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India

Feed pumps dispatched for India's Kudankulam 3

Nuclear Engineering, December 3, 2020

Russia's TsKBM has manufactured and shipped the feed pumps for the turbine hall of India's Kudankulam 3 nuclear power plant. Before being dispatched, the equipment was tested at a special stand. In VVER reactor plants, feed pumps are used to supply feed water to steam generators. Along with the main circulation pumps, they are part of the main equipment of the nuclear power plant and must meet high reliability and safety requirements. At TsKBM, feed pumps are tested on a computerised bench that simulates the parameters (pressure, temperature, flow rate, etc.) of the reactor plant and detects any deviations in the operation of the equipment under test. Based on the data obtained, design services conclude that the pump can be used at the station.

https://www.neimagazine.com/news/newsfeed-pumps-dispatched-for-indias-kudankulam-3-8391459

TVEL to introduce new fuel, longer cycle at Kudankulam

World Nuclear News, December 9, 2020

Compared to the UTVS fuel model currently supplied to the plant, TVS-2M fuel assemblies are more reliable and cost-effective - the rigidity of each bundle and increased (7.6% more) uranium content, TVEL said. "Everything that we offer to our Indian partners is focused on obtaining economic benefits from the nuclear power units' operation," TVEL President Natalia Nikipelova, said. "The efficiency is achieved thanks to the increased uranium content in a fuel bundle, reducing the amount of spent nuclear fuel and increasing the duration of the fuel campaign from three to four-and-a-half years." TVEL has performed a similar exercise at the Tianwan nuclear power plant in China.

https://world-nuclear-news.org/Articles/TVEL-to-introduce-new-fuel-longer-cycle-at-Kudanku

China

Chinese team test jet engine 'able to reach anywhere on Earth within 2 hours' Stephen Chen South China Morning Post, December 1, 2020

Chinese scientists have built what they claim is a revolutionary plane engine for Mach 16 flight. An aircraft powered by the engine could reach anywhere in the world within two hours, they said. The test flight of a prototype in a hypersonic wind tunnel in Beijing suggested unprecedented performance in terms of thrust, fuel efficiency and operational stability. The engine could also serve "reusable trans-atmospheric planes [that will] take off horizontally from an airport runway, accelerate into orbit around the Earth, then re-enter into the atmosphere, and finally land at an airport," said the scientists, led by Professor Jiang Zonglin of the Chinese Academy of Sciences' Institute of Mechanics in a peer-reviewed paper published in the Chinese Journal of Aeronautics on Saturday.

The futuristic engine has a relatively simple design. It consists of three major components without any moving parts: a single-stage air inlet, hydrogen fuel injector and combustion chamber. The chamber's mouth opens to the upper end of the air inlet. "It is easily mistaken for a sliding board," said a Beijing-based hypersonic flight researcher who was informed about though not involved in the study.

https://www.scmp.com/news/china/science/article/3111985/chinese-team-test-jet-engine-able-reach-anywhere-earth-within-2

China tightens export rules for sensitive tech, boosts power to retaliate against foreign sanctions

Sidney Leng South China Morning Post, December 1, 2020

China's broadly defined export control law came into effect on Tuesday, expanding Beijing's arsenal of countermeasures to trade restrictions imposed by other countries. The law, first drafted in 2017 and approved in late October, bears resemblance to US Export Administration Regulations, including a list of controlled items like sensitive technology, military goods, dual-use items that have both civil and military uses, and a licence requirement for anyone who intends to export or re-export these goods.

The regulation is widely viewed as a response to United States' restrictions on Chinese technology firms like Huawei Technologies Co., which has seen access to American technology severed amid a growing tech war between the world's two largest powers. "I see the Export Control Law as a milestone for China because this new law provides [it] with the first comprehensive regulatory framework for restricting exports of military and dual-use products and technology for national security and public policy reasons," said Julien Chaisse, a law professor at City University of Hong Kong

https://www.scmp.com/economy/article/3111972/china-tightens-export-rules-sensitive-tech-boostspower-retaliate-against

Chang'e-5 starts collecting samples, will help explain moon's geological evolution

Deng Xiaoci and Fan Anqi Global Times, December 2, 2020

Following a perfect landing on the designated area on the near side of the moon late Tuesday evening, the landing vehicle of Chinese robotic lunar probe Chang'e-5 officially began sample collecting work on the surface of Earth's celestial neighbor, according to the China National Space Administration (CNSA) on Wednesday. The CNSA said in a statement sent to the Global Times that as of 4:53 am Wednesday, the lander-ascender combination of the Chang'e-5 probe had completed drilling the moon's surface and sealed the samples it had collected. The CNSA did not reveal the weight of the sample collected as of press time. The lander-ascender combination of the spacecraft is currently working on collecting samples from the lunar surface, the Chinese space agency said.

The Chang'e-5 uses a combination of a robotic arm and drilling equipment for its automatic and robotic sample collection from multiple points on the moon's surface and deeper ground, the CNSA said. The surface sample collecting stage will take about two days, after which the ascender segment of the probe, carrying the sealed lunar samples, will take off from the moon to rendezvous and dock with the orbital module. The re-entry capsule will then haul the moon dirt and rocks to Earth, with a touchdown planned in North China's Inner Mongolia Autonomous Region. The whole mission will last for 23 days, the CNSA said.Scientists believe that the landing site contains rocks and soil that are about 1.2 billion years old. It has never been visited either by a probe or human, and scientists believe it will fill an important gap in their understanding of the moon's volcanic activities. The lunar material collected by the Chang'e-5 probe was formed from the space weathering of lunar rocks after meteorite impact, solar wind and cosmic ray radiation. It consists of a considerable amount of rock fragments, minerals and meteorites, which provide valuable information for studying the geological evolution of the moon, as well as solar activities, Xiao Long, a professor at the Wuhan-based China University of Geosciences, told the Global Times.

https://www.globaltimes.cn/content/1208699.shtml

China sees major breakthrough in nuclear fusion with artificial sun

Global Times, December 4, 2020

The new generation of China's "artificial sun" installation, known as HL-2M Tokamak, has been successfully installed in Chengdu of Southwest China's Sichuan Province on Friday and realized its first discharge, China Atomic Energy Authority announced. This shows China has independently mastered the design, construction and operation of technologies of a large-scale advanced tokamak device, a machine designed to harness the energy of fusion, laying a solid foundation for the independent design and construction of my country's nuclear fusion reactors, it said.

The HL-2M Tokamak, designed to replicate the natural reactions that occur in the sun, aims to provide clean energy through controlled nuclear fusion. With a more advanced structure and control mode, the new apparatus can generate plasma hotter than 200 million degrees Celsius, and the plasma electric current level can be elevated to more than 2.5 trillion amperes. The artificial sun is currently the largest advanced tokamak device with the highest parameters in China. It will provide key technical support for China to achieve high-quality development in nuclear fusion, and become an international platform that China join hands with the world in nuclear fusion energy, the agency said.

https://www.globaltimes.cn/content/1209009.shtml

China plans coastal base to launch rockets from the sea

Kristin Huang South China Morning Post, December 4, 2020

China is building a facility on its east coast that will allow it to launch rockets from the sea, state media has reported. Wang Zhanyu, vice-president of China Academy of Launch Vehicle Technology, said the site near the city of Haiyang in Shandong province would supplement the four existing launch sites, one on Hainan island and the others in remote areas of Gansu, Sichuan and Shanxi provinces. "With

the rapid development of the commercial aerospace industry, the demand for launches is increasing day by day. And the sea-based rocket launches are a powerful supplement to traditional land-based launches," Wang told state news agency Xinhua.

In June last year China became the first country to own and operate its own floating sea launch platform when a Long March 11 rocket blasted off from a site in the Yellow Sea near the new base, carrying five satellites and two experimental probes. The first sea launches were carried out in the 1990s under a now-cancelled programme involving Russia, the United States, Norway and Ukraine. In September this year China conducted a similar launch, sending nine satellites into space in a mission hailed as an "important step" by Li Zongli, director of the Taiyuan Satellite Launch Centre. After the first mission, aerospace officials said they hoped sea launches could help cut the costs and the risk of sending rockets into space by offering more flexibility over the choice of launch site and date.

https://www.scmp.com/news/china/diplomacy/article/3112459/china-planning-coastal-base-will-allow-it-launch-rockets-sea

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

China Military Online, January 5, 2021

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

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

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

China boosts nuclear strike capability in face of growing rivalry with US, report says

Minnie Chan

South China Morning Post, December 11, 2020

The Chinese military has increased the number of ballistic missile brigades by around a third in the past three years to enhance its nuclear strike capabilities amid escalating tensions with the US, a report has concluded. The People's Liberation Army Rocket Force now has 40 brigades, a 35 per cent increase compared with 2017, with more being formed, according to the study published by the Bulletin of Atomic Scientists. The report estimated about half the brigades had ballistic or cruise missile launchers, and the number is likely to grow when the construction of further missile bases is completed. The report said 12 of the brigades were in the Eastern and Southern theatre commands, which focus on the Taiwan

Strait and the disputed South China Sea."The expansion of ballistic missile brigades could be seen as an achievement of the PLA's unprecedented military overhaul, when the Second Artillery Corps divided from the [ground force] and to become the independent Rocket Force in late 2015," Hong Kong-based military commentator Song Zhongping, a former instructor with the Second Artillery Corps, said.

"As it plays a key role specialising in the asymmetric strategy, the Rocket Force needs to be expanded and enhance its special advantages to help China counter the increasing challenge posed by the United States." Lu Li-shih, a former instructor at Taiwan's Naval Academy in Kaohsiung, said the PLA Rocket Force would not only play a key role in any efforts to take Taiwan by force, but was also responsible for responding with retaliatory nuclear strikes in the event of an attack by the US.

https://www.scmp.com/news/china/military/article/3113639/china-boosts-nuclear-strike-capability-face-growing-rivalry-us

Drone attacks in Nagorno-Karabakh conflict 'a warning for Chinese military'

Kristin Huang

South China Morning Post, December 13, 2020

An alarming lesson from the Armenia-Azerbaijan conflict over the disputed region of Nagorno-Karabakh concerns drones' transformation of battlefields, and shows China needs a carefully considered counter-strategy, according to an article published by a firm that supplies the People's Liberation Army (PLA). The article, in the latest edition of Naval and Merchant Ships – a Beijing-based magazine published by the state-owned China State Shipbuilding Corporation – reviewed how the Armenian army was overwhelmed by enemy drones.

Despite their superiority in conventional ground forces, including tankers, radars and armoured vehicles, the Armenian army were easy prey for armed drones from Azerbaijan, notably Bayraktar TB2 drones that mounted precise attacks against targets in trenches and moving vehicles. Videos taken by Azerbaijan's hovering drones showed Armenian soldiers being identified and targeted on the ground. The drones were also used for reconnaissance operations, helping Azerbaijan to force an Armenian surrender within six weeks.

https://www.scmp.com/news/china/diplomacy/article/3113598/drone-attacks-nagorno-karabakhconflict-warning-chinese

China's Yuanwang-5 returns after 3 successful monitoring missions

China Military Online, December 15, 2020

The space-tracking ship Yuanwang-5 returned to the port of the China Satellite Maritime Tracking and Controlling Department on December 14 after successfully carrying out three monitoring missions in the Pacific Ocean. It is learnt that Yuanwang-5 has changed its sailing plan and returned in advance after operating 82 days at sea and sailing more than 18,000 nautical miles due to the rescheduling of a satellite launch mission. To date the ship has operated over 220 days at sea cumulatively this year,

setting a new record, and has sailed over 510,000 nautical miles in total, equivalent to sailing around the earth for 23.7 times.

During the oceangoing mission, Yuanwang-5 and Yuanwang-6 jointly carried out maritime monitoring and provided crucial support for the launch of the Chang'e 5 lunar probe. After Yuanwang-5 berths at the port, personnel recovery, equipment maintenance, spare parts supplement and other work will be conducted for another voyage in the near future.

http://eng.chinamil.com.cn/view/2020-12/15/content_9952932.htm

Pakistan

Fuel loading begins at Karachi 2

Nuclear Engineering, December 3, 2020

Pakistan on 28 November began loading fuel into the Chinese-built Hualong One reactor at unit 2 of the Karachi NPP ready for testing in run-up to its commercial operation in April 2021, China National Nuclear Corporation (CNNC) announced. CNNC said loading the 177 fuel assemblies "marks the unit's entry into the nuclear commissioning stage, and lays a solid foundation for subsequent criticality and grid-connected power generation".

A spokesperson for the Pakistan Atomic Energy Commission (PAEC) said fuel loading started after obtaining a permit from the Pakistan Nuclear Regulatory Authority. Construction of Karachi 2 began in August 2015. It is one of two 1100MW Hualong One units being built at the site. Karachi 3 is expected to become operational by the end of 2021. Construction of the units has remained largely on schedule despite the Covid-19 pandemic. The fuel loading was witnessed by Director General of the Strategic Plan Division Lt Gen Nadeem Zaki Manj, PAEC Chairman Mohammad Naeem and senior Chinese and Pakistani officials.

https://www.neimagazine.com/news/newsfuel-loading-begins-at-karachi-2-8391503

USA

U.S. accuses China of 'flagrant violation' of North Korea sanctions

Reuters, December 1, 2020

The U.S. State Department on Tuesday accused China of "flagrant violation" of its obligation to enforce international sanctions on North Korea and said Washington would offer rewards of up to \$5 million for information about sanctions evasions. Speaking to Washington's Center for Strategic and International Studies think tank, Deputy Assistant Secretary for North Korea State Alex Wong accused China of "seeking to undo" the U.N. sanctions regime aimed at persuading North Korea to give up its nuclear weapons.

https://uk.reuters.com/article/idUKL1N2IH114

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

Reuters, December 1, 2020

Richard Thornburgh, who rose to national prominence with his unruffled handling of the 1979 Three Mile Island nuclear crisis as Pennsylvania governor and later battled white-collar crime as U.S. attorney general, died on Thursday at the age of 88. The Pennsylvania governor's office confirmed on Twitter that Thornburgh died on Thursday. It did not give details. During the partial meltdown at Pennsylvania's Three Mile Island nuclear power plant, Thornburgh sought to put the public at ease, calling for a partial evacuation and overseeing cleanup efforts. It was the worst nuclear accident in U.S. history.

https://www.reuters.com/article/us-usa-thornburgh/richard-thornburgh-governor-during-three-mileisland-nuclear-crisis-dies-at-88-idUSKBN2951UW

Biden will have to make early decision on North Korea - adviser

Reuters, December 3, 2020

The incoming U.S. administration will have to make an early decision on what approach it will take with North Korea and not repeat the delay of the Obama era, a former U.S. official who has advised President-elect Joe Biden said.

Kurt Campbell, the top U.S. diplomat for East Asia under President Barack Obama and seen as a contender for a senior position under Biden, said the administration he had served in began with a "rather prolonged period of study" on how to handle Pyongyang. "One of the key challenges of Biden administration is the need to make an early decision about what to do with respect to North Korea," Campbell said.

https://uk.reuters.com/article/idUKKBN28C307

First-of-its-kind 3D printed nuclear fuel component to enter use

World Nuclear News, December 3, 2020

Framatome has announced that 3D-printed fuel assembly channel fasteners manufactured at the US Department of Energy's Oak Ridge National Laboratory (ORNL) in a joint project with Tennessee Valley Authority are to be loaded into a US commercial reactor for the first time. The project is part of the laboratory's Transformational Challenge Reactor programme. The four components will be loaded into TVA's Browns Ferry nuclear power plant in early 2021. The channel fasteners secure the fuel channel to the assembly. They were printed at ORNL using additive manufacturing techniques - also known as 3D printing - and installed on Atrium 10XM boiling water reactor fuel assemblies at Framatome's nuclear fuel manufacturing facility in Richland, Washington.

Channel fasteners have traditionally been fabricated from castings and require precision machining. Additive manufacturing techniques deposit material in layers, following a computer-designed model, to form precise shapes without the need for later carving or machining. This is a more efficient way to achieve the tight specifications of these components, Framatome said. Ala Alzaben, senior vice president of the Commercial and Customer Center of the Fuel Business Unit at Framatome, said this way to manufacture components will help to reduce costs while maintaining plant safety and reliability, describing it as a "major advancement for Framatome and the nuclear energy industry".

https://www.world-nuclear-news.org/Articles/First-3D-printed-nuclear-fuel-components-to-enter

U.S. imposes fresh Iran-related sanctions targeting individual, entity

Reuters, December 3, 2020

The United States on Thursday imposed fresh Iran-related sanctions, blacklisting an entity and an individual as Washington continues to ramp up pressure on Tehran during U.S. President Donald Trump's final months in office. The U.S. Treasury Department in a statement said that it had slapped sanctions on Shahid Meisami Group and its director, accusing the entity of being involved in Iran's chemical weapons research and linked to the Iranian Organization of Defensive Innovation and Research, blacklisted by Washington and formerly headed by the Islamic Republic's top nuclear scientist killed last week.

https://www.reuters.com/article/us-iran-nuclear-usa-sanctions/us-imposes-fresh-iran-related-sanctions-targeting-individual-entity-idUSKBN28D2BL

Energy Solutions takes over TMI-2 licence

World Nuclear News, December 3, 2020

The US Nuclear Regulatory Commission (NRC) has approved the transfer of unit 2 of the Three Mile Island nuclear power plant and the corresponding possession-only licence from FirstEnergy Corp subsidiaries GPU Nuclear, Metropolitan Edison Company, Jersey Central Power & Light Company, and Pennsylvania Electric Company to a subsidiary of EnergySolutions known as TMI-2 Solutions. In addition to the NRC approval, the New Jersey Board of Public Utilities (BPU) has approved the sale of TMI-2 to TMI-2 Solutions.

The TMI-2 reactor, located about 10 miles southeast of Harrisburg, Pennsylvania, operated for around six months before suffering reactor core damage on 28 March, 1979. Subsequently, about 99% of the fuel and damaged reactor core material was removed and shipped to the Department of Energy's Idaho National Laboratory, and in 1993 the plant was placed in a Post-Defueling Monitored Storage status. The licence currently authorises only possession of by-product and special nuclear materials remaining at the reactor. Ken Robuck, president and CEO of Energy Solutions, said yesterday: "We are excited for the opportunity to safely decommission Unit 2 at Three Mile Island and restore the area to its natural state. We currently have four decommissioning projects, two of which will be completed by the end of the year. These four projects have provided valuable experience with best practices and lessons learned that we will incorporate into this project."

https://www.world-nuclear-news.org/Articles/EnergySolutions-takes-over-TMI-2-licence

Extending nuclear cooperation to the Middle East

World Nuclear News, December 4, 2020

The 10 November event took place amid growing concern about Iran's move away from its commitments under the Joint Comprehensive Plan of Action (JCPoA) and signals from president-elect Joe Biden that the USA will re-enter the agreement. A recording of the online conference, which had 30 speakers and more than 1000 registered participants, was uploaded to YouTube this week.

Israel operates a research reactor at the Soreq Nuclear Research Centre, near Tel Aviv, under International Atomic Energy Agency (IAEA) safeguards. It is one of three significant countries that have never been part of the Non-Proliferation Treaty (NPT), so any supply of nuclear equipment or fuel from outside the country would be severely constrained. Unlike India and Pakistan, Israel has no civil nuclear power programme. A number of its neighbours, however, do have nuclear power plants in operation, under construction or planned. They include Egypt, Iran, Jordan, Saudi Arabia, Turkey and the UAE.

https://world-nuclear-news.org/Articles/Extending-nuclear-cooperation-to-the-Middle-East

Pompeo says Iran 'desperately' keen to return to talks for sanctions relief

Reuters, December 4, 2020

U.S. Secretary of State Mike Pompeo on Friday said Iran was 'desperately' signaling its willingness to return to the negotiating table to get sanctions relief, although he did not elaborate how Washington would respond. Speaking at the IISS Manama Dialogue, Pompeo did not provide proof as to how Tehran was more keen for talks. Tensions between Washington and Tehran have risen since 2018, when Trump abandoned Obama's 2015 nuclear deal, and restored harsh economic sanctions to pressure Tehran to negotiate stricter curbs on its nuclear program, ballistic missile development and support for regional proxy forces.

https://uk.reuters.com/article/idUKL1N2IK1Q9

Atomic Heat in Small Packages Gives Big Industry a Climate Option

Jonathan Tirone

Bloomberg Green, December 4, 2020

The first operators of miniature nuclear reactors described their job as "tickling the tail of a sleeping dragon" because of the danger involved with unlocking the energy in atoms.

Those units built more than a half century ago in the U.S. and Europe generated bursts of heat within fractions of a second so that scientists could gauge nuclear reactions, sometimes with deadly consequences. Bearing names like Godiva, Viper and Super Kukla, the reactors never fed electricity grids. Instead, they produced research useful to nuclear weapons programs and eventually utilities. Modern reactors are gigantic by comparison, able to power more than 1.5 million homes each.

https://www.bloomberg.com/news/articles/2020-12-05/nuclear-power-in-energy-transition-smallmodular-reactors-challenge-natural-gas

U.S. targets North Korea coal shipments with new sanctions

Reuters, December 8, 2020

The United States has blacklisted six companies, including several based in China, and four ships accused of illicit exports of North Korean coal, the Treasury Department said on Tuesday. The United Nations Security Council banned North Korean coal exports in 2017. The 15-member body has unanimously boosted sanctions on North Korea since 2006 in a bid to choke off funding for Pyongyang's nuclear and ballistic missile programs.

"The DPRK (North Korea) continues to circumvent the U.N. prohibition on the exportation of coal, a key revenue generator that helps fund its weapons of mass destruction programs," U.S. Secretary Steven Mnuchin said in a statement. "The North Korean regime often uses forced labor from prison camps in its mining industries, including coal, exploiting its own people to advance its illicit weapons programs," he said.

https://uk.reuters.com/article/idUKKBN28I2D8

US looks to nuclear propulsion systems to achieve space ambitions

World Nuclear News, December 10, 2020

The US government yesterday announced the release of the National Space Policy, which advocates for developing and deploying nuclear power and propulsion systems on US space missions. The document specifies who, or which government agency, is responsible for various aspects of their development and deployment.

The policy calls for the USA to develop and use space nuclear power and propulsion (SNPP) systems "where such systems enable achievement of United States scientific, national security, and commercial objectives." It adds, "The United States will adhere to principles of safety, stability, security, and long-term sustainability in its development and utilisation of space nuclear systems." Authorisation for launches of spacecraft containing space nuclear systems will follow a tiered process based on the characteristics of the system, level of potential hazard, and national security considerations, the policy adds. The document calls for the Administrator of NASA and the Secretary of Defense to conduct and support design, development, and utilisation of space nuclear systems, "as appropriate, to enable and achieve their respective mission objectives".

https://www.world-nuclear-news.org/Articles/US-looks-to-nuclear-propulsion-systems-to-reach-sp

U.S. says no sanctions penalty on humanitarian aid for Iran

John O'Donnell

Reuters, December 8, 2020

Banks that process payments for humanitarian aid to Iran will not be penalised under U.S. sanctions, the U.S. Treasury has said, following a European appeal for leniency. In a statement explaining the workings of its sanctions, U.S. authorities said foreign banks would not be punished for financing the supply of health and medical items such as hand sanitizer, ventilators or personal protective equipment. "The United States maintains broad exceptions ... that allow for the commercial sale and export of humanitarian goods," officials wrote. It also made clear that there were other exceptions to processing payments with the country, such as covering staff costs at international organisations with missions in Iran.

https://www.reuters.com/article/usa-iran-sanctions/us-says-no-sanctions-penalty-on-humanitarianaid-for-iran-idUSL1N2IO1LW

GAO recommends improvements to US uranium strategy

World Nuclear News, December 11, 2020

Actions to mitigate risks to the USA's domestic uranium supply chain could be better planned and coordinated, according to a report published yesterday by the US Government Accountability Office (GAO). Improving cost estimates to support future funding requests for the proposed uranium reserve is one of several recommendations by the GAO to improve the strategy to address concerns expressed by domestic uranium industry and support new uranium production.

The GAO report is in response the strategy released earlier this year by the Nuclear Fuel Working Group (NFWG) set up in 2019 by President Donald Trump to look into national security considerations with respect to the entire nuclear fuel supply chain. The strategy outlined by the NFWG includes setting up a uranium reserve with the purchase of uranium from US mines and of US conversion services. The report examines identified risks to the supply chain and actions to mitigate those risks, and the extent to which the NFWG's risk mitigation strategy incorporates "desirable characteristics of a national strategy". In particular, it examines the future supply of unobligated enriched uranium.

https://www.world-nuclear-news.org/Articles/GAO-recommends-improvements-to-US-uraniumstrategy

Roof placement and turbine tests completed at Vogtle

World Nuclear News, December 15, 2020

The 907-tonne shield building roof measures 41 metres in diameter and is 11.3 metres tall. Its placement follows the setting of the unit's containment vessel top, which took place in March. The

shield building provides an additional layer of safety around the containment vessel and nuclear reactor to protect the structure from any potential impacts, and is a feature of the AP1000 reactor design for the Vogtle units, Georgia Power said. The last major crane lift at the Vogtle construction site will be unit 4's CB-20 module, which is part of the AP1000 reactor's advanced passive safety system.

The pre-operational condenser vacuum test at Vogtle unit 3 showed that the steam supply and watercooling systems can operate together and are ready to support hot functional testing and initial fuel load in the reactor. The test required multiple systems, including circulating water, condensate, auxiliary steam and condenser air removal, to be operated in an integrated manner after having been successfully tested individually. Before the test could be performed, the turbine was previously tested and rotated on its turning gear. The main turbine system consists of one high-pressure turbine and three low-pressure turbines.

https://world-nuclear-news.org/Articles/Roof-placement-and-turbine-tests-completed-for-Vog

Uranium companies attracted by REE and vanadium

World Nuclear News, December 15, 2020

US company Energy Fuels Inc will become a commercial rare earths supplier in 2021, having entered into a three-year supply agreement to acquire a minimum of 2500 tons per year of natural monazite sands from which it will also recover uranium at its White Mesa mill in Utah. Separately, Vancouver-based International Consolidated Uranium Inc said it had been attracted to its newly announced acquisition of the Laguna Salada uranium project in Argentina by the by-product vanadium.

Lakewood, Colorado-based Energy Fuels expects to begin processing the monazite sands from Chemours' Offerman Mineral Sand Plant in Georgia in the first quarter of 2021. It plans to recover the contained uranium and a marketable mixed rare earth element (REE) carbonate, which it says will be an important step towards re-establishing a fully-integrated American REE supply chain. The amount of REEs contained in the monazite sands to be supplied by Chemours will represent "close to 10%" of total current American REE demand, as contained in end-use products, Energy Fuels said.

https://www.world-nuclear-news.org/Articles/Uranium-companies-attracted-by-REE-and-vanadium

Europe

Britain's MoD in talks to control steelmaker for nuclear submarines - Sky News Reuters, December 5, 2020

Britain is working on a plan to take control of one of Britain's oldest steelmakers to secure the supply chain for the country's nuclear submarine fleet, Sky News reported. The Ministry of Defence (MoD) had enlisted Deloitte to advise it on the talks with privately-owned Sheffield Forgemasters, Sky News said, citing steel industry sources. The MoD could not immediately be reached for comment.

An outright takeover of Sheffield Forgemasters, which traces its history back to a small blacksmith's forge in the 1750s, was only one of a number of options being considered, and that any agreement was likely to be several months away, Sky News said.

https://www.reuters.com/article/idUKL4N2IL04T?edition-redirect=uk

European powers rebuke Iran after uranium enrichment announcement Reuters, December 7, 2020

Reuters, December 7, 2020

France, Germany and Britain said on Monday they were alarmed by an Iranian announcement that it intended to install additional, advanced uranium-enriching centrifuges and by legislation that could expand its nuclear programme. "If Iran is serious about preserving a space for diplomacy, it must not implement these steps," the three powers, who along with China and Russia are party to a 2015 nuclear containment deal with Tehran, known as the JCPoA, said in a joint statement.

A confidential International Atomic Energy Agency report obtained by Reuters said Iran plans to install three more cascades, or clusters, of advanced IR-2m centrifuges in its enrichment plant at Natanz, which was built underground apparently to withstand any aerial bombardment. Iran's nuclear deal with major powers says Tehran can only use first-generation IR-1 centrifuges, which refine uranium much more slowly, at Natanz and that those are the only machines with which Iran may accumulate enriched stocks. "Iran's recent announcement to the IAEA that it intends to install an additional three cascades of advanced centrifuges at the Fuel Enrichment Plant in Natanz is contrary to the JCPoA and deeply worrying," the three powers said of the U.N. watchdog report, which has yet to be made public. The powers further said a new law obliging Iran's government to halt U.N. inspections of its nuclear sites and step up enrichment beyond the deal's limits was also incompatible with the accord and Iran's wider non-proliferation commitments.

https://www.reuters.com/article/idUKKBN28H0W9?edition-redirect=uk

France yet to agree with EU over nuclear reform - official

Gwénaëlle Barzic Reuters, December 7, 2020

France and the European Union are yet to reach a firm agreement over Paris's plans for a reform of its nuclear industry, an Elysee presidential palace official said on Monday, amid talks that will entail a reorganisation of power group EDF. The talks between France and the European Commission include the ARENH price mechanism under which competitors can get access to nuclear energy produced by EDF. Because EDF is a state-owned utility, the EU has a say on its reform on competition grounds.

The looming reform, which would see EDF's nuclear business separated from others such as renewable energy, has already raised hackles among labour unions, fearful that a split will have consequences for jobs. Speculation had mounted in recent weeks that a deal with the EU was nearing, and that Paris was ready to start putting some elements of the reform through parliament. "There is not yet an agreement with the Commission on some of the key parametres," an official with the Elysee presidential palace said, speaking ahead of President Emmanuel Macron's visit to a nuclear equipment factory run by a EDF subsidiary Framatome.

https://www.reuters.com/article/idUKL1N2IN0S2?edition-redirect=uk

Macron kicks off French race to build a new nuclear-powered aircraft carrier Christina Mackenzie Defence News, December 8, 2020

French President Emmanuel Macron announced on Dec. 8 that his country's next aircraft-carrier will be nuclear-powered and should be operational by 2038 in time to replace the Charles de Gaulle, which entered active service in 2001. The new aircraft carrier is expected to be the biggest warship France has ever built. Florence Parly, the armed forces minister, said in October that the ship, whatever its propulsion, would be designed to deploy the future combat aircraft system (FCAS) and today her ministry confirmed that the vessel would deploy about 30 of these aircraft "which will be bigger than the Rafales."

The ministry said the ship would be in the 75,000 tonne class (82,673 tons), be around 300 meters long (984 feet) and be able to sail at 27 knots (31 mph), even bigger than the second aircraft carrier that Naval Group was working on in the early 2000s until that program was shelved by the government for lack of money. In comparison, the Charles de Gaulle is 261m (856 feet) long and weighs 42,000 tonnes (46,297 tons) fully loaded. The new ship will have a crew of about 2,000, including the air group. Speaking at Framatome, France's principal nuclear-power company headquartered at Le Creusot in the centre of France, Macron announced just four minutes before the end of his 28 minute speech that he had "decided that the future aircraft-carrier which will serve our country and our navy will, like the Charles de Gaulle, be nuclear-propelled."

https://www.defensenews.com/global/europe/2020/12/08/macron-kicks-off-french-race-to-build-anew-nuclear-powered-aircraft-carrier/

Macron stresses importance of nuclear energy for France

World Nuclear News, December 9, 2020

French President Emmanuel Macron said yesterday that France's energy and ecological future depends on nuclear power. Speaking during a visit to Framatome's Le Creusot facility, Macron said the industry comprises 3000 companies and 220,000 jobs, with 5000 new hires planned for 2021 in spite of the crisis caused by the pandemic. "Few sectors offer as much, in particular to our young people and all across the country," Macron tweeted. According to the World Nuclear Association, France derives about 75% of its electricity from nuclear energy thanks to a longstanding policy based on energy security. France is the world's largest net exporter of electricity due to its very low cost of generation, and gains over EUR3 billion per year from this. Government policy however is to reduce the share of nuclear in its electricity mix to 50% by 2035.

The Élysée Palace issued a statement on Macron's "three convictions" that guide the future of French nuclear power: "Our energy and ecological future depends on nuclear power; our economic and industrial future depends on nuclear power; and France's strategic future depends on nuclear power." As the Intergovernmental Panel on Climate Change points out, nuclear energy is a non-intermittent energy source that emits the least CO2. To produce 1 kWh, a coal-fired power plant emits 1000g of CO2, while a nuclear power plant emits only 6g, the statement noted. By generating more than 41% of the energy in France, "nuclear makes us autonomous", Macron said. "It also preserves French purchasing power, with a kWh on average 40% cheaper than in our European neighbours." Nuclear energy must therefore "continue to be a pillar" of the French energy mix "for decades to come", he

said. French nuclear know-how is exported all over the world and has a trade surplus of EUR7 billion and this "major asset needs to be consolidated".

https://www.world-nuclear-news.org/Articles/Macron-stresses-importance-of-nuclear-energy-for-F

Nuclear one of the lowest cost low-carbon options, according to new IEA/OECD NEA study World Nuclear, December 9, 2020

Electricity generation from nuclear power plants is the dispatchable low-carbon technology with the lowest expected costs, according to the Projected Costs of Electricity Generation 2020 report, published today by the International Energy Agency and OECD Nuclear Energy Agency. According to the report, extending the operations of existing reactors is highly competitive. It remains not only the least cost option for additional low-carbon generation, but for all power generation across the board. Dr Sama Bilbao y León, Director General, World Nuclear Association said, "Investing in extending the life of the current fleet of nuclear reactors should be a no-brainer. First, it is the lowest cost electricity option, second it can make an immediate and significant contribution to job creation in the context of the post-COVID economic recovery, and third - and just as important - many countries will have a hard time meeting their decarbonization targets without the contribution of existing nuclear plants."The cost of electricity from nuclear generation is lower in the new 2020 report than in the previous edition, published in 2015.

This shows that the nuclear industry is moving forward with the lessons learned from recent projects and is managing to strengthen the know-how and supply chains required for successful project completion. For new-build nuclear generation the estimated long-term cost of generating electricity (LCOE) is lower than that for coal. While gas-fired generation is currently competitive, this would not be the case if the cost of the resultant carbon emissions were properly taken into consideration, or if gas power plants were required to include carbon capture and storage of their emissions. The report concludes that generation costs from new nuclear power are competitive with other low-carbon options, particularly when the system costs of higher shares of intermittent generation are included. Under such circumstances the reports Value Adjusted LCOE (VALCOE) for nuclear is almost unaffected, whereas solar PV suffers from a significant reduction in value when the share of intermittent renewables in the generation mix is higher.

https://world-nuclear.org/press/press-statements/nuclear-one-of-the-lowest-cost-low-carbon-options,.aspx

Radiation levels rose inside a Finnish nuclear unit -nuclear watchdog

Reuters, December 10, 2020

Finland's nuclear safety authority STUK said on Thursday that radiation levels had risen inside Olkiluoto2 nuclear unit at around 1 p.m. (1100 GMT) in Western Finland but no radioactivity leaked outside and the situation was under control. "This is a significant and an exceptional incident and we consider it important to spread correct information about it," Finland's minister of social affairs and health Aino-Kaisa Pekonen told reporters. Jarmo Tanhua, CEO of the nuclear power plant operator TVO, said the incident was an exceptional and unparalleled event in the facility's history. TVO is a consortium of power and industrial companies.

https://www.reuters.com/article/idUKL8N2IQ4HS?edition-redirect=uk

Strikes over nuclear reform plan reduce French power generation

Reuters, December 10, 2020

Strikes by workers protesting against a French nuclear reform plan reduced nuclear power generation by more than 1 gigawatt by 2057 GMT on Wednesday, including 1.7 GW at hydro power stations, data from power group EDF showed. The Penly 1 reactor is operating at limited capacity due to the strike, down 1,070 megawatts (MW) to 260 MW. The drop in production is expected to continue until the end of the strike Thursday evening, the data showed. The disruption represents around 3.6% of available production capacity as of Wednesday evening, the data showed. Electricity demand for Thursday is forecast at around 70.2 GW due to cold weather. France was a net power importer throughout most of the day Wednesday, the data showed.

https://www.reuters.com/article/idUKL8N2IP6G9?edition-redirect=uk

Russia

Biden administration's first step should be extending New START - US expert

TASS News Agency, December 1, 2020

Democrat Joe Biden, who has declared victory in the US presidential election, could announce the extension of New START (Strategic Arms Reduction Treaty) as one of his first steps, former Senator from Georgia Sam Nunn told the Fort Ross Dialogue international forum. This year the forum is held via videoconference amid the coronavirus pandemic. "I would start with that dialogue [on the renewal of New START]. That's the only arms control treaty we have left," he noted, recalling that US President Donald Trump had not taken steps to renew New START, which expires in February. "If he does not renew it I hope it will be one of the first acts President-Elect Biden carries out."

https://tass.com/world/1229763

Still time to extend New START, says Russian envoy to US

TASS News Agency, December 3, 2020

There is still enough time to extend the Russian-US Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START), Russian Ambassador to the US Anatoly Antonov said Wednesday at a videoconference organized by Washington's Brookings Institution. He was asked whether there is any time left for the countries to extend the treaty. "We have time. We can get it [extension] very quickly. If anybody can call me now from State Department or White House, I am ready to come. I am ready to continue such negotiations," he noted. The diplomat also highlighted that Russia has "an excellent team in Moscow" tasked with arms control issues.

The envoy added that Russia is still in talks with the current US administration to secure a possible extension of the treaty. "Yes, we are in close contact with [US Special Presidential Envoy for Arms Control] Marshall Billingslea who is a key negotiator from the American side," Antonov added. According to him, the parties are exchanging proposals on the New START extension.

https://tass.com/world/1230771

Steam equipment shipped for Rooppur unit 1

World Nuclear News, December 8, 2020

The steam collectors for unit 1 of the Rooppur nuclear power plant under construction in Bangladesh have been dispatched by the Volgodonsk branch of Russian Rosatom's engineering subsidiary AEM Technology. The Rooppur plant will consist of two VVER-1200 reactors. The equipment was shipped by road to the port of Saint Petersburg, where it will be loaded onto a container ship and transported by sea about 14,000km to the Rooppur site, which is on the eastern bank of the river Ganges. A steam collector, one of the main components of a steam generator, measures over 11m in length, 2.7m across and 3m high. It has a dead weight of more than 7 tonnes. One reactor unit has four steam generators. The reactor pressure vessel and a steam generator for Rooppur unit 1 arrived on site on 10 November. Rosatom in February 2011 signed an agreement for two 1000 MWe-class reactors to be built at Rooppur for the Bangladesh Atomic Energy Commission. The initial contract for the project, worth USD12.65 billion, was signed in December 2015.

https://www.world-nuclear-news.org/Articles/Steam-equipment-shipped-for-Rooppur-unit-1

Russian police hunt thieves who plundered top secret 'Doomsday Plane'

Reuters, December 8, 2020

Police in Russia said on Wednesday they were searching for thieves who plundered technical equipment from a top-secret military aircraft known as the Doomsday Plane that is designed for use during a nuclear war. The robbery, which raises questions about the security of sensitive military-related installations, took place as maintenance work was being carried out on the Ilyushin Il-80 plane.

The aircraft was modified from a Soviet jet airliner during the late Cold War to serve as an aerial command post for top officials to control their troops during a crisis. The theft came to light earlier this week in reports by Russian media, including the REN TV channel, which said signs of a break-in via the cargo hatch had been spotted last Friday and that 39 electronic units had been removed.

https://uk.reuters.com/article/idUKKBN28J1YQ

TVEL loads new design of fuel into Paks unit 3

World Nuclear News, December 8, 2020

TVEL, the nuclear fuel manufacturer subsidiary of Russia's Rosatom, has loaded a batch of fresh fuel, including 18 fuel bundles of its new modification, into unit 3 of the Paks nuclear power plant in Hungary. The new fuel will be introduced at all four units operating at Paks, with the number of new-modification bundles in each refuelling to be increased gradually. Development of the new VVER-440

fuel was completed this year under the contract between TVEL and MVM Paks NPP Ltd. Its introduction will optimise the hydro-uranium ratio in the reactor core, enabling an increase in the efficiency of fuel usage and in the economic performance of the power plant's operation, TVEL said. All VVER-440 fuel modifications are manufactured at the Elemash Machine-Building Plant, a TVEL facility in Elektrostal, in the Moscow region. "Introduction of a new fuel is an option to improve the technical and economic performance of a nuclear power plant without substantial investment," TVEL President Natalia Nikipelova said.

https://www.world-nuclear-news.org/Articles/TVEL-loads-modified-fuel-into-Paks-unit-3

Russian police hunt thieves who plundered top secret 'Doomsday Plane'

Reuters, December 9, 2020

Police in Russia said on Wednesday they were searching for thieves who plundered technical equipment from a top-secret military aircraft known as the Doomsday Plane that is designed for use during a nuclear war. The robbery, which raises questions about the security of sensitive military-related installations, took place as maintenance work was being carried out on the Ilyushin Il-80 plane. The aircraft was modified from a Soviet jet airliner during the late Cold War to serve as an aerial command post for top officials to control their troops during a crisis.

https://www.reuters.com/article/russia-army-theft/russian-police-hunt-thieves-who-plundered-top-secret-doomsday-plane-idUSL8N2IP3ZR

Russia's top brass uploads video with missile launches in strategic nuclear forces' drills

TASS News Agency, December 9, 2020

Russia's Defense Ministry released a video with the launches of ballistic and cruise missiles in the strategic nuclear forces' drills supervised by Supreme Commander-in-Chief, Russian President Vladimir Putin. The video shows the launches of strategic cruise missiles conducted by Tu-160 and Tu-95MS bombers that took off from the Engels and Ukrainka airfields.

According to the video, the bombers employed the latest air-launched cruise missiles Kh-101 and Kh-555 (Kh-55 strategic missiles converted into conventional versions) they carried in their weapons bays. The Kh-555 is a subsonic air-launched strategic cruise missile, a Kh-55 modification with a conventional warhead. The missile can be outfitted with different types of warheads. Kh-555 missiles were employed by Russian Tu-160 and Tu-95MS bombers during the air task force's operation in Syria.

https://tass.com/defense/1233251

Russian nuclear submarine test-fires 4 missiles

Vladimir Isachenkov

Abc News, December 12, 2020

A Russian nuclear submarine on Saturday successfully test-fired four intercontinental ballistic missiles in a show of readiness of Moscow's nuclear forces amid tension with the U.S. The Defense Ministry said that the Vladimir Monomakh submarine of the Pacific Fleet launched four Bulava missiles in quick succession from an underwater position in the Sea of Okhotsk. Their dummy warheads hit their designated targets on the Chiza shooting range in the Arkhangelsk region in northwestern Russia more than 5,500 kilometers (over 3,400 miles) away, the ministry said in a statement.

The Vladimir Monomakh is one of the new Borei-class nuclear submarines that carry 16 Bulava missiles each and are intended to serve as the core of the naval component of the nation's nuclear forces for decades to come. Another submarine of the same type performed a similar launch of four Bulava missiles in 2018 — a costly demonstration of the efficiency of the country's nuclear deterrent mimicking the conditions of a major nuclear conflict. In a report to President Vladimir Putin, Defense Minister Sergei Shoigu said that Saturday's launch wrapped up large-scale drills of Russia's strategic nuclear forces that began Wednesday. As part of those maneuvers, another Russian nuclear submarine also performed a practice launch of an intercontinental ballistic missile from the Barents Sea, a ground-based ICBM was launched from the Plesetsk facility in northwestern Russia and Tu-160 and Tu-95 strategic bombers fired cruise missiles at test targets at an Arctic range.

https://abcnews.go.com/International/wireStory/russian-nuclear-submarine-test-fires-missiles-74688714

West Asia Iran

The timing for Fakhrizadeh assassination is not coincidental: security expert Tehran Times, December 1, 2020

Seyed Hossein Mousavian, a Middle East security and nuclear policy specialist at Princeton University, says Mohsen says the timing for assassination of Iranian scientist Mohsen Fakhrizadeh "is not coincidental". Writing in the Middle East Eye on Nov. 3, Mousavian says the assassination "was aimed at blocking Biden's intention of offering Iran 'a credible path back to diplomacy."

The senior analyst says, "While both the United States and Iran face tremendous domestic obstacles in reviving the JCPOA, the 'return to Iran deal' policy as proposed by Biden has terrified both Netanyahu and MBS to the effect that they had to get together in an unprecedented meeting in Saudi Arabia. To be sure, they have done what they could and will continue to do so to prevent the Biden administration from re-joining the JCPOA."

https://www.tehrantimes.com/news/455326/The-timing-for-Fakhrizadeh-assassination-is-notcoincidental

Iran, not Biden, will set the tone for nuclear-related issues: MP Tehran Times, December 1, 2020 An Iranian legislator said on Tuesday it will be Iran, not U.S. President-elect Joe Biden, who will be able to set the tone for the nuclear-related issues. Seyyed Ali Mousavi made the remarks after the Iranian parliament overwhelmingly voted for a draft bill, called "Strategic Action to Lift Sanctions", to give leverage to Iran's diplomatic apparatus to remove the anti-Iran sanction. "The Strategic Action to Lift Sanctions is a very productive plan, and its approval in the Majlis (Parliament) was a slap in the face of the enemies of the Islamic Republic," Mousavi said in an interview with the Tehran Times.

Iran's Parliament on Tuesday passed the outlines of the strategic action plan, which aims to counteract sanctions imposed on the Iranian nation and safeguard its interests. The plan, if adopted, will require the administration to suspend more commitments under the 2015 Iran nuclear deal. It will require the Atomic Energy Organization of Iran (AEOI) to produce at least 120 kg of 20-percent enriched uranium annually and store it inside the country within two months after the adoption of the law. Mousavi, who represents the Malekan constituency, said the plan is composed of very good clauses, which will strengthen Iran's position when dealing with the enemy. "The enemy won't be able to sense any weakness from our side," he said, emphasizing that the plan will revive the Islamic Republic's "great nuclear industry." Mousavi, who criticized certain shortcomings of the strategic plan during the Tuesday session of the Parliament, told the Tehran Times that he is in favor of the outlines of the plan.

https://www.tehrantimes.com/news/455319/Iran-not-Biden-will-set-the-tone-for-nuclear-relatedissues

Iran watchdog passes law on hardening nuclear stance, halting U.N. inspections Parisa Hafezi

Reuters, December 2, 2020

Iran's Guardian Council watchdog body approved a law on Wednesday that obliges the government to halt U.N. inspections of its nuclear sites and step up uranium enrichment beyond the limit set under Tehran's 2015 nuclear deal if sanctions are not eased in two months. In retaliation for the killing last week of Iran's top nuclear scientist, which Tehran has blamed on Israel, Iran's hardline-dominated parliament on Tuesday approved the bill with a strong majority that will harden Iran's nuclear stance.

The Guardian Council is charged with ensuring draft laws do not contradict Shi'ite Islamic laws or Iran's constitution. However, the stance of Supreme Leader Ayatollah Ali Khamenei, who has the last word on all matters of state, is not known. "Today in a letter, the parliament speaker officially asked the president to implement the new law," Iran's semi-official Fars news agency reported. Under the new law, Tehran would give two months to the deal's European parties to ease sanctions on Iran's oil and financial sectors, imposed after Washington quit the pact between Tehran and six powers in 2018. In reaction to U.S. President Donald Trump's "maximum pressure" policy on Tehran, Iran has gradually reduced its compliance with the deal. The law pushed by hardline lawmakers would make it harder for U.S. President-elect Joe Biden, who will take office on Jan. 20, to rejoin the agreement. Biden has said he would return to the pact and would lift sanctions if Tehran returned to "strict compliance with the nuclear deal".

https://www.reuters.com/article/idUKKBN28C2F8?edition-redirect=uk

Biden reaffirms support for JCPOA, vows to engage Iran

Tehran Times, December 2, 2020

Joe Biden has said that he still stands by his views on the 2015 Iran nuclear deal that were articulated in a mid-September op-ed, but a U.S. return to the deal would be "hard." In an interview with The New York Times' columnist Thomas Friedman, Biden addressed a variety of domestic and foreign policy issues, including the Iran nuclear deal, which President Donald Trump quit on May 8, 2018. Asked whether he still stands by his views on the Iran deal that he expressed in a September 13 op-ed for CNN, Biden answered, "It's going to be hard, but yeah."This is the first statement by Biden on Iran since he was widely projected to win the U.S. presidential election in early November. Biden said in the op-ed that he will return to the nuclear deal, officially known as the Joint Comprehensive Plan of Action (JCPOA).

"I will offer Tehran a credible path back to diplomacy. If Iran returns to strict compliance with the nuclear deal, the United States would rejoin the agreement as a starting point for follow-on negotiations. With our allies, we will work to strengthen and extend the nuclear deal's provisions, while also addressing other issues of concern," then-presidential candidate Biden said. According to Friedman, the view of Biden and his national security team is that once the deal is restored by both sides, there will have to be, in very short order, a round of negotiations to seek to lengthen the duration of the restrictions on Iran's nuclear program — originally 15 years — as well as to address Iran's regional activities. The columnist also said that the Biden team may involve Iran's Arab neighbors, namely Saudi Arabia and the United Arab Emirates, in follow-on negotiations on Iran's regional activities.

https://www.tehrantimes.com/news/455369/Biden-reaffirms-support-for-JCPOA-vows-to-engage-Iran

Iran tells IAEA it will accelerate underground uranium enrichment

Francois Murphy Reuters, December 4, 2020

Iran plans to install hundreds more advanced uranium-enriching centrifuges at an underground plant in breach of its deal with major powers, a U.N. nuclear watchdog report showed on Friday, a move that will raise pressure on U.S. President-elect Joe Biden. The confidential International Atomic Energy Agency report obtained by Reuters said Iran plans to install three more cascades, or clusters, of advanced IR-2m centrifuges in the underground plant at Natanz, which was apparently built to withstand aerial bombardment.

Iran's nuclear deal with major powers says Tehran can only use first-generation IR-1 centrifuges, which are less efficient, at the underground plant and that those are the only machines with which Iran may accumulate enriched uranium. Iran recently moved one cascade of 174 IR-2m machines underground at Natanz and is enriching with it. It already planned to install two more cascades of other advanced models there, in addition to the 5,060 IR-1 machines that have been enriching for years in the plant built for more than 50,000. "In a letter dated 2 December 2020, Iran informed the Agency that the operator of the Fuel Enrichment Plant (FEP) at Natanz 'intends to start installation of three cascades of IR-2m centrifuge machines' at FEP," the IAEA's report to its member states said. Iran has breached many of the deal's core restrictions on its nuclear activities in response to U.S. President Donald Trump's withdrawal from the agreement and his reimposition of crippling economic sanctions. Tehran says its breaches can quickly be reversed if Washington's moves are undone.

https://www.reuters.com/article/idUKL1N2IK1A7?edition-redirect=uk

House Foreign Affairs Committee chairman says working to join JCPOA Tehran Times, December 4, 2020

Congressman Greg Meeks, who will be the first Black American to lead the House Foreign Affairs Committee, has said he planned "a new way of doing business," including working to rejoin the Iran nuclear pact and World Health Organization, and seeking to regain Congress' traditional control over the right to declare war. "Not only will we need to re-engage with a world that has felt the marked absence of U.S. global leadership, but we must also rethink traditional approaches to foreign policy," Meeks said in a statement, according to Reuters.

When the new Congress is seated in January, the 11-term House member will succeed fellow New York Representative Eliot Engel, who lost a Democratic primary this year to a more progressive challenger. Engel, known as a strong advocate for Israel, was seen as too hawkish by some members of the Democratic Party's left wing. Engel voted for the 2003 Iraq War and opposed President Barack Obama's 2015 nuclear deal with Iran. Meeks supported the nuclear agreement, and voted against the Iraq War. The caucus vote was 148-78 for Meeks over Representative Joaquin Castro, who had campaigned for the post as a more progressive alternative to Meeks. Castro, currently vice chairman of the foreign affairs panel, said he looked forward to working with Meeks on common goals such as promoting diversity at the State Department and rejoining the Iran nuclear deal.

https://www.tehrantimes.com/news/455410/House-Foreign-Affairs-Committee-chairman-says-working-to-join

Rouhani: Iran entitled to avenge Fakhrizadeh's assassination

Tehran Times, December 4, 2020

President Hassan Rouhani has said Iran is entitled to take revenge for the assassination of Mohsen Fakhrizadeh, an Iranian scientist who was killed during a terrorist attack on November 27. "Iran's government is entitled to take retaliation from the elements behind the assassination of the martyr," Rouhani said on Thursday, according to Mehr. He said the terrorist attack showed that Iran's enemies are desperate in the face of Iranian scientists' scientific progress.

"For us, it is completely clear who has committed this act of terror and what method was adopted to perpetrate this atrocity," he said. Fakhrizadeh, a senior nuclear and defense scientist, was assassinated in a small city east of Tehran on November 27.

https://www.tehrantimes.com/news/455394/Rouhani-Iran-entitled-to-avenge-Fakhrizadeh-s-assassination

Iran won't renegotiate nuclear deal, Zarif asserts Tehran Times, December 4, 2020

Foreign Minister Mohammad Javad Zarif has said Iran will not renegotiate the 2015 nuclear agreement it signed with six world powers and the European Union. Washington is not in a position to set conditions for implementing its own commitments under the nuclear agreement, Zarif said, addressing

the 6th edition of the Rome Mediterranean Dialogues 2020. Iran signed the nuclear deal, officially called the Joint Comprehensive Plan of Action (JCPOA), with the U.S., Russia, China, France, Britain, Germany and the European Union on July 14, 2015.

However, the JCPOA was abandoned by U.S. President Donald Trump on May 8, 2018. Trump replaced the pact with a "maximum pressure" policy against Tehran in order to pressure Iran into negotiating a new deal. With the defeat of Trump in the November 3 presidential election, hopes were raised over a possible revival of the JCPOA under President-elect Joe Biden. The Iranian foreign minister says the West can talk about other issues only if they stop "their malign behavior in the region" and "malign support" for the terrorist regime of Israel, otherwise they "have to shut up". Zarif stated that Iran's position is that the deal is not open to renegotiation and the U.S. has to observe the agreement and the UN resolution that endorses it. He said with its bashing of the JCPOA, the Trump administration acted as a "rogue regime".

https://www.tehrantimes.com/news/455385/Iran-won-t-renegotiate-nuclear-deal-Zarif-asserts

Iran: IAEA shall ensure confidentiality of safeguards information

Tehran Times, December 5, 2020

Kazem Gharibabadi, Iran's ambassador and permanent representative to the Vienna-based international organizations, has criticized the leaking of the recent report on Iran's nuclear development by the International Atomic Energy Agency (IAEA), saying the IAEA shall ensure confidentiality of safeguards information. "@iaeaorg confidential report, based on Iran's confidential letter, appeared in Media immediately even before the BoG Members could track it down. Agency is not merely responsible to update the development, but shall ensure confidentiality of safeguards information," Gharibabadi tweeted on Friday night.

"If neither the Agency nor its Member States are to be blamed for this crack in confidentiality, @iaeaorg should revise its confidentiality mechanisms including regarding using GovAtom as the safe and confidential means for communications," he added. The response by Ambassador Gharibabadi came after Reuters reported that Iran plans to install hundreds more advanced uranium-enriching centrifuges at an underground plant at Natanz. Citing a confidential IAEA report on Friday, Reuters said Iran plans to install three more cascades, or clusters, of advanced IR-2m centrifuges in the underground plant at Natanz.

https://www.tehrantimes.com/news/455419/Iran-IAEA-shall-ensure-confidentiality-of-safeguardsinformation

Strategic action plan 'not against national interests': SNSC

Tehran Times, December 5, 2020

Secretariat of Iran's Supreme National Security Council (SNSC) has issued a statement asserting that the Parliament's strategic action plan does not harm national interests. In a statement on Saturday, the SNSC emphasized that all procedures relating to the new law have taken place in accordance with the Parliament's regulations and customary norms. It also noted that its secretariat believes the new law does not cause any specific problem that may be to the detriment of national interests, Tasnim reported. The SNSC called on all parties to end the futile debates, warning that it will not allow anybody to play with national interests. Iranian Parliament on Tuesday passed the outlines of a plan aimed at lifting the

anti-Iran sanctions and protecting the rights of the Iranian nation. According to the 9-article bill, the Atomic Energy Organization of Iran (AEOI) will be required to produce and store at least 120 kilograms of enriched uranium with 20 percent purity at the Fordow nuclear facility every year, and to fulfil the country's peaceful industrial demands with uranium enriched above 20%. The bill became a law as the oversight Guardian Council approved it by asking the parliament to make some amendments to it. It will oblige the AEOI to increase the monthly output of enriched uranium for various peaceful purposes with different purity levels by at least 500 kg.

The bill entails uranium enrichment activities with at least 1,000 IR-2M centrifuge machines at Natanz within three months after the ratification of the law, and compels the AEOI to launch uranium enrichment as well as research and development activities with at least 164 IR-6 centrifuges and increase the number of centrifuge machines to 1,000 within a year after the ratification of the bill. The Rouhani administration has criticized the new action plan, saying it may create problems in Iran's foreign relations. "Regarding the Majlis nuclear plan, the relevant governmental bodies were not consulted and it may cause problems in the implementation process, as well as problems in foreign relations," presidential chief of staff Mahmoud Vaezi told reporters on Wednesday on the sidelines of a cabinet meeting.

https://www.tehrantimes.com/news/455434/Strategic-action-plan-not-against-national-interests-SNSC

Iran to pursue leakage of IAEA report: ambassador

Tehran Times, December 6, 2020

Iran's ambassador and permanent representative to the Vienna-based international organizations has said Tehran will soon legally pursue the leakage of a recent report by the International Atomic Energy Agency (IAEA). "Iran's objections and legal proceedings against the Agency in the field of protecting confidential information have a history of more than two decades," Kazem Gharibabadi said in an interview with IRINN on Saturday. "At various times, based on our country's commitments and the mission given to the Agency by the Board of Governors, the Agency has prepared reports on the verification of the implementation of the obligations and submitted them to the Board of Governors," Gharibabadi stated.

He further explained that for a long time "the Agency's safeguard reports, which were also very detailed, were prepared and distributed among the members, and in the last five years, the reports on Barjam (nuclear deal) have been replaced." He added that there are two problems along the way, namely the extent of details of safeguards activities that should be reflected in these reports, and the flawed mechanism for informing the members of the Agency. "These reports are leaked to the media before they are declassified," Gharibabadi lamented. The Iranian ambassador emphasized that all safeguards and nuclear deal reports, as well as Iran's correspondence with the IAEA and vice versa, are confidential. He reiterated that the primary responsibility for protecting confidential information lies with the United Nations nuclear watchdog.

https://www.tehrantimes.com/news/455465/Iran-to-pursue-leakage-of-IAEA-report-ambassador

Ulyanov slams Western calls to 'improve' JCPOA Tehran Times. December 6, 2020 Mikhail Ulyanov, Russia's permanent representative to the Vienna-based international organizations, has responded to Western calls to improve a 2015 nuclear deal between Iran and world powers. "Some analysts advocate for a 'better deal with Iran'. They forgot that the perfect is the enemy of the good. The return to the original deal is by itself a big challenge. Any attempt "to improve" it would require years of negotiations without any guarantee of positive result," the Russian diplomat said in a tweet. Ulyanov's tweet seems to have been published to recent remarks by some European officials and pundits about what they call the need to improve the Iran nuclear deal from which Donald Trump withdrew more than two years ago. Joe Biden has vowed to rejoin the nuclear deal.

However, European signatories to the deal – officially known as the Joint Comprehensive Plan of Action (JCPOA) – have publicly called for expanding it in a way that includes Iran's defensive missile program and its regional influence. German Foreign Minister Heiko Maas has explicitly pushed for such a deal in his recent interview with Der Spiegel. "A return to the previous agreement will not suffice anyway. There will have to be a kind of 'nuclear agreement plus,' which is also in our interest. We have clear expectations of Iran: no nuclear weapons, but also no ballistic missile program that threatens the entire region. Iran also needs to play a different role in the region," Maas told the German magazine, adding, "We need this agreement precisely because we distrust Iran. I have already coordinated with my French and British counterparts on this."

https://www.tehrantimes.com/news/455486/Ulyanov-slams-Western-calls-to-improve-JCPOA

Iran says 'smart satellite-controlled machine gun' killed top nuclear scientist

Reuters, December 7, 2020

The killing of Iran's top nuclear scientist last month was carried out remotely with artificial intelligence and a machine gun equipped with a "satellite-controlled smart system", Tasnim news agency quoted a senior commander as saying. Iran has blamed Israel for the assassination of Mohsen Fakhrizadeh, who was seen by Western intelligence services as the mastermind of a covert Iranian programme to develop nuclear weapons capability. Tehran has long denied any such ambition.

Israel has neither confirmed nor denied responsibility for the killing, and one of its officials suggested that the Tasnim report of the tactics used was a face-saving gambit by Iran. In the past, however, Israel has acknowledged pursuing covert, intelligence-gathering operations against the nuclear programme of its arch-enemy. The Islamic Republic has given contradictory details of Fakhrizadeh's death in a daytime Nov. 27 ambush on his car on a highway near Tehran. "No terrorists were present on the ground... Martyr Fakhrizadeh was driving when a weapon, using an advanced camera, zoomed in on him," Tasnim, a semi-official agency, quoted Ali Fadavi, the deputy commander of Iran's Revolutionary Guards, as saying in a ceremony. "The machine gun was placed on a pick-up truck and was controlled by a satellite."

https://www.reuters.com/article/idUKKBN28H13L?edition-redirect=uk

AI technology used in online-controlled assassination of Fakhrizadeh: general Tehran Times, December 7, 2020

The machine gun that targeted Martyr Mohsen Fakhrizadeh was controlled online and artificial intelligence technology was used in it, the Deputy Chief of the Islamic Revolution Guards Corps (IRGC) has said. "The satellite machine gun was controlled online and there were no terrorists at the

scene," Brigadier General Ali Fadavi said while addressing a commemoration ceremony for the assassinated scientist on Sunday. "13 bullets were fired from the machine gun and it was zoomed in on Martyr Fakhrizadeh's face with an advanced camera, and it was equipped with artificial intelligence technology," Fadavi explained, according to Mehr.

Fakhrizadeh, a senior nuclear and defense scientist, was assassinated in a small city east of Tehran on November 27. His assassination could further hamper diplomatic efforts to salvage the 2015 Iran nuclear deal, which was abandoned by U.S. President Donald Trump in May 2018. Iran has blamed Israel, which has carried out assassination operations against Iranian nuclear scientists over the past decade. Immediately after the assassination, Foreign Minister Zarif said in a tweet that the attack was carried out with "serious indications of Israeli role".

https://www.tehrantimes.com/news/455490/AI-technology-used-in-online-controlled-assassinationof-Fakhrizadeh

Tehran urges Europe to prove goodwill by fulfilling JCPOA commitments

Tehran Times, December 7, 2020

Foreign Ministry spokesman Saeed Khatibzadeh has called on European parties to the Iran nuclear deal to prove their goodwill by fulfilling their commitments under the 2015 deal, officially known as the Joint Comprehensive Plan of Action (JCPOA). "A new opportunity has been created to continue the previous correct path," Khatibzadeh said in an online press conference, making a vague reference to the election of Joe Biden as the new president of the United States.

"The other side should return to the fulfillment of its obligations and Iran too will fulfill its obligations as it has announced," he said. The JCPOA was signed between Iran, six world powers - the U.S., the UK, France, Russia, China, Germany - and the European Union in July 2015. The pact was ditched by U.S. President Donald Trump in 2018 in pursuit of a "maximum pressure" campaign against Iran. Trump's withdrawal came while Iran was in full compliance with the treaty. All other parties to the deal have repeatedly criticized the Trump administration's policy toward Iran. Biden's victory in the November 3 presidential election raised hopes over the prospects of a re-entry into the JCPOA by the incoming administration. During his Monday presser, Khatibzadeh asked to comment on recent remarks by German Foreign Minister Heiko Maas, who called for negotiations with Iran to conclude a broader nuclear deal next year. "Iran's stances regarding Barjam (JCPOA) is fixed and unchanged," said Khatibzadeh.

https://www.tehrantimes.com/news/455526/Tehran-urges-Europe-to-prove-goodwill-by-fulfilling-JCPOA-commitments

Europe failed to meet Iran's JCPOA expectations, says senior MP

Tehran Times, December 8, 2020

A top Iranian legislator said on Tuesday that Europe has not met Iran's expectations in salvaging the Joint Comprehensive Plan of Action (JCPOA), commonly known as the Iran nuclear agreement. "The Islamic Republic of Iran has fulfilled all its obligations in accordance with Barjam (Persian acronym for the JCPOA), but the other side, while several years have passed, has evaded its duties," Mojtaba said Zonnour, who chairs the Parliament's National Security and Foreign Policy Committee. "Therefore, the unilateral continuation of the obligations [by Iran] is not acceptable," he added.

Zonnour made the remarks in a meeting with Hans-Udo Muzel, the German ambassador to Tehran. The JCPOA was signed between Iran, six world powers - the U.S., the UK, France, Russia, China, Germany - and the European Union in July 2015. The pact was ditched by U.S. President Donald Trump in 2018 in pursuit of a "maximum pressure" campaign against Iran. Trump's withdrawal came while Iran was in full compliance with the treaty. Biden's victory in the November 3 presidential election has raised hopes over the prospects of a re-entry into the JCPOA by the incoming U.S. administration. Zonnour also said he believes that if European countries such as Germany take practical steps in fulfilling their commitments under the JCPOA, stand up to the United States' greed, and act responsibly toward the atrocities being committed in West Asia, the world would become a much more secure place. The German ambassador, for his part, expressed satisfaction with the constructive talks between the representatives of the Iranian and German parliaments in recent years.

https://www.tehrantimes.com/news/455556/Europe-failed-to-meet-Iran-s-JCPOA-expectations-sayssenior

Anti-tank missile in Libya looks like Iran-produced weapon -U.N

Michelle Nichols Reuters, December 9, 2020

A United Nations analysis of photos of four anti-tank guided missiles in Libya found that one "had characteristics consistent with the Iranian-produced Dehlavieh" missile, U.N. Secretary-General Antonio Guterres reported to the Security Council. However, he said in his biannual report - submitted to the council late Monday and seen by Reuters on Tuesday - that the U.N. secretariat was "unable to ascertain if this anti-tank guided missile had been transferred to Libya" in violation of Security Council sanctions on Iran. The 15-member council banned weapons exports by Iran in 2007. Under a 2015 nuclear deal between Tehran and key global powers, which is enshrined in a Security Council resolution, the arms restrictions were lifted in October this year.

Israel accused Iran of violating sanctions and submitted photos of the anti-tank guided missiles in Libya to Guterres in May. Just weeks later, Iran wrote to Guterres and "categorically rejected" the Israeli claims as "totally baseless." Israel said the photos surfaced in November 2019 and that the weapons were being used by militias linked to Khalifa Haftar's Libyan National Army (LNA), which has been fighting the internationally recognized Government of National Accord (GNA). "Based on the Secretariat's analysis of the photographs provided, the Secretariat established that one of the four anti-tank guided missiles had characteristics consistent with the Iranian-produced Dehlavieh, though no production date for this anti-tank guided missile was visible," Guterres' report said. "The Secretariat is unable to ascertain if this anti-tank guided missile had been transferred to Libya in a manner inconsistent with resolution 2231 (2015)," the report said. Guterres reports twice a year to the Security Council on the implementation of the 2015 resolution.

https://www.reuters.com/article/idUKKBN28I2SF?edition-redirect=uk

France's Macron says nuclear will remain key energy source

Reuters, December 9, 2020

Nuclear power will remain a key part of France's energy supplies, President Emmanuel Macron said on Tuesday in a show of support for the industry even as he looks to reduce nuclear's dominance as a power source. France has said it will cut its reliance on nuclear energy to 50% from 75% by 2035 and has yet to make a final decision on whether to build next-generation EPR nuclear reactors. That is due by 2023, by which time state-controlled utility EDF's Flamanville 3 EPR project should be up and running, but Macron said he wanted to make a big push on preparations by next year. "The preparatory studies around the construction of new reactors are key and I want them to continue and be wrapped up in the coming months," Macron said during a visit to nuclear components maker Framatome, part of EDF.

EDF, which has been plagued by delays and cost overruns on existing projects, has already said it plans to unveil a new, cheaper-to-build version of its EPR nuclear reactor by mid-2021. Macron nonetheless signalled broad support for the industry, even as he flagged the need to move more towards renewable energy. He said France's next-generation aircraft carrier would be nuclear-powered.

https://www.reuters.com/article/idUKL1N2IO1Q1?edition-redirect=uk

Envoy criticizes IAEA chief's assessment of new Iranian law

Tehran Times, December 11, 2020

Iran's ambassador and permanent representative to the Vienna-based international organizations has criticized the head of the International Atomic Energy Agency's remarks, saying the IAEA is only responsible with monitoring and verifying Iran's nuclear-related measures. "@iaeaorg sole role is to monitor and verify the voluntary nuclear-related measures as detailed in the JCPOA and to provide regular updates in this regard," Kazem Gharibabadi wrote in a tweet on Friday.

"Any assessment or analysis is out of the mandate of the Agency," Gharibabadi added. It came after IAEA Director General Rafael Grossi told Sky News that Iran should not follow through on threats to increase uranium enrichment and throw out his inspectors. "If implemented," he said, "these measures would be an even further deviation from the commitments that Iran entered into when it joined the agreement." "I cannot imagine who would win from such a situation. If there was any limitation of the IAEA inspectors as a result of this or any other situation were curtailed in their work," Grossi added. He was referring to a recent move by Iran's Parliament that pushed nuclear program forward in order to fight the U.S.-imposed sanctions. The Parliament passed the strategic action plan earlier this month. According to the 9-article bill, the Atomic Energy Organization of Iran (AEOI) will be required to produce and store at least 120 kilograms of enriched uranium with 20 percent purity at the Fordow nuclear facility every year, and to fulfil the country's peaceful industrial demands with uranium enriched above 20%. The bill became a law as the oversight Guardian Council approved it by asking the parliament to make some amendments to it. It will oblige the AEOI to increase the monthly output of enriched uranium for various peaceful purposes with different purity levels by at least 500 kg.

https://www.tehrantimes.com/news/455617/Envoy-criticizes-IAEA-chief-s-assessment-of-new-Iranian-law

Iran urges IAEA to be 'independent, professional and impartial'

Tehran Times, December 12, 2020

Iranian Ambassador and Permanent Representative to International Organizations in Vienna Kazem Gharibabadi has called on the International Atomic Energy Organization (IAEA) to remain professional and impartial. "Now, it is obvious that to whom the Late DG Amano was referring on 30

Jan 2019: If attempts are made to micro-manage or put pressure on the @iaeaorg in nuclear verification that is counter-productive and extremely harmful," Gharibabadi said in a tweet. Gharibabadi was responding to JNS's recent interview with Elliott Abrams, the U.S. Special Representative for Iran. The American official told JNS that the Trump administration has built leverage against Iran and that the next U.S. administration should use it. He said the U.S. administration needs to further cooperate internationally.

"There needs to be a lot of international coordination. Without the 'maximum pressure' campaign, I think you would not be seeing the kind of coordination in cooperation you are seeing between Israel, Bahrain and the United Arab Emirates. That's very important." Abrams said, adding, "We also need coordination with the Europeans, particularly the British, French and Germans, who were involved in the negotiation with Iran in 2015, to keep the pressure on the IAEA [International Atomic Energy Agency]. So, there are a number of places you need to keep the pressure on in the region, and you need to keep it on the IAEA about nuclear activities. And you need to keep the economic pressure on." These remarks elicited a direct response from Gharibabadi, who published a screeenshot of Abram's remarks, using the hashtag "reject pressures on the IAEA." The Iranian envoy said these pressures are detrimental to the international community.

https://www.tehrantimes.com/news/455694/Iran-urges-IAEA-to-be-independent-professional-and-impartial

JCPOA Joint Commission to meet Wednesday

Tehran Times, December 12, 2020

The Joint Commission of the Joint Comprehensive Plan of Action (JCPOA) plans to meet in Vienna on Wednesday, Iran and the European Union said. Seyed Abbas Araghchi, the deputy foreign minister of Iran for political affairs, announced in a statement that was published on his Telegram channel that the Joint Commission will hold a meeting at the level of deputy ministers and political directors of the 4+1 (France, Russia, China, the UK and Germany). The meeting will be held via videoconference. Araghchi said he will represent Iran in the meeting. Earlier on November 30, the European Union External Action Service said in a statement that the meeting will be held in Vienna. "A meeting of the Joint Commission of the Joint Comprehensive Plan of Action (JCPOA) will take place in Vienna on 16 December. The Joint Commission will be chaired on behalf of EU High Representative Josep Borrell by the Secretary General of the European External Action Service Helga Maria Schmid and will be attended by the representatives of E3+2 countries (China, France, Germany, Russia, United Kingdom) and Iran," the EU statement said. According to the statement, the meeting will discuss ways to preserve the 2015 Iran nuclear deal. "Participants will discuss ongoing work to preserve the JCPOA and how to ensure the full and effective implementation of the agreement by all sides, including in preparation of exchanges at Ministerial Level," the statement said.

This is the first meeting of the Joint Commission after Joe Biden won the U.S. presidential election in early November. During his election campaign, Biden has said that he will join the JCPOA if he wins the election. "I will offer Tehran a credible path back to diplomacy. If Iran returns to strict compliance with the nuclear deal, the United States would rejoin the agreement as a starting point for follow-on negotiations. With our allies, we will work to strengthen and extend the nuclear deal's provisions, while also addressing other issues of concern," then-presidential candidate Biden said in an op-ed for CNN in mid-September.

https://www.tehrantimes.com/news/455695/JCPOA-Joint-Commission-to-meet-Wednesday

Iran will not accept new nuclear deal: MP

Tehran Times, December 13, 2020

Jalil Rahimi Jahanabadai, a member of the Parliament's National Security and Foreign Policy Committee, has ruled out any possibility of Iran agreeing to a new deal on its nuclear program. "Iran's position on the JCPOA is quite clear. There is a consensus in the establishment in its entirety on the nuclear deal that Iran demands that all JCPOA parties should return to the deal and implement it unconditionally," the lawmaker said, according to the Parliament's news agency ICANA. Rahimi Jahanabadi also referred to the upcoming meeting of the JCPOA Joint Commission, which is scheduled to be held on Wednesday, saying that during the meeting the two issues should be discussed.

"It is expected that Mr. Araghchi, as Iran's representative, underlines two issues in the JCPOA Joint Commission meeting. First of all, he should reiterate that the JCPOA is the best deal. Second, Iran will not accept a new deal and negotiations," the lawmaker said, adding that Iran should tell the 4+1 that it will return to its past activities if the Westerners fail to implement their commitments. 4+1 refers to France, Britain, Russia and China as four permanent members of the UN Security Council plus Germany. First it was referred to as 5+1, before Donald Trump withdrew the U.S. from the multilateral agreement. Seyed Abbas Araghchi, the deputy foreign minister of Iran for political affairs, announced in a statement that the Joint Commission will hold a meeting at the level of deputy ministers and political directors.

https://www.tehrantimes.com/news/455734/Iran-will-not-accept-new-nuclear-deal-MP

Iran's missile programme is non-negotiable, says Rouhani

Reuters, December 14, 2020

Iranian President Hassan Rouhani said on Monday that Tehran's missile programme, seen by Washington as a threat to regional stability, was non-negotiable and that U.S. President-Elect Joe Biden is "well aware of it". Biden's victory has raised the possibility that Washington could rejoin a deal Iran reached with world powers in 2015, and he appears to see a return as a prelude to wider talks on Iran's nuclear work, its ballistic missiles and regional activities.

But Tehran has ruled out halting its missile programme or changing its regional policy, and instead has demanded a change in U.S. policy, including the lifting of sanctions and compensation for the economic damage caused during the U.S. withdrawal from the nuclear accord.

https://www.reuters.com/article/idUKL8N2IU3F6?edition-redirect=uk

JCPOA talks will go ahead as planned: EU diplomat

Tehran Times, December 15, 2020

The European Union-Iran talks on the 2015 nuclear deal will go ahead as planned despite the controversy over the execution of Rouhollah Zam, an EU foreign service spokesman said, according to Euobserver. The Joint Commission of the Joint Comprehensive Plan of Action (JCPOA) plans to meet in Vienna on Wednesday, Iran and the EU said. However, after the execution of Amad News operator Rouhollah Zam, there have been rumors that the JCPOA talks may be postponed or canceled.

But the EU foreign service said that Wednesday's JCPOA talks, covering implementation details, will go ahead as planned despite Zam's execution.

"I wouldn't mix the two issues," the EU spokesman said on Monday, adding, "You cannot connect it [the JCPOA], or link it, or even compare it with the objectives of the [postponed EU business] forum." The spokesman was referring to the Iran-Europe business forum that was due to be held through webinar during December 14-16 but was postponed in the wake of Zam's execution. The business forum was collaboratively by Iran's Trade Promotion Organization (TPO) and the European Union (EU).

https://www.tehrantimes.com/news/455826/JCPOA-talks-will-go-ahead-as-planned-EU-diplomat

Rouhani says Trump's anti-Iran actions were based on his illusions

Tehran Times, December 15, 2020

President Hassan Rouhani has censured his outgoing American counterpart, saying Donald Trump's actions against the Islamic Republic were based on his illusions. "Trump did not recognize the capabilities of the Islamic Republic of Iran at all and acted on his own illusions," Rouhani said at a meeting of the government's economic coordination headquarters in Tehran on Tuesday, ISNA reported. He said the nation's resistance in the face of sanctions and the failure of Trump's economic war against Iran proved "great realities" to the world and to Iran's foes.

Rouhani urged Iran's enemies to abandon the wrong and failed policy of sanctions against Tehran once and for all. According to President Rouhani, Trump's defeat in the November presidential election was mainly the result of his failure in the economic war on Iran in addition to his other foreign policy failures.

 $\underline{https://www.tehrantimes.com/news/455819/Rouhani-says-Trump-s-anti-Iran-actions-were-based-on-his-illusions}$

Iran's missile program 'a thorn in eyes of enemies', says defense chief

Tehran Times, December 15, 2020

Defense Minister Amir Hatami has said Iran's defensive missile program is "a thorn in the eyes of the enemies", with Iran strengthening its missile power day by day. "But [our] martyrdom culture is [Iran's] number one progress, and a nation that has a culture of martyrdom cannot be dominated," Brigadier General Hatami said in remarks. He also said the budget of the Organization of Defensive Innovation and Research has witnessed a 256 percent increase. In the aftermath of the assassination of top Iranian scientist Mohsen Fakhrizadeh, the Leader of the Islamic Revolution said that two important issues should be put on the agenda by all those involved, Hatami stated. "First, the following up of this crime and the definitive punishment of its perpetrators, and second, the pursuit of the martyr's scientific and technical efforts," added the general.

Iranian officials were quick to point the finger at Israel, which has carried out many assassination operations against Iranian nuclear scientists over the past decade. Foreign Minister Mohammad Javad Zarif said in a tweet on the day of the assassination that the attack was carried out with "serious indications of Israeli role." Since then, several Iranian officials have vowed to take revenge against Israel. Elsewhere in his remarks, Hatami said the enemy's aim was to disrupt to process of scientific

movement and the speed of progress of the Islamic Republic in the field of new technologies. "The enemy was well aware of our significant progress in emerging and innovative areas, therefore, with this action, it tried to weaken the morale of the people and undercut Iran's security and power," he pointed out.

https://www.tehrantimes.com/news/455810/Iran-s-missile-program-a-thorn-in-eyes-of-enemies-saysdefense

Israel

Israel receives its most advanced warship as Iran tensions rise Dan Williams Reuters

Israel received its most advanced warship on Wednesday, describing the German-made vessel dubbed "Shield" as a bulwark for vulnerable Mediterranean gas rigs as tensions with Tehran soar over the assassination of a top Iranian nuclear scientist. The Saar-6 corvette that docked in Haifa port, and three of the same model to follow next year, will bring to 15 the number of missile boats deployed by an Israeli navy which, while small, carries out missions as far away as the Red Sea and the Gulf. Israel also wants to protect off-shore natural gas fields close to Lebanon, an old foe with which it has held so far fruitless U.S.-mediated maritime border talks.

"The welcome discovery of the gas fields off Israel's shore made it necessary to create a plan that will provide a protective envelope," Israeli President Reuven Rivlin said at ceremony at the port.

https://www.reuters.com/article/idUKL8N2II2CP?edition-redirect=uk

Saudi Arabia

Saudi minister rejects Iranian accusation on scientist's killing Reuters, December 1, 2020

Saudi Arabia's minister of state for foreign affairs on Tuesday criticised Iran's foreign minister for implicating Riyadh in the killing of prominent Iranian nuclear scientist Mohsen Fakhrizadeh. "Iranian Foreign Minister Zarif is desperate to blame the Kingdom for anything negative that happens in Iran. Will he blame us for the next earthquake or flood?," minister Adel Al-Jubeir said in a tweet.

Jubeir's remarks appeared to be a response to comments made on Monday by Mohammad Javad Zarif which suggested a covert meeting in Saudi Arabia between Crown Prince Mohammed bin Salman and Israeli Prime Minister Benjamin Netanyahu contributed to the assassination of Mohsen Fakhrizadeh.

https://www.reuters.com/article/idUKKBN28B61A?edition-redirect=uk

Unlike Iran, Saudi Arabia does not engage in assassinations: Al-Jubeir Saudi Gazette, December 02, 2020

Iranian Foreign Minister Javad Zarif is desperate to blame Saudi Arabia for anything negative that happens in Iran, Saudi Arabia's Minister of State for Foreign Affairs Adel Al-Jubeir said on Tuesday. "Will he blame us for the next earthquake or flood?" he tweeted. He added: It is not the policy of Saudi

Arabia to engage in assassinations; unlike Iran, which has done so since the Khomeini Revolution in 1979.

"Ask us, and ask many other countries who have lost many of their citizens due to Iran's criminal and illegal behavior!" The Saudi minister made the remarks in response to insinuations being made about the Kingdom's complicity in the assassination of top Iranian nuclear scientist Mohsen Fakhrizadeh last week.

https://saudigazette.com.sa/article/600954/SAUDI-ARABIA/Unlike-Iran-Saudi-Arabia-does-notengage-in-assassinations-Al-Jubeir

UAE

UAE's Barakah nuclear power plant unit hits 100% capacity

Saudi Gazette, December 07, 2020

The Emirates Nuclear Energy Corporation (ENEC) has announced that its operating and maintenance subsidiary, Nawah Energy Company (Nawah), has successfully achieved 100 percent of the rated reactor power capacity for Unit 1 of the Barakah Nuclear Energy Plant. This major milestone brings the Barakah plant one step closer to commencing commercial operations, scheduled in early 2021. The full capacity operation means that Unit 1 is generating 1400MW of electricity from a single generator connected to the UAE grid. This milestone makes the Unit 1 generator the largest single source of electricity in the UAE.

The Barakah Nuclear Energy Plant is the largest source of clean baseload electricity in the country, capable of providing constant and reliable power in a sustainable manner around the clock. This significant achievement accelerates the decarbonization of the UAE power sector, while also supporting the diversification of the Nation's energy portfolio as it transitions to cleaner electricity sources. The accomplishment follows shortly after the UAE's celebration of its 49th National Day, providing a strong example of the country's progress as it continues to advance towards a sustainable, clean, secure, and prosperous future. As the Nation looks towards the next 50 years of achievements, the Barakah plant will generate up to 25 percent of the country's electricity, while also acting as a catalyst of the clean carbon future of the nation.

https://saudigazette.com.sa/article/601116/World/Mena/UAEs-Barakah-nuclear-power-plant-unithits-100-capacity

East Asia North Korea

N. Korea might seek to improve cross-border ties to strengthen leverage over Washington: think tank Yonhap Korea Herald, December 1, 2020

North Korea could try to improve its currently chilled relations with South Korea next year so as to strengthen its leverage in future nuclear negotiations with the United States, a state-run think tank said Tuesday. The Seoul-based Korea Institute for National Unification also said that the May-September

period will be a "golden time" to make progress in stalled nuclear talks and inter-Korean ties as the Tokyo Summer Olympics could serve as a platform for resuming talks.

The North is expected to unveil its policy direction on the US and South Korea during a rare party congress to be held early next month amid uncertainty over Washington's North Korea policy after Joe Biden's election as new president. "Chances are high that North Korea will take a reconciliatory approach to South Korea in a way that actively utilizes it until the new US government determines its North Korea policy," the think tank said in a report. "The May-September period could be a golden time for the North to link inter-Korean relations to its relations with the US," it added. "In that sense, the North could take an approach of actively using South Korea by revitalizing inter-Korean relations."

http://www.koreaherald.com/view.php?ud=20201201000779&ACE_SEARCH=1

NK denuclearization is mission impossible: Perry Ahn Sung-mi

Korea Herald, December 2, 2020

Getting North Korea to give up its nuclear arsenals is "mission impossible," former US Defense Secretary William Perry said, underlining that any future negotiators should enter talks with the reclusive regime on this premise. "I truly believe getting North Korea to denuclearize is 'mission impossible' and any negotiator given that task is going to fail," Perry said during a video-linked forum organized by the state-run think tank the Institute for National Security Strategy and Stanford University's Center for International Security and Cooperation on Wednesday. "They do very much want economic improvement. But in my judgment, they will not trade that for a nuclear arsenal."

This is because the North's key priority is national security and deterrence against Washington, which the country believes it can obtain only by stockpiling nuclear weapons, said Perry, who helped defuse the 1994 North Korean nuclear crisis during the Bill Clinton administration. He is best known for drawing up a three-stage approach in 1999, dubbed the "Perry Process," calling for the North to freeze its missile tests and nuclear development in return for the lifting of sanctions and normalized relations with the US.

http://www.koreaherald.com/view.php?ud=20201202000946&ACE_SEARCH=1

N. Korea advancing nuclear, missile capabilities: Milley

Yonhap Korea Herald, December 3, 2020

North Korea continues to develop its nuclear and long-range missile capabilities, but so are South Korea and the United States to deter provocations, the top US military officer said Wednesday. Gen. Mark Milley, chairman of the US Joint Chiefs of Staff, also noted the communist state may stage military provocations but said the allies are fully ready and capable to deal with any provocation. "It is also true that North Korea has advanced their nuclear weapon and missile delivery capabilities. But the deterrence capabilities of not only the Republic of Korea, but also in combination with Japan and most importantly with the United States is very, very significant," the top US military leader said in a webinar hosted by the Washington-based Brookings Institution think tank.

Pyongyang has maintained a self-imposed moratorium on nuclear and long-range missile testing since November 2017. The communist state, however, unveiled a longer-range intercontinental ballistic missile in an Oct. 10 military parade, indicating its continued weapons development despite the near two-year halt in testing. Milley noted the North may be facing a "wide variety of challenges" internally but that it may resume its military provocations in the future. "That's very possible. I mean they have got a long history of doing things like that," he said.

http://www.koreaherald.com/view.php?ud=20201203000137&ACE_SEARCH=1

N.Korea wasted chance to improve relations under Trump, U.S. envoy says Josh Smith, Hyonhee Shin Reuters, December 10, 2020

Pyongyang squandered an opportunity to fundamentally reinvent its relationship with the United States during Donald Trump's presidency, Washington's top North Korea envoy said on Thursday, adding he will urge his successors to continue engagement. Speaking to a think tank in Seoul during a visit to meet with South Korean security officials, U.S. Deputy Secretary of State Stephen Biegun admitted he was disappointed denuclearisation negotiations had stalled and that more progress was not made during his time leading those efforts.

"Regrettably, much opportunity has been squandered by our North Korean counterparts over the past two years, who too often have devoted themselves to the search for obstacles to negotiations instead of seizing opportunities for engagement," he said, according to his prepared remarks.

https://www.reuters.com/article/idUKL4N2IQ17O?edition-redirect=uk

South Korea

S. Korea, UN disarmament office to hold joint conference on emerging weapons technologies Yonhap

Korea Herald, December 1, 2020

South Korea and the UN disarmament office will hold a joint conference on disarmament and nonproliferation this week, with a focus on emerging weapons, such as killer robots and hypersonic missiles, the foreign ministry said Tuesday. The 19th Joint Conference on Disarmament and Nonproliferation Issues will take place via video links Wednesday for a two-day run, with government officials and think tank experts from more than 20 countries, as well as those from international organizations, expected to take part. Ham Sang-wook, South Korea's deputy foreign minister for multilateral and global affairs, and Izumi Nakamitsu, UN undersecretary-general of disarmament affairs, will each deliver an opening speech.

The conference has traditionally focused on evaluating international efforts to prevent the spread of nuclear weapons and discussing the future of the Non-Proliferation Treaty (NPT). But this year, it plans to also address the emergence of new weapons technologies, including the Lethal Autonomous Weapons (LAW), like killer robots, weapons developed using synthetic biology, and super-fast, low-flying hypersonic weapons. Participants are expected to discuss the impact that such new types of weapons will have on the existing international disarmament and nonproliferation regimes, as they have become a pressing matter that warrants attention, a ministry official said. The conference will also include a special session for young people, where about 25 youth representatives from Seoul and

the UN will join to talk about disarmament-related issues. Last year, the UN disarmament committee adopted a South Korea-drafted resolution on encouraging youth participation in disarmament and nonproliferation issues.

http://www.koreaherald.com/view.php?ud=20201201001063&ACE_SEARCH=1

Biegun visits Seoul for talks on bilateral alliance, N. Korea

Yonhap Korea Herald, December 8, 2020

Biegun landed aboard a chartered plane at Osan Air Base in Pyeongtaek, 70 kilometers south of Seoul, at about 4:15 p.m., officials said. Among his delegation were Alex Wong, deputy assistant secretary of state for North Korea, and Allison Hooker, senior director for Asian affairs at the White House's National Security Council, according to diplomatic sources. His four-day trip comes amid concern that North Korea could stage provocations to test the incoming administration of US President-elect Joe Biden that has yet to unveil its detailed policy on the communist state.

The trip is expected to be his last visit to Seoul as the No. 2 American diplomat and the US envoy for North Korea under the Donald Trump administration that ends its four-year term early next year. Biegun will hold talks with First Vice Foreign Minister Choi Jong-kun before meeting with Seoul's chief nuclear negotiator, Lee Do-hoon, to discuss the prolonged deadlock in the denuclearization talks with Pyongyang, the foreign ministry said.

http://www.koreaherald.com/view.php?ud=20201208000102&ACE_SEARCH=1

Misc/World

Australia partners with U.S. to develop hypersonic missiles

Reuters, December 1, 2020

Australia will jointly develop hypersonic cruise missiles with the United States in a bid to counter China and Russia which are developing similar weapons, Defence Minister Linda Reynolds said on Tuesday. "We will continue to invest in advanced capabilities to give the Australian Defence Force more options to deter aggression against Australia's interests," Reynolds said in a statement. She did not reveal the cost of developing the missiles or when they would be operational. Australia had set aside up to A\$9.3 billion (5.13 billion pounds) this year for high-speed, long-range missile defence systems, including hypersonic research.

https://uk.reuters.com/article/idUKL4N2IH06R

U.N. Security Council unlikely to act on Iran scientist killing - diplomats

Reuters, December 2, 2020

Just hours after the assassination of a top Iranian nuclear scientist, Tehran demanded the United Nations Security Council condemn the killing and take action against those responsible, but diplomats say the

call is likely to go unheeded. At a minimum, the 15-member body could discuss Friday's killing of nuclear scientist Mohsen Fakhrizadeh behind closed doors if a member requests such a meeting or it could agree on - by consensus - a statement on the issue.

But South Africa's U.N. ambassador, Jerry Matjila, council president for December, said on Tuesday that no member had so far requested to discuss the killing or Iran in general. Diplomats also said there had been no discussion of a statement. The Security Council is charged with maintaining international peace and security and has the ability to authorize military action and impose sanctions. But such measures require at least nine votes in favor and no vetoes by the United States, France, Britain, Russia or China.

https://www.reuters.com/article/idUKKBN28B6GB?edition-redirect=uk

Extending nuclear cooperation to the Middle East

World Nuclear News, December 4, 2020

The 10 November event took place amid growing concern about Iran's move away from its commitments under the Joint Comprehensive Plan of Action (JCPoA) and signals from president-elect Joe Biden that the USA will re-enter the agreement. A recording of the online conference, which had 30 speakers and more than 1000 registered participants, was uploaded to YouTube this week. Israel operates a research reactor at the Soreq Nuclear Research Centre, near Tel Aviv, under International Atomic Energy Agency (IAEA) safeguards. It is one of three significant countries that have never been part of the Non-Proliferation Treaty (NPT), so any supply of nuclear equipment or fuel from outside the country would be severely constrained. Unlike India and Pakistan, Israel has no civil nuclear power programme. A number of its neighbours, however, do have nuclear power plants in operation, under construction or planned. They include Egypt, Iran, Jordan, Saudi Arabia, Turkey and the UAE. Ori Nissim Levy, from Operational Nuclear Defense Model and the chairman of the conference, unveiled an initiative to rank all countries in terms of their preparedness for a radiological emergency. N&R-SR1 - 'nuclear and radiological index standard of readiness' - was created by World Nuclear Forum-193 (WNF-193), an international group of scientists and experts in nuclear energy and radiology.

https://world-nuclear-news.org/Articles/Extending-nuclear-cooperation-to-the-Middle-East

Greenpeace says it was given documents about Flamanville nuclear reactor security Reuters, December 7, 2020

Greenpeace France said the fact it has been given documents detailing the security systems of the EPR nuclear reactor under construction in Flamanville, France raises concerns about the protection of confidential information at nuclear utility EDF and its subcontractors. Greenpeace said in a statement on Monday it had access to several thousand pages of detailed plans of the Flamanville site, the location of security cameras and descriptions of electronic surveillance systems. It said it had been given the documents, without asking for them, from a person who had no professional links with the nuclear industry.

"The way we have received these documents proves that detailed information about a nuclear site circulates among the public," Greenpeace chief Jean-François Julliard said. "In different

circumstances, they could have been sold or given to a violent group ... which raises the possibility of intrusion, sabotage or theft of radioactive materials."

https://www.reuters.com/article/idUKKBN28H0UE?edition-redirect=uk

Czech nuclear plant tender hits hurdle over China, Russia participation Jan Lopatka Reuters, December 9, 2020

A Czech tender to build a new nuclear power plant worth at least \$7.2 billion at current prices will be delayed as politicians discuss whether to allow Chinese and Russian bidders to take part due to security concerns, officials said. The plan for majority state-owned utility CEZ to build a 1,200 MW unit at the Dukovany power plant has run into demands from security services and five opposition parties to exclude Russia's Rosatom and China General Nuclear Power due to perceived security risks to the NATO and EU member country.

Industry and Trade Minister Karel Havlicek said after a meeting of a state commission on nuclear power expansion that the tender would not be opened by the end of the year as planned and further discussions would take place in January, CTK news agency reported. He said four options were being discussed: allowing Chinese and Russian bidders to take part; allowing them in only as junior members of wider consortia; not allowing them in; or delaying the process until after an election due in October 2021. Havlicek said he preferred an option where Russian and Chinese firms could join forces with the other three potential bidders - South Korea's KHNP, France's EdF and Westinghouse of the United States.

https://www.reuters.com/article/idUKL8N2IP3LX?edition-redirect=uk

Op-Ed

China

China military: how Beijing is pushing forward its plan for a powerful, modern armed forces

Nadia Lam

South China Morning Post, December 1, 2020

As regional tensions rise, a more assertive China has set a goal of turning its vast People's Liberation Army into a modern fighting force by 2027, and a world-class military by 2050 – but how far has it come, and where is it headed? The PLA began in 1927 with an armed uprising launched by the Communist Party against the Nationalist Kuomintang forces in Nanchang, Jiangxi province. This motley collection of communists, peasants, Kuomintang deserters and bandits was known as the Red Army. They had no ranks or formal command chain, and used guerilla tactics – irregular, fast-moving and small-scale actions – against their better armed and bigger enemy. It was renamed the People's Liberation Army in the later stage of China's pre-1949 civil war.

China's military has been significantly downsized since the 1980s as it tries to streamline operations, but it remains the world's largest army with more than 2 million active personnel. That is even after

the most recent efforts to reduce the numbers, when some 300,000 troops were retrenched, according to a defence white paper released by Beijing in 2019. As well as troop reductions, the PLA has also undergone a massive structural reform that began in 2015. The four general departments – staff, politics, logistics and armaments – were reorganised into 15 agencies under the Central Military Commission. And seven military area commands were merged and replaced by five theatre commands. That put the CMC in charge of overall administration of the military, while the theatre commands focus on operations and troop development, according to state news agency Xinhua, citing an adviser to the commission's leading group on reform.

https://www.scmp.com/news/china/military/article/3111960/how-china-pushing-forward-its-plan-powerful-modern-military

Beijing's South China Sea military bases 'are vulnerable to attack and will be of little use in a war'

Kristin Huang

South China Morning Post, December 6, 2020

The artificial islands China has built in the South China Sea are vulnerable to attack and unlikely to contribute much to any combat mission, a Chinese military magazine has warned. China has been transforming the reefs and atolls it occupies on the disputed Spratly Islands since 2015, turning them into artificial islands. It has also built airstrips and other military facilities and deployed equipment such as anti-aircraft guns and close-in weapons systems, according to the US think tank the Centre for Strategic and International Studies. These moves heightened fears among rival South China Sea claimants such as Vietnam and the Philippines, which fear the military build-up could allow Beijing to attack warplanes or shoot down missiles from the facilities. But an article in the latest edition of Naval and Merchant Ships, a Beijing-based monthly magazine, highlighted the artificial islands' weaknesses in four areas: their distance from the mainland, small size, the limited capacity of their airstrips and the multiple routes by which they could be attacked.

https://www.scmp.com/news/china/military/article/3112419/beijings-south-china-sea-military-basesare-vulnerable-attack

China's military: pressure from US can help drive PLA's modernisation, observers say

Minnie Chan

South China Morning Post, December 12, 2020

China should use the United States' efforts to contain its expansion in the Asia-Pacific region as the driving force for modernising the People's Liberation Army, Chinese military observers say. At the

annual Defence Forum Washington last weekend, General Mark Milley, chairman of the US Joint Chiefs, said the Pentagon needed to deploy forces across the region, and embrace hi-tech weapons and technologies to prevent China from taking control of the Western Pacific."[We] are in the middle of a fundamental change in the character of war," he told the online symposium.

"If you're serious about great power competition and deterring great power war, and you're serious about having dominant capability over something like China ... 500 [ships by 2045] is probably your entrance ticket," he said. Lu Li-shih, a former instructor at Taiwan's Naval Academy in Kaohsiung, said America's new deployments and strategies showed it was determined to reinforce its military advantage over the PLA. "A rising China is always the biggest strategic threat to the US," he said. "The PLA Navy has already ordered more ships in response to the US's 500-ship plan," he said, in reference to a report released last month that China plans to build 20 Type 054A guided-missile stealth frigates.

https://www.scmp.com/news/china/military/article/3113542/chinas-military-pressure-us-can-helpdrive-plas-modernisation

USA

Biden Expected To Continue Trump Support For U.S. Nuclear Energy Exports

Dipka Bhambhani

Forbes, December 1, 2020

By most accounts, President-elect Joe Biden will continue President Trump's nuclear energy legacy to aggressively develop U.S. technology for export to the international market within five to seven years. In August, a senior Energy Department official told Forbes maintaining U.S. nuclear energy facilities and expanding U.S. technology abroad is a matter of national security and could be a strong diplomatic lever to thwart Chinese hegemony and Russian expansion in the global market.

Over four years, the Trump administration moved expeditiously. And the private sector has mobilized. "In terms of policy, nuclear has gone too far and made too much progress to go back," said Jennifer Gordon, Managing Editor and Senior Fellow, Global Energy Center at the Atlantic Council. "It's almost unstoppable."

https://www.forbes.com/sites/dipkabhambhani/2020/12/01/biden-to-continue-trump-nuclear-energy-legacy-industry-calls-president-elect-to-open-international-market/?sh=61d911e775a1

Europe

EU opens door to gas and nuclear in search for deal on 2030 climate target EurActiv, Dec 3, 2020

The European Union is offering assurances on funding for poorer members and countries' ability to choose their own energy mix, as it strives for a deal next week on a tougher target to cut greenhouse gas emissions, according to EU documents and sources. To get on track for its plan to have "net zero"

emissions by 2050, the EU's executive Commission says the bloc must cut its net emissions at least 55% by 2030, from 1990 levels. The EU's current 2030 target is for a 40% cut.

Leaders from the 27 EU countries aim to approve the new target – by unanimity – at a summit on 10-11 December. The challenge is to draft a deal that all countries will support – including states concerned by the economic transformation required, such as Poland and Bulgaria, which want more analysis and conditions attached to the goal. The latest draft conclusions for the summit, dated Dec. 1 and seen by Reuters, would see countries endorse the "at least 55" target and ask the Commission to make cash available to help poorer states invest in clean energy – a request made by countries including Poland.

https://www.eceee.org/all-news/news/eu-opens-door-to-gas-and-nuclear-in-search-for-deal-on-2030climate-target/

West Asia Iran

Iran, the world and the general Tariq Al-Homayed Saudi Gazette, December 01, 2020

Iranian nuclear scientist Mohsen Fakhrizadeh, the mastermind of Iran's clandestine nuclear program, was killed in an ambush near the capital city of Tehran, in a strikingly similar way Gen. Qasem Soleimani, the commander of the Iranian Revolutionary Guards' Quds Force, was assassinated in Baghdad earlier this year. Soleimani was considered to be a symbol of "exporting the revolution" to the region while Fakhrizadeh was a symbol of the Iranian nuclear project, and the world did not know him clearly until a report on him was published in 2015.

That year, Fakhrizadeh was the only Iranian scientist named in the International Atomic Energy Agency's 2015 "final assessment" of open questions about Iran's nuclear program. The IAEA report said at the time that he oversaw activities "in support of a possible military dimension to Iran's nuclear program." Fakhrizadeh was a pivotal figure in a presentation made by Israeli Prime Minister Benjamin Netanyahu in 2018 when he accused Iran of continuing to pursue nuclear weapons. At the same time, Netanyahu said: "Remember this name, Fakhrizadeh," while showing a rare photo of him.

The question now is, will the killing of this scientist trigger a confrontation in the region, and that is in the final weeks of the presidency of Donald Trump, who ordered the killing of Soleimani earlier? Will Joe Biden, the new resident of the White House, face the reality of a real crisis in the Middle East region? It is true that Iran was quick to accuse Israel of killing its scientist, but nothing has come out of Israel until the time of writing this article. However, the usual Iranian response comes through its agents targeting American interests in the region. As a matter of fact, Iran had never targeted Israel despite all the Israeli operations against it, both declared and undeclared ones, as well as those that took place outside the Iranian territories, such as those in Syria.

https://saudigazette.com.sa/article/600904/Opinion/Voices/-nbspIran-the-world-and-the-general

Europe's unachievable goal Tehran Times, December 5, 2020 While Iran keeps insisting on not renegotiating the 2015 nuclear deal, the Europeans not only call for reopening the deal, but also expanding it in a way that includes other thorny issues such as Iran's missile program and its regional influence. These European demands will only complicate the situation around the nuclear deal with which European compliance is strongly questioned by Iran. Over the past few years, especially after the United States withdrew from the deal, the European signatories to the deal, officially known as the Joint Comprehensive Plan of Action (JCPOA), have been making empty promises that they will mitigate the impact of U.S. sanctions on Iran but they never made good on their commitments. Nonetheless, they continued to call on Iran to reverse its nuclear steps, which it has taken in response to the U.S. withdrawal from the JCPOA and the subsequent European inaction to compensate Iran for the losses it incurred following the reimposition of the sanctions by the U.S.

The European signatories – France, Germany, and the UK (E3) – continued to do so until early November, when they changed the tone of their remarks on Iran but this change was not in the right direction. Instead of seizing on the momentum that was generated following the projected win of Joe Biden, the E3 started to place land mines in the U.S. president-elect's path to returning to the JCPOA by raising such sensitive issues as Iran's missile program and its influence in the West Asia region.

https://www.tehrantimes.com/news/455450/Europe-s-unachievable-goal

Security must be inclusive M.A. Saki Tehran Times, December 12, 2020

As President-elect Joe Biden has announced that he is seeking to revitalize the 2015 nuclear deal (JCPOA), Anwar Gargash, the UAE minister of state for foreign affairs, has said his country is seeking a "JCPOA++". According to All Israel News, Gargash said by "JCPOA++" he means that it should include Iran's activities in the region and the country's missiles. The UAE minister should have noticed that Iran has insisted that the JCPOA is a legally binding deal endorsed by the UN Security Council and that Iran will not renegotiate it, thereby a new JCPOA is out of question.

If Iran was to renegotiate the deal it had done so with the outgoing President Donald Trump. Iran suffered the harshest sanctions in the history of the world under Trump's "maximum pressure" policy without backing down one step from its rightful position. Biden himself has not linked joining the nuclear deal with other things. He has clearly indicated that if the conditions are ripe he will first join the agreement and then talk about other issues. "I will offer Tehran a credible path back to diplomacy. If Iran returns to strict compliance with the nuclear deal, the United States would rejoin the agreement as a starting point for follow-on negotiations. With our allies, we will work to strengthen and extend the nuclear deal's provisions, while also addressing other issues of concern," Biden wrote in a September op-ed for CNN.

https://www.tehrantimes.com/news/455655/Security-must-be-inclusive

Rouhani: JCPOA is not renegotiable

Tehran Times, December 14, 2020

In a press conference on Monday, President Hassan Rouhani said the 2015 nuclear deal, officially known as the JCPOA, "is not renegotiable". Rouhani said Iran will not accept any precondition for the

reactivation of the JCPOA. "Either all implement or do not implement the JCPOA. If all implement it we also implement it," Rouhani said forcefully. Now that U.S. president-elect Joe Biden has signaled that he intends to rejoin the nuclear deal certain officials, including German Foreign Minister Heiko Maas, have tried to link the implementation of the nuclear agreement with Iran's defensive missile program and its regional influence.

The U.S., under Trump, unleashed the "maximum pressure" campaign against Iran in 2018, when it unilaterally left the 2015 multilateral nuclear agreement, officially known as the Joint Comprehensive Plan of Action (JCPOA). Rouhani also slammed certain European countries for making interventionist remarks on the recent execution of a counterrevolutionary figure in Iran, noting that their apparent sensitivity on this issue amounts to interference in Iran's internal affairs. "We have death sentence in our law and some people are executed. Why they show so much sensitivity over one person? This does not have a good meaning and has an interventionist undertone," Rouhani told a press conference attended by domestic and foreign correspondents, according to Press TV. In clear reference to statements made by France and Germany in condemnation of the death sentence of Rouhollah Zam, who ran a seditionist and counterrevolutionary website against the Iranian government and nation, Rouhani added, "They [Europeans] say this person has been working to serve our interests." "When they are showing so much sensitivity ... it is not in their favor and is not in favor of anybody else," he said, adding, "Iran has a judicial power and its judiciary is independent from the executive.... This person has not been executed without a judicial verdict and it has been handed down by a court of law." "Their problem is with the Judiciary's verdict. We will continue to act within framework of our laws and regulations and I don't think that this issue would harm Iran's relations with Europe," Rouhani added.

https://www.tehrantimes.com/news/455793/Rouhani-JCPOA-is-not-renegotiable

East Asia North Korea

Dear price

Korea Herald, December 11, 2020

Kim Yo-jong, the powerful sister of North Korean dictator Kim Jong-un, came forward Wednesday to take issue with recent remarks by South Korea's top diplomat regarding Pyongyang's antivirus measures. Foreign Minister Kang Kyung-wha told an international forum last week that it is hard to believe the North's claim that it has no novel coronavirus cases, adding that the reclusive regime has been unresponsive to the South's call for cross-border antivirus cooperation. In a statement carried by a state-run news agency, Kim said the reckless remarks by Kang show that she is eager to further chill the frozen relations between the two Koreas.

"We will never forget her words and she might have to pay dearly for them," Kim said. Her criticism of Seoul's foreign minister came six months after she issued a harshly worded statement in June threatening to demolish an inter-Korean liaison office in anger over the flying of anti-Pyongyang leaflets by North Korean defectors in the South across the border into the North. Three days later, Pyongyang followed through with the threat. North Korea claims to be coronavirus-free, but it has put Pyongyang on the highest level of alert against the highly contagious virus, suspending the operation of public facilities and restricting the movement of residents in the capital.

http://www.koreaherald.com/view.php?ud=20201210000941&ACE_SEARCH=1

Interviews/Reports

Iran should become a crucial node in China's BRI project: geopolitical analyst Mohammad Mazhari Tehran Times, December 6, 2020

Andrew Korybko, an American geopolitical analyst, tells the Tehran Times that whatever the incoming American administration decides regarding the 2015 nuclear deal (JCPOA), Iran should play a key partner in China's Belt & Road Initiative (BRI) project. Noting that Russia and China became comparatively much more important after the U.S. pulled out of the nuclear deal, the Moscow-based American political analyst says that "Iran should continue its efforts to become a crucial node along with China's Belt & Road Initiative (BRI), in particular by considering the benefits of partnering with its flagship project of the China-Pakistan Economic Corridor (CPEC)." The geopolitical analyst also says all indications point to "Israel" as the chief culprit behind the assassination of Iranian nuclear scientist Mohsen Fakhrizadeh on November 27. Korybko says the assassination was "intended to provoke Iran into carrying out a high-profile response that might then be exploited as the pretext for Trump to intensify pressure against it in what might be the final days of his presidency." The following is the text of the interview:

Q: How do you assess the assassination of the Iranian nuclear scientist and its repercussions?

A: It's unclear who was responsible, but all indications point to "Israel", which likely carried it out for several reasons. The first was tactical in the sense of eliminating an important Iranian nuclear energy scientist. The second was strategic in terms of the timing, which was intended to provoke Iran into carrying out a high-profile response that might then be exploited as the pretext for Trump to intensify pressure against it in what might be the final days of his presidency. Lastly, there was the soft power element of showing that "Israel" could assassinate an Iranian scientist inside Iran, which might improve domestic support for Netanyahu during his ongoing political crisis.

Q: How can Iran trust the U.S. while the White House pulled out of the nuclear deal and its ally Israel has been assassinating Iranian scientists?

A: Trust is relative in International Relations and very difficult to restore once it has been broken, as has been the case with American-Iranian relations for decades. Tehran therefore cannot trust Washington in the contemporary context, but what it can do is rationally assess the strategic situation when considering future courses of action. There might be times where pragmatic cooperation is necessary to advance Iranian interests, which was reportedly the case in the early days of the U.S. invasion of Afghanistan, but even those instances don't represent sincere trust between the two but just a short-term convergence of interests. After all, that's happened in bilateral relations over the past four years, it might very well be the case that trusts between the two won't be restored for the indefinite future.

Q: In view of the fact that the West failed to observe its obligations under the JCPOA, don't you think that Iran should focus more on Eastern powers like China and Russia even if the U.S. rejoins the JCPOA.

A: Phrasing the choice as an either-or one is inaccurate because it's possible to pursue a multi-vectored foreign policy "balancing" between both sides. Even in the halcyon days of the JCPOA, Iran still retained strategic relations with China and Russia, but it's just that they became comparatively much more important after the U.S. withdrew from the deal and the remaining Western countries practically abandoned it afterward under American pressure. Whatever a possible Biden Administration ends up doing regarding the JCPOA, Iran should continue its efforts to become a crucial node along with China's Belt & Road Initiative (BRI), in particular by considering the benefits of partnering with its flagship project of the China-Pakistan Economic Corridor (CPEC). The economic geography is such that CPEC could be expanded in the western direction through the W-CPEC+ proposal for transforming Iran into China's gateway to the larger West Asian marketplace so long as Tehran plays its cards right. Regardless of whatever else happens, Iran should prioritize its strategic partnership with China by doing its utmost to see to it that the W-CPEC+ vision succeeds.

https://www.tehrantimes.com/news/455447/Iran-should-become-a-crucial-node-in-China-s-BRI-project-geopolitical

Historian says U.S. not entitled to meddle in West Asia

Mohammad Mazhari Tehran Times, December 13, 2020

Kurk Dorsey, a professor of history at New Hampshire University, is of the opinion that the U.S. administration has made many mistakes and is not entitled to intervene in West Asia. "I would agree that the U.S. is not entitled to meddle in the Middle East (West Asia), and that the U.S. has made many policy mistakes," Dorsey tells the Tehran Times. Dorsey, who specializes in modern American history, World War II, and U.S. foreign policy, also says that the U.S "will stick with the traditional ally (Israel) over the unknown." The following is the text of the interview:

Q: Do you expect a main policy shift by the incoming Biden administration? Do you expect Biden to neglect U.S. arms deals with Saudi Arabia?

A: I do not expect any substantial change to U.S. relations with Saudi Arabia in the first year of the Biden administration. There is a long list of higher priorities, starting with mending relations with the U.S.'s traditional allies in Europe, reassuring Asian allies that the U.S. will work with them to counter China, and rethinking policy toward Russia.

The Trump administration took almost all of its direction from the personal relationships that the president had with foreign leaders. Biden will return U.S. policy to an analysis of long-term U.S. interests based on the U.S. vision of the world since the Truman Doctrine in 1947.

Q: How can Iran trust the U.S again while the Trump administration ditched the nuclear deal unilaterally? What is the guarantee that the incoming administration won't behave like Trump's?

A: Iran's government should recognize that their problem was with Donald Trump, and he will have no more influence after January 20th. If they believed that they could work with Barack Obama, they should believe that they can work with Joe Biden and his advisors, many of whom worked for President Obama. Having said that, they also should ask themselves why European leaders have not pressed the United States harder on Iran over the last four years. Partially, they did not because those leaders did not think that they could sway Trump, but partially they did not because they do not have much sympathy for Iran's goals. The logical explanation is that Israel was behind the assassination to slow down Iranian technical progress. So, Iran may well decide to focus more on relations with Russia and China, but it should do knowing that each of those countries has its own interests, which may not align with Iran's. China's Belt and Road initiative has angered people in many of the countries of Asia, and Russia's neighbors might encourage Iran to think twice about trusting Moscow.

https://www.tehrantimes.com/news/455693/Historian-says-U-S-not-entitled-to-meddle-in-West-Asia

Ayatollah Khamenei saw "important fault line" within JCPOA: George Washington University professor Javad Heirannia Tehran Times, December 14, 2020

A professor of international business at the George Washington University says Leader of the Islamic Revolution Ayatollah Ali Khamenei was right that he "was not enthusiastic" about the 2015 nuclear agreement because he noticed "its important fault line". In an important with the Tehran Times, Hossein Askari says the Leader "warned the president of Iran about U.S. duplicity and advised caution." Askari also says, "Iran must rely on its own defensive capabilities and support of its long-proven allies." Following is the text of the interview:

Q: What will be the approach of Biden's foreign policy team toward West Asia (Middle East)?

A: While Biden will continue America's support for Israel as its closest ally in the region and almost in the entire world, I believe that Biden will not continue Trump's over the top and blind support. Biden is more pragmatic. Yes, he wants the support of the Jewish lobby and their campaign donations but he does not want the U.S. foreign policy to be dictated by Israel. I believe that he sees the Pew Research polls about U.S. standing in the Middle East and realizes that this strategy that will not be the best longterm approach for the U.S. or Israel. Having said this, there is little he will do about the location of the U.S. embassy in Jerusalem or the Palestinian land annexed by Israel during the Trump era.

When it comes to the Arab countries, there will be a very clear and noticeable shift in U.S. policy. Arab dictators—especially MBS and Sisi— will no longer get a free pass in what they do internally or in the region. U.S. support will be much more conditional. The wings of the ruler of Saudi Arabia, Egypt and Abu Dhabi will be clipped. They will have to change course, more human rights at home and less brazen and costly human adventures in the region. I believe that Biden will be more sympathetic to Iraq's needs. He will not send thousands of troops to Iraq but will support them with more advisors and more financial support but at the same time he will try put more distance between Iraq and Iran. Leaving the details of the JCPOA aside for the moment, as I am sure you will get to it later, Biden will do all he can to improve relations with Iran. Yes, get the JCPOA back on track but much more—to establish diplomatic relations with Iran in his term of office. He will want to do this not only to cement Obama's legacy but to achieve what six U.S. president have been unable to do since 1980. For peace in the Middle East, he will need a Palestinian homeland and an Iran that is welcomed by the U.S. and Europe and whose rights have been restored and respected.

Q: Blinken had spoken about Iran's commitment to the JCPOA but European countries did not fulfill their obligations. To what extent can his personality influence Biden's foreign policy toward Iran?

A: I think Biden has his own views. He is not like Trump to be led by the nose by Kushner and Netanyahu. He will listen to his advisors. Not just to one of them but if most support a position, he is likely to take their advice. But note the role of John Kerry. Yes, he is to be the Climate Tsar, but he will also influence Middle East policy more than you may think. "With a strong economy, Iran could

face external pressures much better and have more support at home."Q: Barack Obama has told the Washington Post that Biden intends to join the nuclear deal soon after taking office. You opinion please?

A: Well, the restoration of the JCPOA is tough today and will become more difficult with the passage of time. Iran could enrich more uranium. Iran's economy could deteriorate further and cause more pain for Iranians. Iran could be closer to nuclear breakout if it so chose. All these would make restoration of JCPOA more difficult than it already is.

Q: Will Biden simply go back to the agreement like, or have the conditions changed?

A: Unfortunately not. Trump and his allies, both in the U.S., in Israel and in Arab countries, have raised new conditions and muddied the waters. Namely, Iran's defensive missile program, Iran's support of its allies in the region and Iran's domestic conditions. These new conditions are basically intended to leave Iran defenseless and encroach on its sovereignty. These are all the result of Israel and Saudi Arabia's pressures on the U.S. So basically Biden's opening gambit will be for Iran to go back to the JCPOA and give up any enriched uranium since the U.S. withdrawal, withdraw its support for its allies in the region, give up its missile and other military programs and to do what it is told to do like the Arab countries of the PGCC. Needless to say, Iran will not accept this opening offer and will bargain hard and this time will be ready to walk away from a bad deal. U.S. policymakers don't appreciate the mindset of the Iranian mindset, especially of those who determine Iran's foreign policy.

Q: Will Iran go back to the agreement or have the conditions changed for Iran?

A: Absolutely not. If what I know about Iran's policymakers is that they cannot forget what Iran had to suffer after Saddam Hussein's invasion. The world, including Iran's Arab neighbors, supported the invader. Iran was defenseless. Iran cannot afford to be in such a position ever again. Guarantees by the US for Iran's security are not worth anything as its withdrawal from the JCPOA has shown. Iran must rely on its own defensive capabilities and support of its long-proven allies.

"Sanctions have had an effect but much more damage has come from mismanagement."Don't forget, U.S. withdrawal from the JCPOA has caused Iran much harm—both economic losses and in human lives. Moreover, the U.S. assassinated General Soleimani. Iran must seek appropriate compensation for these in the negotiations and so state right from the start. Some have suggested Iran should approach the U.S. first. In my opinion, absolutely not as this would be a sign of weakness.

https://www.tehrantimes.com/news/455777/Ayatollah-Khamenei-saw-important-fault-line-within-JCPOA-George

Think Tanks

Reviving nuclear arms control under Biden

Steven Pifer

Brookings, December 1, 2020

The Biden presidency that begins in January will adopt some very different directions from its predecessor in foreign policy. One such area is arms control, particularly nuclear arms control with Russia — the one country capable of physically destroying America.

President-elect Biden understands that arms control can contribute to U.S. security, something that President Donald Trump never seemed to fully appreciate. Biden will agree to extend the New Strategic Arms Reduction Treaty (New START), the sole remaining agreement limiting U.S. and Russian nuclear forces. His administration should aim to go beyond that and negotiate further nuclear arms cuts. That will not prove to be easy. Doing so, however, could produce arrangements that would enhance U.S. security and reduce nuclear risks.

https://www.brookings.edu/blog/order-from-chaos/2020/12/01/reviving-nuclear-arms-control-under-biden/

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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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