ryukyu Islands “as soon as early next year”, according to Kyodo News.

<https://www.scmp.com/news/china/military/article/3116146/china-blasts-nato-british-aircraft-carrier-heading-south-china>

Construction of China’s space station construction nears implementation stage: CMS

Deng Xiaoci

Global Times, January 14, 2021

China’s space station construction has witnessed new progress recently, after the Tianhe core cabinet, Tianzhou-2 cargo spaceship, and space application system products for core cabinet missions passed authorities’ reviews before moving out of the manufacturing factory. This progress means that China’s space station construction has come close to the implementation stage, China Manned Space Engineering Office (CMS) announced via its official WeChat public account.

Currently, the Tianhe core cabinet and Tianzhou-2 cargo spaceship have completed all work in their development, manufacture and testing stages, with results all meeting the project requirements. Development work for the flight model of the space application system products designed for core cabinet missions has been completed, according to the office. Sources familiar with the matter told the Global Times that the products

include scientific research equipment developed by the Chinese Academy of Sciences, which will support operations on the space station's core cabinet. "Compatibility between space application systems and with the ground research units were verified during the examination," the sources added. China will carry out 11 launches, including four manned spaceships and four cargo spaceship flights in the next two years, as it aims to complete the building of the country's first space station by around 2022, Global Times previously learned from China's space authority.

<https://www.globaltimes.cn/page/202101/1212843.shtml>

Are hypersonic missiles a game changer? Not so fast, says new study

Kristin Huang

South China Morning Post, January 15, 2021

Hypersonic missiles are overrated in terms of speed and can be spotted by early warning systems, according to a report by US security experts that suggested their performance is roughly comparable to conventional ballistic missiles. China, Russia and the United States have all been exploring the potential of the missiles, which travel at low altitudes along a lower and flatter trajectory than intercontinental ballistic missiles to reduce the time it takes to travel from launch to impact.

They are able to change course once released from their rocket boosters. But computational modelling suggested that while hypersonic missiles using boost-glide systems are faster over shorter distances, they would be slower than ICBMs over long distances because of atmospheric drag forces. US researchers say computer modelling suggests the weapons do not have significant advantages over ICBMs in terms of speed or invisibility. Russia, China and the US are all working on an array of hypersonic weapons

<https://www.scmp.com/news/china/military/article/3118221/are-hypersonic-missiles-game-changer-not-so-fast-says-new-study>

Pakistan

The nuclear button

Dawn, January 10, 2021

IT'S been a rough week in Washington. After a right-wing, pro-Trump mob stormed the US Capitol in an unprecedented, deadly rampage, there is more bad news for the outgoing American president. While the Democrats are preparing an impeachment motion, House Speaker Nancy Pelosi has spoken to the US military's top brass to ensure an "unhinged" Donald Trump does not have access to nuclear launch codes in his last days in office. The Trump presidency has of course been known for strange happenings both domestically and on the international front, and these developments are perhaps an apt denouement to an administration that has, to put it mildly, broken quite a few taboos of American politics. Jokes aside, it is indeed a matter of concern that senior members of the American political establishment are consulting their generals to ensure a sitting president does not abuse his authority where the use of nuclear weapons is concerned.

<https://www.dawn.com/news/1600678/the-nuclear-button>

USA

What Has Not Changed in U.S.-China Relations

John Cookson

National Interest Blog, January 7, 2021

In the last few years, it has become gospel in Washington that the status quo of U.S. policy toward China cannot continue—that China's rise has reached a tipping point where the mix of containment and trade that characterized U.S. policy for decades is doomed. As a result, advocates of this view argue, a radical change toward a more aggressive stance is needed to protect U.S. interests in Asia.

Recognizing the shift in U.S. views of China is necessary. No serious policy

proposal can ignore the sea change in attitudes that is already evident among U.S. policymakers, scholars, and even the general public. But recalling what has not changed – what is unlikely to change – between the two superpowers is even more important when crafting a responsible U.S. policy in East Asia.

<https://nationalinterest.org/blog/skeptics/what-has-not-changed-us-china-relations-176004>

Trump Still Has His Finger on the Nuclear Button. This Must Change

William J. Perry and Tom Z. Collina

Politico, January 8, 2021

Anyone who watched the disturbing events on Capitol Hill and President Donald Trump's outrageous role as ringleader of the riot, must comprehend a crucial and terrifying fact: The president of the United States is unhinged and a threat not only to democracy, but to our survival. The danger is so acute that House Speaker Nancy Pelosi is actively looking for ways to prevent the "unstable president from ... accessing the launch codes and ordering a nuclear strike."

Anyone who watched the disturbing events on Capitol Hill and President Donald Trump's outrageous role as ringleader of the riot, must comprehend a crucial and terrifying fact: The president of the United States is unhinged and a threat not only to democracy, but to our survival. The danger is so acute that House Speaker Nancy Pelosi is actively looking for ways to prevent the "unstable president from ... accessing the launch codes and ordering a nuclear strike."

<https://www.politico.com/news/magazine/2021/01/08/trump-still-has-his-finger-on-the-nuclear-button-this-must-change-456667>

Trump has the authority to launch nuclear weapons – whether Pelosi likes it or not

Jennifer Williams and Alex Ward

Vox, January 8, 2021

House Speaker Nancy Pelosi has reached out to the US military about taking away

President Trump's nuclear authority, an ask that may seem reasonable on the surface, given the violence at the Capitol this week. But she's playing a dangerous game with America's national security.

In a letter to House Democrats Friday, Pelosi told her colleagues that she'd just spoken to the Pentagon about ways to prevent an "unstable" President Donald Trump from launching a nuclear weapon in his remaining days in office. "This morning, I spoke to the Chairman of the Joint Chiefs of Staff Mark Milley to discuss available precautions for preventing an unstable president from initiating military hostilities or accessing the launch codes and ordering a nuclear strike," Pelosi wrote.

She later told House Democrats on a call that Milley assured her there are safeguards in place to prevent the president from ordering an illegal nuclear strike, USA Today reported. (A Joint Chiefs spokesperson later confirmed that Milley had spoken with Pelosi: "Speaker Pelosi initiated a call with the Chairman. He answered her questions regarding the process of nuclear command authority.") It's understandable that his critics on the Hill – who were hunkered down in the belly of the Capitol while Trump's supporters raided their offices Wednesday – would be tempted to snatch the president's keys to the "red button." But the House speaker does not have the authority to try to keep the nuclear codes from Trump. Like it or not, the president of the United States has sole authority to launch a nuclear weapon. Pelosi knows this full well – and that's the point.

<https://www.vox.com/22220989/trump-nuclear-codes-pelosi-impeachment>

Trans-Atlantic Relations Are A Two-Way Street

Russell A. Berman

National Interest Blog, January 9, 2021

The trans-Atlantic partnership is indispensable to American security and prosperity. In the context of great power

competition, where democratic values face constant challenges from China and Russia, the deep ties between North America and the countries of Europe have grown especially vital. It is important for American leadership to cultivate these connections.

The Trump administration has had a European agenda, marked by visits by top American officials to the countries on the eastern flank of the European Union, from the Baltics to Bulgaria, the Balkans, and Greece. President-elect Joe Biden and members of his foreign policy team have signaled their own European aspirations, with greater attention likely to be devoted to western European allies, France and Germany, as well as the EU itself. Rather than emphasizing the differences between these approaches, it is more appropriate to see the continuity in Washington's ongoing efforts to maintain robust ties to a continent of multiple countries with diverse interests and perspectives.

<https://nationalinterest.org/blog/buzz/trans-atlantic-relations-are-two-way-street-176137>

Nuclear stand-off: can Joe Biden avert a new arms race?

Julian Borger

The Guardian, January 11, 2021

Joe Biden will have to make critical decisions on arms control in his first days in the White House that could determine whether a new nuclear arms race can be averted, and possibly reversed. When the new president takes the oath of office on 20 January, there will be 16 days left before the 2010 New Start treaty with Russia expires, and with it the last binding limit on the world's two biggest nuclear arsenals left standing in the wake of the Trump era.

At the same time, there will be urgent pressure on the incoming administration to salvage the 2015 nuclear deal with Iran, which has been unraveling at an accelerating speed since Donald Trump withdrew from it in 2018. Last week, the International Atomic Energy Agency confirmed that, for the first time since the

deal was agreed, Iran had begun the process of producing 20% enriched uranium, a major step towards the capability of making weapons-grade material.

<https://www.theguardian.com/us-news/2021/jan/11/nuclear-stand-off-can-joe-biden-avert-a-new-arms-race>

Negotiations Cannot Solve America's Iranian Nuclear Troubles

Michael Makovsky and Blaise Misztal

National Interest Blog, January 11, 2021

Tehran's announcement that it has begun enriching uranium to 20 percent has lent urgency to debates in Washington about how and when to negotiate with Iran over its nuclear program. However, the better question is whether to negotiate at all.

Now, controversy swirls around President-elect Joe Biden's proposal to "rejoin the agreement" and then "strengthen and extend [its] provisions, while also addressing other issues." Former fixers, having protested Trump's withdrawal, are now bemoaning Biden's desired JCPOA re-entry. Actually, the scope of disagreement has narrowed to mostly sequencing: whether rejoining the JCPOA and lifting sanctions before negotiating a new agreement will demonstrate goodwill or squander leverage.

<https://nationalinterest.org/blog/buzz/negotiations-cannot-solve-america%E2%80%99s-iranian-nuclear-troubles-17619>

Europe

Iran's nuclear move is playing with fire

DW, January 05, 2021

Iran has announced that it is upping uranium enrichment levels – a move that threatens any attempt to revive the 2015 nuclear deal. Barbara Wesel says it's time for Europe to re-examine its policies towards the regime. France, Germany and

the UK have never fought so hard to achieve an international deal as they did with the nuclear accord with Iran. The Joint Comprehensive Plan of Action was signed by the five members of the UN Security Council plus Germany and the European Union in 2015. It has largely been on ice since US President Donald Trump's decision unilaterally to withdraw from the treaty in 2018. For a long time, the deal was lauded as a major European joint foreign policy achievement. Now it looks seriously under threat.

The hardliners in the regime seem to have gained the upper hand. Tehran says it has now resumed enriching uranium to up to 20 percent purity at its underground facility in Fordo. While that is still a long way off the levels needed to make weapons-grade uranium, it is far above the three or so percent agreed in the deal – a limit that Tehran has been breaching for some time now. Iran also says it will no longer allow inspectors from the nuclear watchdog agency, the IAEA, in Vienna access to its facilities.

<https://www.dw.com/en/opinion-irans-nuclear-move-is-playing-with-fire/a-56137269>

Russia

What Russia Learned From Its Most Famous Submarine Scandal

Mark Episkopos

National Interest Blog, January, 2021

After twenty years, the Kursk disaster remains one of the darkest chapters in Russian Naval history. A nuclear-powered cruise missile submarine, Kursk was one of the last Project 949A Antey (better known by its NATO reporting name Oscar II) submarines to be laid down. The Oscar II class is the culmination of late Soviet nuclear submarine design, purpose-built to counter U.S. aircraft carrier groups. As many as twenty Oscar-class models were planned, but only thirteen were built prior to the end of the Cold War.

Kursk was widely seen as one of the Northern Fleet's most capable submarines,

operated by a competent crew. On August 12, 2000, Kursk joined dozens of Russian vessels for the first major Naval exercise since the Soviet collapse. Kursk had just received clearance to fire several dummy torpedoes at the Petr Velikiy Kirov-class battlecruiser. After a considerable delay, two underwater explosions were heard within two minutes of one another. To the shock of everyone present at the exercise, Kursk had sunk after sustaining two back-to-back explosions. The blast devastated the front portion of the hull, as well as several of the submarine's compartments.

<https://nationalinterest.org/blog/buzz/what-russia-learned-its-most-famous-submarine-scandal-175387>

Ulyanovsk: The USSR Had Big Aircraft Carrier Dreams

Mark Episkopos

National Interest Blog, January 10, 2021

Late into the Cold War, the Soviet military hatched a wildly ambitious scheme to become a blue-water Navy. The 1991 collapse closed that chapter in Soviet military history, but Russia's lingering maritime ambitions remain. In the late 1960s, the Soviet shipbuilding industry began to develop its first nuclear-powered aircraft cruiser. Project 1160 Orel ("Eagle") was a nuclear-powered supercarrier with a displacement of around 80,000 tons. Orel would have featured steam catapults, carrying as many as seventy aircraft. In line with the Soviet concept of a "heavy aviation cruiser," the proposed supercarrier would have differed from its western counterparts with a robust onboard arsenal of sixteen P-700 Granit anti-ship cruise missiles. By the early 1970s, the project was abandoned due to cost concerns and succeeded by the smaller and much less ambitious Kiev class of conventionally powered carriers.

<https://nationalinterest.org/blog/buzz/ulyanovsk-ussr-had-big-aircraft-carrier-dreams-176128>

Why Road Mobile Nuclear Missiles Matter to Russia

Mark Episkopos

National Interest Blog, January 14, 2021

Russia's Armed Forces wield a powerful, and growing, arsenal of road mobile intercontinental ballistic missiles (ICBMs) that will continue to occupy a prominent plank of the Kremlin's nuclear modernization strategy.

In the latter stages of the Cold War, the Soviet Union became interested in developing a mobile force. There are several advantages to mobile ICBMs, including one that figured prominently into Soviet strategic thinking was survivability. Namely, the Soviets became increasingly concerned that the United States either already had achieved, or is on the cusp of attaining, first-strike capability against their silo-launched missile systems. Everything else being equal, mobile missile launchers are much more difficult to locate, track, target, and destroy than their silo-fixed counterparts. Mobile ICBMs are thus a key source of strategic redundancy, offering a survivable alternative if the other parts of the Soviet nuclear triad fail.

<https://nationalinterest.org/blog/buzz/why-road-mobile-nuclear-missiles-matter-russia-176434>

West sia

Iran

How close is Iran to producing a nuclear bomb?

Francois Murphy

Reuters, January 04, 2021

A 2015 nuclear deal between Iran and world powers is being eroded and efforts to revive the pact face a new challenge with a decision by Tehran to resume 20% uranium enrichment at an underground nuclear facility. The accord's restrictions on Iran's atomic work had one objective: to extend the "breakout time" for Tehran to produce enough fissile material for a bomb, if it decided to make one, to at least a year from about two to three months. Iran maintains

that it has never sought nuclear weapons and never would. It says its nuclear work only has civilian aims.

Tehran began breaching the deal's curbs in 2019 in a step-by-step response to President Donald Trump's withdrawal from the deal in May 2018 and the reimposition of U.S. sanctions. This has shortened the breakout time but reports by the U.N. International Atomic Energy Agency (IAEA), which polices the deal, indicate that Iran is not moving ahead with its nuclear work as fast as it could. European states have sought to save the nuclear deal, pressing Tehran to comply even as Washington has tightened sanctions, and holding out hopes of a change in U.S. policy once President-elect Joe Biden takes office on Jan. 20. Biden was part of the U.S. administration under Barack Obama that negotiated the 2015 deal.

<https://www.reuters.com/article/idUSKBN2991DK>

If any country has erred this century, it's the U.S. ...

Martin Love

Tehran Times, January 6, 2021

"Though we (the U.S.) spends a trillion dollars a year between our military and our intelligence and our "national security" circles, that trillion dollars has built, you know, things that can stop all the planes and the missiles and all kinds of things from other countries. But we missed the one thing other countries like China have deployed, which is not to fight at all, not firing a bullet or missile at all, but taking the U.S. out from within. And that's what's going on." So writes an American expert looking at China. And one must remark, imagine the U.S. now if the government had not wasted many trillions on war and "defense" and the military and piling up debt like never before anywhere in recorded history. Might Americans citizens have otherwise enjoyed universal healthcare and free education at public universities and a modern (not horrible) infrastructure and

sanity and so much more including a much smaller debt load like some other modern, “Western” countries? Yes, of course. But NOW Americans face a government and ruling class trying to cling to U.S. hegemony and empire by threats of war and potential nuclear war with countries Washington calls “enemies”, which includes Iran.

So what’s the real story here, particularly with regard to the hostility towards Iran and the recent changes in West Asia which have seen several Arab countries normalize their relations with Apartheid Israel?

The truth? The many trillions of dollars have been wasted in this century especially on the application, by sheer stupidity, of bad will to other countries, some of which have challenged U.S. economic power simply by their relative excellence and growth, and other countries (like Iran) which have never presented any kind of real challenge to the U.S. either economically or militarily. The so-called Abraham Accords between the Zionist state and several Arab countries allegedly take this into account: the geopolitical position of Iran. Global measures are said to rank Iran’s position well ahead of countries such as Saudi Arabia and even Israel, at 14th in the world. This index includes over 50 factors, including Iran’s population, size, land mass, coasts, natural resources, infrastructure, and military discipline among other factors.

<https://www.tehrantimes.com/news/456683/If-any-country-has-erred-this-century-it-s-the-U-S>

Every single sanction an obstacle to reviving JCPOA

Tehran Times, January 9, 2021

With the Biden team gearing up to take the helm in the White House, opponents of the 2015 Iran nuclear deal do their utmost to undercut any U.S. plan to rejoin the nuclear deal and ensure that the current economic pressure on Iran would continue for the foreseeable future. After Joe Biden won the U.S. presidential election in November, the nuclear deal – officially known as the Joint Comprehensive Plan of Action (JCPOA) – once again become a focal point in the ongoing debate over how the incoming Joe

Biden administration should deal with Iran in general. Biden’s campaign promise that he would rejoin the JCPOA if he is elected has only exacerbated this debate, which is expected to grow even more heated in the early months of Biden’s presidency because the president-elect has vowed to upend Trump’s Iran policy once he moved into the White House.

“I will offer Tehran a credible path back to diplomacy. If Iran returns to strict compliance with the nuclear deal, the United States would rejoin the agreement as a starting point for follow-on negotiations. With our allies, we will work to strengthen and extend the nuclear deal’s provisions, while also addressing other issues of concern,” then-presidential candidate Biden wrote in a September 13 op-ed for CNN. Although he refused to elaborate on his plan to rejoin the nuclear deal, Biden reiterated his commitment to return the U.S. to the JCPOA after he won the November election while raising some other issues unrelated to Iran’s nuclear program. In a recent interview with The New York Times’ columnist Thomas Friedman, Biden said that he still stands by his views on the nuclear deal that were articulated in the mid-September op-ed, but a U.S. return to the deal would be “hard.” Asked whether he still stands by his views on the deal that he expressed in the op-ed for CNN, Biden answered, “It’s going to be hard, but yeah.”

<https://www.tehrantimes.com/news/456807/Every-single-sanction-an-obstacle-to-reviving-JCPOA>

Turkey

Will Turkey become a nuclear weapon power with Pak’s covert support?

The Siyasat Daily, January 3, 2021

A rogue nexus involving Pakistan and Turkey, with China looking the other way, maybe taking root to fulfil Ankaras ambition to emerge as the worlds next nuclear weapon power. Suspicions about Pakistan’s covert support for Turkish

nuke has been aroused by a recent meeting of the Turkey-Pakistan High-Level Military Dialogue Group (HLMDG). The assemblage took place on December 22-23, 2020. Pakistan's Defence Secretary Lt. Gen. (Retd.) Mian Muhammad Hilal Hussain led the delegation from Islamabad, while Deputy Chief of Turkish Army General Selcuk Bayraktaroglu headed the Turkish team, says an article published by the website [zeenews.india.com](https://www.yenisafak.com/en/columns/nedretersanel/they-havent-even-stomached-turkey-acquiring-s-400-now-comes-talk-of-nuclear-weapons-2047721).

There are other indications that collaboration on nuclear delivery systems was the hot topic discussed during the meeting. The visitors from Islamabad met top Turkish Army generals and bureaucrats dealing with missile production and aerial military hardware. The hosts included Professor Ismail Demir head of Presidency of Turkish Defence Industries and Temil Kotil, CEO of Turkish Aerospace Limited (TAI). The Pakistani defence delegation also visited top Turkish defence companies including Bakyar (UAV OEM), TAI, HAVELSAN and ASELSAN.

<https://www.siasat.com/will-turkey-become-a-nuclear-weapon-power-with-paks-covert-support-2059645/>

They haven't even stomached Turkey acquiring S-400, now comes talk of nuclear weapons...

Nedret Ersanel

Yeni Safak, January 6, 2021

Among intense showdowns in the Gulf, the fear spread on the assassination anniversary of Qassem Soleimani, and U.S. deployment of heavy bombardment aircraft and troops in the region, the most critical of Iran's series of open threats, primarily against the U.S. and Israel, along with certain Middle East countries, was its announcement to the International Atomic Energy Agency that it would start enriching Uranium by 20 percent.

The process that developed with the U.S.'s withdrawal from the nuclear agreement between Iran and P5+1 countries, the U.S. imposing sanctions against Tehran, and thus leading to the disdain of signatory countries,

in addition to the assassinations of Soleimani and Fakhrezadeh, drove Iran to this decision. As a matter of fact, at a time when Donald Trump is leaving office and Joe Biden, who is expected to develop smoother relations with Tehran, is counting down the days to taking office.

<https://www.yenisafak.com/en/columns/nedretersanel/they-havent-even-stomached-turkey-acquiring-s-400-now-comes-talk-of-nuclear-weapons-2047721>

Israel

Israel and Joe Biden Can Work Together on Iran

Ari Heistein and Eldad Shavit

National Interest Blog, January 4, 2021

The Biden administration's expected policy toward the Iranian nuclear question will likely be comprised of two phases. Part one will be an interim de-escalatory stage in which Tehran's rolls back its violations of the 2015 nuclear deal in exchange for a respite from the economic stranglehold that Trump's "maximum pressure" sanctions policy imposed. Part two will be an effort to build upon the 2015 nuclear deal in a way that expands the restraints on Iran's dangerous behavior. While the actual contours of each stage remain highly uncertain, how Israel approaches the Iran nuclear issue could have significant implications not only for U.S. policy on Iran but for the U.S.-Israel relationship more broadly.

Ideally, Jerusalem would like to see the Biden administration reach a new and improved nuclear deal in a single step by exploiting the leverage from Trump's "maximum pressure" campaign to close the previous agreement's loopholes. However, that appears unlikely given the long process it would entail as well as the urgency that the Biden administration places on de-escalating the situation vis-à-vis Iran and halting the regime's slow creep toward the nuclear threshold.

<https://nationalinterest.org/blog/buzz/israel-and-joe-biden-can-work-together-iran-175749>

Israel Wants to Derail Biden's Plan to Rejoin Iran Nuclear Deal David Wainer Ivan Levingston

David Wainer Ivan Levingston

Bloomberg Quint, January 12, 2021

Israel is already plotting how to derail one of Joe Biden's signature foreign-policy promises. The high-profile campaign that Prime Minister Benjamin Netanyahu waged against the Obama administration's nuclear deal with Iran failed to block the 2015 agreement. Officials are now weighing whether that sort of public crusade or behind-the-scenes engagement will be the most effective strategy with Biden, a senior Israeli official said, emphasizing that no decision has been made. Israel will start by sending a stream of envoys on visits to Washington, the official said, requesting anonymity to discuss private deliberations. It's stated publicly that it doesn't want the U.S. to abandon sanctions on the Islamic Republic without a new deal, and that a tougher stance should be taken toward its nuclear project, ballistic missile program and regional proxy forces.

<https://www.bloombergquint.com/politics/israel-maps-path-to-thwart-biden-s-plan-to-re-engage-with-iran>

East Asia

Beyond commitment

Korea Herald, January 6, 2021

In the early morning of New Year's Day, President Moon Jae-in flew on an airborne early warning and control aircraft to inspect the South Korean military's combat readiness in what his aides described as a show of his commitment to national security. The E-737 Peace Eye plane with Moon aboard flew over the country and its territorial waters for about two hours Friday. Later, Moon praised soldiers for training day and night to maintain a high level of military readiness and thanked them for their sacrifice to keep the nation safe and help people spend New Year's Day in peace.

It was desirable for Moon as commander in chief to open the year with an event

designed to heighten the country's security posture. What is more important, however, is for him to look squarely at the security challenges facing the nation and take firm and coherent steps to surmount them. The Moon administration's blind pursuit of reconciliation with the recalcitrant regime in North Korea has been criticized for weakening South Korea's military preparedness and undermining its vital alliance with the US. There has been no progress in dismantling the North's nuclear arsenal, despite a string of meetings Moon and US President Donald Trump held with the totalitarian state's dictator Kim Jong-un in 2018 and 2019. The North might test-fire a range of upgraded ballistic missiles in the early months of the incoming Biden administration in a bid to pressure Washington to agree on a deal on more favorable terms. US President-elect Joe Biden, who will be inaugurated Jan. 20, has called for "principled diplomacy" and favors working-level negotiations over Trump's top-down approach. This may mean the North hardly stands a chance of being recognized as a nuclear-armed state by making concessions short of complete denuclearization in return for a significant lifting of sanctions on the impoverished regime.

http://www.koreaherald.com/view.php?ud=20210105000998&ACE_SEARCH=1

Beef up defense

Korea Herald, January 13, 2021

North Korean leader Kim Jong-un, at the eighth congress of the Workers' Party, instructed the military to strengthen its nuclear weapons. He said that his country had upgraded its nuclear arsenal since November 2017, when it test-fired the Hwasong-15 intercontinental ballistic missile. Kim's remarks show that three years of denuclearization negotiations between the US and North Korea were just for show, and he has no intention of giving up nuclear weapons. He instructed the military to make its nuclear weapons smaller and lighter. If the North develops tactical nuclear weapons, it will target

them at South Korea. To deter the threat effectively, the South needs to be armed with the same weapons. Kim defined the US as the North's "foremost principal enemy." He said that North Korea had completed the design of nuclear-powered submarines. Nuclear-powered subs are a strategic weapon that enables sneak attacks on the American mainland after approaching it because they can navigate underwater over long distances. If the subs are loaded with nuclear missiles, their threats will be hard to fend off.

The North Korean leader also vowed to develop supersonic weapons, which existing missile defense systems cannot intercept. If the North develops such weapons, important facilities in South Korea will be defenseless. Considering the North has improved ICBMs little by little, the South must not dismiss it as a bluff. Kim threatened that the inter-Korean relations may go back to the days before his first summit with Moon, depending on the attitude of the South Korean government, and demanded the South stop purchasing advanced weapons and suspend joint military exercises with the US. President Moon Jae-in in his New Year's address Monday said that "our will to meet with North Korea anytime, anywhere, even in a non-face-to-face way, remains unchanged." He made no mention of the North's military threats.

http://www.koreaherald.com/view.php?ud=20210112000913&ACE_SEARCH=1

Nuclear weapons plans trigger arms race fears

DW, January 14, 2021

Calls grow for the South Korean government to step up its defenses after North Korean leader Kim Jong Un announced plans for advanced new weapons systems. South Korea has confirmed that it is considering developing a nuclear-powered submarine after Kim Jong Un declared at the recent Workers' Party Congress in North Korea that he would "advance national reunification through a strong military power" — and boasted of deploying hypersonic missiles, spy satellites, multi-warhead

intercontinental ballistic missiles and the North's own nuclear-powered submarine. Responding to a question at a press conference in Seoul on Monday, Defense Ministry spokesman Col. Moon Hong-sik said a final decision has yet to be taken but that a nuclear-powered vessel could be "pushed for after a comprehensive review of our technology level and defense budgets."

The concern, say analysts, is that North Korea is provoking an arms race with its southern neighbor and, potentially, Japan, as it demands concessions from the international community on the sanctions that have hampered its economic and military development since the North conducted its fourth underground nuclear test in March 2016. "North Korea's ambition is to gain the recognition of the United States as a 'great power' and they have decided that the best way to do that is to build up their nuclear and missile arsenals — even if that means that they have to neglect everything else in the country," Garren Mulloy, a professor of international relations at Japan's Daito Bunka University and an authority on defense issues, told DW. North Korean leader Kim Jong Un at the Workers' Party congress in Pyongyang. In his speech at the party congress, Kim mentioned nuclear weapons no fewer than 36 times "The big fear for the North is a preemptive strike by the US and one way of preventing that is by having nuclear-powered submarines capable of launching ballistic missiles," he said. "These boats are very difficult to detect, especially in the deep waters of the Pacific, and they would present a real threat to the mainland US." There are, however, a number of very large caveats in Pyongyang's plans to develop and deploy such a submarine, Mulloy said. "The price and obtaining the technology to make a nuclear submarine that is truly silent is a really big technological leap from where they are now," he said. "And if it's not quiet and everyone can track it, then it is not nearly so much of a threat."

Despite the South Korean military confirming that it is considering building

a nuclear submarine, Mulloy says the idea makes little sense from a strategic point of view. "I am not sure if this is a realistic plan or merely posturing aimed at the North," he said. "South Korea is in a security alliance with the US so it has no need of a nuclear submarine in its fleet, particularly given that the most effective submarines in the shallow waters surrounding the Korean Peninsula are small, stealthy diesel vessels that are difficult to detect." The timing of North Korea's latest belligerent proclamation on its weapons programs is clearly linked to the imminent swearing in of Joe Biden as the next president of the US, say analysts. In his speech at the party congress, Kim mentioned nuclear weapons no fewer than 36 times, while there was no mention of moves towards denuclearization that had been proposed at the height of the thaw with the South and the US in 2018.

<https://www.dw.com/en/korea-military-plans-stoke-tensions/a-56222449>

O. Interviews/Reports

Professor enumerates problems in Islamic world but promises bright future

Javad Heirannia

Tehran Times, January 11, 2021

A professor from the George Washington University elaborates on the problems facing the Islamic world, ranging from injustice, division, corruption, cronyism, bad governance, dictatorship, reliance on foreign powers, oblivious to the plight of their citizens, resistance against peaceful reform, indifference toward injustice against Muslims in Palestine and in countries where they are in minority, etc. However, Professor Hossein Askari predicts that "Muslims will in time discover the essence of their religion" and says "the future is bright." In an exclusive interview with the Tehran Times, the professor cites Iran, a Muslim majority country, as a special case, saying the country was invaded by Saddam Hussein's Iraq in the 1980s and as it was gradually getting back on its feet it was subjected to economic sanctions by Washington. Yet, he says,

"Iranians are resilient, innovative and quick to learn"

Following is the text of the interview:

Q: What is the crisis with Muslims and in Muslim countries?

A: Muslims have been indoctrinated to memorize the Qur'an and follow all the outward rituals of Islam. While these are good things to do, they are not a substitute for living the kind of life that is at the core of Islam, such as standing up for justice and causes that are just, living a modest life and helping those in need, alleviating poverty, supporting good governance and fighting against corruption, and commanding the good and forbidding evil. Practicing these values not just towards other Muslims but it must be done towards all humanity because as Islam preaches we are all one. Muslims have not studied and debated what their religion preaches for their everyday lives. In many countries, Muslims have been spoon-fed an Islam that is difficult to reconcile with the Qur'an (see IslamicityIndices.org). As a result, when you look at many Muslim countries today, what do you see? A few living in grotesque luxury while the vast majority live in poverty, under suppression, and with little hope for a better future. In many of these countries, prosperity comes from depleting oil and natural gas assets, which in Islam belong to all current and future generations, yet some rulers behave as if it's theirs and use it for their own for a lifestyle that is condemned in Islam while others are suffering in need.

Let me also say a few words that apply largely to the crisis in the Middle East (West Asia). The whole region is divided over Israel, nuclear arms, and sectarian rivalries. Some Arab countries have forgotten the plight of the Palestinians under Israeli subjugation and decided to embrace Israel while demanding nothing for Palestinian rights and statehood. Trump has twisted arms and intervened where he does not belong, such as recognizing Moroccan territorial claims if they recognize Israel. This kind of pressure

further emboldens Israel's oppression of Palestinians as they feel Arabs talk but will do nothing to oppose the subjugation of their fellow Arabs. But Israeli policies will in time backfire on Israel. Ordinary Arabs will not take this lying down. With the implicit support of the United States, Israel is hell-bent on regime change in Iran. Israel has an arsenal of over 230 nuclear warheads that threaten the region and dictates that no other country in the region can acquire such weapons and all the while is unwilling to embrace the only sensible solution – a nuclear-free zone in the Middle East (West Asia) – supported by Iran and Arabs.

Q: Are you optimistic about the future of Muslims, Muslim countries, and Iran?

A: Islam is the fastest-growing major religion. It has about two billion adherents today. Within a few years, followers of Islam will surpass those who profess Christianity. If numbers are a measure of success, then the future is indeed bright for Muslims. But to my mind, numbers are only a part of the story. Muslims will in time discover the essence of their religion. I am confident that the pressure for reform will be unstoppable and will usher peaceful, as opposed to violent, change. With the freedom to think, to dream, and to choose, Muslims will contribute to a more prosperous and peaceful world, and radicals that have misrepresented Islam and given Muslims a bad name will be permanently sidelined. Given the freedom and the opportunity to develop the self, the future is bright.

As for Iran, it has been a special case. Iran was invaded by Iraq, using banned chemical weapons, other lethal arms, and intelligence, all from the West. Then as Iran was slowly getting back on its feet, the United States imposed economic sanctions, which over time became ever more stringent and crippling to the Iranian economy. To alleviate the crippling burden of sanctions, Iran gave up some of its sovereign rights and agreed to the JCPOA. Again, as it started to recover, Trump came along and essentially tore up a multilateral agreement endorsed by the United Nations Security Council. Wow! What a history over the last 40 years. But Iranians are resilient, innovative, and

quick to learn. I have seen this in Iranian students in the United States. Given a supportive environment and the needed opportunities Iran would flourish. Iran's Arab neighbors and Turkey should support Iran's re-integration into the international community. Iran will always be where it is today. Cooperation now would be most appreciated and is the best recipe for a flourishing Middle East (West Asia) of the future. The United States and Europe should embrace such efforts and once and for all extinguish the flame of colonialism and its attendant harm and eventual blowback.

<https://www.tehrantimes.com/news/456841/Professor-enumerates-problems-in-Islamic-world-but-promises-bright>

P. Think Tanks

Gearing up for a riskier world

Rajeswari Pillai Rajagopalan

Observer Research Foundation, January 4, 2021

It will take some time for us to fully understand the year that has just passed – one that has shaken every part of the world in unimaginable ways. The impact of the COVID-19 pandemic, whose ground-zero was Wuhan province in China, has reverberated across multiple sectors the world over. But the year also demonstrated human ingenuity, as seen for instance in the multiple efforts at developing vaccines for COVID-19 in record time.

At the intersection of the pandemic and international politics, what is unlikely to be forgotten soon is China's role: its initial focus on a blame game rather than identifying the origins and causes of the virus and its spread, and engaging in pandemic diplomacy (which boomeranged to some extent with its faulty testing and PPE kits). Equally, the manner in which China hijacked multilateral agencies such as the World Health Organization (WHO) highlights the urgency in instituting reforms to ensure that they remain effective and are not

usurped by any single power. China's use of economic and trade coercion against countries such as Australia – which sought an independent investigation into the origins of the SARS-CoV-2 virus that causes COVID-19 – illustrates this more clearly. China similarly sought to control the agenda of another multilateral organisation – the International Civil Aviation Organisation (ICAO), which also had an impact on the spread of the virus. As the global community has plenty of stakes in these multilateral organisations, India and like-minded partners including the US, Japan, Australia, France, Canada and the UK have a responsibility to promote their neutrality, transparency and accountability.

<https://www.orfonline.org/expert-speak/gearing-riskier-world/>

Unresolved Issues Remain as Qatar Blockade Ends

Anchal Vohra

Observer Research Foundation, January 10, 2021

Three years after Saudi Arabia, the United Arab Emirates, Bahrain, and Egypt embargoed trade and travel with Qatar, the blockade was lifted at the Gulf Cooperation Council [GCC] Summit last week. Kuwait's painstaking diplomacy, the outgoing American Administration's desire to damage Qatar's ties to Iran, and Saudi Crown Prince Mohammed bin Salman's attempt to emerge as a leader, all of the above brought about the reconciliation. But the leaders have been tight-lipped and the details of the actual bargain struck have not been revealed. The resumption of travel and trade links would certainly ease the financial pressure on Qatar which albeit filthy rich, thanks to huge reserves of natural gas, is also spending big bucks on preparing the desert country to host the next football world cup. It would, however, much to the delight of the anti-Iran lobby in America, drastically reduce the money Iran was able to make since it offered Qatar a more frequent use of its airspace.

But there is a fair amount of scepticism around the deal and many experts said it

can at best be seen as a preliminary understanding, not a final resolution to the hostilities. At least the UAE has categorically stated that it has not yet resumed full diplomatic ties.

<https://www.orfonline.org/expert-speak/unresolved-issues-remain-as-qatar-blockade-ends/>

Nuclear Notebook: United States nuclear weapons, 2021

Hans M. Kristensen, Matt Korda

Bulletin of Atomic Scientists, January 12, 2021

At the beginning of 2021, the US Defense Department maintained an estimated stockpile of 3,800 nuclear warheads for delivery by 800 ballistic missiles and aircraft. Most of the warheads in the stockpile are not deployed, but rather stored for potential upload onto missiles and aircraft as necessary. Many are destined for retirement. We estimate that approximately 1,800 warheads are currently deployed, of which roughly 1,400 strategic warheads are deployed on ballistic missiles and another 300 at strategic bomber bases in the United States. An additional 100 tactical bombs are deployed at air bases in Europe. The remaining warheads – approximately 2,000 – are in storage as a so-called hedge against technical or geopolitical surprises. Several hundred of those warheads are scheduled to be retired before 2030. (See Table 1.)

In addition to the warheads in the Defense Department stockpile, approximately 1,750 retired – but still intact – warheads are stored under custody of the Energy Department and are awaiting dismantlement, giving a total US inventory of an estimated 5,550 warheads. Between 2010 and 2018, the US government publicly disclosed the size of the nuclear weapons stockpile. But in 2019, the Trump administration rejected a request from the Federation of American Scientists to declassify the latest stockpile number, and these numbers remain classified at the time of this publication (Aftergood 2019; Kristensen 2019a).

<https://thebulletin.org/premium/2021-01/nuclear-notebook-united-states-nuclear-weapons-2021/>

How Biden can advance nuclear arms control and stability with Russia and China

Pranay Vaddi

Bulletin of Atomic Scientists, January 12, 2021

President-elect Joe Biden will take office with a series of pending arms control policy decisions to make. Washington and Moscow have so far been unable to secure an agreement on the New Strategic Arms Reduction Treaty (New START), which expires on February 5, 2021 unless it is extended by mutual agreement, and the new administration will need to make a decision regarding New START extension as soon as possible after Inauguration Day.

Additionally, the United States is engaged in growing political and military competitions with Russia and China. It faces increasing risks of conflict with each country, a heightened risk of a crisis escalating to nuclear use, and a greater likelihood for a three-way build up in expensive nuclear arms. The Biden administration will need to decide how to stabilize the deterrence relationships with Russia and China, including through new dialogue mechanisms and arms control policy.

<https://thebulletin.org/premium/2021-01/how-biden-can-advance-nuclear-arms-control-and-stability-with-russia-and-china/>

Global nuclear policy is stuck in colonialist thinking. The ban treaty offers a way out.

Molly Hurley

Bulletin of Atomic Scientists, January 15, 2021

The world recently reached a significant milestone on international nuclear weapons policy: The Treaty on the Prohibition of Nuclear Weapons—commonly called the nuclear ban treaty—hit 50 ratifications, triggering its entry in force on January 22, 2021. None of the 50 ratifications comes

from a country with an actual nuclear arsenal. Nevertheless, as the name suggests, the ban treaty prohibits states party to it from developing, testing, producing, manufacturing, otherwise acquiring, possessing, or stockpiling nuclear weapons or other nuclear explosive devices. The treaty is a step in the right direction for those in the disarmament camp, but it is much more than that. While the current system regulating nuclear weapons is unstable, dangerous, and unfair to much of the world because it grew out of a colonial system, the ban treaty can help the world move in a less dangerous, post-colonial direction.

A post-colonial perspective on national security begins by overturning a number of currently held assumptions within the mainstream nuclear policy regime—one that is solely dedicated to nonproliferation and deterrence and lacks a genuine commitment to eventual disarmament. These assumptions are that exporting a Western values system, especially through military intervention, builds democracy and brings “civility” to Global South countries; that “might makes right,” and one country can impose its arms control demands on the rest of the world; that the West rightfully serves as the primary guardian and custodian of arms control and disarmament; and that nuclear weapons make the world safer, but only when certain countries possess them.

<https://thebulletin.org/2021/01/global-nuclear-policy-is-stuck-in-colonialist-thinking-the-ban-treaty-offers-a-way-out/>

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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