



Nuclear, Missile & Space Digest

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Contents

India

- **India Russia partnership in nuclear energy**
- **India key to strengthening nuclear non-proliferation, says Foreign Secretary at UN**
- **India successfully tests nuclear-capable Shaurya missile**
- **India reiterates No First Use nuclear policy, bats for global elimination of nukes**
- **At UN conference on disarmament, India reiterates commitment to peace, bats for 'no first use' of nukes**
- **APJ Abdul Kalam birth anniversary: Here are five scientific contributions of 'Missile Man'**

China

- **PLA drones support Motuo frontline soldiers in Tibet for first time**
- **Mars probe makes deep-space maneuver**
- **China's Xichang launch center to carry out 10 missions by end of March**
- **China has expanded the shipyard where its nuclear submarines are built, satellite imagery shows**

Pakistan

- **Official acceptance for Pakistan's Chashma 4**
- **Pakistan's nuclear, strategic capability safe, secure: PM Imran**
- **IAEA DG appreciates Pakistan's excellent record on nuclear safety, security**

USA

- **U.S. ICBM to Replace 1970s Minuteman May Cost \$111 Billion**
- **Trump declares mineral supply chain 'national emergency'**
- **PSEG applies for ZEC extension**
- **US DOC, Rosatom finalise uranium agreement, says law firm**
- **Fortum and MIT launch SMR modelling project**
- **Fate of Iran nuclear deal hinges on US election, says Raab**

- **Rosatom and US DOC welcome change to uranium agreement**
- **U.S. imposes new Iran sanctions that may spook European banks**
- **Terrapower selects Bechtel as Sodium reactor partner**
- **Threat from nuclear weapons and missiles has grown since Trump entered office**
- **Romania and USA agree to cooperate in nuclear projects**
- **Terrestrial Energy USA and Centrus Energy Partner on Fuel Supply for IMSR Generation IV Nuclear Plants**
- **Ultra Safe Nuclear looks to deploy microreactors in US by 2026**
- **Micro modular reactors proposed for Idaho and Illinois**
- **US DOE selects advanced reactor designs for demonstration plants**
- **Framatome and GA team up on fast modular reactor**
- **Nuclear arms talks spiral into confusion as Russia rejects US 'delusion'**
- **North Korea's nuclear, missile programs 'serious threat' to security: Pentagon chief**
- **Clean-up of US enrichment complex is completed**
- **U.S. Working to End Chinese Secrecy Around Nuclear Capabilities**

Europe

- **Horizon secures more time for Wylfa planning decision**
- **Ukraine must expand nuclear energy, says President**
- **Ireland faces resistance to "nuclear" COVID-19 lockdown recommendation**
- **UK report highlights benefits of nuclear cogeneration**
- **Romania, U.S. to sign cooperation agreements over nuclear reactors**
- **Hercules tested as France battles Brussels over power giant EDF**
- **Belarusian reactor reaches minimum controlled power, last step before connecting to the grid**
- **Bulgaria to hold talks with U.S. companies over new nuclear reactor**

Russia

- **Russia completes steam generators for Akkuyu and Bangladesh units**
- **Arktika nuclear-powered icebreaker reaches North Pole**
- **Work on Russia's Avangard hypersonic missile continued for over 30 years — designer**
- **Kremlin says no cause for optimism in nuclear arms talks with U.S.**

- **Russian latest nuclear-powered sub passes next stage of trials in White Sea**
- **Using ‘Russia’ card to bait Trump plays into Moscow’s hands — Putin**
- **US wants agreements with Russia to cover all nuclear warheads - Department of State**
- **Senior Russian diplomat, Iranian ambassador discuss Iran nuclear deal**
- **Putin discusses Iran nuclear deal, Karabakh, coronavirus vaccine with Rouhani**
- **Ostrovets plant begins physical start-up**
- **TVEL completes development of modified fuel for Paks**
- **Infrastructure for two more Avangard systems to be ready near Orenburg by yearend**
- **Moscow doesn't see prospects for extending New START nuclear pact with Washington**
- **Russian Navy nuclear-powered sub strikes target with cruise missile in Barents Sea drills**
- **Russian senior diplomat rejects US proposal to freeze nuclear arsenals, extend New START**
- **Russia’s new Doomsday plane to be based on Il-96-400M — source**
- **No 'ironclad' agreements on freezing nuclear arsenals between Russia, US — Kremlin**
- **US claims of Russia’s alleged readiness to freeze nuclear arsenals unscrupulous — Lavrov**
- **ARMZ starts building ISL pilot site at Dobrovolnoye deposit**

West Asia

Iran

- **Tehran dismisses Netanyahu’s UN speech as ‘ridiculous show’**
- **Snapback mechanism ‘not triggered’ against Tehran: UN Security Council president**
- **Rafael Grossi says IAEA carried 400 inspections in Iran last year**
- **Zarif: World must force Israel to destroy its nuclear arsenal**
- **Only JCPOA participants are able to initiate ‘snapback process’: German FM**
- **Cuba warns against U.S. withdrawal from JCPOA, INF**
- **Rouhani dismisses U.S. sanctions as internal ‘political propaganda’**
- **IAEA likely spying on Iran’s nuclear program: MP**
- **EU’s Borrell: JCPOA continues to deliver**
- **Iranian, Russian diplomats discuss nuclear agreement**

- **Iran short of ‘significant quantity’ of material for nukes: IAEA**
- **China slams U.S. double standards on nuclear non-proliferation**
- **Iran’s nuclear chief tests positive for Covid-19**
- **German FM reiterates support for JCPOA**
- **Envoy criticizes IAEA chief over remarks on Iran nuclear program**
- **Envoy criticizes IAEA chief over remarks on Iran nuclear program**
- **JCPOA parties must now formally announce lifting of UN arms embargo: senior MP**
- **Iran urges world to hold Riyadh accountable for covert nuclear work**
- **Rouhani says UN arms embargo on Iran will be lifted by Oct. 18**
- **Ending of Iran arms embargo was ‘a great success’: Vaezi**

Turkey

- **Akkuyu Nuclear Power Plant, Mersin**

Saudi Arabia

- **Saudi Arabia urges world action against Iran**
- **Saudi Cabinet backs Sudan's peace agreement**

Bahrain

- **Bahrain calls for nuclear weapons-free Middle East**

Israel

- **Israel pours gasoline on the fire in Nagorno-Karabakh**

Japan

- **Court increases state liability, compensation for nuclear disaster**
- **Two Hokkaido townships to seek OK to be depots for nuclear waste**

North Korea

- **N. Korea's SLBM to complicate denuclearization efforts: ex-defense official**
- **N. Korea has no intention of giving up nuclear weapons: Bolton**
- **North Korea may show new missiles at weekend military parade**
- **North Korea prepares for military parade despite coronavirus concern; Kim may speak**
- **China's Xi says intends to deepen relations with North Korea: KCNA**
- **North Korea's Kim speaks softly, shows off new military might**
- **Experts divided over NK's missile technology**
- **'Top-down' nuke diplomacy with NK may not continue if Biden wins Nov. election: Ambassador Lee**
- **North Korea's nuclear, missile programs 'serious threat' to security: Pentagon chief**
- **N. Korea upgrades surface-to-air weapons: Air Force chief**

South Korea

- **South Korea's first-ever smart project soon to be in action**
- **Cheong Wa Dae declines to confirm report on nuclear fuel purchase plan**
- **Hanwha, LG eye world's biggest floating solar farm project in Korea**
- **Seoul, Washington differ over OPCON transfer, defense cost-sharing**

Taiwan

- **Taiwan inspects port, tells shippers to follow North Korea sanctions**

Misc

- **CANDU Owners Group, Nuclear Energy Agency to collaborate on PHWRs**
- **UN chief: Completely eliminate nuclear weapons**
- **UN nuclear ban treaty likely to enter force early next year**
- **Rosatom and US DOC welcome change to uranium agreement**
- **IEA and IAEA chiefs stress role of nuclear in climate emergency**
- **IEA report highlights need for 'new momentum' behind nuclear power**
- **Russia, U.S. remain divided over extending last nuclear arms pact**
- **Report studies socioeconomic impacts of plant closures**

Op-Ed

India

- **India reiterates support for abolition of n-weapons**
- **Civil Nuclear Cooperation Through 123 Agreements: A Primer**

China

- **World worries about release of Fukushima nuclear water**

Pakistan

- **Pakistan's peaceful nuclear programme**

USA

- **Why America Should Bring Home Its Nuclear Weapons**
- **The US Should Remove Its Nukes from Europe**
- **Trump thinks 'maximum pressure' will change Iran. History says he's wrong.**
- **Russia's Curious Silence in Nagorno Karabakh: Missing in Action or Biding Its Time?**

West Asia

Iran

- **U.S. foreign policy toward Iran is 'institutionally hegemonic', says professor**
- **'Ties with Iran will be hostile even if U.S. rejoins JCPOA with a Democratic president, Congress'**
- **Mad sanctions**

East Asia

Japan

- **High court pins equal blame on government for nuclear disaster**
- **Japan vows to boost missile defense after North Korea parade**
- **North Korea chooses hard way**
- **N. Korea's only saving course is to scrap its nuclear arms**

Interviews/Reports

- **Vipin Narang on the Global Nuclear Landscape: Hype and Reality**

- **U.S. Department of Energy Announces \$160 Million in First Awards under Advanced Reactor Demonstration Program**
- **Within India, we can make any type of missile that armed forces want: DRDO Chief Satheesh Reddy**
- **It's Time for the United States to Demonstrate Advanced Reactors**

Think Tanks

- **A ReSTART for U.S.-Russian Nuclear Arms Control: Enhancing Security Through Cooperation**
- **Trump's COVID infection shows why it's time to retire the nuclear football**
- **Ensuring Cyber Security in India's Nuclear Systems**

India

India Russia partnership in nuclear energy

Pushpesh Pant

CNBC TV, October 2, 2020

Although the first prime minister of India Jawahar Lal Nehru was a self-proclaimed socialist-inspired during the days of the country's freedom struggle by the transformation of the Soviet Union under a Marxist government, this did not ensure a close and cordial relationship with the USSR after independence. Stalin continued to view Nehru as a leader under the influence of the British and, the policy of non-alignment pursued by India also caused apprehensions in his mind. It was only after his death that there was a thaw in bilateral relations and a period of multi-dimensional economic and technical cooperation began when Khrushchev became the supreme leader.

The USSR stepped in when the Western countries refused or were reluctant to help India with its economic development. The first steel plants (Bhilai), chemical fertiliser factories (Sindri), Heavy Engineering establishment (Haridwar and Bhopal) and units to produce life-saving drugs and vaccines (IDPL in Rishikesh) were set up with Russian assistance. Cooperation covered the strategic needs of India. Not only the USSR became the largest supplier of military hardware to India it happily agreed to transfer technology for the gradual indigenisation of these products. HAL (Bangalore) bears testimony to this mutually beneficial partnership in progress.

<https://www.cnbctv18.com/views/indias-russian-partnership-in-nuclear-energy-7086101.htm>

India key to strengthening nuclear non-proliferation, says Foreign Secretary at UN

The Print, October 3, 2020

India espouses the policy of “no first use” against nuclear weapon states and non-use against non-nuclear-weapon states, adding that New Delhi is a key partner in global efforts towards disarmament and strengthening the non-proliferation order, said Foreign Secretary Harsh Vardhan Shringla on Friday at the United Nations. Speaking at the ‘International Day for the Total Elimination of Nuclear Weapons’, Shringla said, “India accords high priority to the Conference on Disarmament as the world’s single multilateral disarmament negotiating forum and supports the commencement of

negotiations on a Comprehensive Nuclear Weapons Convention.” He further said that India reiterates its longstanding and unwavering commitment to universal, verifiable and non-discriminatory nuclear disarmament leading to complete elimination of nuclear weapons.

India’s approach to nuclear disarmament has encapsulated in its working paper submitted to the United Nations General Assembly (UNGA) First Committee in 2006 and to the Conference on Disarmament in 2007, the Foreign Secretary said. “We believe that nuclear disarmament can be achieved through a step-by-step process underwritten by a universal commitment and an agreed multilateral framework. India remains convinced of the need for meaningful dialogue among all States possessing nuclear weapons, for building trust and confidence,” Shringla said.

<https://theprint.in/india/india-key-to-strengthening-nuclear-non-proliferation-says-foreign-secretary-at-un/515888/>

India successfully tests nuclear-capable Shaurya missile

Debabrata Mohanty and Rahul Singh

Hindustan Times, October 3, 2020

India on Saturday successfully test-fired a new version of the nuclear-capable hypersonic Shaurya missile with a range of 750 kilometres from a defence facility off the Odisha coast on Saturday, officials said. The launch is the latest in a string of recent weapons tests amid military tensions with China in the Ladakh sector.

The launch came three days after India test-fired an extended-range BrahMos surface-to-surface supersonic cruise missile from the Integrated Test Range at Balasore in Odisha. The cruise missile can hit targets 400 kilometres away - its range increased from the existing 290 kilometres. The surface-to-surface medium range Shaurya missile, that can reach speeds of 7.5 Mach (seven and half times the speed of sound), blasted off from a canister from the Abdul Kalam Island test range off Dhamra at about 12.10 pm, the officials said, speaking on the condition of anonymity. There was no official word from the government on the successful launch.

<https://www.hindustantimes.com/india-news/india-successfully-tests-nuclear-capable-shaurya-missile/story-fkYlozVJ5oq1MWO26GOwNN.html>

India reiterates No First Use nuclear policy, bats for global elimination of nukes

Deccan Chronical, October 4, 2020

India on Saturday reiterated its nuclear doctrine of “No First Use” against nuclear weapon states and non-use against non-nuclear weapon states. India also reiterated its commitment to a universal, verifiable and non-discriminatory nuclear disarmament for the complete elimination of nuclear weapons. New Delhi's position was reiterated by Foreign Secretary Harsh Vardhan Shringla at the "High-level Meeting to Commemorate and Promote the International Day for the Total Elimination of Nuclear Weapons".

India's reiteration of its nuclear doctrine is significant, as it comes at a time when the armed forces are on alert at the borders, both at the LoC with Pakistan and the Line of Actual Control (LAC) with China, and also in readiness for any contingency to face a “two-front war”, a euphemism for a hypothetical Sino-Pakistani joint attack on India. Both these neighbours also possess nuclear weapons. Foreign Secretary Shringla said, “India espouses the policy of "No First Use” against nuclear weapon states and non-use against non-nuclear weapon states. India reiterates its long-standing and unwavering commitment to universal, verifiable and non-discriminatory nuclear disarmament leading to the complete elimination of nuclear weapons, in line with the Final Document of the First Special Session of the UN General Assembly on disarmament (SSOD-1).”

<https://www.deccanchronicle.com/nation/current-affairs/041020/india-reiterates-no-first-use-nuclear-policy-bats-for-global-eliminat.html>

At UN conference on disarmament, India reiterates commitment to peace, bats for 'no first use' of nukes

Times Now, October 14, 2020

India, on Wednesday, said that it is committed to no first use of strategic weapons under its nuclear doctrine. Speaking at the Conference on Disarmament, Geneva at 75th Session of First Committee of the United Nations General Assembly, Ambassador & Permanent Representative of India said that its nuclear weapons are meant to maintain a posture of minimum deterrence. "India is committed as per its nuclear doctrine, to maintain credible minimum deterrence with the posture of no-first-use and non-use against non-nuclear-weapon States," India said at the conference.

Expressing concern over the 'illicit transfers of conventional weapons, including small arms and light weapons, in particular to terrorists and non-State actors', India said that 'unravelling of global disarmament architecture and landmark arms control agreements raises deep concerns about edifice built over decades and uncertainties that lay ahead'.

<https://www.timesnownews.com/india/article/at-un-conference-on-disarmament-india-reiterates-commitment-to-peace-bats-for-no-first-use-of-nukes/667360>

APJ Abdul Kalam birth anniversary: Here are five scientific contributions of 'Missile Man'

Free Press, October 15, 2020

From being the people's President to spearheading the development of the most significant Indian missiles, late President Dr APJ Abdul Kalam has contributed to the development of the country in different spheres. As an aerospace scientist, Kalam worked with India's two major space research organisations - Defence Research and Development Organisation (DRDO) and Indian Space Research Organisation (ISRO).

While, his work in the development and operationalisation of Indigenous guided missiles - AGNI and PRITHVI - earned him the title of the 'Missile Man of India,' there are many more ways in which Kalam has helped India in the division of science and technology.

<https://www.freepressjournal.in/india/apj-abdul-kalam-birth-anniversary-here-are-five-scientific-contributions-of-missile-man>

China

PLA drones support Motuo frontline soldiers in Tibet for first time

Global Times, October 4, 2020

The Chinese People's Liberation Army (PLA) ground forces adopted 10 UAVs — or drones — to provide logistic support for the first time to soldiers stationed at the remote Motuo region in Southwest China's Tibet Autonomous Region. China Central Television (CCTV) reported that the 10 drones opened air routes to the four frontlines stations of the PLA Tibet Military Command in Motuo region through satellite positioning, automatic take-off and landing, intelligent cruise and fixed-point delivery.

The stations, located in dense forests of the high mountains, are often hit by landslides and heavy snow, and the soldiers at the stations are PLA's only frontline troops who relied on manpower on foot to transport food. The delivery of the drones ahead of the National Day holiday enabled soldiers to have fresh vegetables, fruit, meat, milk and eggs, and even mooncakes. It used to take 120 soldiers two to three days to transport the supplies to the stations, and soldiers mostly ate dehydrated vegetables and canned food.

<https://www.globaltimes.cn/content/1202698.shtml>

Mars probe makes deep-space maneuver

Zhao Lei

China Daily, October 10, 2020

Mars probe Tianwen 1 is seen in its first selfies in space on Oct 1, 2020. [Photo/Xinhua]

China's Tianwen 1 Mars probe carried out a key in-flight maneuver about 30 million kilometers away from Earth. The deep-space orbital operation began at 11 pm, after the robotic vehicle received signals from ground controllers at the Beijing Aerospace Control Center. Its main engine, which has 3,000 newtons of thrust power, was activated and operated about eight minutes, moving the spacecraft toward a Martian orbit. The spacecraft will continue traveling about four months in an Earth-Mars transfer trajectory toward the red planet and will conduct two to three more orbital corrections before entering Mars' gravitational field, according to the China National Space Administration.

<https://www.chinadaily.com.cn/a/202010/10/WS5f8085f2a31024ad0ba7dbf0.html>

China's Xichang launch center to carry out 10 missions by end of March

Xinhua, October 12, 2020

Southwest China's Xichang Satellite Launch Center will carry out 10 space launches including the Chang'e-5 lunar probe by the end of March next year, a center official said. The center will carry out launch missions twice a month on average, with a minimum interval of five days, said Zhang Xueyu, director of the launch center. The country sent its new optical remote-sensing satellite, the Gaofen-13, into orbit from the center, marking the center's first launch since its ground system was upgraded. To cope with the needs of China's space launches, the center has made great efforts to strengthen sci-tech innovation and shorten project cycles by using domestically developed core technologies, laying the technical foundations for the country's subsequent intensive launch missions.

http://www.xinhuanet.com/english/2020-10/12/c_139435025.htm

China has expanded the shipyard where its nuclear submarines are built, satellite imagery shows

Sarah Zheng

South China Morning Post, October 15, 2020

New satellite analysis has found that China has expanded its capacity for building nuclear-powered submarines at one of its largest shipyards. The US Naval Institute (USNI) news site reported this week that commercial satellite imagery has revealed work on a new construction hall at the Bohai shipyard – a major site for China's nuclear submarine programme – that could make room for two additional submarines to be built simultaneously. The latest hall resembles another one built there in 2015, which is believed to be intended for construction of a new generation of nuclear submarines, according to the report. This could mean the shipyard will have capacity for four or five submarines in the sheds at one time, including room for two more at the new hall and potentially another one at a third, older construction hall.

A rare at-sea look at China's aircraft carrier the Liaoning and fighter jet training Chinese state media have previously said that the Bohai shipyard, located at the Huludao port off the coast of northeastern Liaoning province, was the site where China constructed its Type 096 nuclear ballistic missile submarine and the Type 095 nuclear attack submarine. The USNI report said there were three new classes of submarine that may be built at Bohai, the Type 095, Type 096, and the upgraded Type 093B nuclear-powered attack submarine, which has an increased capacity for cruise missiles. It added that details of the new construction hall at the shipyard were still not fully clear and no new

submarines had yet been seen, so it was still possible that it could be designated for some other purpose.

<https://www.scmp.com/news/china/military/article/3105699/china-has-expanded-shipyard-where-its-nuclear-submarines-are>

Pakistan

Official acceptance for Pakistan's Chashma 4

Nuclear Engineering, October 1, 2020

Unit 4 of the Chashma nuclear power plant in Pakistan has passed its final official acceptance, China National Nuclear Corporation (CNNC) said. CNNC set up video sub-venues at China Zhongyuan Engineering Co's headquarters in Beijing and at the Pakistan Atomic Energy Commission (PAEC) headquarters in Islamabad to enable their participation in the acceptance ceremony.

Chashma 4 is China's fourth overseas nuclear power unit, and is the second of two CNP-300 pressurised water reactor (PWR) units to enter service at the site. Chashma 3 began commercial operation in December 2016. Units 1&2 began operation in 2000 and 2011, respectively. CNNC President Gu Jun said China and Pakistan have maintained a strong partnership in the nuclear power sector since signing an agreement in 1986 to facilitate the transfer of civil nuclear technology. "CNNC will, as always, assist Pakistan in the operation and maintenance of its plants, provide full-life and full-service services, and commit to providing clean, efficient and safe energy to the Pakistani people," he said.

<https://www.neimagazine.com/news/newsofficial-acceptance-for-pakistans-chashma-4-8160000>

Pakistan's nuclear, strategic capability safe, secure: PM Imran

The Express Tribune, October 1, 2020

Prime Minister Imran Khan reiterated that Pakistan's nuclear and strategic capability is safe and secure under robust command and control system. While visiting the Satellite Ground Station of Pakistan Space and Upper Atmosphere Research Commission (SUPARCO), PM Imran said that all available resources would be utilised to further strengthen strategic capabilities to preserve the sovereignty of the country.

The premier assured requisite support for the expansion of space-based services and infrastructure to give impetus to National Space Programme-2047 for socio-economic development. On the occasion, PM Imran was apprised about SUPARCO's achievements in developing indigenous capabilities in space, science and technology, and its contributions towards strengthening national security as well as the socio-economic development of the country.

<https://tribune.com.pk/story/2266472/pakistans-nuclear-strategic-capability-safe-secure-pm-imran>

IAEA DG appreciates Pakistan's excellent record on nuclear safety, security

The Nation, October 6, 2020

Ambassador Aftab Ahmad Khokher presented his credentials as Pakistan's Permanent Representative to the International Atomic Energy Agency (IAEA) to its Director General Rafael Mariano Grossi in Vienna on Monday. Ambassador Khokher and Director General Grossi had a detailed exchange of views on the mutually beneficial cooperation between Pakistan and the IAEA, encompassing the peaceful uses of nuclear technologies in diverse fields including power generation, human and animal health, industry and agriculture.

Director General Grossi appreciated Pakistan's excellent record on nuclear safety and security as well as its cooperation to the Agency in the implementation of its applicable safeguards obligations. Ambassador Khokher presented a cheque of 10,000 Euros to Director General Grossi as Pakistan's contribution to the Agency's Zoonotic Disease Integration Action (ZODIAC) project aimed at preventing, detecting and responding to the outbreak of COVID-19 like Zoonotic diseases.

<https://nation.com.pk/06-Oct-2020/iaea-dg-appreciates-pakistan-s-excellent-record-on-nuclear-safety-security>

USA

U.S. ICBM to Replace 1970s Minuteman May Cost \$111 Billion

Anthony Capaccio

Bloomberg, October 1, 2020

The Pentagon's next generation intercontinental ballistic missile program could cost U.S. taxpayers as much as \$110.6 billion, according to internal Defense Department estimates, adding to a wave of big-ticket nuclear weapons programs slated for the years ahead.

Ellen Lord, the Pentagon's undersecretary for acquisition and sustainment, approved the ICBM program going forward and supported the purchase of 659 missiles -- 25 for initial testing and 634 for silos, spares and later testing, according to a Sept. 21 report obtained by Bloomberg News that was marked "Unclassified/For Official Use Only."

<https://www.bloomberg.com/news/articles/2020-10-01/pentagon-s-next-generation-icbm-program-may-cost-111-billion>

Trump declares mineral supply chain 'national emergency'

World Nuclear News, October 1, 2020

Trump's comments were made in the Executive Order on Addressing the Threat to the Domestic Supply Chain from Reliance on Critical Minerals from Foreign Adversaries that was issued by the White House yesterday and refers to a list of 35 critical minerals drawn up by the Department of the Interior in response to a 2017 executive order by the President. These minerals are identified as: being essential to the economic and national security of the USA; having supply chains that are vulnerable to disruption; and serving "an essential function in the manufacturing of a product, the absence of which would have significant consequences for our economy or our national security". Uranium is one of the minerals on that list. "[A] strong America cannot be dependent on imports from foreign adversaries for the critical minerals that are increasingly necessary to maintain our economic and military strength in the 21st century," Trump said in the Executive Order. The USA imports more than half of its annual consumption of 31 of the 35 listed critical minerals, and has no domestic production at all for 14 them for which it is completely dependent on imports, he said. "Whereas the United States recognises the continued importance of cooperation on supply chain issues with international partners and allies, in many cases, the aggressive economic practices of certain non-market foreign producers of critical minerals have destroyed vital mining and manufacturing jobs in the United States."

"In addition, I find that the United States must broadly enhance its mining and processing capacity, including for minerals not identified as critical minerals and not included within the national emergency declared in this order. By expanding and strengthening domestic mining and processing capacity today, we guard against the possibility of supply chain disruptions and future attempts by our adversaries or strategic competitors to harm our economy and military readiness," he said, also noting the economic benefits from a stronger domestic mining and mineral processing industry which

provides jobs to "hundreds of thousands" of Americans. The President has ordered an investigation, to be led by the Secretary of the Interior, into the USA's "undue reliance on critical minerals ... from foreign adversaries", which must within 60 days submit a report of conclusions and recommendations for executive action, which may include the imposition of tariffs or quotas. He has also issued directions to prioritise the expansion and protection of the domestic supply chain for minerals.

<https://www.world-nuclear-news.org/Articles/Trump-declares-mineral-supply-chain-national-emerg>

PSEG applies for ZEC extension

World Nuclear News, October 2, 2020

New Jersey passed the Zero Emissions Certificate Law in May 2018, enabling the state to recognise and compensate eligible nuclear power plants for their zero-carbon attributes and contribution to fuel diversity. On 18 April 2019, the New Jersey Board of Public Utilities determined that the single-unit Hope Creek and the two units at Salem were eligible to receive ZECs from that date to the end of May 2022. "As a result, New Jersey has continued to benefit from the air quality, fuel diversity and energy resiliency delivered by the plants. PSEG now is applying for a three-year extension of the ZEC program," the company said.

However, since the first ZEC eligibility period began, power markets have deteriorated significantly and the financial needs of New Jersey's nuclear plants have continued to grow. "Once again, revenues are predicted not to cover the costs and risks of running the plants. PSEG has introduced efficiencies at the plants while recognising the mandate of maintaining safe and reliable operations. However, these efficiency gains have not been enough to offset the decline in revenues caused by lower-than-predicted market prices," the company said.

<https://www.world-nuclear-news.org/Articles/PSEG-applies-for-ZEC-extension>

US DOC, Rosatom finalise uranium agreement, says law firm

World Nuclear News, October 6, 2020

Amendments to the agreement include phased reductions of US imports of uranium from Russia as well as the periodic updating of the import quotas. "We were glad to be able to help bring about a successful extension to this important trade agreement on behalf of our client," said Hogan Lovells partner Jared Wessel. "The new agreement will serve as an important backbone for US and Russian uranium trade for the next two decades."

In May this year, a bipartisan group of US Senators called for the DOC to extend the Russian Suspension Agreement, as recommended by the Nuclear Fuel Working Group. In their letter, the senators called for DOC to reduce imports of Russian uranium to below existing limits, which they said will protect the USA's natural uranium fuel supply chain from "aggressive and illegal trade practices of nuclear state-owned enterprises of foreign adversaries".

<https://www.world-nuclear-news.org/Articles/US-DOC-Rosatom-complete-agreement-on-uranium-agree>

Fortum and MIT launch SMR modelling project

World Nuclear News, October 7, 2020

Current SMR designs in the industry feature many new and exciting innovations in the areas of manufacturing, siting and construction, Fortum noted. Gaining a more in-depth understanding of these new features and determining which to focus on will be critical in ensuring the feasibility and success of these projects, it said. "We are excited to start this SMR cooperation project with MIT. They have done extensive work in, for example, identifying the cost drivers of new nuclear," said Konsta Värri, project manager at Fortum. "We hope that making the modelling tool open source will drive the nuclear sector forward and a step closer to making SMRs a reality."

Koroush Shirvan, principal investigator at MIT, added: "SMR's have the potential to reduce the risk to cost overruns by leveraging their smaller and simpler designs. However, reducing risk alone is not enough and they must still provide competitive cost to meet market demands. We hope to explore this relationship between risk and cost within our multidisciplinary team." At MIT, the project will be performed in collaboration between researchers in nuclear science and engineering and the civil and environmental engineering departments.

<https://www.world-nuclear-news.org/Articles/Fortum-and-MIT-launch-SMR-modelling-project>

Fate of Iran nuclear deal hinges on US election, says Raab

World Nuclear News, October 7, 2020

The Joint Comprehensive Plan of Action (JCPOA) is unlikely to be improved or replaced before the US president is sworn in early next year, UK Foreign Secretary Dominic Raab said yesterday. Raab

was responding to questions from the House of Commons foreign affairs select committee in a session held to discuss the work of the newly merged Foreign, Commonwealth & Development Office. Raab said the agreement was not designed to encompass "the wider destabilising activities" of Iran in the Middle East region.

"We've always been open and willing, and indeed pressing, to try and incorporate a bigger agreement. Until we've got scope for that wider agreement, the JCPOA is what we've got. It provides a vehicle for some kind of restraint on Iran although I accept that it has been eroded because of systemic non-compliance and we'd be reluctant to move to something bigger until it is in place." The E3 - France, Germany and the UK - triggered the JCPOA's dispute resolution mechanism in January, following Iran's further steps away from its commitments. In June, the International Atomic Energy Agency (IAEA) adopted a resolution calling on Iran to cooperate fully in implementing its NPT Safeguards Agreement and Additional Protocol. In August, IAEA Director General Rafael Mariano Grossi held talks with Ali Akbar Salehi, the head of the Atomic Energy Organisation of Iran, as well as with President Hassan Rouhani and Foreign Minister Javad Zarif, on access for IAEA inspectors to the country's nuclear sites.

<https://www.world-nuclear-news.org/Articles/Fate-of-Iran-nuclear-deal-hinges-on-US-election,-s>

Rosatom and US DOC welcome change to uranium agreement

World Nuclear News, October 8, 2020

The agreement was set to expire on 31 December this year, which the DOC said would have resulted in "unchecked" imports of Russian uranium, "potentially decimating" the front-end of the nuclear fuel cycle in the USA. Secretary of Commerce Wilbur Ross said: "This landmark agreement will contribute to the revitalisation of [the] American nuclear industry, while promoting America's long-term strategic interests. It represents yet another success for the Trump Administration's America First approach to international trade agreements."

Prior to the amendment, the agreement allowed Russian uranium exports to meet about 20% of US enrichment demand, but now this figure will drop to an average of about 17% over the next 20 years, and will be no higher than 15% starting in 2028. The DOC says that, by extending and reducing the agreement's export limits, the final amendment will enable the US commercial enrichment industry "to compete on fair terms". Previously, the agreement allowed Russia to use its entire export quota for the sale of not only enrichment, but also natural uranium and conversion (a process for converting natural uranium so that it is suitable for enrichment). The amended agreement will allow only a portion of the export quota to be used for the sale of natural uranium and conversion from Russia. On

average, this portion will be equivalent to about 7% of US enrichment demand, and no higher than 5% starting in 2026.

<https://www.world-nuclear-news.org/Articles/Rosatom-and-US-DOC-welcome-change-to-uranium-agree>

U.S. imposes new Iran sanctions that may spook European banks

Daphne Psaledakis, Arshad Mohammed

Reuters, October 9, 2020

The United States on Thursday slapped fresh sanctions on Iran's financial sector, targeting 18 banks in an effort to further choke off Iranian revenues as Washington ramps up pressure on Tehran weeks ahead of the U.S. election. The move freezes any U.S. assets of those blacklisted and generally bars Americans from dealing with them, while extending secondary sanctions to those who do business with them. This means foreign banks risk losing access to the U.S. market and financial system.

The Treasury Department said in a statement the prohibitions did not apply to transactions to sell agricultural commodities, food, medicine or medical devices to Iran, saying it understood the need for humanitarian goods. However, Iranian Foreign Minister Mohammad Javad Zarif accused the United States of targeting Iran's ability to pay for basic necessities during the COVID-19 pandemic.

<https://in.reuters.com/article/us-iran-nuclear-usa-sanctions-idINKBN26T35H>

Terrapower selects Bechtel as Sodium reactor partner

World Nuclear News, October 9, 2020

The storage technology can boost the system's output to 500MWe of power for more than five-and-a-half hours when needed, providing flexibility, and the system supports load following, energy storage and industrial process heat applications. The concept also separates nuclear and non-nuclear facilities and systems within the plant footprint, simplifying the licensing process and lowering construction costs. "Sodium fulfils the industry vision of what a true advanced reactor should be - safer, simpler, easier and less costly to construct, less expensive to operate, and able to provide energy that is competitive with fossil fuels and complementary to solar and wind power," said Barbara Rusinko, president of Bechtel's Nuclear, Security & Environmental global business unit.

The partnership is part of a proposal led by TerraPower for the US Department of Energy's Advanced Reactor Demonstration Program, which was launched in May. The programme aims to speed the demonstration of advanced reactors through cost-shared partnerships with US industry, and will provide USD160 million for initial funding to build two reactors that can be operational within the next five to seven years.

<https://www.world-nuclear-news.org/Articles/Terrapower-selects-Bechtel-as-Natrium-engineering>

Threat from nuclear weapons and missiles has grown since Trump entered office

Paul Sonne

Washington Post, October 12, 2020

North Korea's new road-mobile intercontinental ballistic missile, paraded through the streets of Pyongyang this past weekend, has underscored a worrying reality: The global threat from nuclear weapons and menacing missiles has grown since President Trump entered office, despite his administration's fitful efforts to control them. The unveiling of the untested weapon — which appeared to be a larger version of a North Korean missile that can reach the United States — came less than a week after Russia test launched an anti-ship hypersonic cruise missile on President Vladimir Putin's birthday and a month and a half after China test fired its "carrier killer" and "Guam killer" ballistic missiles into the disputed South China Sea.

The situation presents a broader challenge to the United States. The administration has heralded an era of "great power competition" with China and Russia, resulting in a competitive buildup that arms-control advocates warn is risking a full-blown arms race. Russia is developing nuclear-armed underwater drones, nuclear-powered cruise missiles and other destabilizing weapons designed to penetrate U.S. missile defenses. China is ramping up its missile force and building out its nuclear capabilities with new nuclear submarines. And the United States is modernizing its own arsenal, while adding low-yield nuclear warheads to submarines and enhancing missile defenses. All the while, Iran and North Korea are advancing as threats.

https://www.washingtonpost.com/national-security/nuclear-weapons-trump-arms-race/2020/10/12/1f32e026-041b-11eb-8879-7663b816bfa5_story.html

Romania and USA agree to cooperate in nuclear projects

World Nuclear News, October 12, 2020

The draft agreement was signed in Washington DC on 9 October by US Secretary of Energy Dan Brouillette and Romania's Minister of Economy, Energy and Business Development Virgil Popescu. The Romanian ministry noted this represents an agreement in principle on the text and main elements of the project development and involved parties. It said the draft agreement will now be sent to the European Commission according to the provisions of the Euratom Treaty. In addition to the construction and refurbishment projects at Cernavoda, the agreement calls for cooperation in areas such as regulation, exchanges between research laboratories and universities, staff training, as well as research and development. It also provides for cooperation in the development of small modular reactors in Romania. The US government has expressed its interest in exploring financial institutions to support the funding of these projects.

"Once formally executed, this historic agreement will lay the foundation for Romania to utilise US expertise and technology with a multinational team building reactor units 3 and 4 of the Cernavoda nuclear power plant and refurbishing reactor unit 1," the US Department of Energy (DOE) said. "This agreement underscores the importance of the strategic partnership between the United States and Romania and our mutual commitment to energy security in the region." The USA and Romania will continue to strengthen our bilateral relationship under various multilateral frameworks, DOE said. These include the Partnership for Transatlantic Energy Cooperation (P-TEC) created under the Trump Administration. Under P-TEC, the USA and Romania co-chair a working group on civil nuclear cooperation. "This working group will remain a cornerstone for expanding this strategic and commercial partnership," it said.

"Nuclear energy is crucial to ensuring Romania has a reliable, affordable, and emissions-free supply of electricity, and the US nuclear industry looks forward to providing their expertise to advance this important energy source," said Brouillette. "This agreement between the US and Romania furthers our mutual energy cooperation and will strengthen the energy security of both our nations."

<https://www.world-nuclear-news.org/Articles/Romania-and-USA-agree-to-cooperate-in-nuclear-proj>

Terrestrial Energy USA and Centrus Energy Partner on Fuel Supply for IMSR Generation IV Nuclear Plants

PRN News, October 13, 2020

Terrestrial Energy USA and Centrus Energy Corp. have signed a memorandum of understanding to secure fuel supply for a future fleet of Integral Molten Salt Reactor (IMSR) power plants. The two companies will evaluate the logistical, regulatory, and transportation requirements to establish fuel supply for Integral Molten Salt Reactor (IMSR) power plants, which use standard-assay low-enriched uranium (LEU). Standard-assay LEU has an enrichment level less than 5 percent uranium-235 and is

the current industry standard for today's commercial nuclear plants in the United States and worldwide. While employing Generation IV technology, IMSR power plants are designed to use standard-assay LEU fuel, and this provides important advantages for rapid commercial deployment.

Centrus Energy is a supplier of nuclear fuel and services to the nuclear power industry. In addition to uranium enrichment and standard-assay LEU supply, Centrus Energy has expertise in the design and licensing of packaging for nuclear fuel transportation. As part of a program to establish a supply chain for IMSR fuel, the companies will study the regulatory requirements for transportation from the fuel fabrication facility to the plant. They will also evaluate packaging options for fuel shipment. "Terrestrial Energy's Integral Molten Salt Reactor technology can play a critical role in bringing affordable, reliable, carbon-free next-generation nuclear power to market, and we look forward to helping make that happen," said Daniel B. Poneman, President and CEO of Centrus. "As a trusted fuel supplier to utility customers in the United States and around the world, and a partner to the advanced reactor industry, Centrus is uniquely positioned to assist Terrestrial Energy in establishing an assured fuel supply chain for its innovative reactor design."

<https://www.prnewswire.com/news-releases/terrestrial-energy-usa-and-centrus-energy-partner-on-fuel-supply-for-imsr-generation-iv-nuclear-plants-301150919.html>

Ultra Safe Nuclear looks to deploy microreactors in US by 2026

Nuclear Engineering, October 13, 2020

Seattle-based Ultra Safe Nuclear Corporation (USNC) is proposing to partner with Idaho National Laboratory (INL), the University of Illinois at Urbana-Champaign (UIUC) to deploy its 15MWe high-temperature, gas-cooled Micro Modular Reactors (MMR™) in the US by 2026. The USNC-led team seeks to demonstrate integrated energy systems with renewables and other clean energy technologies at INL, and to provide training and experimental capabilities and heat to UIUC.

The joint proposal to host the microreactors has been put together under the Department of Energy's Advanced Reactor Demonstration Program (ARDP), which seeks a commercial nuclear power plant in 5-7 years. At the University of Illinois the plan is to demonstrate a single MMR operated as a Training, Research and Test Reactor, and to partially re-power the coal-fired Abbott power station by providing district heating and power to the UIUC campus. UIUC plans to develop the first generation of commercial microreactor operators and will also be involved in the MMR design and integration, USNC said.

<https://www.neimagazine.com/news/newsultra-safe-nuclear-looks-to-deploy-microreactors-in-us-by-2026-8178464>

Micro modular reactors proposed for Idaho and Illinois

World Nuclear News, October 13, 2020

The proposals are part of the US Department of Energy's Advanced Reactor Demonstration Program, which aims to accelerate the demonstration of advanced reactors through cost-shared partnerships with US industry. The programme, which was launched in May, will provide USD160 million for initial funding to build two demonstration advanced reactors that can be operational within the next five to seven years. The University of Illinois plans to demonstrate a single MMR, which will be operated as a training, research and test reactor, and will also partially re-power an existing coal-fired power plant, providing carbon-free district heating and power to the UIUC campus. A proposed microreactor power plant - the MMR Energy System - at INL Laboratory would be used to demonstrate integrated energy systems with renewables and other clean energy technologies at INL.

The MMR is a small high-temperature gas-cooled reactor generating 15 or 30 MW (thermal), using USNC's proprietary FCM TRISO (fully ceramic microencapsulated, tristructural isotropic) fuel. Nuclear heat is transferred to a molten salt energy storage unit that decouples the nuclear system from the power conversion system. The MMR Energy System can be used as a standalone power plant or as part of microgrids that include intermittent renewables such as solar or wind, or to provide process heat for co-located industrial applications or hydrogen production. Francesco Venneri, CEO of Seattle-based USNC, said the company's technology and its commercial strategy, based on private investments in multiple projects, will make the MMR affordable and widely available. "Our rapid prototyping will allow the development of the next-generation MMR in the US with its manufacturing eco-system already in place in 2026," he said.

<https://www.world-nuclear-news.org/Articles/Micro-modular-reactors-proposed-for-Idaho-and-Illi>

US DOE selects advanced reactor designs for demonstration plants

World Nuclear News, October 14, 2020

Announcing the awards yesterday, US Energy Secretary Dan Brouillette said: "These awards are a critical first step of a programme that will strengthen our nation's nuclear energy and technological competitiveness abroad, and position our domestic industry for growth, for increased job creation, and for even more investment opportunity. It's absolutely vital that we make progress on this technology now so as to ensure we don't lose market opportunities before access to infrastructure and

supply chains in the United States is lost." The ARDP, which was announced in May, is designed to help the US domestic nuclear industry demonstrate advanced nuclear reactors. The awards are cost-shared partnerships with industry that will deliver two first-of-a-kind advanced reactors to be licensed for commercial operations. In total, DOE will invest about USD3.2 billion over the seven-year period, subject to future appropriations, through matched funding.

Specifically, TerraPower will demonstrate the Sodium sodium-cooled fast reactor, which has been developed in partnership with GE-Hitachi. The high-operating temperature of the Sodium reactor, coupled with thermal energy storage, will allow the plant to provide flexible electricity output that complements variable renewable generation such as wind and solar, DOE said. The project will also establish a new metal fuel fabrication facility scaled to meet the needs of the demonstration programme. X-energy will deliver a commercial four-unit power plant based on its Xe-100 high temperature gas-cooled reactor, which DOE said is "ideally suited" to provide flexible electricity output as well as process heat for a wide range of industrial heat applications, such as desalination and hydrogen production. The project will also deliver a commercial scale TRISO (tristructural isotropic) particle fuel fabrication facility.

<https://www.world-nuclear-news.org/Articles/US-DOE-selects-advanced-reactor-designs-for-demons>

Framatome and GA team up on fast modular reactor

World Nuclear News, October 14, 2020

The FMR will be designed for enhanced safety and ease of operation with fast-response load following and overall high efficiency, General Atomics said. The passively safe gas-cooled FMR will use a non-hazardous helium coolant - a chemically-inert gas that is non-explosive, non-corrosive and does not become activated. Because the reactor is dry-cooled and uses virtually no water to operate, it can be sited nearly anywhere, it said. The power conversion forgoes the use of complex steam generators and pressurisers, and the fuel will operate for approximately nine years before requiring replacement.

The direct helium Brayton cycle enables fast grid response, with up to a 20% per minute power ramping rate for load following, and high overall efficiency of 45% during normal operation. The automatic control of the reactor power and turbomachinery keep the reactor at a constant temperature that mitigates thermal cycle fatigue associated with most load-following reactors. Due to its advanced modular design, the FMR reactor can be built in a factory and assembled on-site, which helps to reduce capital costs and enables incremental capacity additions. Framatome's US engineering team will be responsible for designing several critical structures, systems and components for the FMR.

"This collaboration builds on our long relationship with General Atomics with a shared interest in advancing nuclear energy technologies to create a cleaner world for generations to come," said Framatome CEO Bernard Fontana. "With our experience and expertise in designing reactor systems and components for advanced and small modular reactors, our team is helping to make that vision a reality."

<https://www.world-nuclear-news.org/Articles/Framatome-and-GA-team-up-on-fast-modular-reactor>

Nuclear arms talks spiral into confusion as Russia rejects US 'delusion'

Julian Borger

The Guardian, October 14, 2020

US-Russian nuclear arms control talks have sunk into confusion after the top American negotiator claimed there was "an agreement in principle" between Donald Trump and Vladimir Putin, a claim Moscow quickly rejected as a "delusion". Marshall Billingslea, the US special envoy for arms control, said he had flown to Helsinki on Monday to meet the Russian deputy foreign minister, Sergei Ryabkov, on the understanding that there could be an imminent breakthrough in discussions on whether to extend the 2010 New Start treaty, which limits the number of deployed strategic warheads on either side, and which expires in February.

"We believe that there is an agreement in principle at the highest levels of our two governments. That's why I cut short my trip to Asia and made a beeline for Helsinki when the Russians called and wanted to sit down," Billingslea told a Washington thinktank, in an apparent suggestion that there had been an informal verbal agreement between Trump and Putin.

<https://www.theguardian.com/us-news/2020/oct/13/us-russia-arms-control-talks-new-start-treaty>

North Korea's nuclear, missile programs 'serious threat' to security: Pentagon chief

Reuters, October 14, 2020

U.S. Defense Secretary Mark Esper on Wednesday said North Korea's nuclear and missile programs pose a global threat, after Pyongyang's unveiling of previously unseen intercontinental ballistic missiles at a predawn military parade. The appearance of a new intercontinental ballistic missile (ICBM) during a weekend parade in North Korea captivated many Western analysts. But officials in

South Korea were far more concerned by the display of new multiple launch rocket systems (MLRS) and fast, maneuverable short-range missiles that would be ideal for striking targets in the South.

Speaking before the start of a meeting with South Korean Defense Minister Suh Wook at the Pentagon, Esper said: "We agree that North Korea's nuclear and ballistic missile programs remain a serious threat to the security and stability of the region and the world."

<https://www.reuters.com/article/us-usa-northkorea-southkorea-military-idUSKBN26Z2NT>

Clean-up of US enrichment complex is completed

World Nuclear News, October 14, 2020

Jay Mullis, manager of DOE's Oak Ridge Office of Environmental Management, said it was hard to convey the magnitude of the achievement. "They safely took down hundreds of deteriorated and contaminated structures, some of which were the largest buildings in the world. We've now arrived at the finish line on this marathon effort, and I couldn't be more proud of the skilled, talented men and women who made this accomplishment possible for the first time ever," he said. Uranium enrichment facilities were first built at the site in the 1940s to produce enriched uranium for defence purposes, under the code name K-25. Later renamed the Oak Ridge Gaseous Diffusion Plant, the site expanded and began also producing enriched uranium for the commercial nuclear energy industry and also to explore new enrichment technologies. Operations continued until the mid-1980s, and the site was shut down permanently in 1987. This left hundreds of contaminated facilities that had to be remediated and removed, including five large gaseous diffusion enrichment buildings.

DOE EM drew up plans to clean up the site and transform it into an asset that could generate new economic opportunities for the community, a first-of-a-kind approach within the DOE complex. In 1996, the site was renamed the East Tennessee Technology Park to reflect these plans. The first major structure to be removed - the K-1001 Administration Building - was demolished in 1999.

<https://www.world-nuclear-news.org/Articles/Clean-up-of-US-enrichment-complex-is-completed>

U.S. Working to End Chinese Secrecy Around Nuclear Capabilities

John Grady, October 15, 2020

America's senior arms negotiator said Washington is taking diplomatic and military steps to put an end to Beijing's "great wall of secrecy" that surrounds its rapid and expanding strategic weapons program. Speaking at a Heritage Foundation online forum this week, Marshall Billingslea, senior envoy for arms control, said Xi Jin-ping and the Communist Party leadership are engaged "in a crash nuclear build-up" with the intent of re-establishing China as the Middle Kingdom, the dominant global power. China continues "to hide a dagger in a smile" diplomatically, Billingslea said.

Billingslea contrasted the more than 100-page document the United States has released on nuclear strategy to the five paragraphs China has publicly released on its nuclear program and strategy. He said in prepared remarks and in answers to questions that the United States is willing to engage in nuclear arms talks with Beijing and Moscow to avoid a new nuclear arms race. Billingslea was speaking a little more than a month after the Pentagon released a report saying China has 200 operational nuclear weapons in its stockpile and is driving to at least double that number over the next decade.

Visible proof of Chinese intentions to build up strategic forces came most recently in the two-and-a-half-mile-long parade of cruise and ballistic missiles on Oct. 1. In marking the 70th anniversary of the Communist takeover of China, Xi unveiled a new mobile launched DF-41 intercontinental missile.

<https://news.usni.org/2020/10/15/u-s-working-to-end-chinese-secrecy-around-nuclear-capabilities>

Europe

Horizon secures more time for Wylfa planning decision

World Nuclear News, October 1, 2020

A decision on planning consent for the Wylfa Newydd nuclear power plant project on Anglesey that was due to be made yesterday has been delayed until 31 December, as requested by Horizon Nuclear Power, the UK project developer owned by Japan's Hitachi. Horizon was to develop two UK Advanced Boiling Water Reactor units at the site in North-West Wales, with the intention to contribute to the energy policy of the UK government, as well as maintaining the business foundation that supports the nuclear industry in Japan.

On 16 September, however, Hitachi announced it will end its business operations on the Wylfa project, which it had suspended in January 2019, and Horizon said it would take steps for the "orderly closing down" of all its current development activities. Horizon subsequently wrote to the Department for Business, Energy & Industrial Strategy (BEIS), saying it was now in talks with "third parties". Its two letters to BEIS were published on the Planning Inspectorate's website yesterday.

<https://www.world-nuclear-news.org/Articles/Horizon-secures-more-time-for-Wylfa-planning-decis>

Ukraine must expand nuclear energy, says President

World Nuclear News, October 5, 2020

Zelensky issued a presidential decree on 22 September that orders the government to submit bills concerning the country's nuclear power sector for parliamentary debate. All of Ukraine's 15 nuclear power units - at Rovno, Zaporozhe, South Ukraine and Khmelnytsky - are operated by state-run Energoatom. "We have a strategy for the development of nuclear energy and the completion of nuclear power plants in Ukraine," the President said when asked about the expediency of completing two new units at the Khmelnytsky nuclear power plant. "And after the Khmelnytsky region, we are looking at the Rovno region ... We will definitely do this," he added, noting that nuclear energy is the biggest and cheapest source of electricity in the country.

He dismissed opposition to nuclear energy on safety grounds as baseless. "We understand that if professionals are doing the construction, if the state is working on the safety of nuclear power plants, then there is no threat either to the environment or the climate," he said. "It's a safe form of electricity." Ukraine has the opportunity to be a leader in nuclear power, he said. "In the coming years, many countries will work against nuclear power generation ... We, on the hand, will defend it. We must do this because today we have every opportunity to be among the first [in nuclear energy], both in Europe and in the world."

<https://www.world-nuclear-news.org/Articles/Ukraine-must-expand-nuclear-energy-says-President>

Ireland faces resistance to "nuclear" COVID-19 lockdown recommendation

Reuters, October 5, 2020

Ireland's government faced political and business resistance on Monday to a surprise recommendation by health chiefs for Europe's first major second wave national lockdown to prevent hospitals from being overwhelmed as coronavirus cases rise. The National Public Health Emergency Team called for a leap to the highest level of COVID-19 restrictions, Level 5, late on Sunday, just three days after telling government the current Level 2 status for most of the country was appropriate.

While Ireland reported the highest number of daily cases since late April on Saturday, its 14-day cumulative case total of 104.6 per 100,000 people is only the 14th-highest infection rate out of 31 European countries monitored by the European Centre for Disease Control. The leaders of the three governing coalition partners will meet Ireland's chief medical officer on Monday before cabinet considers the advice.

<https://www.reuters.com/article/us-health-coronavirus-ireland-idUSKBN26Q17C>

UK report highlights benefits of nuclear cogeneration

World Nuclear News, October 8, 2020

Nuclear energy could help the UK achieve net-zero carbon emissions by 2050, not only through the generation of low-carbon electricity but also by fully utilising the generated heat, according to a policy briefing published yesterday by the Royal Society. This heat could be used to heat homes, produce hydrogen and decarbonise industry, it says. The policy briefing - titled Nuclear cogeneration: Civil nuclear energy in a low-carbon future - says the introduction of more intermittent renewable generation, coupled with the need to reduce gas-fired generation, demands greater flexibility from nuclear generation if it is to remain an important part of the UK's energy mix. Cogeneration - where the heat generated by a nuclear power plant is used not only to generate electricity - could be the answer, according to the Royal Society, the UK's national academy of science.

"When domestic energy demand is being met by wind, solar, or other sources, cogeneration allows a nuclear plant to switch from electricity generation to cogeneration applications," the report says. While there are no current nuclear cogeneration projects in the UK, a few nuclear cogeneration facilities already exist in several countries, the paper notes.

<https://world-nuclear-news.org/Articles/Report-highlights-benefits-of-nuclear-cogeneration>

Romania, U.S. to sign cooperation agreements over nuclear reactors

Reuters, October 9, 2020

Romania's economy ministry will sign cooperation and financing agreements with the United States on Friday regarding the construction of two nuclear reactors at its plant on the river Danube, U.S. ambassador Adrian Zuckerman said on Thursday. Romanian state-owned nuclear power producer Nuclearelectrica ended talks with China General Nuclear (CGN) about the construction of the two reactors in June after they had dragged on for six years.

The firm has two 706 megawatt reactors, which account for roughly a fifth of Romania's power production, and it wants to add two more. It also needs to refurbish the first unit.

<https://in.reuters.com/article/us-romania-nuclearelectrica-idINKBN26T3GK>

Hercules tested as France battles Brussels over power giant EDF

Benjamin Mallet

Reuters, October 9, 2020

French plans to ring-fence EDF's nuclear arm from the rest of the power giant have triggered differences between Paris and Brussels over how it should be structured, a source close to the discussions told Reuters. European Commission regulators are reviewing the plans, codenamed "Project Hercules", under which the Paris wants EDF's nuclear power arm ring-fenced, but without an outright split. The differences are clear in a document seen by Reuters which was dated May 6 and carried the letterhead of the APE, which oversees French holdings in state companies including EDF.

<https://in.reuters.com/article/edf-revamp-idINL8N2GZ4Z5>

Belarusian reactor reaches minimum controlled power, last step before connecting to the grid

Charles Digges

Bellona, October 12, 2020

Technicians have achieved a chain reaction in the No 1 reactor of the controversial Belarusian nuclear power plant in Ostrovets, the last step before connecting it to the electrical grid, Russian media have reported. It remained unclear, however, when that step might be taken after a report from Radio Free Europe that said the reactor's commercial launch had been delayed until 2022. Built by Russia's state nuclear corporation Rosatom and financed by Moscow with a \$10 billion loan, the long-running project is opposed by neighboring EU member Lithuania, whose capital, Vilnius, is just 50 kilometers away. Having reached minimum controlled power, the reactor will now undergo a battery of experiments on the neutronic characteristics of the first fuel charge, as well as confirm the operational reliability of the reactor's entire monitoring and safety systems, World Nuclear News reported.

<https://bellona.org/news/nuclear-issues/2020-10-belarusian-reactor-reaches-minimum-controlled-power-last-step-before-connecting-to-the-grid>

Bulgaria to hold talks with U.S. companies over new nuclear reactor

Tsvetelia Tsolova

Reuters, October 14, 2020

Bulgaria's government gave state-owned energy company Bulgarian Energy Holding (BEH) a green light on Wednesday to start talks with U.S. companies on plans to build a new nuclear reactor at its Kozloduy power plant, the energy minister said. Temenuzka Petkova said the Balkan country is looking to build a new reactor to boost energy security and move towards less polluting methods of electricity production in line with the European Union's goal of climate neutrality by 2050.

On Tuesday Prime Minister Boyko Borissov said the new reactor should be based on U.S. technology. "The government gave a mandate to BEH to start negotiations with U.S. companies that develop nuclear technologies to study the options for the building of a new reactor," Petkova said.

<https://www.reuters.com/article/us-bulgaria-nuclear-kozloduy-idUSKBN26Z19I>

Russia

Russia completes steam generators for Akkuyu and Bangladesh units

World Nuclear News, October 2, 2020

Rosatom has completed the delivery of steam generators for the Akkuyu 1 and Rooppur 1 units under construction in Turkey and Bangladesh. The equipment was produced by Atom mash, part of the Volgodonsk branch of Rosatom's engineering subsidiary AEM Technology.

The four steam generators for Akkuyu 1, each weighing 355 tonnes, have been unloaded at the Vostochny Cargo Terminal, which is near the seaport of Mersin in southern Turkey, JSC Akkuyu Nuklear said yesterday. The equipment was dispatched from Volgodonsk on August 22 before starting the 3000 journey by sea. A large Liebherr LR 1800 crawler crane was assembled at the Akkuyu construction site to unload the steam generators from the ship. The Akkuyu plant is expected to generate about 35 terawatt hours of power each year, enough to provide 90% of the annual electricity demand of a large city such as Istanbul, and to meet up to 10% of the electricity needs of the whole of Turkey, which aims to bring unit 1 online in 2023.

<https://www.world-nuclear-news.org/Articles/Russian-completes-steam-generators-for-Akkuyu-and>

Arktika nuclear-powered icebreaker reaches North Pole

TASS News Agency, October 4, 2020

The first nuclear-powered icebreaker Arktika of project 22220 has reached the North Pole during her trials, the Baltic Shipyard said on Saturday. "At 18.00 on October 3, the future flagship of the national nuclear-powered fleet, the Arktika nuclear-powered ship of project 22220 reached the North Pole. During the two-week voyage from St. Petersburg to the city of Murmansk specialists of the builder's team of the Baltic Shipyard (incorporated into the United Shipbuilding Corporation) and the customer's representatives are inspecting the nuclear-powered icebreaker's operation in ice conditions," the statement says.

During her trials, the nuclear ship has hit the ultimate goal by reaching the North Pole. In the near future, the Arktika will sail to Murmansk, where an acceptance report is expected to be signed. A large-scale program to renovate Russia's nuclear-powered icebreakers is part of the Northern Sea Route federal project of the integrated plan of modernization and expansion of trunk infrastructure

<https://tass.com/russia/1208271>

Work on Russia's Avangard hypersonic missile continued for over 30 years — designer

TASS News Agency, October 6, 2020

The Research and Production Association of Machine-Building (now part of Tactical Missiles Corporation) started work on the Avangard hypersonic missile system in 1985 in response to the US Strategic Defense Initiative (SDI), Company Honorary CEO and Honorary Chief Designer Gerbert Yefremov told TASS on Tuesday.

"After all-embracing considerations, the proposal of the Research and Production Association of Machine-Building began to be implemented in 1985," he specified, responding to a question about how and when the work on the Avangard hypersonic missile system proceeded.

The US anti-ballistic missile defense coupled with massively deployed nuclear-tipped strike missiles reinforces the American combat potential. The simultaneous possession of the capabilities for delivering a pre-emptive massive nuclear strike and the systems for intercepting the few remaining enemy missiles becomes destabilizing and inflames tensions in the world, Yefremov said.

<https://tass.com/defense/1209209>

Kremlin says no cause for optimism in nuclear arms talks with U.S.

Reuters, October 7, 2020

The Kremlin said on Wednesday that it saw no cause for optimism in Russia's talks with the United States over extending a major nuclear arms control pact and wanted the negotiations to be more successful. New START, the last major nuclear arms pact between Russia and the United States, is due to expire in February.

<https://in.reuters.com/article/us-russia-usa-nuclear-kremlin/kremlin-says-no-cause-for-optimism-in-nuclear-arms-talks-with-u-s-idUSKBN26S1KY>

Russian latest nuclear-powered sub passes next stage of trials in White Sea

TASS News Agency, October 7, 2020

The crew of the improved Project 885M (Yasen-M) lead nuclear-powered submarine Kazan has wrapped up its next stage of trials in the White Sea, the Northern Fleet's press office reported on Wednesday. "The crew of the nuclear-powered submarine Kazan has completed the next stage of its trials in the White Sea and has arrived in Severodvinsk. In addition to the sea trials in the surface and submerged positions, the submariners practiced the elements of the second special task of the combat training course," the press office said in a statement. The nuclear-powered submarine Kazan's deployment at sea lasted over two weeks. The heavy nuclear-powered underwater cruiser Dmitry Donskoi and the motor vessel David Pashayev provided support for the latest submarine's sea trials at the Northern Fleet's naval ranges, the statement says.

<https://tass.com/defense/1209671>

Using 'Russia' card to bait Trump plays into Moscow's hands — Putin

TASS News Agency, October 7, 2020

The attempts to humiliate US President Donald Trump by accusing him of ties with Russia just play into Moscow's hands and upgrade its status, Russian President Vladimir Putin said in an interview with Rossiya-24 TV channel on Wednesday. "When someone is trying to humiliate or insult the incumbent head of state they anyway elevate you and me and talk about our incredible influence and might. To a certain degree, this plays into our hands," Putin said.

The Russian president stated that Moscow is not interfering in the US election campaign, it is up to voters to make their choice about the candidates. "Voters, in this case US citizens, should evaluate the positions of the candidates running for president of such a great world power, frankly speaking, like the United States," he commented.

<https://tass.com/politics/1209583>

US wants agreements with Russia to cover all nuclear warheads - Department of State

TASS News Agency, October 8, 2020

The United States wants agreements with Russia to apply to all nuclear warheads, a Department of State spokesperson told TASS on Thursday while commenting on the launch of the hypersonic missile Tsirkon. "Our goal is to move beyond the bilateral deals of the past and seek to cover all nuclear warheads. We continue to monitor Russian military activity and missile tests, which inform our arms control and security policies," the official said.

<https://tass.com/world/1210251>

Senior Russian diplomat, Iranian ambassador discuss Iran nuclear deal

TASS News Agency, October 9, 2020

Russian Deputy Foreign Minister Sergei Ryabkov and Iranian Ambassador to Russia Kazem Jalali have discussed at a meeting the situation around the Joint Comprehensive Plan of Action (JCPOA) on Iran's nuclear program, the Russian Foreign Ministry said in a statement on Friday. "[The two sides] exchanged views on the situation around the Joint Comprehensive Plan of Action on the Iranian nuclear program. They highlighted the importance of further coordination of efforts of all its

parties for the sustainable implementation of the agreement in accordance with UN Security Council Resolution 2231," the ministry said.

The sides also discussed some other issues of mutual interest, the Foreign Ministry noted. Iranian Foreign Minister Mohammad Javad Zarif earlier said following talks with Russia's top diplomat Sergey Lavrov that Russia played a key role in preserving the JCPOA. In turn, the Russian foreign minister noted that Tehran continued constructive cooperation with the IAEA within the framework of its obligations.

<https://tass.com/politics/1210603>

Putin discusses Iran nuclear deal, Karabakh, coronavirus vaccine with Rouhani

TASS News Agency, October 10, 2020

Iranian President Hassan Rouhani called Russian President Vladimir Putin on the phone to talk Russia's mediation over Nagorno-Karabakh, the Iran nuclear deal and the prospects of interaction on the Russian Sputnik V coronavirus vaccine, the Kremlin press office reported on Saturday. "The parties discussed the situation around the implementation of the Joint Comprehensive Plan of Action under the Iran nuclear program. The sides noted the importance of keeping in force this agreement vital for international security....," the press office said.

"The parties paid attention to the fight against the spread of the coronavirus infection, in particular, the prospects of interaction on the Russian Sputnik V vaccine," the statement says. The sides also held a detailed exchange of opinions on the situation in the area of the Nagorno-Karabakh conflict, the press office said.

<https://tass.com/politics/1210791>

Ostrovets plant begins physical start-up

World Nuclear News, October 12, 2020

Unit 1 of the nuclear power plant under construction in Belarus has achieved first criticality, Russia's Rosatom announced today. The milestone was reached at 2.26am (local time) on 11 October. First criticality, also referred to as the minimum controlled power level, is reached when neutron flux is recorded in a reactor at a level sufficient to sustain a fission chain reaction. It is considered to be the

final stage of the physical start-up procedure, and enables personnel to verify whether the physical characteristics of the reactor core comply with the design requirements.

Based in Ostrovets, in the Grodno region, this is Belarus' first nuclear power plant. Fuel loading at unit 1, which is equipped with two VVER-1200 reactors, was conducted in August. Rosatom said specialists will conduct more than 50 physical experiments on the neutronic characteristics of the reactor's first fuel charge, as well as confirm the operational reliability of the reactor's entire monitoring and safety systems. The results of these experiments will be passed on to Belarusian nuclear watchdog Gosatomnadzor, whose permission is required for power start-up. If the results are found satisfactory and permission is granted, the unit will then be prepared for power start-up when the reactor power is gradually increased.

<https://www.world-nuclear-news.org/Articles/Ostrovets-plant-begins-physical-start-up>

TVEL completes development of modified fuel for Paks

World Nuclear News, October 13, 2020

TVEL said the full package of documents has been submitted to the Hungarian customer, MVM Paks Ltd, for further licensing of the fuel by the national nuclear power regulator. It said the first fuel assemblies have passed acceptance testing at the Elemash Machine-building plant, a TVEL fuel fabrication facility in Elektrostal, Moscow region. The engineering contract between TVEL and MVM Paks for development of the new VVER-440 fuel was signed in November 2017. The new modification of second-generation VVER-440 fuel enables an increase in the coolant volume inside the reactor core and optimisation of the hydro-uranium ratio, which would have a positive impact on both the technical and economic performance of the power unit, TVEL said.

TVEL noted the project has involved the participation of a number of Russian nuclear industry enterprises, such as OKB Hidropress (part of Rosatom's machine-building division Atomenergomash), Bochvar Institute (TVEL's material science research facility), Elemash Machine-building plant and Kurchatov Institute national research centre. The new fuel passed a range of hydraulic, longevity and vibration tests at the site of OKB Hidropress research and experiment facility. Paks, which has a total installed capacity 1902 MWe, is the only operating nuclear power plant in Hungary. It comprises four VVER-440 reactors that were commissioned between 1982 and 1987. It is currently the only VVER-440 plant in the world operating in extended 15-month fuel cycles. It produces about 15 billion kWh of power annually, which is about half of Hungary's electricity generation.

<https://www.world-nuclear-news.org/Articles/TVEL-completes-development-of-modified-fuel-for-Pa>

Infrastructure for two more Avangard systems to be ready near Orenburg by yearend

TASS News Agency, October 13, 2020

Infrastructure for deploying two more missile systems Avangard will be finalized at the Orenburg strategic missiles force site by the end of the year, Defense Minister Sergei Shoigu said on Tuesday.

"A total of 597 strategic nuclear force-related facilities have been commissioned. Construction projects have been finalized in the Kaluga Region, which allowed for placing two Yars missiles into the silos in September on time. By the end of the year infrastructure will be prepared in the Orenburg Region for putting on combat duty another two Avangard missile systems," Shoigu said at the Defense Ministry's teleconference devoted to the performance of the military-construction complex in 2020. The first missile regiment armed with the hypersonic glide vehicles Avangard entered duty near Orenburg at the end of last year.

<https://tass.com/defense/1211617>

Moscow doesn't see prospects for extending New START nuclear pact with Washington

Reuters, October 14, 2020

Moscow does not see prospects for extending the new START arms control treaty with Washington, but plans to continue talks nonetheless, Russian Foreign Minister Sergei Lavrov said on Wednesday. The New START accord, signed in 2010, limits the number of strategic nuclear warheads that Russia and the United States can deploy. It expires in February next year.

<https://www.reuters.com/article/us-russia-usa-nuclear-idUSKBN26Z1B3>

Russian Navy nuclear-powered sub strikes target with cruise missile in Barents Sea drills

TASS News Agency, October 14, 2020

The crew of the nuclear-powered submarine Oryol struck a target with a Granit anti-ship cruise missile from its submerged position in the Barents Sea, the press office of the Northern Fleet reported on Tuesday. "Today, as part of measures to practice planned combat training assignments for the summer training period, the crew of the Northern Fleet's nuclear-powered missile-carrying underwater cruiser Oryol fired a Granit anti-ship cruise missile against a naval target at the Fleet's combat training ranges in the Barents Sea. The fire was conducted from the submerged position against the target that simulated a notional enemy's large surface ship. The target was located at a distance of over 120 km from the missile launch site," the press office said in a statement.

The missile firing was successful and the target that was struck was examined from the air by the crew of an Il-38 anti-submarine warfare plane of a separate composite air regiment of the Northern Fleet's Air Force and Air Defense Army and the command noted high professionalism and naval skills of the crew of the nuclear-powered submarine Oryol, the press office specified. The area of missile firings was closed for shipping and air flights in advance. Ships of the Kola Flotilla of All-Arms Forces sealed off the area for the drills, the statement says.

<https://tass.com/defense/1211853>

Russian senior diplomat rejects US proposal to freeze nuclear arsenals, extend New START

TASS News Agency, October 14, 2020

Russian Deputy Foreign Minister Sergei Ryabkov described as inadmissible Washington's proposal to freeze Russian and US nuclear arsenals at the current level in exchange for extending the Russian-US New START treaty on further reduction of strategic offensive weapons. "This is an unacceptable proposal," the diplomat said, answering to a TASS request to comment on the initiative, voiced earlier in the day by US Special Presidential Envoy for Arms Control Marshall Billingslea.

Speaking at a video conference, organized by the Heritage Foundation on Tuesday, Billingslea said his country was ready to extend the New START if both states agree to a limitation or freeze of their nuclear arsenals. "We are, in fact, willing to extend the New START Treaty for some period of time, provided that they, in return, agree to a limitation or freeze on their nuclear arsenal. We are willing to do the same," he said. "We have proposed a compromise: agree with us to freeze, and we will extend the New START for some period of time."

<https://tass.com/politics/1211901>

Russia's new Doomsday plane to be based on Il-96-400M — source

TASS News Agency, October 14, 2020

Russia's new Airborne Command Post, also known as the Doomsday plane, will be built on the basis of an Il-96-400M quadjet long-haul wide-body airliner, an aircraft industry source told TASS. Currently, an Il-80 plane is used for the purpose. "It is scheduled to replace it with an Il-96-400M. It will allow to significantly increase the period of airborne combat duty and to extend the radius for troop command," he said. Airborne Command Posts were nicknamed Doomsday planes in the United States, as they are designed for use in the event of a nuclear war or a major disaster that destroys ground-based command infrastructure.

<https://tass.com/defense/1211919>

No 'ironclad' agreements on freezing nuclear arsenals between Russia, US — Kremlin

TASS News Agency, October 14, 2020

Both Russia and the US understand the necessity to extend the Strategic Arms Reduction Treaty (New START) but there are no "ironclad" agreements in this regard between the sides, Kremlin Spokesman Dmitry Peskov told journalists on Wednesday. "There are contacts on this issue at the expert level and at the high level. At the same time we are not talking about reaching any clear agreements. We wouldn't say right now that there are any ironclad agreements," the spokesman said, commenting on the US initiative to extend the New START on the condition of temporary mutual freezing of nuclear arsenals.

However, the spokesman stressed that if one talks about the understanding of the necessity to extend the New START, the Kremlin hopes that in this respect the sides are on the same page. "We understand that it needs to be extended. It is both in the interests of our two countries and in the interests of strategic security of the entire world. But for the rest, the agreements weren't reached," he stated. Earlier, US Special Presidential Envoy for Arms Control Marshall Billingslea stated that the US is ready to extend the New START with Russia on the condition of a temporary freeze of the volumes of nuclear arsenals of both countries. According to him, Washington is ready to enter this treaty as early as "tomorrow," "but Moscow is going to have to show the political will to do so as well."

<https://tass.com/politics/1212081>

US claims of Russia's alleged readiness to freeze nuclear arsenals unscrupulous — Lavrov

TASS News Agency, October 14, 2020

Claims made by US Presidential Envoy for Arms Control Marshall Billingslea regarding the alleged Russian readiness to freeze the nuclear arsenals are unscrupulous, Russian Foreign Minister Sergey Lavrov said in his interview for Russian media Wednesday. "Recently, the [US] envoy stated that, hey, Russia supported us, we [the US] approach an agreement ahead of the presidential election in the US to freeze all nuclear warheads and Russia is keen on China joining it. Listen, this is unscrupulous," Lavrov said.

He pointed out that the US would like to count all nuclear warheads and return to strict verification measures as well as to force Russia to persuade China to join the talks, before the agreement is reached.

<https://tass.com/politics/1212131>

ARMZ starts building ISL pilot site at Dobrovolnoye deposit

World Nuclear News, October 15, 2020

Rusburmash has completed geophysical surveys at the Dobrovolnoye uranium deposit in the Zverinogolovsky district of the Kurgan region of Russia and JSC Dalur has now started the construction of a pilot site for in-situ leaching of uranium there. Rusburmash is a geological exploration and drilling subsidiary of ARMZ, the uranium mining division of state nuclear corporation Rosatom. JSC Dalur, another ARMZ subsidiary, received a permit for the project in June 2017, and ARMZ announced in November last year that Rusburmash planned to drill 238 wells at the site. ARMZ said this week that 218 wells had been drilled.

Dinis Ezhurov, general director of Rusburmash, said in the ARMZ statement that the drilling technique used and the subsequent "abandonment" of exploration wells preserve the "original integrity" of the geological massif and minimise the impact of drilling on the environment. The surveys revealed the characteristics and boundaries of the ore body, and the uranium content, ARMZ said, and the "industrial value" of the deposit, as well as the efficiency and environmental safety of its development using in-situ leaching were confirmed. Nikolay Poponin, general director of Dalur JSC, said the scale of the Dobrovolnoye deposit is comparable to the Dalmatovskoye field, which the company has been developing since 1984. Production work at the Zverinogolovsky district will create more than 300 new jobs and provide the nuclear industry with uranium "for several decades",

he said. The deposit is of the strip type and the total length of uranium mineralisation is about 18km, he added.

<https://www.world-nuclear-news.org/Articles/ARMZ-starts-building-ISL-pilot-site-at-Dobrovolnoy>

West Asia

Iran

Tehran dismisses Netanyahu's UN speech as 'ridiculous show'

Tehran Times, October 2, 2020

Foreign Ministry spokesman Saeed Khatibzadeh has mocked the Israeli prime minister's speech at the UN General Assembly as a "ridiculous show" which intended to deceive people, saying the Zionist regime is the greatest threat to world peace. Israeli Prime Minister Benjamin Netanyahu claimed on Tuesday that Iran poses the greatest threat to peace in West Asia. He accused the Islamic Republic of attacking its neighbors and fomenting violence in the region. In his speech, the Israeli prime minister also lauded U.S. President Donald Trump for leaving the 2015 Iran nuclear deal and reimposing the sanctions that had been lifted against Tehran under the pact. He also lashed out at the UN Security Council for refusing to extend an arms embargo on Iran. The Israeli premier also claimed that Iran was seeking nuclear weapons.

Asked by reporters about Netanyahu's speech, Khatibzadeh described the remarks as a new act in a serial of puppet shows that originate from Netanyahu's conspiratorial mind and from the counter-intelligence campaign run by the Zionist regime's espionage services. "The prime minister of the fake, usurper and child-murdering Zionist regime continues to tell lies by taking the podium at international circles, and is trying to deceive public opinion and the global circles with ridiculous shows in order to prevent trial of the regime's criminal leaders at the international courts," Khatibzadeh said on Wednesday, according to the Foreign Ministry website. The spokesman added that the Zionist regime's nature is based on occupation, deception and racism. He further condemned the Zionist regime as the greatest global threat to peace and security given its stockpile of hundreds of nuclear warheads.

<https://www.tehrantimes.com/news/453126/Tehran-dismisses-Netanyahu-s-UN-speech-as-ridiculous-show>

Snapback mechanism ‘not triggered’ against Tehran: UN Security Council president

Tehran Times, October 2, 2020

Russian Ambassador to the UN Vassily Nebenzia says contrary to the United States’ claim, the “snapback” mechanism on sanctions against Tehran has not been triggered. “On the snapback, I think everything is clear. The snapback has not happened,” Nebenzia, in his capacity as president of the Security Council for the month of October, said on Thursday. According to Xinhuanet, the Russian envoy said the UN Security Council spoke about the issue unequivocally, “Nearly all council members sent letters to the president of the Security Council in August, stating their position that they did not share the view of the United States and that they believed Security Council Resolution 2231, which endorsed the Iran nuclear deal, stays intact,” he stated.

“So we are living in a situation of no snapback, of the full implementation of Resolution 2231. I understand that the U.S. themselves understand it, and they simply use that situation in order to go with their own unilateral sanctions on Iran, to continue their policy of maximum pressure on that country,” Vassily Nebenzia said. The council members' position was confirmed in the presidential resume of the discussion at the end of August during the Indonesian presidency of the Security Council, and later confirmed by the Nigerien presidency, said Nebenzia. After the so-called snapback grace period expired on September 19, the U.S. announced that the snapback now is in force, he said, adding, “The same countries reaffirmed their position, sending letters to the Security Council president and the UN secretary-general, saying that in their view, the snapback is wishful thinking of the United States.” “So we are living in a situation of no snapback, of the full implementation of Resolution 2231. I understand that the U.S. themselves understand it, and they simply use that situation in order to go with their own unilateral sanctions on Iran, to continue their policy of maximum pressure on that country,” he said.

<https://www.tehrantimes.com/news/453128/Snapback-mechanism-not-triggered-against-Tehran-UN-Security>

Rafael Grossi says IAEA carried 400 inspections in Iran last year

Tehran Times, October 2, 2020

Rafael Grossi, the head of the International Atomic Energy Agency (IAEA), has said that the UN watchdog carried out more than 400 inspections in Iran last year. "We carried out more than 400 inspections in Iran last year," Grossi said in an interview with Der Spiegel published on September 30. The IAEA chief underlined that Iran demonstrated a “remarkable consistency” in its nuclear program over the past two decades. He said the IAEA inspectors are always in Iran, 365 days a year. On some claims that Iran would only need three and a half months to produce the uranium for a

bomb, Grossi said, "We have determined that Iran has more enriched uranium today than it did two years ago. On the other hand, the quantities are still much smaller than in 2015, when the Iran deal was agreed to."

"I respect these analyses, although I do not necessarily agree," he added, according to the Mehr news agency. "We must be watchful, there's no question about that. It is just as important to see things in perspective: Even if you have the necessary amount of uranium, that does not mean that you can immediately build a nuclear weapon," he noted. He continued, "[Iran's nuclear] activity did decrease after the signing of the nuclear deal. But it never stopped completely. This is in no way unusual for a country that has signed the Non-Proliferation Treaty, provided we exercise our control function. The Iranian nuclear program is highly sophisticated, with a nuclear power plant for which there are plans to expand, research laboratories, and enrichment facilities. That's why we have such a vast inspection regime." On whether the JCPOA, the official name for the 2015 nuclear deal, is dead or not, the IAEA chief said, "It is very much alive for the countries that are adhering to it. Germany, France, Britain, Russia, China, and Iran have made clear that they find the agreement enormously important. There is a dispute because three Western countries claim Iran is violating it. Iran, in turn, is complaining of misconduct on the part of the other side. No one is doing anything - everyone wants us to continue with inspections."

<https://www.tehrantimes.com/news/453144/Rafael-Grossi-says-IAEA-carried-400-inspections-in-Iran-last>

Zarif: World must force Israel to destroy its nuclear arsenal

Tehran Times, October 3, 2020

Foreign Minister Mohammad Javad Zarif has said the international community must compel Israel—which has aggression in its very DNA—to promptly accede to the NPT and destroy its nuclear arsenal. "Given its six decades of deception and clandestine development of nuclear weapons, it (Israel) must be compelled to submit to the most intrusive inspection regime that law-abiding members of the NPT observe," Zarif said at the Virtual Meeting of the International Day for the Total Elimination of Nuclear Weapons. The 75th high-level plenary meeting was attended by nearly 100 foreign ministers to commemorate and promote the International Day for the Total Elimination of Nuclear Weapons. "75 years after the U.S. dropped atomic bombs on innocent civilians in Hiroshima and Nagasaki—the first and only use of such horrific weapons—this meeting provides a unique opportunity to mobilize the world to liberate humanity from the nuclear nightmare," Zarif suggested.

"25 years after the NPT Review and Extension Conference called for reduced reliance on nuclear weapons and the ICJ ordered good faith efforts towards nuclear disarmament, the U.S. is developing

new nuclear weapons and recklessly lowering the threshold of their deployment. It has further caused immense damage to the NPT by unlawfully withdrawing from the INF and the JCPOA,” he added.

<https://www.tehrantimes.com/news/453152/Zarif-World-must-force-Israel-to-destroy-its-nuclear-arsenal>

Only JCPOA participants are able to initiate ‘snapback process’: German FM

Tehran Times, October 4, 2020

German Foreign Minister Heiko Maas has rejected the U.S. move to initiate the so-called snapback of sanctions on Iran, saying only participants to the Joint Comprehensive Plan of Action (JCPOA) are able to initiate the process. “Our position on snapback is very clear: Only JCPOA participants may notify the UN Security Council of significant non-performance of commitments under the JCPOA by Iran,” Maas told the New Arab in an interview published on Sunday. “The U.S. left the agreement in 2018 and therefore no longer has a right to initiate the process called ‘snapback’,” the German foreign minister said. He also mentioned the new sanctions imposed by the U.S. on Iran and expressed Germany’s view in that regard. “We also decided not to join its ‘maximum pressure’ campaign.”

EU sanctions against Iran remain lifted to the extent required under the JCPOA, the Germany foreign minister said, adding that this also means that the EU arms embargo remains in force until 2023.

<https://www.tehrantimes.com/news/453209/Only-JCPOA-participants-are-able-to-initiate-snapback-process>

Cuba warns against U.S. withdrawal from JCPOA, INF

Tehran Times, October 4, 2020

Cuban Foreign Minister Bruno Rodriguez has warned about the consequences of the U.S. government’s withdrawal from the Iran nuclear deal- JCPOA - and the Intermediate-Range Nuclear Forces Treaty (INF) with Russia. In a video message to the UN General Assembly to commemorate and promote the International Day for the Total Elimination of Nuclear Weapons on Friday, Rodriguez strongly condemned the U.S. pullout from the two agreements, Press TV reported. He warned that such unilateral actions will have serious repercussions for stability and security of the world.

Rodriguez also warned about the U.S.'s warmongering which runs counter to international efforts aimed to materialize nuclear disarmament. He said the U.S. continues to possess the largest number of nuclear weapons available to be used and is the only country in the world that has dropped two atomic bombs. The Cuban foreign minister explained that 75 years after the criminal bombings of Hiroshima and Nagasaki, there are approximately 13,400 nuclear weapons, of which nearly 1,800 are on operational alert and 3,720 deployed, more than half of these belonging to the United States. The UN cannot remain impassive in the face of the U.S. nuclear stance review, he said. Rodriguez also urged the United States to renew its Strategic Arms Reduction Treaty (START) with Russia.

<https://www.tehrantimes.com/news/453205/Cuba-warns-against-U-S-withdrawal-from-JCPOA-INF>

Rouhani dismisses U.S. sanctions as internal 'political propaganda'

Tehran Times, October 9, 2020

In his first response to the new sanctions the U.S. imposed on Iran on Thursday, President Hassan Rouhani said these sanctions were imposed to serve political goals in the United States. "The measures of the U.S. administration are taken within the purview of propaganda and political efforts which are meant to serve their internal goals," the president was quoted by the presidential website as saying on Friday, adding that the Americans cannot break the resistance of the Iranian people through making troubles in the path of medicines and food supply. Rouhani made the remarks in a conversation with Abdolnasser Hemmati, the governor of the Central Bank of Iran.

The U.S. Treasury Department slapped new sanctions on Iran, targeting "eighteen major Iranian banks." Under the new sanctions, "all property and interests in property of designated targets that are in the United States or in the possession or control of U.S. persons must be blocked and reported to OFAC. OFAC's regulations generally prohibit all dealings by U.S. persons or within the United States (including transactions transiting the United States) that involve any property or interests in property of blocked or designated persons," according to a Treasury statement. U.S. Secretary of Treasury Steven Mnuchin said the restrictions were meant to sever Iran's ties with the global financial system.

According to Rouhani, the new sanctions came in continuation of the U.S. "strategic mistake" in withdrawing from the 2015 nuclear deal, officially known as the Joint Comprehensive Plan of Action (JCPOA). "The U.S. administration mistakenly believed that these sanctions will break the resistance of Iran and get us into trouble. But as time passed it became clear that this analysis was very far from reality and thus didn't work," he stated. The president pointed out that the U.S. will face defeat every time they repeat their strategic mistakes.

<https://www.tehrantimes.com/news/453363/Rouhani-dismisses-U-S-sanctions-as-internal-political-propaganda>

IAEA likely spying on Iran's nuclear program: MP

Tehran Times, October 9, 2020

Zohreh Elahian, a member of the Parliament's National Security and Foreign Policy Committee, has said the "unrestricted inspections" of Iran's nuclear facilities are unacceptable to the Parliament given the continuation of sanctions on the country. "The International Atomic Energy Agency's inspections and inspections of nuclear facilities have been conducted in the past and every time the Agency's inspectors conduct inspections they raise new issues and claims," Elahian told the Islamic Consultative Assembly News Agency (ICANA). The lawmaker also implied that the IAEA is likely to spy on Iran's nuclear program, saying after every round of inspections, IAEA inspectors raise new "excuses."

"We can raise the possibility of providing and leaking this information during inspections at the Natanz facility," she said. In early July, a mysterious explosion shook the facility. In August, Behrouz Kamalvandi, the spokesman for the Atomic Energy Agency Organization of Iran (AEOI), announced that the explosion that occurred at the Natanz nuclear facility on July 2 was an "act of sabotage". "Security investigations confirm the sabotage [nature] of this action and what is certain is that an explosion took place in Natanz," Kamalvandi said. Elahian said IAEA's continued access to Iran's nuclear facilities is unacceptable and should be reconsidered. "Unrestricted and continuous access of the International Atomic Energy Agency inspectors to our nuclear facilities is an issue that is not accepted by the Parliament at all," noted the female lawmaker, adding that there is a need to reconsider the access Iran gives to the IAEA inspectors.

<https://www.tehrantimes.com/news/453362/IAEA-likely-spying-on-Iran-s-nuclear-program-MP>

EU's Borrell: JCPOA continues to deliver

Tehran Times, October 9, 2020

European Union foreign policy chief Josep Borrell has reiterated his support for the 2015 nuclear deal (JCPOA), saying the agreement continues to deliver in spite of the U.S. withdrawal. "I want to be clear: As Coordinator – because the High Representative acts as coordinator of the JCPOA – I will continue to do everything possible to ensure the preservation and full implementation of the nuclear deal by all parties," Borrell said on Wednesday at the European Parliament plenary debate on Iran. "Here I want to be very clear also, once more: bringing back these (UN) sanctions would have meant

the end of the JCPOA. 13 members of the Security Council, including all European members, rejected this approach and underlined the importance to keep the agreement in place – this way supporting the understanding that the U.S. is no longer part of the JCPOA because they freely decided to withdraw from it,” Borrell stated.

“I think that this achievement of the European Diplomacy, which took a lot (of) efforts from a lot of people, from Javier Solana (former High Representative for the Common Foreign and Security Policy and Secretary General of the Council of the European Union) to Ms. Federica Mogherini (former High Representative of the Union for Foreign Affairs and Security Policy and Vice-President of the European Commission), deserves to be preserved,” he insisted. Borrell also underlined that the Islamic Republic is the most monitored country in the world by the International Atomic Energy Agency (IAEA) with now almost 400 inspections per year. Pointing to the United States’ efforts to bring back UN sanctions against Iran, he said such approach was rejected by almost all UN Security Council member states and thus all sanctions lifting commitments under the agreement remain in place.

<https://www.tehrantimes.com/news/453357/EU-s-Borrell-JCPOA-continues-to-deliver>

Iranian, Russian diplomats discuss nuclear agreement

Tehran Times, October 10, 2020

Iranian ambassador to Moscow Kazem Jalali and Russian Deputy Foreign Minister Sergei Ryabkov have met to discuss the latest developments surrounding the 2015 Iran nuclear deal, officially known as the Joint Comprehensive Plan of Action (JCPOA). “(The two sides) exchanged views on the situation around the Joint Comprehensive Plan of Action on the Iranian nuclear program. They highlighted the importance of further coordination of efforts of all its parties for the sustainable implementation of the agreement in accordance with UN Security Council Resolution 2231,” the Russian Foreign Ministry said in a statement on Friday, Tass reported. The two sides also discussed some other issues of mutual interest, the statement said.

In 2015, Iran signed the JCPOA with China, France, Germany, Russia, the United Kingdom, the United States, Germany and the European Union. It required Iran to scale back its nuclear program and severely downgrade its uranium reserves in exchange for termination of sanctions, including lifting the arms embargo five years after the deal’s adoption. In 2018, the United States abandoned its conciliatory stance on Iran, withdrawing from the JCPOA and implementing hardline policies against Tehran. Following the U.S. withdrawal, Russia and China strongly opposed the U.S. unilateral measures against Iran and supported efforts to preserve the JCPOA.

<https://www.tehrantimes.com/news/453402/Iranian-Russian-diplomats-discuss-nuclear-agreement>

Iran short of ‘significant quantity’ of material for nukes: IAEA

Tehran Times, October 11, 2020

International Atomic Energy Agency (IAEA) chief Rafael Grossi has said Iran is not in possession of enough enriched uranium to develop nuclear weapons. “The Iranians continue to enrich uranium, and to a much higher degree than they have committed themselves to. And this amount is growing by the month,” Grossi said in an interview with Austrian paper Die Presse published on Saturday, Reuters reported. Asked about Iran’s “breakout” time — the period it would take to produce enough nuclear material for one weapon — he said, “In the IAEA we do not talk about breakout time. We look at the significant quantity, the minimum amount of enriched uranium or plutonium needed to make an atomic bomb. Iran does not have this significant quantity at the moment.”

The Islamic Republic has repeatedly said that it has never sought and will never seek to build nuclear weapons. The decision, Tehran says, is based on a fatwa (religious decree) issued by Leader of the Islamic Revolution Ayatollah Ali Khamenei. The fatwa bans the production, possession and stockpiling of nuclear weapons and other weapons of mass destruction. Iran has also signed the nuclear Non-Proliferation Treaty (NPT) — whose aim is to prevent the spread of nuclear arms and weapons technology — in July 1968 and ratified it in February 1970. In order to address the commotion created by the United States and its allies over the Islamic Republic’s nuclear program, Tehran signed a nuclear deal with six world powers in 2015. Under the deal, Iran agreed to limit its nuclear activities in exchange for a lifting of sanctions. Iran is currently enriching uranium to up to 4.5% purity, far below the 20% it achieved before the deal and the 90% that is considered weapons-grade.

<https://www.tehrantimes.com/news/453424/Iran-short-of-significant-quantity-of-material-for-nukes-IAE>

China slams U.S. double standards on nuclear non-proliferation

Tehran Times, October 11, 2020

The deputy permanent representative of the People’s Republic of China to the United Nations says the United States follows double standards on nuclear non-proliferation, especially with regard to the Iranian and Korean nuclear issues “The U.S. is pushing political maneuvering,” Ambassador Geng Shuang said during the First Committee of the 75th session of the United Nations General Assembly on October 9. “The U.S. follows double standards on nuclear non-proliferation, abuses unilateral

sanctions, and serves its geopolitical agenda by using the hot-spot issues such as the Iranian nuclear issue and the Korean nuclear issue,” he said, according to the Global Times.

He pointed out that the U.S. has been upgrading its nuclear arsenals, and lowering the threshold for nuclear weapons use. “It has dodged its special responsibility for nuclear disarmament with the pretext of so-called trilateral negotiations, and even had discussions on resuming nuclear test,” the envoy added. He also criticized Washington’s pursuit of unilateralism, saying the U.S. withdrew from the INF Treaty and the JCPOA, unsigned the ATT, and adopted a negative attitude towards the extension of the New START Treaty, exposing its pure pragmatism on bilateral and multilateral arms control treaties and regimes.

<https://www.tehrantimes.com/news/453445/China-slams-U-S-double-standards-on-nuclear-non-proliferation>

Iran’s nuclear chief tests positive for Covid-19

Tehran Times, October 11, 2020

Ali Akbar Salehi, the head of the Atomic Energy Organization of Iran (AEOI), has tested positive for Covid-19, AEOI spokesman Behrouz Kamalvandi announced. Salehi is the latest in a series of Iranian officials contracting the novel coronavirus, including the spokesman for the Iranian government, Ali Rabieci. “The general condition of Mr. Salehi is good and he is staying home,” Kamalvandi told the Iranian Students’ News Agency (ISNA) on Sunday, adding that the nuclear chief has been infected with the coronavirus. The public relations office of the AEOI also said in a statement that Salehi has contracted Covid-19 since at least early October.

“Ali Akbar Salehi, the head of the Atomic Energy Organization, tested positive for Covid-19 on October 3, and he is in a home quarantine getting some rest according to medical advice,” the AEOI’s public relations office told ISNA. “Fortunately, he is currently feeling well and following up on the organization issues,” the statement added. Salehi’s Covid-19 infection comes against a backdrop of a new wave of Covid-19 infections in Iran, with the Health Ministry reporting a record high number of daily coronavirus deaths. Sima-Sadat Lari, Iran’s Health Ministry spokeswoman, announced 251 new Covid-19 deaths over the past 24 hours, the highest daily number ever reported by Iran. The spokeswoman also reported 3,822 new Covid-19 cases, raising the total number to 500,075.

<https://www.tehrantimes.com/news/453454/Iran-s-nuclear-chief-tests-positive-for-Covid-19>

German FM reiterates support for JCPOA

Tehran Times, October 12, 2020

German Foreign Minister Heiko Maas once again underlined the need to preserve a 2015 nuclear deal between Iran and world powers, calling on Iran to implement its commitments under the deal. In an interview with the Asharq Al-Awsat newspaper, the German foreign minister pointed out that the nuclear deal, officially known as the Joint Comprehensive Plan of Action (JCPOA), is the only mechanism to keep Iran's nuclear program under watch. "The Vienna Nuclear Agreement is the only mechanism available to us to contain the Iranian nuclear program and keep it under watch. As the control and rules of transparency set by the International Atomic Energy Agency are the most comprehensive in the world. Preserving this is in our common European and international security interest, as well as in the interests of stability and security in the Middle East [West Asia]," Maas asserted.

He added, "However, this will only be possible if Iran fulfills its responsibilities and finally continues to implement its commitments under the JCPOA without restrictions. We strongly advocate that." The chief German diplomat was responding to a question on the latest developments concerning the Iran nuclear deal. He also touched on Germany's position on Iran's activities in the Persian Gulf region, saying that Germany keeps a watchful eye on these activities.

<https://www.tehrantimes.com/news/453490/German-FM-reiterates-support-for-JCPOA>

Envoy criticizes IAEA chief over remarks on Iran nuclear program

Tehran Times, October 12, 2020

Iran's ambassador and permanent representative to the Vienna-based international organizations has criticized the head of the International Atomic Energy Agency (IAEA) for using irrelevant terms in his remarks on Iran's nuclear program, saying such terms have no place in the IAEA's documents. "Drawing self-made criteria such as 'breakout' and 'significant quantity' for countries which are enriching uranium under the IAEA's surveillance is non-relevant and has no status in the IAEA legal documents," Kazem Gharibabadi stated on Sunday. The remarks came after IAEA chief Rafael Grossi has said Iran is not in possession of enough enriched uranium to develop nuclear weapons. "The Iranians continue to enrich uranium, and to a much higher degree than they have committed themselves to. And this amount is growing by the month," Grossi said in an interview with Austrian paper Die Presse published on Saturday, Reuters reported.

Asked about Iran's "breakout" time — the period it would take to produce enough nuclear material for one weapon — Grossi said, "In the IAEA we do not talk about breakout time. We look at the significant quantity, the minimum amount of enriched uranium or plutonium needed to make an atomic bomb. Iran does not have this significant quantity at the moment." Gharibabadi said that there are "more than 1300 tons of HEU and 300 tons of Plutonium in the world and according to the SIR 2019, total SQ also amounts to 216448 (8 pct more since 2015). What a dangerous world we are living in?!" "Can Rafael Grossi tell us that what is the number of SQ for N5 and NNWSs such as the Netherlands, Germany, Japan, Brazil and Argentina. Better not to measure the activities under Safeguards in this way! Weapon/civilian grade material may be a better definition," he added.

<https://www.tehrantimes.com/news/453495/Envoy-criticizes-IAEA-chief-over-remarks-on-Iran-nuclear-program>

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weapons. The decision, Tehran says, is based on a fatwa (religious decree) issued by Leader of the Islamic Revolution Ayatollah Ali Khamenei. The fatwa bans the production, possession and stockpiling of nuclear weapons and other weapons of mass destruction. Iran has also signed the nuclear Non-Proliferation Treaty (NPT) — whose aim is to prevent the spread of nuclear arms and weapons technology — in July 1968 and ratified it in February 1970.

<https://www.tehrantimes.com/news/453495/Envoy-criticizes-IAEA-chief-over-remarks-on-Iran-nuclear-program>

JCPOA parties must now formally announce lifting of UN arms embargo: senior MP

Tehran Times, October 13, 2020

Remaining parties to a 2015 nuclear deal between Iran and world powers must now formally declare that UN restrictions on arms trade with Iran have come to an end, a senior Iranian lawmaker said. The lawmaker, Mojtaba Zolnouri, said the UN arms embargo on Iran will expire on October 18 in accordance with the provisions of the 2015 Iran nuclear deal, which is officially known as the Joint Comprehensive Plan of Action (JCPOA). “Now, countries which are parties to the JCPOA must formally announce the lifting of arms restrictions in accordance with the JCPOA and let the world know that the Islamic Republic of Iran is allowed to buy and sell arms,” Zolnouri, who is the head of the Parliament’s National Security Committee, was quoted by the Islamic Consultative Assembly News Agency (ICANA) as saying.

He added, “If this happens, a small portion of what was foreseen in the JCPOA, and Iran is entitled to have, will be implemented. Of course, this alone cannot be considered as a victory because it’s a gratuitous restriction and oppression that will be lifted.” Under the JCPOA, the UN arms embargo on Iran will expire on October 18, a move that the U.S. has used everything in its power to prevent. It has submitted a draft resolution to the UN Security Council calling for the extension of the arms embargo but the resolution was firmly rejected by thirteen of the 15-member UN Security Council. Then the U.S. resorted to triggering a highly controversial mechanism that is mentioned in UN Security Council Resolution 2231. The mechanism, known as the snapback process, stipulates that a “JCPOA participant state” can trigger the return of all UN sanctions on Iran if it failed to uphold its obligations under the JCPOA.

<https://www.tehrantimes.com/news/453525/JCPOA-parties-must-now-formally-announce-lifting-of-UN-arms-embargo>

Iran urges world to hold Riyadh accountable for covert nuclear work

Tehran Times, October 13, 2020

The Islamic Republic of Iran has called on the international community to hold Saudi Arabia responsible for its covert nuclear activities. “It is unfortunate to see hostility from countries like Saudi Arabia, while Iran has always offered peace plans to stabilize our region,” Iran’s permanent envoy to the UN General Assembly First Committee said. “However, they have not accepted these peace demands and have instead continued their failed policies on military solutions to confront Iran, in addition to their vicious attempts to accuse Iran,” Heidar Ali Balouji added, according to Mehr news agency. Balouji said Iran’s nuclear activities are completely transparent, and Iran fully cooperates with the International Atomic Energy Agency (IAEA). The latest reports and statements of the IAEA director-general have explicitly confirmed Iran’s cooperation, he asserted.

The ambassador said the IAEA director-general has described the recent agreement between Tehran and the Agency as a brilliant moment in diplomacy. “I must remind the Saudi representative that only the IAEA is the competent authority to evaluate the activities of member states, not countries like Saudi Arabia, whose malice towards Iran never allows them to hear or see the real facts,” he stated. Balouji went on to say, “Riyadh is not fully implementing the Comprehensive Safeguards Agreement and is not submitting even the current small amount of its plan to the IAEA for approval as the IAEA has repeatedly requested.” He argued that the failure of the IAEA’s safeguards comes at a time when the Saudi nuclear capability appears to be able to carry out an ambitious plan that could allow the Saudis to conceal some nuclear activities without being inspected by the UN nuclear watchdog.

“Concerns about Saudi Arabia’s nuclear activities and the identification of secret nuclear sites in the desert require widespread support for a concerted international effort to hold the Saudis accountable for their actions,” the envoy remarked. “The international community must urge Riyadh to implement the Comprehensive Safeguards Agreement immediately,” Balouji said, adding, “Stopping nuclear aid to Saudi Arabia is the only way to alleviate these concerns.” Saudi Arabia’s clandestine nuclear program, which had been revealed by whistle-blowers, was recently confirmed by satellite images showing a large compound, in a suspicious location in the middle of the desert.

<https://www.tehrantimes.com/news/453544/Iran-urges-world-to-hold-Riyadh-accountable-for-covert-nuclear>

Rouhani says UN arms embargo on Iran will be lifted by Oct. 18

Tehran Times, October 14, 2020

President Hassan Rouhani congratulated the Iranian people on the imminent lifting of a UN arms embargo on Iran, saying the country would be able to buy and sell arms as of mid-October. “Next week, we will be congratulating and giving glad tidings to the people that ten years of cruel arms embargo will come to an end. We fought with America on this issue for four years. Over the past four years, America used everything in its power to prevent the lifting of the embargo on October 18. The embargo will be lifted due to the endurance of the people,” Rouhani was quoted by the Islamic Republic News Agency (IRNA) as saying on Wednesday morning. The president added, “The U.S. failed because of the efforts made by our diplomats. Those who say what the point of the JCPOA was, should know that this is one of the JCPOA’s privileges. It lifted the arms embargo and as of Sunday, we will be able to buy arms from anyone and sell arms to anyone.”

Rouhani made the remarks during a regular cabinet session. He said the U.S. has not achieved any foreign policy breakthroughs. The UN arms embargo on Iran is slated to expire on October 18 in accordance with the provisions of a 2015 nuclear deal between Iran and world powers. The deal, officially known as the Joint Comprehensive Plan of Action (JCPOA), stipulates that the UN arms embargo on Iran would be lifted five years after the implementation of the JCPOA. This five-year period will end on October 18.

<https://www.tehrantimes.com/news/453570/Rouhani-says-UN-arms-embargo-on-Iran-will-be-lifted-by-Oct-18>

Ending of Iran arms embargo was ‘a great success’: Vaezi

Tehran Times, October 15, 2020

Presidential chief of staff Mahmoud Vaezi has said that the restrictions on Iran’s import and export of weapons will be lifted next week, describing the development as a “great success” for Iran. “The restrictions that we had on exporting and importing weapons will be lifted next week,” Vaezi said on the sidelines of a cabinet meeting on Wednesday, IRNA reported. Vaezi said the lifting of the UN arms embargo was a great success, adding, “This embargo was imposed in 2010. The embargo has been in place for more than ten years and it will be lifted next week.” Under the Iran nuclear deal, which is officially called the JCPOA, the UN arms embargo on Iran will expire on October 18. The U.S. has so far used everything in its power to prevent the expiration of the arms embargo. It has submitted a draft resolution to the UN Security Council calling for the extension of the arms embargo but the resolution was firmly rejected by thirteen of the 15-member UN Security Council.

The U.S. also resorted to triggering the so-called “snapback mechanism” to reimpose all UN sanctions on Iran. That move failed miserably as well. The U.S. went on with the move despite firm opposition from all JCPOA parties and almost all UN Security Council members who said with one

voice that the U.S. has lost the legal authority to trigger the snapback process after it withdrew from the nuclear deal on May 8, 2018. On September 19, the U.S. unilaterally announced the return of all UN sanctions on Iran in a bid to extend the UN arms embargo but the international community rejected the move. However, the U.S. has threatened anyone violating the UN sanctions with unilateral punitive measures. Vaezi reiterated that the lifting of the arms embargo was a great success for Iran against the U.S., which used all its power to extend the embargo but failed. Then they tried to trigger the snapback mechanism but failed once again, he said, adding, “That was a big success as well.” “Iran is not a country on which the U.S. can exert its will through its power and capabilities,” Vaezi added.

<https://www.tehrantimes.com/news/453603/Ending-of-Iran-arms-embargo-was-a-great-success-Vaezi>

Turkey

Akkuyu Nuclear Power Plant, Mersin

Power Technology, October 2020

The Turkish Akkuyu nuclear power plant (NPP) project has restarted after the Turkish Government signed a deal with the Russian Government. The intergovernmental cooperation agreement on the NPP was ratified in 2010. Delayed in 1999 and cancelled in 2000, the project was originally intended to produce 3,000MW. The first unit was commissioned in 2006 and the second in December 2007. The first unit is expected to achieve its first criticality in the second half of 2019. The remaining three units will come online in yearly intervals once Unit I begins commercial operations in 2020. The project is estimated to cost \$20bn and will be Turkey’s first nuclear power plant.

The foundation for the power plant’s offshore hydraulic engineering structures (OHES) was laid in April 2015. The Cengiz Insaat Sanayi ve Ticaret JSC (joint stock company) was awarded a \$394m contract to design and construct OHES. The Akkuyu site is connected by sea, enabling transportation of heavy machinery to the site. It is close to centres of electricity consumption such as Adana, Konya, Antalya and Mersin. There is also a relatively lower population density in the region. The first public hearing session on the project’s environmental impact assessment (EIA) report was held in March 2012. Participants of the meeting, especially representatives from Greenpeace, objected to the EIA, saying that it fails to address the environmental impacts of the plant. The EIA report was approved by Turkey’s Ministry of Environment and Urbanisation in December 2014.

<https://www.power-technology.com/projects/akkuyu/>

Saudi Arabia

Saudi Arabia urges world action against Iran

Saudi Gazette, October 03, 2020

Saudi Arabia has urged the world community to “face its responsibilities” and counter Iran’s violations of international accords, mainly a 2015 deal on its nuclear program. The call was made by Foreign Minister Prince Faisal Bin Farhan at a virtual UN ceremony marking the International Day for Total Elimination of Nuclear Weapons. “The Iranian stock of enriched uranium is currently 10 times higher than the limit stipulated in the nuclear agreement,” he said, referring to the 2015 deal between Iran and major world powers.

“The Kingdom sees it as necessary for the world community to be united against any country seeking to acquire nuclear weapons, especially the countries with aggressive behavior that seek to destabilize international security by funding outlawed terrorist militias and providing them with arms,” he added.

<https://saudigazette.com.sa/article/598733/SAUDI-ARABIA/Saudi-Arabia-urges-world-action-against-Iran>

Saudi Cabinet backs Sudan's peace agreement

Saudi Gazette, October 07, 2020

Saudi Arabia’s Cabinet congratulated Sudan’s leadership and its people on the peace agreement between the transitional government and a number of rebel groups. The Cabinet stressed that the Saudi government is determined to continue its support for the efforts aimed at preserving Sudan's sovereignty, national unity, territorial integrity, and protection from external interference. The Saudi Cabinet also pledged the government support for the Sudanese people in achieving their legitimate aspirations and hopes and expressed the Kingdom's confidence in the ability of Sudanese citizens to move forward and overcome the consequences of the past and create a bright future.

At the outset of the virtual session chaired by the Custodian of the Two Holy Mosques, the Cabinet noted the contents of King Salman’s speech before the Urban 20 (U20) Mayors Summit regarding the keenness of Saudi presidency of the G20 on issues of urban development, its programs and projects in accordance with the Kingdom's Vision 2030. Dr. Issam bin Saad bin Saeid pointed out that the

Cabinet reviewed the latest regional and international developments, stressing the Kingdom's demand at the United Nations on the occasion of the International Day for the Total Elimination of Nuclear Weapons, to the international community to assume its responsibilities toward Iran's violations of international agreements and treaties committed, especially the nuclear agreement called the Joint Comprehensive Plan of Action, which does not constitute any deterrent to Iran from its nuclear aspirations.

<https://saudigazette.com.sa/article/598852/SAUDI-ARABIA/Saudi-Cabinet-backs-Sudans-peace-agreement>

Bahrain

Bahrain calls for nuclear weapons-free Middle East

Saudi Gazette, October 15, 2020

Bahrain has underlined the importance of making the Middle East a zone free of weapons of mass destruction, especially nuclear weapons, in implementation of the decision of the 1995 Non-Proliferation Treaty Review Conference. In his address to the Committee on Disarmament and International Security of the UN General Assembly, Bahrain's Permanent Representative to the UN Jamal Fares Alrowaiei stressed the need to subject all nuclear facilities in the region to the International Atomic Energy Agency's safeguards and controls. Alrowaie noted that given the strategic importance of the Arab Gulf region at the global level, it is important for it to be free of nuclear weapons and other weapons of mass destruction.

He pointed out the concern of the IAEA regarding Iran exceeding the limits of the enriched uranium stockpile permitted under the nuclear agreement signed in 2015. Bahrain's UN envoy called on Iran to cooperate with the IAEA with complete transparency, to subject all its nuclear installations and activities to IAEA control, and to fulfill its obligations to the Agency. He also renewed Bahrain's call to the international community to adopt a unified global strategy to curb the proliferation of nuclear weapons and weapons of mass destruction through an effective mechanism to disarm these weapons globally and regionally. In the same context, he affirmed the inalienable right of states to benefit from the multiple peaceful fields of nuclear energy applications as long as they comply with the comprehensive safeguards of the International Atomic Energy Agency, and the importance of achieving more benefit in the exchange of nuclear knowledge and technologies between industrialized and developing countries.

The ambassador also stressed that outer space is a common property that should not be exploited in a way that threatens international peace and security. He pointed out the need to adhere to the relevant international legal agreements, which lay the foundations in order to prevent the weaponization of outer space and to ensure its continued use for peaceful purposes.

<https://saudigazette.com.sa/article/599145/World/Mena/Bahrain-calls-for-nuclear-weapons-free-Middle-East>

Israel

Israel pours gasoline on the fire in Nagorno-Karabakh

Tehran Times, October 4, 2020

As the war rages on for the eighth straight day between Azerbaijan and Armenia, more attention has been paid to Israel's role in the conflict over the disputed Nagorno-Karabakh region, with some news media reports suggesting that Israel is militarily siding with Azerbaijan. The war began on September 27 when Azerbaijani and Armenian forces exchanged fire along the lines of contact on their borders. The two sides used heavy weapons such as rockets and mortar shells thereafter, in the biggest escalation in the decades-long conflict over the volatile Nagorno-Karabakh region, which is internationally recognized as part of Azerbaijan but controlled by the local Armenian forces who are backed by Armenia.

Azerbaijani President Ilham Aliyev has said that the war will end only when Armenia leaves Azerbaijani territory, which means returning the Nagorno-Karabakh region to Azerbaijan. "We still keep our position unchanged. What I am demanding is absolutely in line with international law, because the whole world recognizes the territorial integrity of Azerbaijan, and no country in the world recognizes the so-called 'Nagorno-Karabakh Republic'. What I am saying is completely almost the wording of the UN Security Council Resolutions. And they need to leave our territory, and then, the war will stop, and then the conflict will come to an end. And then, maybe some time later people of Azerbaijan and Armenia can again live together, in peace. So, that's our position, and it is unchanged," Aliyev said in an interview with Al Jazeera TV, according to the Trend news agency.

<https://www.tehrantimes.com/news/453177/Israel-pours-gasoline-on-the-fire-in-Nagorno-Karabakh>

Japan

Court increases state liability, compensation for nuclear disaster

The Asahi Shimbun, October 1, 2020

A high court here on Sept. 30 more than doubled the amount of compensation awarded to victims of the Fukushima nuclear disaster and issued a scathing critique against the central government for its inaction. The Sendai High Court found the central government equally at fault as plant operator Tokyo Electric Power Co. for failing to take anti-tsunami measures and ordered the defendants to pay a total of about 1.01 billion yen (\$9.6 million) to around 3,550 evacuees and residents living in Fukushima Prefecture and elsewhere. It was the first high court ruling in various lawsuits seeking compensation from TEPCO and the central government for the triple meltdown at the Fukushima No. 1 nuclear power plant caused by a quake-triggered tsunami in March 2011.

The court ruled that if the economy minister at the time had immediately ordered TEPCO to calculate the height of a possible tsunami, a forecast could have been made of the likelihood of a tsunami striking the nuclear plant. But the ruling said, “The regulatory authority did not fulfill the role that was expected of it” and that “not exercising regulatory powers was a violation of the law regarding state compensation.” The Fukushima District Court found that the central government only had a secondary responsibility to oversee the utility.

<http://www.asahi.com/ajw/articles/13777556>

Two Hokkaido townships to seek OK to be depots for nuclear waste

The Asahi Shimbun, October 3, 2020

Two Hokkaido municipalities with little in the way of industry and bleeding population are moving toward applying to the government for consideration to be the final storage site for highly radioactive nuclear waste. The village of Kamoenai and the town of Suttsu are expected to formally announce as early as Oct. 8 that they will initiate steps expected to take 20 years before the nuclear waste storage facility actually begins operation. The major benefit to the municipalities will be grants of up to 2 billion yen (\$19 million) for the first stage of the selection process. The money does not have to be refunded if a decision is made later to withdraw from consideration. The formal applications will be the first since 2017 when the central government released a map of areas that were considered scientifically and geologically appropriate as sites for the final storage of nuclear waste.

The last time an application was made was in 2007 when the mayor of Toyo in Kochi Prefecture on the island of Shikoku expressed interest in applying without first consulting the town assembly. Local opposition was so fierce that a candidate opposed to the idea defeated the incumbent in the next election and the application was withdrawn. In the first stage of the process that normally takes about two years, past records about natural disasters and geological conditions for the area are examined. Kamoenai has about 820 villagers and about the only local industry is fishing. The village lies just north of Tomari where Hokkaido Electric Power Co. operates a nuclear power plant.

<http://www.asahi.com/ajw/articles/13784614>

North Korea

N. Korea's SLBM to complicate denuclearization efforts: ex-defense official

Yonhap

Korea Herald, October 7, 2020

North Korea's acquisition of submarine launched ballistic missile (SLBM) capabilities will further complicate international efforts to denuclearize the communist state, a former US defense official said Tuesday, highlighting the need to address the issue in future negotiations aimed at denuclearizing the communist state. Peter Brookes, a former deputy assistance secretary of defense for Asian and Pacific affairs, notes North Korea's ballistic missile submarine (SSB) may also be on the horizon.

"Like its ascension into the once-exclusive nuclear weapons club in 2006, the SSB/SLBM program, if successful, will again elevate North Korea into a small group of countries with SLBM capability, providing domestic and international notoriety to the regime," Brookes said in a report published by the Heritage Foundation. "The benefits that will almost certainly accrue to Pyongyang from its successful development and likely eventual deployment of an SSB program and a likely nuclear-armed SLBM will complicate dealing with the rogue state," he added.

http://www.koreaherald.com/view.php?ud=20201007000148&ACE_SEARCH=1

N. Korea has no intention of giving up nuclear weapons: Bolton

Yonhap

Korea Herald, October 7, 2020

North Korea has never had any intention of giving up its nuclear weapons and the time to rid the communist state of its nuclear ambition may be running out, a former national security adviser to US President Donald Trump said. John Bolton also argued the communist state has only used leader Kim Jong-un's relationship with Trump to buy time for perfecting its nuclear and missile capabilities. "They have not made any steps toward denuclearization. There has never been any evidence North Korea has made a strategic decision to give up nuclear weapons," the former Trump aide said in a virtual conference of the Wall Street Journal CEO Council Summit.

"In fact, over the two and a half years of bromance between Kim Jong-un and Trump, North Korea simply used that opportunity to perfect their ballistic missile and nuclear weapons programs," added Bolton.

http://www.koreaherald.com/view.php?ud=20201007000235&ACE_SEARCH=1

North Korea may show new missiles at weekend military parade

Hyung-jin Kim And Kim Tong-hyung

AP News, October 8, 2020

For months, North Korea has been relatively uncombative, as leader Kim Jong Un grapples with the coronavirus pandemic, natural disasters and the deepening economic pain under years of tough U.S.-led sanctions. But ahead of the 75th founding anniversary of his ruling party this weekend, speculation has risen that Kim may hold a massive military parade and unveil newly developed, powerful missiles. The goal, experts say, would be to bolster internal unity and draw U.S. attention amid deadlocked nuclear diplomacy between the countries. "His people are considerably wearied and his economy is in trouble ... so Kim Jong Un would want to mobilize his people and stress a self-reliant policy to quell their complaints and draw their loyalty," Nam Sung-wook, a professor at Korea University in South Korea. "To do so, he would need new weapons, powerful weapons that would send a message to the entire world.

Recent satellite images showed thousands of troops assembling in formation along with vehicles in an apparent rehearsal at an airfield on the outskirts of Pyongyang, where the North Koreans have practiced past parades. South Korean Defense Minister Suh Wook told lawmakers Wednesday that North Korea is expected to unveil unspecified "strategic weapons" during a military parade marking the Oct. 10 anniversary. North Korea typically celebrates major state anniversaries with big military

parades during years that end in zero and five. But it has sometimes made those parades less provocative when it was seeking better relations with the outside world.

<https://apnews.com/article/virus-outbreak-seoul-diplomacy-south-korea-north-korea-451eb7b3eec6ef7bf1fb90a219123552>

North Korea prepares for military parade despite coronavirus concern; Kim may speak

Josh Smith

Reuters, October 9, 2020

North Koreans wearing medical masks have gathered in the capital of Pyongyang, state media reported this week, ahead of what is expected to be a big military parade on Saturday, possibly featuring the country's latest ballistic missiles. The holiday marks the 75th anniversary of the founding of the ruling Workers' Party of Korea, and events include concerts, art and industry exhibitions, a light show, visits to monuments and ceremonies to mark the completion of construction projects.

South Korea's Yonhap news agency cited unidentified sources as saying there were signs that the North's state television was preparing to broadcast a parade, though it is unclear whether it would be live. Leader Kim Jong Un could also deliver an address, Yonhap said. Officials in South Korea and the United States say that North Korea could use the parade to show off a new intercontinental ballistic missile (ICBM). "There is a possibility that North Korea will unveil new strategic weapons, such as new intercontinental ballistic missiles or submarine-launched ballistic missiles, to draw attention at a time when its economic achievements have been sluggish," the South's Unification Ministry, which handles relations with the North, said. Unification Minister Lee In-young told lawmakers that displaying a new missile could be a "low-intensity demonstration of force" ahead of the U.S. presidential election that would be less provocative than a launch or nuclear test.

<https://in.reuters.com/article/northkorea-missiles-idINKBN26U0AM>

China's Xi says intends to deepen relations with North Korea: KCNA

Josh Smith

Reuters, October 10, 2020

In a congratulatory message to Kim Jong Un for the founding anniversary of North Korea's ruling party, Chinese President Xi Jinping said he intends to deepen relations with Pyongyang, North Korean state media reported. "We have an intent to successfully defend, consolidate and develop the China-Korea relations together with Korean comrades and propel the long-lasting and stable development of the socialist cause of the two countries," North Korean state news agency KCNA quoted Xi as saying.

Saturday marks the 75th anniversary of the founding of the ruling Workers' Party of Korea, and events are expected to include a large military parade that may feature some of North Korea's long-range ballistic missiles for the first time since 2018. Xi said he was "greatly pleased" with the achievements that North Korea had made in recent years by engaging with foreign countries in the face of hardships and challenges, KCNA reported.

<https://www.reuters.com/article/us-northkorea-missiles-china-idUSKBN26U2JY>

North Korea's Kim speaks softly, shows off new military might

Josh Smith

Reuters, October 11, 2020

North Korea's unprecedented nighttime military parade on Saturday showcased an unusually broad array of new weapons, from a show-stopping "monster" ballistic missile to previously unseen battle tanks. The hardware, likely still in varying stages of development, offered leader Kim Jong Un a chance to show the world his cutting-edge military power while adding practical capabilities to the North Korea's already formidable nuclear and conventional forces, experts said. Kim is walking a fine line, seeking to increase pressure on the United States to ease sanctions while not destroying rapport with U.S. President Donald Trump or Pyongyang's partners in China.

"Kim Jong Un's speech was not threatening to the United States, instead labelling North Korea's nuclear forces as self-defensive," said Bruce Klingner, a retired CIA North Korea analyst now at the Heritage Foundation. "The clear message was that, counter to U.S. claims, the North Korean nuclear threat has not been solved." Video from the parade suggested a huge intercontinental ballistic missile (ICBM) potentially more lethal either because of multiple warheads or a bigger payload, larger missile carriers, a next-generation submarine-launched missile, and advances in conventional weaponry, military analysts said.

<https://www.reuters.com/article/us-northkorea-missiles-analysis-idUSKBN26W0CJ>

Experts divided over NK's missile technology

Choi Si-young

Korea herald, October 12, 2020

North Korea has revealed newer ballistic missiles, but experts are divided over whether the regime has secured the latest technology to mount multiple warheads atop the missiles. "It depends a little bit on how big it really is, but I would say this represents certainly the ability to put multiple nuclear warheads on a missile like this," Jeffrey Lewis of the Middlebury Institute of International Studies in the US told Voice of America. Pyongyang unveiled Saturday a "monster" intercontinental ballistic missile larger than the Hwasong-15, the first ICBM it test-fired in 2017, along with a submarine-launched ballistic missile -- wider in diameter but smaller and lighter -- that suggests more room for warheads in the nose tip. Lewis noted that putting multiple warheads aboard the missiles would be an effective way to overwhelm US missile defenses.

However, some experts were cautious. "That may be an aspiration they have, yet it's pretty hard to do that," Ian Williams, deputy director of the Missile Defense Project at the Center for Strategic and International Studies, told VOA. The missile expert described the latest missile technology as either basic or advanced, with the warheads in an advanced missile capable of hitting more than one target. And North Korea has a long way to go in perfecting that technology, according to Williams. Local experts also expressed reservations about the North's missile capabilities. "Pyongyang has yet to fully demonstrate the technology in question," Ryu Seong-yeop, an intelligence analyst at the Korea Research Institute for Military Affairs, told The Korea Herald.

http://www.koreaherald.com/view.php?ud=20201012000901&ACE_SEARCH=1

'Top-down' nuke diplomacy with NK may not continue if Biden wins Nov. election: Ambassador Lee

Yonhap

Korea Herald, October 6, 2020

The "top-down" nuclear diplomacy that US President Donald Trump has employed toward North Korea may not be retained if Democratic presidential candidate Joe Biden wins the November election, Seoul's top envoy in Washington has said. During a video-linked parliamentary audit Sunday (Washington time), Ambassador Lee Soo-hyuck made the remarks in response to a lawmaker's question about the possibility of a change in the US approach to the North following the

Nov. 3 presidential vote. "Those who would take charge of diplomatic and security affairs (should Biden win the election) are those who held high-level positions under the past Obama administration," the ambassador said.

"If the past is any guide, I expect that they will more likely be taking the form of conducting reviews at the low levels and then making recommendations, with the president giving his approval rather than employing a top-down approach," he added.

http://www.koreaherald.com/view.php?ud=20201012000832&ACE_SEARCH=1

North Korea's nuclear, missile programs 'serious threat' to security: Pentagon chief

Reuters, October 14, 2020

U.S. Defense Secretary Mark Esper on Wednesday said North Korea's nuclear and missile programs pose a global threat, after Pyongyang's unveiling of previously unseen intercontinental ballistic missiles at a predawn military parade. The appearance of a new intercontinental ballistic missile (ICBM) during a weekend parade in North Korea captivated many Western analysts. But officials in South Korea were far more concerned by the display of new multiple launch rocket systems (MLRS) and fast, maneuverable short-range missiles that would be ideal for striking targets in the South.

Speaking before the start of a meeting with South Korean Defense Minister Suh Wook at the Pentagon, Esper said: "We agree that North Korea's nuclear and ballistic missile programs remain a serious threat to the security and stability of the region and the world." "The United States remains committed to the security of the Republic of Korea," Esper said.

<https://www.reuters.com/article/us-usa-northkorea-southkorea-military-idUSKBN26Z2NT>

N. Korea upgrades surface-to-air weapons: Air Force chief

Yonhap

Korea Herald, October 15, 2020

North Korea has upgraded its surface-to-air weapons to augment its air power considered way weaker than that of South Korea, the South's Air Force chief said Thursday, vowing to boost missile defense capabilities against the North's nuclear and missile threats. Air Force Chief of Staff Gen. Lee Seong-yong made the remark during a parliamentary audit session, saying around 10 new weapons

have been identified from the North's military parade held last week. "We are analyzing the newly identified weapons and planning to establish corresponding countermeasures," Lee said.

On Saturday, North Korea held a massive military parade to mark the 75th founding anniversary of its ruling Workers' Party, during which it unveiled a new intercontinental ballistic missile (ICBM) and a submarine-launched ballistic missile (SLBM), along with other weapons. Asked to comment on the possible deployment of the North's version of the surface-to-surface Army Tactical Missile System (ATACMS), Lee said that more time will be necessary between its test launches and actual deployment. North Korea showed off new short-range missiles last year, including the ATACMS.

http://www.koreaherald.com/view.php?ud=20201015000493&ACE_SEARCH=1

South Korea

South Korea's first-ever smart project soon to be in action

Shim Woo-hyun

Korea Herald, October 2, 2020

South Korea's first smart city project, involving an area of 2,743,000 square meters in Sejong, is expected to take shape soon as local firms have recently joined the bidding competition. Other smart city projects, including one in Busan, are expected to follow as well. Parties that placed bids include a group led by LG CNS and KT-Hyundai Motor consortiums, according to sources familiar with the pilot smart city project. The successful bidder will work on this 2.5 trillion won (\$2.1 billion) project for the Korea Land & Housing Corporation, which plans to have the smart city ready to operate by 2023. The results will come out in mid-October.

The new smart city will consist of three areas -- one for startups, one for anchor companies and one for residential buildings. They will be intricately connected with cutting-edge internet of things technologies that will enable self-driving vehicles, remote medical care and smart education services, according to the Ministry of Land, Infrastructure and Transport's blueprint.

http://www.koreaherald.com/view.php?ud=20200928001014&ACE_SEARCH=1

Cheong Wa Dae declines to confirm report on nuclear fuel purchase plan

Yonhap

Korea Herald, October 6, 2020

South Korea's presidential office on Tuesday declined to comment on a media report that Seoul approached Washington to purchase nuclear fuel to operate a nuclear-powered submarine. Donga Ilbo reported that Kim Hyun-chong, Cheong Wa Dae deputy national security adviser, traveled to Washington in mid-September and expressed Seoul's wish to buy nuclear fuel from the United States to run a nuclear submarine. The paper said Washington officials denied the request, citing its non-proliferation policy. "We cannot confirm the facts (of the report)," a senior Cheong Wa Dae official told reporters Tuesday when asked about the matter.

The official also asked the media to exercise discretion in reporting on the matter, calling it an "issue of diplomacy and security related to national interest." In August, the government announced in its defense blueprint for 2021-2025 a plan to build a 4,000-ton submarine. Speculations were raised then that the submarine may be equipped with a nuclear-based engine instead of a diesel-based one.

http://www.koreaherald.com/view.php?ud=20201006000964&ACE_SEARCH=1

Hanwha, LG eye world's biggest floating solar farm project in Korea

Kim Byung-wook

Korea Herald, October 7, 2020

The world's biggest 2.1-gigawatt floating solar farm will be built in sectors 2, 3 and 4 in the Saemangeum reclamation area in North Jeolla Province. (Korea Hydro & Nuclear Power)

The world's biggest 2.1-gigawatt floating solar farm will be built in sectors 2, 3 and 4 in the Saemangeum reclamation area in North Jeolla Province. (Korea Hydro & Nuclear Power) The bidding for the world's biggest floating solar farm project is set to begin in South Korea, drawing interest from major domestic solar power companies, according to industry sources.

Korea Hydro & Nuclear Power currently aims to build a 2.1-gigawatt floating solar power plant worth 4.6 trillion won (\$3.97 billion) that would spread over more than 30 square kilometers near the Saemangeum reclamation area in North Jeolla Province. When completed, the plant will be able to supply electricity to 1 million households.

http://www.koreaherald.com/view.php?ud=20201007000905&ACE_SEARCH=1

Seoul, Washington differ over OPCON transfer, defense cost-sharing

Ahn Sung-mi

Korea Herald, October 15, 2020 |

South Korea and the US appeared to differ over whether Seoul is ready to take over wartime operational control from Washington, casting a shadow over President Moon Jae-in's push to regain military sovereignty by 2022. The defense chiefs of the two allies held the Security Consultative Meeting in Washington on Wednesday (local time), discussing a range of issues, including the handover of wartime control, the stalled talks on defense cost-sharing and the North Korea situation. At the start of the talks, South Korean Defense Minister Suh Wook stressed that the allies will work together to prepare for a combined defense system led by South Korean troops, by meeting the conditions for the OPCON transfer at an early date. On the other hand, Defense Secretary Mark Esper said it will take time to transfer the planned wartime OPCON, which is now held by Americans, to South Koreans.

http://www.koreaherald.com/view.php?ud=20201015000927&ACE_SEARCH=1

Taiwan

Taiwan inspects port, tells shippers to follow North Korea sanctions

Reuters, October 8, 2020

Taiwan government officials inspected one of the island's major ports on Thursday to check shippers were in compliance with United Nations sanctions against North Korea, after previously being implicated in breaking them. Taiwan, claimed by China as its own, is not a member of the United Nations, but says that as a responsible global player it is committed to enforcing sanctions to rein in North Korea's nuclear and missile programmes. In 2018, independent U.N. monitors told a U.N. Security Council sanctions committee in a confidential report they had investigated cases of ship-to-ship transfers of petroleum products in violation of sanctions and that the network behind the vessels was primarily based in Taiwan.

Taiwan's Transport Ministry said on Thursday in a statement its inspection team it had sent to Taichung port did not find any evidence of wrongdoing related to North Korea, but urged all shipping companies and operators to continue to comply with U.N. sanctions. "Do not engage in transactions with North Korea or assist in the transport of materials, so as to avoid violating the law and avoid

chartering vessels that violate U.N. Security Council resolutions or are suspected of violating U.N. embargo measures.”

<https://in.reuters.com/article/northkorea-taiwan/taiwan-inspects-port-tells-shippers-to-follow-north-korea-sanctions-idINKBN26T14M>

Misc

CANDU Owners Group, Nuclear Energy Agency to collaborate on PHWRs

World Nuclear News, October 1, 2020

The OECD Nuclear Energy Agency (NEA) and the CANDU Owners Group (COG) have signed a Memorandum of Understanding to cooperate in research and activities related to pressurised heavy water reactors (PHWRs). The purpose of the MoU is to advance the scientific and technical knowledge base for PHWRs and foster cooperation amongst research organisations that support PHWRs. The MoU outlines the scope of a five-year agreement and provides a framework for collaboration between the NEA and COG. Under the new framework, the organisations will develop joint research activities and workshops, and exchange views on a range of technical subjects.

The PHWR has been developed since the 1950s in Canada as the CANDU, and from 1980s also in India. PHWRs generally use natural uranium oxide as fuel, and hence need a more efficient moderator, in this case heavy water. The PHWR produces more energy per kilogram of mined uranium than other designs, but also produces a much larger amount of used fuel per unit output. Newer PHWR designs, such as the Advanced Candu Reactor, have light water cooling and slightly-enriched fuel. CANDU reactors can accept a variety of fuels. They may be run on recycled uranium from reprocessing light-water reactor (LWR) used fuel, or a blend of this and depleted uranium left over from enrichment plants. The NEA facilitates cooperation among countries with advanced nuclear technology infrastructures to seek excellence in nuclear safety, technology, science, related environmental and economic matters and law. It noted PHWRs, such as the Canadian-designed CANDU, are currently in operation in four of its member countries: Argentina, Canada, South Korea and Romania. The NEA said it also has "active engagement and discussions" about nuclear reactor safety with other countries using PHWR technology, particularly China and India.

<https://www.world-nuclear-news.org/Articles/COG-NEA-to-collaborate-on-PHWR-technology>

UN chief: Completely eliminate nuclear weapons

Saudi Gazette, October 03, 2020

The elimination of nuclear weapons is vital to the “survival of life on this planet”, the UN chief told the final major event of the General Assembly’s high level week. Secretary-General António Guterres told delegates gathered to commemorate the International Day for the Total Elimination of Nuclear Weapons, it was the only way “to completely eliminate nuclear risk.” And although nuclear disarmament has been a UN priority since its founding 75 years ago, he reminded the plenary meeting that “the world continues to live in the shadow of nuclear catastrophe”.

Progress towards the total elimination of nuclear weapons has “stalled and is at risk of backsliding”, the UN chief warned. Against the backdrop of growing distrust and tension between Nuclear Weapon States (NWS) — and programs that modernize arsenals for faster, stealthier and more accurate weapons, with costs Guterres called “simply staggering” — he said, pointedly, that the only treaty restricting the size of the world’s largest nuclear arsenals is set to expire early next year — threatening a return to “unconstrained strategic competition”. “For the sake of all of our security, the world must return to a common path towards nuclear disarmament,” he underscored, adding that it is “imperative” for Russia and the United States to extend, “without delay”, the new Strategic Arms Reduction Treaty (START) for the maximum duration of five years. Among other things, START calls for halving the number of strategic nuclear missile launchers and establishing a new inspection and verification regime within seven years from the date the treaty enters into force.

The Secretary-General upheld that NWS “have a responsibility to lead”, including by honoring their existing commitments and taking steps to reduce nuclear risks. “Especially in today’s tense international security environment, with rising friction between major powers, such steps are more necessary than ever,” he spelled out. In conclusion, the Secretary-General advocated for “a strengthened, inclusive and renewed multilateralism built on trust” with human security at its center, to “guide us to our shared goal of a world free of nuclear weapons”. Noting that this year marks the 50th anniversary of the NPT, the Assembly president urged its States’ Parties to use the postponed 2020 NPT Review Conference next year, to renew their commitments and discuss “practical steps in nuclear disarmament”. “Nuclear disarmament must remain a priority to all of us,” he underscored. “We cannot afford to waste any more time.”

<https://saudigazette.com.sa/article/598715/World/UN-chief-Completely-eliminate-nuclear-weapons>

UN nuclear ban treaty likely to enter force early next year

Saudi Gazette, October 03, 2020

A UN-adopted nuclear ban treaty is likely to enter into force early next year as the number of signatories is anticipated to reach the needed threshold of 50 soon, possibly later this month, Kyodo quoted a diplomatic source as saying. According to the source and the International Campaign to Abolish Nuclear Weapons, or ICAN, 46 countries and regions have completed ratification procedures. The Treaty on the Prohibition of Nuclear Weapons, adopted in 2017, will enter into force 90 days after it has been ratified by at least 50 countries and regions. At least four additional countries have already notified the United Nations of their intention to ratify the treaty, the source and the nonprofit organization said, without revealing the names of any such signatories.

The five permanent members of the UN Security Council — Britain, China, France, Russia and the United States, all of which are nuclear powers — have declined to ratify the pact. Japan, the only country in the world to have experienced nuclear bombings, as well as Germany, have not ratified the pact either, in light of their security alliances with the United States providing nuclear deterrence against adversaries. Many of the 46 signatories of the nuclear ban pact are small countries in Africa, Asia, Latin America and Oceania.

<https://saudigazette.com.sa/article/598730/World/Asia/UN-nuclear-ban-treaty-likely-to-enter-force-early-next-year>

Rosatom and US DOC welcome change to uranium agreement

World Nuclear News, October 8, 2020

The US Department of Commerce (DOC) and Russian state nuclear corporation Rosatom have confirmed they have signed a final amendment to the Agreement Suspending the Antidumping Investigation on Uranium from the Russian Federation. This extends the agreement through to 2040 and reduces US reliance on uranium from Russia during that time period. It is unchanged from a draft amendment released for public comment on 11 September. The agreement was set to expire on 31 December this year, which the DOC said would have resulted in "unchecked" imports of Russian uranium, "potentially decimating" the front-end of the nuclear fuel cycle in the USA.

Secretary of Commerce Wilbur Ross said: "This landmark agreement will contribute to the revitalisation of [the] American nuclear industry, while promoting America's long-term strategic interests. It represents yet another success for the Trump Administration's America First approach to international trade agreements." Prior to the amendment, the agreement allowed Russian uranium exports to meet about 20% of US enrichment demand, but now this figure will drop to an average of about 17% over the next 20 years, and will be no higher than 15% starting in 2028. The DOC says that, by extending and reducing the agreement's export limits, the final amendment will enable the US commercial enrichment industry "to compete on fair terms".

<https://www.world-nuclear-news.org/Articles/Rosatom-and-US-DOC-welcome-change-to-uranium-agree>

IEA and IAEA chiefs stress role of nuclear in climate emergency

World Nuclear News, October 12, 2020

Low-carbon electricity generation will need to triple by 2040 to put the world on track to reach energy and climate goals and it is very difficult to see how this can be done without a considerable contribution from nuclear power, they wrote.

"Some nuclear projects in Europe and North America, where 20% of electricity comes from nuclear, have been plagued by financial and project management difficulties. But China, India and the United Arab Emirates are among countries with successful new-build programmes. In some countries, nuclear power plants that could have operated for years to come were shut down because of policy decisions by governments or unfavourable market conditions. In many of those cases, fossil fuels filled a considerable part of the gap in the power supply, increasing the emissions challenge we now face," they wrote.

<https://www.world-nuclear-news.org/Articles/IEA-IAEA-chiefs-stress-role-of-nuclear-in-climate>

IEA report highlights need for 'new momentum' behind nuclear power

World Nuclear News, October 13, 2020

Publication of the report - World Energy Outlook 2020 (WEO 2020) - follows IEA Executive Director Fatih Birol's comments last week that the scale of the climate challenge means the world cannot afford to exclude nuclear power. In a joint op-ed with Rafael Mariano Grossi, director general of the International Atomic Energy Agency, Birol wrote that low-carbon electricity generation will need to triple by 2040 to put the world on track to reach energy and climate goals, saying "it is very difficult to see how this can be done without a considerable contribution from nuclear power". WEO 2020 focuses on the next 10 years and explores four different pathways out of the COVID-19 crisis: the Stated Policies Scenario (STEPS), Delayed Recovery Scenario, Sustainable Development Scenario (SDS) and Net Zero Emissions by 2050 Case (NZE2050).

In the SDS, as well as rapid growth of solar, wind and energy efficiency technologies, the next 10 years would see "a major scaling up of hydrogen and carbon capture, utilisation and storage, and new momentum behind nuclear power", the IEA said. In this scenario, 140 GWe of new nuclear capacity would be built by 2030, "as part of a surge in clean energy policies and investment that would put the energy system on track to achieve sustainable energy objectives in full, including the Paris Agreement, energy access and air quality goals". By 2040, nuclear capacity increases to 599 GWe and global nuclear output reaches 4320 TWh, up 55% from 2019. In the NZE2050, 180 GWe of new nuclear capacity is built by 2030.

<https://www.world-nuclear-news.org/Articles/IEA-report-highlights-need-for-new-momentum-behind>

Russia, U.S. remain divided over extending last nuclear arms pact

Reuters, October 14, 2020

Russia and the United States on Wednesday remained at odds over extending the last major arms control pact between the world's largest nuclear weapons powers, with Moscow denying U.S. assertions of an agreement in principle. The New START (Strategic Arms Reduction Treaty) accord, signed in 2010, limits the numbers of strategic nuclear warheads, missiles and bombers that Russia and the United States can deploy. It expires in February.

A failure to extend the pact would remove all constraints on U.S. and Russian deployments of strategic nuclear weapons and their delivery systems, fueling a post-Cold War arms race and tensions between Moscow and Washington. U.S. officials have indicated that an agreement to extend it has been reached in principle.

<https://www.reuters.com/article/us-russia-usa-nuclear-kremlin-idUSKBN26Z1I9>

Report studies socioeconomic impacts of plant closures

World Nuclear News, October 15, 2020

Socioeconomic impacts from nuclear power plant closure and decommissioning was prepared using federal funds under an award from the US Economic Development Administration (EDA), which is an agency of the Department of Commerce. The collaborative, which is a US not-for-profit organisation that describes itself as a "nuclear decommissioning clearinghouse", is working with EDA to identify and develop best practices to assist communities affected by the loss of jobs and tax revenue due to nuclear power plant closures. The operation of a typical nuclear plant contributes at least USD400 million per year of economic impact to a plant's host region as well as being a key source of economic livelihood for over 1000 plant employees and contractors, the report notes. Nuclear plant employees and their families strengthen host community capacity through their participation in a wide range of civic, cultural and volunteer opportunities. Thus, the socioeconomic "ripple effects" of a plant closure are "swift, severe and widespread", with local public services such as schools and emergency responders, tending to suffer significant cutbacks, it says.

"These communities continue to face real losses and ongoing hardships," Nuclear Decommissioning Collaborative Executive Director Jim Hamilton said. "While there is increased attention being paid to the plight of these communities, economic development planning remains a challenge and many struggle finding the capacity to begin their recovery." Many highly skilled workers and their families relocate, procurement of local goods and services is significantly reduced, tax payments to local towns plummet and housing values erode, the report says. A series of factors continue to hamper

recovery efforts, it adds. These include: chronic resource limitations, which hinder community efforts to plan for and mitigate socioeconomic impacts from plant closure; a steep learning curve, with no clear roles for community engagement, dialogue and collaboration; and the long-term presence of used nuclear fuel, which hinders economic development work and presents an "enduring barrier" to economic recovery.

<https://www.world-nuclear-news.org/Articles/Report-studies-socioeconomic-impacts-of-plant-clos>

Op-Ed

India

India reiterates support for abolition of n-weapons

Kallol Bhattacharjee

The Hindu. October 3, 2020

India on Saturday reiterated that nuclear weapons should be abolished in a step-by-step non-discriminatory process. Addressing the High-level Meeting to Commemorate and Promote the International Day for the Total Elimination of Nuclear Weapons, Foreign Secretary Harsh Vardhan Shringla also said India remains committed to "No First Use" against nuclear weapon states.

"We believe that nuclear disarmament can be achieved through a step-by-step process underwritten by a universal commitment and an agreed multilateral framework. India remains convinced of the need for meaningful dialogue among all States possessing nuclear weapons, for building trust and confidence," said Mr. Shringla in the virtual message.

<https://www.thehindu.com/news/national/india-reiterates-support-for-abolition-of-n-weapons/article32761165.ece>

Civil Nuclear Cooperation Through 123 Agreements: A Primer

Shayan Karbassi

Lawfare, October 15, 2020

News of Saudi Arabia's alleged undeclared nuclear cooperation with China to extract uranium yellowcake from uranium ore has generated bipartisan concern from U.S. lawmakers over the kingdom's nuclear weapons intentions, and it may stoke existing tensions between the White House

and Congress over the administration's lack of transparency over the United States's own negotiations with Saudi Arabia for civil nuclear cooperation. Since early 2019, members of Congress have grown increasingly concerned by the regional security and nuclear proliferation risks associated with concluding a nuclear cooperation agreement with the kingdom—in part based on concerns that Saudi Arabia could exploit reactor technologies and enrichment know-how gleaned from an agreement to one day build nuclear weapons. To address these concerns, lawmakers have introduced a number of proposals to amend existing presidential authorities to guarantee greater congressional oversight and ensure that Congress has the legal right to affirmatively approve the terms of any agreement before it enters into force.

At present the Atomic Energy Act of 1954 (42 U.S.C. §§ 2011-2059) serves as the legal framework for the development, regulation and disposal of nuclear materials and facilities in the United States. Section 123 of the act (42 U.S.C. § 2153) provides the legal framework necessary for the president to conclude nuclear cooperation agreements between the United States and foreign countries to export nuclear technology and materials for civilian use to the cooperating country. Specifically, Section 123 regulates the transfer of nuclear material originating in the United States and the export of reactors, critical reactor components and reactor fuel.

<https://www.lawfareblog.com/civil-nuclear-cooperation-through-123-agreements-primer>

China

World worries about release of Fukushima nuclear water

Xu Keyue

Global Times, October 18, 2020

The world public, especially those in Japan's neighbors such as China and South Korea, have expressed deep concerns over environmental pollution and human health, and opposition to the Japanese government's plan to dump radioactive water from the disabled Fukushima nuclear plant into the ocean. Analysts said that Japan should think twice before making the decision as the move would have disastrous consequences for the marine environment and human health, which could lead to criticism by related international organizations, countermeasures by affected countries including cessation of imports of Japanese seafood, and harm to the country's image.

<https://www.globaltimes.cn/content/1203852.shtml>

Pakistan

Pakistan's peaceful nuclear programme

Dr Talat Shabbir

The Express Tribune, October 10, 2020

Spanning over decades, Pakistan's peaceful nuclear programme became a great success story though it has been subjected to a politically motivated narrative all along. The peaceful application of nuclear energy relates to power generation, agriculture, health, mineral exploration, industry and of course is vital for socio-economic uplift of any country. In addition, the nuclear power projects provide employment opportunities to thousands of individuals and contributing towards socio-economic development of adjoining communities with provision of healthcare and education facilities.

Pakistan started its civilian nuclear power programme in the early 70s with the construction of a 137 MW nuclear power plant in Karachi. Commonly referred to as KANUPP, the plant ranks amongst the pioneers of nuclear power technology in the developing world. The journey that started with KANUPP continued with the addition of four nuclear power plants at the Chashma site that operate high capacity factors and provide electricity to the national grid as one of the most economical and reliable sources of power generation. Two nuclear power plants at Karachi, two at Muzaffargarh and one power plant at Chashma are planned in the very near future.

<https://tribune.com.pk/story/2267807/pakistans-peaceful-nuclear-programme>

USA

Why America Should Bring Home Its Nuclear Weapons

Zack Brown

National Interest Blog, October 2, 2020

American tactical nuclear weapons in Europe have outlived their usefulness and should be brought home, argued Mike Sweeney, national security expert and fellow at the libertarian think tank, Defense Priorities. "It's kind of a forgotten issue," he explained in an interview with the podcast Press the Button. During the Cold War, the United States scattered scores of smaller, so-called "battlefield" nuclear weapons throughout NATO-aligned Europe to offset the conventional superiority of Soviet forces on the Continent.

As superpower tensions faded along with the Soviet Union, US presidents began to bring these weapons home. But roughly 150 of them remain, raising serious issues surrounding strategy and alliance politics. In terms of strategy, it's unclear why the bombs are still needed in Europe. The main threat these weapons ostensibly offset - a Russian "escalate to de-escalate" strategy where a nuclear demonstration coerces NATO into backing down during a fight in the Baltics - likely doesn't exist.

<https://nationalinterest.org/blog/skeptics/why-america-should-bring-home-its-nuclear-weapons-170055>

The US Should Remove Its Nukes from Europe

Mike Sweeney

Defence One, October 2, 2020

Twenty-nine years ago this month, as the Cold War was ending, President George H.W. Bush took an extraordinary step. With the exception of a contingent of air-delivered bombs in Europe, he unilaterally withdrew from the field all U.S. tactical nuclear weapons. Although he had strong reason to believe that Soviet leader Mikhail Gorbachev might reciprocate, Bush had no assurances. In the end, the Soviet Union (and then Russia) did begin to draw down their own massive tactical nuclear holdings. Today, that prudent move serves as an example. The United States still maintains some 150 B61 nuclear bombs in Europe and has also deployed a low-yield warhead, the W76-2, on submarines, marking the first time in three decades that U.S. tactical nuclear weapons are again at sea. Washington should reconsider this posture.

The United States and the Soviet Union were two scorpions in a bottle, as Robert Oppenheimer once described them – each capable of killing the other, but only at the cost of its own life. The fall of the Berlin Wall and the revolutions that ensued in Eastern Europe changed all of that. Bush had the wisdom to not only recognize this, but to understand and act on the implications for the nation's tactical nuclear arsenal. Yet the differences between the United States and Russia do not rise to the level of those presented by the Soviet Union. Russian policies can be both reckless and odious – from the illegal seizure of Crimea to the poisoning of Alexei Navalny – but they don't present a global challenge to the United States or a basic threat to its way of life. Russia is a regional threat – with a number of weaknesses – that can best be met and contained through conventional means. Resort to tactical nuclear weapons therefore makes no sense – even in the event of a direct military clash with Russian forces, as, for example, could theoretically occur in the Baltic region.

<https://www.defenseone.com/ideas/2020/10/us-should-remove-its-nukes-europe/168876/>

Trump thinks ‘maximum pressure’ will change Iran. History says he’s wrong.

Philip H. Gordon and Ariane M. Tabatabai

Washington Post, October 14, 2020

If former vice president Joe Biden wins the White House, he says America will rejoin the Joint Comprehensive Plan of Action (JCPOA) — the 2015 Iran nuclear deal negotiated by the Obama administration that the Trump administration abandoned. “If Iran returns to strict compliance with the nuclear deal,” Biden wrote last month, “the United States would rejoin the agreement as a starting point for follow-on negotiations” to strengthen and extend its provisions. He recognizes there is no magical formula to quickly turn Iran into a peaceful, cooperative democracy. But he says his approach would prevent Iran from getting nuclear weapons, avoid potential military escalation, reconcile the United States with European allies Britain, France and Germany (who, along with China and Russia, remain in the deal), and still allow all of them to use tools such as diplomacy, targeted sanctions and deterrence to address issues such as Iran’s sponsorship of terrorism, regional interference and human rights violations.

Compare his approach to that of President Trump, who told Rush Limbaugh last Friday that Iran has “been put on notice: If you fuck around with us, if you do something bad to us, we are going to do things to you that have never been done before. And they understand that.”

<https://www.washingtonpost.com/outlook/2020/10/14/trump-biden-iran-sanctions-nuclear-deal/>

Russia

Russia’s Curious Silence in Nagorno Karabakh: Missing in Action or Biding Its Time?

Kevork Oskanian

The Defence Post, October 6, 2020

Much of the punditry on what can now be called the “Second Karabakh War” has focused on a curious apparent absentee. Moscow has, surprisingly, been relatively silent on this burning issue in its immediate neighborhood. Beyond a few formal expressions of concern, including at the reported presence of Syrian mercenaries in the region, Russia has so far refrained from the kind of forceful diplomacy one would have expected in previous years when its writ over the South Caucasus was

unchallenged. Instead, most of its activity has been low-key, limited to phone contacts with the parties directly involved, Ankara, and other key players, both within the Minsk Group and outside.

<https://www.thedefensepost.com/2020/10/06/russia-silence-nagorno-karabakh/>

West Asia

Iran

U.S. foreign policy toward Iran is ‘institutionally hegemonic’, says professor

Tehran Times, October 4, 2020

Arshin Adib-Moghaddam, a professor in global thought and comparative philosophies, believes that the U.S. foreign policy toward Iran is “institutionally hegemonic”, and that a Biden administration would in some way continue the confrontational approach. “I have theorized that the U.S. foreign policy towards Iran as institutionally hegemonic. There are nuances of course, and there was a real difference between Obama and George W. Bush,” he told the Tehran Times in an interview conducted on Tuesday.

“But Biden is no Obama,” he opined. “While he will accentuate the language of diplomacy, the policies of his administration will continue to be recurrently confrontational. I have studied this dynamic in-depth in my forthcoming book *What is Iran: Domestic Politics and International Relations in Five Musical Pieces* (Cambridge University Press, 2020).” Asked how a Biden administration would affect Iran, Adib-Moghaddam said Iran needs to focus on its own presidential elections which will determine the context of Iranian-U.S. relations by far more decisively than the deliberations of the White House. “If Iranians could come together in an election that fosters unity, and that brings to the fore a candidate with diplomatic diligence and empathy for the plight of ordinary Iranians, then the likelihood of any major national security threat is already minimized,” Arshin Adib-Moghaddam told the Tehran Times.

<https://www.tehrantimes.com/news/453171/U-S-foreign-policy-toward-Iran-is-institutionally-hegemonic>

'Ties with Iran will be hostile even if U.S. rejoins JCPOA with a Democratic president, Congress'

Tehran Times, October 6, 2020

Even if the U.S. rejoins the 2015 nuclear deal with a “Democratic president and Congress” the relationship between Washington and Tehran will remain “difficult and adversarial”, a former White House official predicts. In an interview with the Tehran Times, Professor Frank N. von Hippel also says “Iran has its own good historical reasons to distrust the U.S.”. Frank N. von Hippel, a former assistant director for national security in the White House Office of Science and Technology, cites

the 1953 overthrow of the Mossadegh government and the backing of Saddam Hussein during his 1980-88 war against Iran as examples for distrust.

Q: Iran has said it will reverse its decision in reducing JCPOA commitments provided that the new U.S. administration make undertakings that it will not pull out of the nuclear deal and that it would “compensate the financial losses caused by the sanctions.” What is your assessment?

A: I am afraid the second condition would be politically impossible. “I understand the argument that the Trump administration gratuitously did great economic damage to Iran and that Iran should be compensated for that damage.” I understand the argument that the Trump administration gratuitously did great economic damage to Iran and that Iran should be compensated for that damage. However, despite the U.S. rejoining the JCPOA agreement and even with a Democratic president and Congress, the relationship between the U.S. and Iran will remain difficult and adversarial. Iran has its own good historical reasons to distrust the U.S. (including the 1953 overthrow of the Mossadegh government and the backing of Saddam Hussein during his 1980-88 war against Iran).

But the U.S. – whether led by Democrats or Republicans – has concerns about Iran. Even if the U.S. reduces its military presence in the Persian Gulf, and even if there is disillusionment with Israel over its treatment of the Palestinians, there will remain a commitment to the security of Israel and a concern about Iran's support of Syria, Hezbollah in Lebanon, and Hamas in the Gaza Strip as threats to Israel. In that context, the idea of restitution of \$100-200 billion for the Trump Administration's economic damages to Iran would be politically impossible. If that made it impossible to reestablish the JCPOA, the confrontation over Iran's nuclear program would continue, and it would be impossible to proceed to try to develop a broader détente between Iran and the U.S.

<https://www.tehrantimes.com/news/453274/Ties-with-Iran-will-be-hostile-even-if-U-S-rejoins-JCPOA-with>

Mad sanctions

M.A. Saki

Tehran Times, October 9, 2020

The Trump administration introduced sweeping new sanctions targeting Iran's remaining financial sector. Sanctions target eighteen Iranian banks. These are the latest move in Washington's "maximum pressure" campaign against Iran. U.S. Treasury Secretary Steven Mnuchin said in a statement that the sanctions show “our commitment to stop” what he called Iran's “illicit access to U.S. dollars.” Mnuchin claimed that "sanctions will continue to allow for humanitarian transactions to support the Iranian people". Secretary of State Pompeo also claimed the sanctions "do not affect existing authorizations and exceptions for humanitarian exports to Iran."

Iranian central banker Abdolnaser Hemmati said a number of these 18 banks “had the duty for transfer of resources for buying medicine and food.” Even before such sweeping sanctions, foreign banks and companies were reluctant to do permitted humanitarian transactions with Iran, fearing secondary sanctions. Such comprehensive sanctions come as Iran is one of the hardest-hit countries by the coronavirus pandemic. With just 80 million population, the number of Covid-19 fatalities has

reached more than 200 per day. At such a critical moment that sweeping financial bans were declared it was ridiculous that Pompeo issued a statement claiming that "the United States continues to stand with the Iranian people." Experts have warned the sanctions will make it harder to get humanitarian goods into Iran. "It's going to make it even harder for Iran to get ahold of food and medicine unless the Europeans do something gutsy," said Barbara Slavin, the director of the Future of Iran Initiative at the Atlantic Council. "It's going to hurt a lot more people. It certainly will bring a lot of people to their knees, but it will not bring down the Islamic Republic, it will just intensify their hatred for the United States."

<https://www.tehrantimes.com/news/453368/Mad-sanctions>

East Asia

Japan

High court pins equal blame on government for nuclear disaster

The Asahi Shimbun, October 2, 2020

A recent high court ruling was a harsh indictment of the plant operator and the central government for allowing unprecedented damage from the 2011 Fukushima nuclear disaster by ignoring warnings and failing to take action. In a damages suit filed by some 3,700 plaintiffs, including residents of Fukushima Prefecture and evacuees, the Sendai High Court found both Tokyo Electric Power Co. and the government liable for the damage caused by the accident at the Fukushima No. 1 nuclear power plant. The decision was significant because it was the first high court ruling in a series of lawsuits around the nation seeking compensation from both TEPCO and the government for the triple meltdown triggered by the March 2011 earthquake and tsunami.

During the nine and a half years since the accident, some 90 of the plaintiffs in this case have died. The government and the utility should delay no further in providing relief without fail to all people who have suffered from the calamity. The trial focused on two questions. One was whether it was possible to predict the possibility of such a huge tsunami swamping the plant. The other was whether the accident could have possibly been averted. The high court acknowledged the credibility of a long-term assessment of the probability of major earthquakes released by the government's Headquarters for Earthquake Research Promotion in 2002. The report warned that a huge earthquake could occur off Fukushima Prefecture. The court decided that the accident could have been prevented if TEPCO and the government had taken proper action.

<http://www.asahi.com/ajw/articles/13780696>

Japan vows to boost missile defense after North Korea parade

Korea Times, October 12, 2020

Japan vowed Monday to bolster its missile deterrence capability to respond to threats by North Korean weapons that are becoming "more diverse and complex," as displayed during Pyongyang's military parade over the weekend. North Korea, marking the 75th anniversary of its ruling party on Saturday, paraded a variety of weapons systems, unveiling what appeared to be an intercontinental ballistic missile that is larger than any of the North's known ICBMs. It also displayed what was likely an upgraded version of a missile that can be fired from submarines. While some experts say the weapons could have been mock-ups of missiles under development, the exhibits appear to signify North Korea's continuous upgrading of its weapons capabilities during stalled nuclear diplomacy with the U.S.

http://www.koreatimes.co.kr/www/world/2020/10/501_297430.html

North Korea chooses hard way

Tong Kim

Korea Times, October 4, 2020

North Korean leader Kim Jong-un is back on a busy schedule. On Oct. 3, he reportedly sent "a message of sympathy" to U.S. President Donald Trump who had tested positive for COVID-19, wishing him and his wife a quick recovery. The North's Korean Central News Agency (KCNA) reported that Kim "sincerely hoped that they would be recovered as soon as possible." The previous day, Kim visited a reconstruction site in Kimhwa County, one of the areas hit hardest by a recent flood, to encourage North Korean soldiers who were mobilized for reconstruction projects. Kim also asked local officials to make sure the residents were happy with the 1,000 new homes, now 80 percent complete, which they will move into soon.

In Seoul, a controversy continues over the tragic incident in which a South Korean fisheries official was shot to death by North Korean soldiers, Sept. 22. The North's own account of the incident, released Sept. 25 and included an apology from Kim Jong-un, raised more questions than it answered. North Korea admitted that its navy killed the victim but denied an earlier South Korean report that they had burned his body. Pyongyang claimed that it has taken new measures to prevent any future occurrence of a similar incident. In an effort to reconcile discrepancies between the conflicting accounts, Seoul proposed a joint inter-Korean investigation. However, the North has not responded so far, and it is unlikely that they will accept the proposal.

http://www.koreatimes.co.kr/www/opinion/2020/10/137_296973.html

N. Korea's only saving course is to scrap its nuclear arms

The Asahi Shimbun, October 15, 2020

North Korean leader Kim Jong Un showed an unusually humble attitude in addressing his wretched nation in a recent speech. These remarks came despite all the pomp that accompanied North Korea's ceremony to mark the 75th anniversary of the foundation of the ruling Workers' Party, including fireworks that lit up the sky in the wee hours for a vast crowd. Kim's rare apology for his failed leadership appeared to indicate the severity of the predicament his secluded country is in. In his

address, Kim apologized for his failure to live up to the people's expectations and, shedding tears, offered words of gratitude to the people. North Korea is said to be suffering from a triple whammy. The stiff international economic sanctions against the country are still in place. Its vital imports from China have almost evaporated due to the new coronavirus pandemic. And the impoverished country has been battered by typhoons and other natural disasters, added into the bargain.

Even so, Kim, who is a dictator with absolute power, demands that the North Korean people rebuild the stricken nation on their own without relying on foreign aid by working harder to ramp up production. If he really wants to improve the lives of the people, however, he does not need to impose such a taxing burden on them.

<http://www.asahi.com/ajw/articles/13820330>

Interviews/Reports

Vipin Narang on the Global Nuclear Landscape: Hype and Reality

Abhijnan Rej

The Diplomat, October 13, 2020

Even a casual observer of the contemporary global strategic environment will concur that nuclear weapons are very much back in the picture as several countries – including the United States and China – seek to modernize their arsenals and develop new capabilities. With many nuclear powers pushing their envelope and, in some cases, luck, and the future of arms control under stress, the current nuclear environment is defined by several challenges around proliferation and escalation risks.

To understand them better, The Diplomat spoke to Vipin Narang, associate professor of political science at the Massachusetts Institute of Technology (MIT) and member of MIT's Security Studies Program. Narang, also a nonresident scholar in the Nuclear Policy Program at the Carnegie Endowment for International Peace, is author of "Nuclear Strategy in the Modern Era"

<https://thediplomat.com/2020/10/vipin-narang-on-the-global-nuclear-landscape-hype-and-reality/>

U.S. Department of Energy Announces \$160 Million in First Awards under Advanced Reactor Demonstration Program

Office of Nuclear Energy, October 13, 2020

The U.S. Department of Energy (DOE) today announced it has selected two U.S.-based teams to receive \$160 million in initial funding under the new Advanced Reactor Demonstration Program (ARDP). ARDP, announced in May, is designed to help domestic private industry demonstrate advanced nuclear reactors in the United States. DOE is awarding TerraPower LLC (Bellevue, WA) and X-energy (Rockville, MD) \$80 million each in initial funding to build two advanced nuclear reactors that can be operational within seven years. The awards are cost-shared partnerships with industry that will deliver two first-of-a-kind advanced reactors to be licensed for commercial operations. The Department will invest a total of \$3.2 billion over seven years, subject to the availability of future appropriations, with our industry partners providing matching funds.

“The awards are the first step of a new program that will strengthen American leadership in the next generation of nuclear technologies,” said U.S. Secretary of Energy Dan Brouillette. “These partnerships will help maximize DOE’s investment in advanced reactors, which play a vital role in our clean energy strategy.” Specifically, TerraPower will demonstrate the Natrium reactor, a sodium-cooled fast reactor that leverages decades of development and design undertaken by TerraPower and its partner, GE-Hitachi. The high-operating temperature of the Natrium reactor, coupled with thermal energy storage, will allow the plant to provide flexible electricity output that complements variable renewable generation such as wind and solar. In addition, this project will establish a new metal fuel fabrication facility that is scaled to meet the needs of this demonstration program.

<https://www.energy.gov/ne/articles/us-department-energy-announces-160-million-first-awards-under-advanced-reactor>

Within India, we can make any type of missile that armed forces want: DRDO Chief Satheesh Reddy

Ajit K Dubey

Livemint, October 14, 2020

Buoyed up by the strength of successful missile test in last 40 days, DRDO chief G Satheesh Reddy on Wednesday said India has achieved self-reliance in the field of missile systems and can produce whatever is required by the armed forces within the country itself.

The Defence Research and Development Organisation (DRDO) has conducted around 10 successful missile tests in the last over five weeks including that of the Shaurya hypersonic missile, BrahMos extended-range missile, Prithvi nuclear-capable ballistic missile, Hypersonic missile technology development vehicles, Rudram I anti-radiation missile and the Supersonic Missile Assisted Release Torpedo weapon system.

"I would like to say one thing, the way the country has evolved itself in the missile system and particularly in the last five to six years...the various developments which are gone through in various tests which are gone through, India has actually gained complete self-reliance in the area of missiles," Reddy told ANI in an exclusive interview.

<https://www.livemint.com/news/india/within-india-we-can-make-any-type-of-missile-that-armed-forces-want-drdo-chief-satheesh-reddy-11602655632848.html>

It's Time for the United States to Demonstrate Advanced Reactors

Dr. Rita Baranwal

Office of Nuclear Energy, October 14, 2020

After talking about it for decades, the United States is finally ready to take the next step in demonstrating advanced reactor technologies. We have the bipartisan support from Congress. We have the best innovators in the world. Now it's time to see what U.S. nuclear companies can really do with the support and resources of the federal government.

The U.S. Department of Energy (DOE) is all in on new nuclear technologies and we just made our boldest move yet—selecting and supporting two U.S. reactor designs that will be fully operational within the next 7 years. After evaluating the competitive U.S. reactor design applications that were submitted to our new Advanced Reactor Demonstration Program funding opportunity announcement, TerraPower LLC and X-energy were awarded \$160 million in initial funding to test, license, and build their advanced reactors under this aggressive timeframe. Pending future appropriations by Congress, DOE will invest \$3.2 billion over 7 years in these projects that will be matched by the industry teams.

<https://www.energy.gov/ne/articles/it-s-time-united-states-demonstrate-advanced-reactors-0>

Think Tanks

A ReSTART for U.S.-Russian Nuclear Arms Control: Enhancing Security Through Cooperation

Pranay Vaddi, and James M. Acton

Carnegie Endowment for Peace, October 2, 2020

The last remaining limits on Russia's and the United States' nuclear forces—as codified in the 2010 New Strategic Arms Reduction Treaty (New START)—are due to expire on February 5, 2021. Moscow and Washington can and should extend this agreement in its current form for five years and begin the long and difficult negotiations toward a follow-on treaty as soon as possible. Concluding such a treaty is technically feasible and, given growing U.S.-Russian tensions, strategically critical.

Treaties to verifiably limit nuclear forces enhance Russian and U.S. security in two primary ways. First, they can help avoid expensive arms build-ups that would heighten geopolitical tensions. Second, they can lower the risk of escalation leading to nuclear use. The sharp decline in U.S.-Russian relations since New START entered into force has increased the risks of both a quantitative arms race and the kind of deep crisis or conflict that could make nuclear use imaginable. As a result, the need for strategic arms control is now greater than at any time since the end of the Cold War.

<https://carnegieendowment.org/2020/10/02/restart-for-u.s.-russian-nuclear-arms-control-enhancing-security-through-cooperation-pub-82705>

Trump's COVID infection shows why it's time to retire the nuclear football

Tom Z. Collina

Bulletin of Atomic Scientist, October 6, 2020

President John Kennedy took powerful pain medications. President Richard Nixon was a heavy drinker. President Ronald Reagan had dementia. And now President Donald Trump has the coronavirus. These conditions can significantly impair one's ability to think clearly. And yet, as president, each had—or, in Trump's case, still has—the unilateral authority to launch US nuclear weapons within minutes. President Trump is followed 24/7 by a military aide that carries the “football,” the briefcase that holds all he would need to order the immediate launch of up to 1,000 nuclear weapons, more than enough megatonnage to blow the world back into the stone age. He does not need the approval of Congress or the secretary of defense. Shockingly, there are no checks and balances on this ultimate executive power.

President Trump took the nuclear football with him to Walter Reed Medical Center, where he received treatment for COVID-19. According to Trump's doctor, the president's blood oxygen levels had dipped. And this, according to independent health experts, can impair decision-making ability. He is taking dexamethasone, which can cause mood swings and “frank psychotic manifestations.” Yet as far as we know, at no point did the president transfer his powers to the vice president, as allowed under the 25th Amendment.

<https://thebulletin.org/2020/10/trumps-covid-infection-shows-why-its-time-to-retire-the-nuclear-football/>

Ensuring Cyber Security in India's Nuclear Systems

Pulkit Mohan

Observer Research Foundation, October 15, 2020

In India, there has historically been little attention to cyber risks pertaining to civilian and military nuclear facilities. Overall, India's cyber security policy has remained inadequate amidst the changing and emerging threats of cyber warfare and attacks, especially in critical sectors such as nuclear energy. In late 2019, the Indian Space Research Organisation (ISRO) headquarters in Bengaluru and the Kudankulam nuclear power plant in Tamil Nadu both suffered breaches in their security.

To begin with, defining 'nuclear security' will be helpful in understanding the systems in place for the protection of nuclear establishments. As defined by the International Atomic Energy Agency (IAEA), nuclear security is "the prevention of, detection of, and response to, criminal or intentional unauthorized acts involving or directed at nuclear material, other radioactive material, associated facilities, or associated activities." The sensitive nature of nuclear command, control and communications (NC3) systems, and of nuclear facilities, calls for a powerful security architecture that accounts for consequences emerging from physical and cyber threats and attacks. Similarly, understanding the concept of 'cyber security' can guide policymakers in determining its connection with nuclear security measures. Although there is no single definition of 'cyber security', a useful definition in this context is the following: "the body of technologies, processes, and practices designed to protect networks, devices, programs, and data from attack, damage, or unauthorized access. Cyber security may also be referred to as information technology security." The term 'cyber threats', meanwhile, encompasses a range of threats including cyber terrorism, cyber espionage, malware attacks, and distributed denial of service (DDoS).

<https://www.orfonline.org/research/ensuring-cyber-security-in-indias-nuclear-systems/>

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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