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India

Raksha Mantri Shri Rajnath Singh releases E-booklet on 20 MoD reforms in 2020;

Terms it as a reflection of Government's resolve to make defence sector stronger and more efficient

PIB Delhi, June 05, 2021

Raksha Mantri Shri Rajnath Singh released an E-booklet titled '20 Reforms in 2020', highlighting the major reforms undertaken by Ministry of Defence (MoD) in 2020, in New Delhi on June 07, 2021. Raksha Rajya Mantri Shri Shripad Y Naik, Chief of Defence Staff General Bipin Rawat, Chief of Naval Staff Admiral Karambir Singh, Chief of Air Staff Air Chief Marshal RKS Bhadauria, Chief of Army Staff General MM Naravane, Defence Secretary Dr Ajay Kumar, Secretary (Ex-Servicemen Welfare) Shri Ravikant, Secretary Department of Defence R&D and Chairman, Defence Research & Development Organisation (DRDO) Dr G Satheesh Reddy and Financial Advisor (Defence Services) Shri Sanjiv Mittal were present on the occasion. Addressing the gathering, Shri Rajnath Singh termed the E-booklet as an important document on the bright future of the defence sector in the country. "The booklet is a reflection of the resolve of the Government, under the able leadership of Prime Minister Shri Narendra Modi, to make the defence sector stronger and more efficient," he said. The Raksha Mantri expressed confidence that the reforms undertaken by MoD will make India a global powerhouse in the defence sector in the times to come.

The compilation provides a brief overview of defence reforms undertaken in the year 2020 by MoD to bring about greater cohesion and modernisation of the Armed Forces through policy changes, innovation and digital transformation. Reforms also focused on the 'Aatma Nirbhar Bharat' initiative of Prime Minister Shri Narendra Modi; increased collaboration with the industry to boost defence exports; measures to accelerate defence acquisitions with greater transparency; digital transformation; strengthening of border infrastructure; increased participation of women in Armed Forces; transformation in R&D to boost innovation; expansion of NCC to remote locations and aid extended to the civil administration in fight against COVID-19.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1725091>

Three Indian S&T led enterprises selected for joint R&D and technology transfer with Russia

PIB Delhi, June 11, 2021

Three Indian S&T-led small-to-medium enterprises/ Start-ups have been selected to undertake joint R&D and technology transfer projects under the India-Russia Joint Technology Assessment and Accelerated Commercialization Program. Two of the selected companies – Prantae Solutions and Jayon Implants are being funded under joint R&D Projects, and the third company, Ananya Technologies, has been funded for technology adoption from Russia. Prantae Solutions is being funded for the development of a platform for rapid point of care diagnosis of Rheumatoid Arthritis (RA) by a technique called multiplex immunofluorescence analysis based on disposable cartridges. The company aims to create a portable Point-of-Care technology for rapid identification of RA to circumvent the difficulties associated with ELISA-based serological diagnosis.

Support for Jayon Implants will help in the development of prosthetic technologies and manufacturing ceramic endoprostheses for hand and foot joints, adjacent joints, large joints, as well as dental implants. The key aim of the project is to create and commercialize unique, innovative medical devices for patients with rheumatoid arthritis, degenerative lesions, injury, and arthrosis of the joints of the upper limbs of a person. Ananya Technologies is being funded for joint development of Integrated Standby Instrument System and associated test equipment with their Russian counterpart. The India-Russia Joint Technology Assessment and Accelerated Commercialization Program is a joint initiative of the Department of Science & Technology (DST), Govt. of India, and the Foundation for Assistance to Small Innovative Enterprises (FASIE). On the Indian side, the Federation of Indian Chambers of Commerce & Industry (FICCI) is implementing this program on behalf of DST. The India-Russia Joint Technology Assessment and Accelerated Commercialization Program was launched in July 2020 as a bilateral initiative between India and Russia to foster collaboration in Science, Technology and Innovation. Several joint proposals were received against the maiden call of the programme, out of which three proposals have been selected for funding after a rigorous evaluation process.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1726229>

Raksha Mantri Shri Rajnath Singh approves Rs 498.8 crore budgetary support for Defence innovation through iDEX - DIO

PIB Delhi, June 13, 2021

Raksha Mantri Shri Rajnath Singh has approved the budgetary support of Rs 498.8 crore to Innovations for Defence Excellence (iDEX) - Defence Innovation Organisation (DIO) for the next five years. The budgetary support will provide a big boost to the 'Aatmanirbhar Bharat Abhiyan' of Prime Minister Shri Narendra Modi as iDEX-DIO has the primary objective of self-reliance and indigenisation in defence & aerospace sector of the country. The creation of the iDEX framework and establishment of the DIO by the Department of Defence Production (DDP) is aimed at creating an ecosystem to foster innovation and technology development in defence and aerospace by engaging Industries including MSMEs, start-ups, individual innovators, R&D institutes & academia and provide them grants/funding and other support to carry out R&D development which has good potential for future adoption for Indian defence and aerospace needs.

The scheme, with budgetary support of Rs 498.8 crore for the next five years, is aimed at providing financial support to nearly 300 start-ups/MSMEs/individual innovators and 20 partner incubators under the DIO framework. It will support increased awareness in the Indian innovation ecosystem about defence needs and, conversely, in the Indian Defence establishment about the potential of the Indian innovation eco-system to deliver innovative solutions to meet their needs. The DIO, with its team, will enable the creation of channels for innovators to engage and interact with the Indian Defence production industry. The long-term effect to be realised by the group is the establishment of a culture, where enlisting the effort of innovators by the Indian military is commonplace and frequent.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1726722>

Union Minister Dr Jitendra Singh says, India's Space Power will be showcased in all its dimension in the upcoming World Expo at Dubai in October this Year

PIB Delhi, June 14, 2021

Union Minister of State (Independent Charge) Development of North Eastern Region (DoNER), MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh said here today that Modi's New India is marked by its Space prowess, which has placed it as a frontline member in the comity of world nations.

During a meeting at which senior officers of government and members of the Federation of Indian Chambers of Commerce & Industry (FICCI) briefed Dr Jitendra Singh about the upcoming World Expo at Dubai, where an exclusive plot has been dedicated for showcasing the achievements of Indian Space Research Organisation (ISRO) and the Department of Space, Dr Jitendra Singh said, it was Prime Minister Narendra Modi's vision which created history by unlocking India's potential in Space Sector, thus paving the way to transform skill, capacity and creativity to make the country self-reliant and technologically advanced. He hoped the showcasing of India's capacity and its success story in the field of Space Technology will not only inspire the rest of the world but also offer them cues about how to plan their future Space technology related programmes and projects. While India is becoming a major player in the world comity of nations under Modi, Dr Jitendra Singh said, it is a matter of pride that India's ascent to the top will be contributed to a large extent by its superiority in the Space capabilities. World today is enamoured of Chandrayaan, Mars mission and upcoming Gaganyaan, he said.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1726992>

China, India, Pakistan expanding nuclear arsenal, says Swedish think tank

Dinakar Peri

The Hindu, June 14, 2021

India possessed an estimated 156 nuclear warheads at the start of 2021 compared to 150 at the start of last year. Number of nuclear warheads globally appears to be increasing reversing earlier trend: SIPRI. China is in the middle of a significant modernisation and expansion of its nuclear weapon inventory, and India and Pakistan also appear to be expanding their nuclear arsenals, according to Swedish think tank Stockholm International Peace Research Institute (SIPRI) Year Book 2021 released on Monday.

<https://www.thehindu.com/news/national/china-india-pakistan-expanding-nuclear-arsenal-says-swedish-think-tank/article34814508.ece>

China

China: Iran's legitimate concerns on nuclear deal should be addressed

CGTN, June 03, 2021

A Chinese envoy said Wednesday that Iran's legitimate concerns should be properly addressed during the negotiations to revive the 2015 Iran nuclear deal, officially known as the Joint Comprehensive Plan of Action (JCPOA). Wang Qun, Chinese envoy to the United Nations (UN) and other international organizations in Vienna, made the remarks after the latest meeting of the JCPOA Joint Commission, chaired by European Union official Enrique Mora and attended by representatives from China, France, Germany, Russia, Britain and Iran.

Important progress has been made in the negotiations, but there are some key differences on issues related to the lifting of sanctions, Wang said. The fact that the primary issue of sanctions removal has not been settled in talks that have dragged on for more than two months shows that the issue of right and wrong has not yet been fundamentally resolved, he said. It is the United States that

unilaterally withdrew from the JCPOA and exerted "maximum pressure" on Iran, which is the root cause of the Iranian nuclear crisis, said the Chinese diplomat. For the United States and Iran to resume full compliance with the JCPOA, illegal U.S. sanctions against Iran should be "fully, cleanly and completely" lifted in the first place, including "long-arm jurisdiction" against third party entities and individuals, Wang said.

<https://news.cgtn.com/news/2021-06-03/China-Iran-s-legitimate-concerns-on-nuclear-deal-should-be-addressed-10MCrkikqAw/index.html>

China approves construction of demonstration ACP100

Nuclear Engineering International, June 08, 2021

China National Nuclear Power (CNNP), a subsidiary of China National Nuclear Corporation (CNNC), announced on 3 June that the National Development and Reform Commission (NDRC) had formally approved construction of a demonstration ACP100 small modular reactor (SMR) at Changjiang NPP in Hainan province. The approval was reported to the Shanghai Stock Exchange by CNNP the following day. The demonstration project is owned by CNNC Hainan Nuclear Power Company, a wholly-owned subsidiary of CNNP. China's state council approved the project earlier this year. The preliminary safety analysis report for the Hainan Changjiang Multipurpose Small Modular Reactor (ACP100) Science and Technology Demonstration Project was reviewed and approved by the National Nuclear Safety Administration in June 2020.

CNNC had announced the launch of its project to construct the multi-purpose demonstration ACP100, also known as Linglong One (meaning "exquisite"), at Changjiang in July 2019. Construction of the 125 MWe reactor is expected to take 65 months, for startup in May 2025, subject to relevant government approvals.

<https://www.neimagazine.com/news/newschina-approves-construction-of-demonstration-acp100-8803288>

China's rocket force tests 'carrier killer' DF-26 ballistic missiles

Kristin Huang

South China Morning Post, June 10, 2021

China's rocket force has conducted firing exercises involving "carrier killer" DF-26 ballistic missiles. A missile brigade under the People's Liberation Army Rocket Force recently held launch practice in an unspecified training field at night to improve its combat ability, China National Radio reported. In the exercise, the brigade practised the fast transfer of missiles to another location to launch a second wave of missiles, a drill to train the brigade's fast-response capabilities, the report said. A drone was visible in the drill helping the brigade target objects.

The missiles featured in the exercise were DF-26s, according to footage in the online report. The DF-26 has a range of 4,000km (2,485 miles) and can be used in nuclear or conventional strikes against ground and naval targets. Its dual-capable missile is a type of weapon banned by the Intermediate-Range Nuclear Forces Treaty signed by the US and former Soviet Union towards the end of the Cold War. When the US withdrew from the treaty in 2020, it cited China's deployment of such weapons as justification.

<https://www.scmp.com/news/china/military/article/3136789/chinas-rocket-force-tests-carrier-killer-df-26-ballistic>

China's nuclear threat to US grows, mainly in the risk of a mishap, experts say

Mark Magnier

South China Morning Post, June 11, 2021

Testimony to the US-China Economic and Security Review Commission includes ways a skirmish, perhaps over Taiwan, could spin out of control. 'A more competitive US-China relationship' could increase chances of conflict, panel is told Mark Magnier. China's nuclear arsenal is a growing threat to US security, less in its absolute size than in the growing risk of a mishap as Washington and Beijing butt heads over Taiwan and many other issues, experts told a US Congressional commission. "Have the risks changed? Yes, it's a more competitive US-China relationship, and the chances of a conflict over Taiwan – while I don't believe they're high right now, they certainly have increased," said Phillip Saunders, director of the Centre for the Study of Chinese Military Affairs at the National Defence University. "Something might go wrong." As Moscow and Washington engaged over decades in a high-stakes nuclear arms race, China traditionally remained on the sidelines.

<https://www.scmp.com/news/china/military/article/3136856/chinas-nuclear-threat-us-grows-mainly-risk-mishap-experts-say>

China hits out at Washington's missile plans and calls for cuts to US and Russian nuclear arsenals

Laura Zhou

South China Morning Post, June 12, 2021

Foreign Minister Wang Yi also calls for fresh diplomatic engagement over Iran's nuclear weapons and criticises US 'bullying' of Tehran. Beijing has previously threatened countermeasures if the US deploys ballistic missiles in Asia. China has criticised the United States over plans to deploy missiles and defensive systems in neighbouring countries and called for cuts to the American and Russian nuclear arsenals. Foreign Minister Wang Yi made the comments in an address to the UN backed Conference on Disarmament in which he also called for fresh efforts to advance nuclear talks with Iran and criticised Washington's "unilateral bullying". Wang was speaking days after the Biden administration lifted some of its sanctions on Iran before a new round of talks in Vienna.

<https://www.scmp.com/news/china/diplomacy/article/3137086/china-hits-out-washingtons-missile-plans-and-calls-cuts-us-and>

Pakistan

Pakistan seeks probe into illegal uranium sale in India

Dawn, June 05, 2021

Pakistan called for investigating repeated incidents of illicit uranium possession and sales in India and emphasised the need for identifying the end-users of the material. "Pakistan reiterates its call for thorough investigation into such incidents and measures for strengthening the security of nuclear materials to prevent their diversion," Foreign Office spokesman Zahid Hafeez Chaudhri said while commenting on reports about another attempt by private persons to sell 6kg of uranium in India.

Indian police had arrested a group of seven people in eastern state of Jharkhand's Bokaro city, who were trying to sell about 6kg of uranium. Jharkhand has uranium mines. A uranium processing plant is located at Jaduguda, about 150km from Bokaro city. This was the second incident of attempted illicit uranium sale in India in 30 days. Last month Indian authorities had seized 7.1kg of natural uranium and arrested two persons from Nagpur. Similar incidents have been reported in the past as well. Mr Chaudhri said these incidents "point to lax controls, poor regulatory and enforcement mechanisms, as well as possible existence of a black market for nuclear materials inside India". He said that the United Nations Security Council Resolution 1540 and the IAEA Convention on the Physical Protection of Nuclear Material make it binding on states to ensure stringent measures to prevent nuclear material from falling into wrong hands.

"It is equally important to ascertain the intent and ultimate user of the attempted uranium sale given its relevance to international peace and security as well as the sanctity of global non-proliferation regime," he added. It isn't still clear which customers are these Indian sellers targeting. It is believed that the material could be channeled to the international black market.

<https://www.dawn.com/news/1627552>

USA

The way forward on containing Iran's nuclear ambitions

Bob Menendez and Lindsey Graham

Washington Post, June 3, 2021

Bob Menendez, a Democrat, represents New Jersey in the U.S. Senate and serves as chairman of the Senate Foreign Relations Committee. Lindsey Graham, a Republican, represents South Carolina in the U.S. Senate. There is a common misperception that those of us who opposed the Iran nuclear deal are simply opposed to diplomacy with Iran. Nothing could be further from the truth. In more than 25 years in Congress, we have consistently supported diplomacy backed by sanctions, with the objective of ending Iran's dangerous nuclear plans and curbing its regional aggression. That is why we believe there is an opportunity for President Biden to think beyond the mere restoration of the Joint Comprehensive Plan of Action (JCPOA), the deal that the Obama administration, its European partners, China and Russia reached with Iran in 2015.

We believe there is a way to achieve a compromise that will find support among the countries of the region, meet Iran's stated goal for peaceful nuclear power and avoid an arms race in the Middle East. We believe that countries that desire a peaceful, responsible nuclear power program to provide electricity and jobs to their people should be able to do so safely. As a concrete step toward this end, we suggest — building on a proposal made by various countries in the past — the creation of a regional nuclear fuel bank.

<https://www.washingtonpost.com/opinions/2021/06/03/menendez-graham-iran-nuclear-ambitions/>

US will lead with diplomacy to mitigate NK behavior: US defense chief

Kim So-hyun

Korea Herald, Jun 11, 2021

While calling North Korea "a country with the ambition to be capable of striking the US homeland," US Defense Secretary Lloyd Austin said the US will continue to work on North Korea, leading with diplomacy. "Pyongyang continues to develop its nuclear and ballistic missile programs, posing an

increasing threat to regional allies and partners and with ambitions to be able to strike the US homeland,” Austin said in his prepared remarks for a US Senate Armed Services Committee hearing on Department of Defense budget posture on Thursday.

“Leading with diplomacy, the US will continue to work to mitigate North Korea’s destabilizing and provocative behavior and maintain peace and stability on the Korean Peninsula.” The Joe Biden administration, which completed its monthslong North Korea policy review in late April, has said that its policy calls for “a calibrated, practical approach that is open to and will explore diplomacy” with Pyongyang. In his address to the US Congress, Biden said the US will work closely with allies to address the threats posed by North Korea and Iran through “diplomacy, as well as stern deterrence.” Washington said it had reached out for engagement with Pyongyang in mid-February, but Pyongyang remained unresponsive.

http://www.koreaherald.com/view.php?ud=20210611000483&ACE_SEARCH=1

US assessing reported leak at Chinese nuclear power facility

Zachary Cohen
CNN, June 14, 2021

The US government has spent the past week assessing a report of a leak at a Chinese nuclear power plant, after a French company that part owns and helps operate it warned of an "imminent radiological threat," according to US officials and documents reviewed by CNN. The warning included an accusation that the Chinese safety authority was raising the acceptable limits for radiation detection outside the Taishan Nuclear Power Plant in Guangdong province in order to avoid having to shut it down, according to a letter from the French company to the US Department of Energy obtained by CNN.

Despite the alarming notification from Framatome, the French company, the Biden administration believes the facility is not yet at a "crisis level," one of the sources said.

While US officials have deemed the situation does not currently pose a severe safety threat to workers at the plant or Chinese public, it is unusual that a foreign company would unilaterally reach out to the American government for help when its Chinese state-owned partner is yet to acknowledge a problem exists. The scenario could put the US in a complicated situation should the leak continue or become more severe without being fixed.

<https://edition.cnn.com/2021/06/14/politics/china-nuclear-reactor-leak-us-monitoring/index.html>

GOP senators push for veto power over Iran nuclear deal

Tehran Times, June 13, 2021

A group of Republican senators introduced a bill on Friday that would require President Joe Biden to secure congressional approval for any new diplomatic agreement to revitalize the 2015 nuclear deal, officially called the JCPOA, according to Politico. The bill, led by Sen. Ron Johnson (R-Wis.), would give the Senate veto power over any attempt by the Biden administration to reenter the nuclear deal — which was effectively dissolved when former President Donald Trump withdrew from the pact in 2018 — by deeming it a treaty, which mandates approval from the upper chamber.

The GOP proposal comes as top Biden officials are holding indirect talks with the Iranians in Vienna in a bid to revive the Obama-era deal, which Republicans uniformly opposed. GOP lawmakers have

introduced several measures aimed at preventing Biden from lifting the biting sanctions that Trump imposed on Tehran as part of his administration's "maximum pressure" doctrine. "Any potential agreement with Iran involves risks that affect our entire nation. It is critical to the security of America and to world peace that any deal Biden negotiates with Iran be deemed a treaty requiring approval by the U.S. Senate," Johnson said.

<https://www.tehrantimes.com/news/461913/GOP-senators-push-for-veto-power-over-Iran-nuclear-deal>

It will be 'very hard to reverse' Iran's nuclear progress if JCPOA not restored, Blinken says
Tehran Times, June 14, 2021

U.S. Secretary of State Antony Blinken has acknowledged "that's right" that Iran has made a lot of progress in nuclear industry both in terms of "material" and "knowledge" since the Trump administration quit the nuclear deal, officially called the JCPOA, in May 2018. Talking to CBS News on "Face the Nation" program on Sunday, Blinken said after the U.S. pulled out of the nuclear deal Iran began to "ignore the constraints that the deal had imposed on" its nuclear program.

Iran began to gradually remove bans on its nuclear work exactly one year after Trump withdrew the U.S. from the JCPOA and introduced the harshest sanctions on Iran. Even at the time Iran announced if the European parties to the pact compensate Iran for the sanctions, the Islamic Republic will reverse its decision. Blinken said Iran "has been galloping forward and it's enriching more material. It's enriching at- at higher levels- degrees than were allowed under the agreement... it is gaining knowledge. And if this goes on a lot longer, if they continue to gallop ahead... they're going to have knowledge that's going to be very hard to reverse, which I think puts some urgency in seeing if we can put the nuclear problem back in the box that the agreement had put it in and, unfortunately, Iran is now out of as a result of us pulling out of the agreement."

<https://www.tehrantimes.com/news/462000/It-will-be-very-hard-to-reverse-Iran-s-nuclear-progress-if>

Europe

How ATF could shape the nuclear fuel market

World Nuclear News, June 02, 2021

OECD experts foresee that accident tolerant fuels (ATF) will dominate the nuclear fuel market within 10 to 20 years. This is a very short timeframe by the standards of the nuclear industry, where reactor research and preparation alone can take up to a decade, writes Natalia Nikipelova, president of Russian nuclear fuel manufacturer TVEL. Such an optimistic forecast means that ATF is a product very much anticipated by the market. After all, ensuring nuclear safety - that there will be no serious consequences even in the event of incidents as grave as Fukushima - is a crucial step towards increasing public acceptance of nuclear energy. And, as we all know, where there is demand, supply will follow. So, what will the next generation nuclear fuel look like? The answer to this question depends not only on technical properties, but on economic efficiency as well. There are certain ways to ensure that ATF improves both safety and economic prospects. First-rate engineering is key. TVEL Fuel Company of Rosatom conducts research in several directions, including chromium coating applications for zirconium alloy fuel rods, replacing cladding materials with a chromium-nickel alloy, and changing the fuel matrix from uranium dioxide to metallic uranium-molybdenum fuel.

Having already undergone two cycles of irradiation, experimental fuel rods for VVER and PWR reactors come in four different cladding material and fuel composition combinations, with post-irradiation studies showing that each of them leaves irradiated fuel rods in good condition. But what kind of new opportunities will nuclear power plants glean for going with either one of the options? There are two main ways to improve the economic prospects of a reactor without increasing uranium enrichment above 5%: elongation of fuel cycles and reduction of fuel costs. Using denser fuel makes both options possible. Both uranium-molybdenum fuel (which is already under irradiation) and uranium disilicide (which we consider promising and intend to start testing soon), both are among such fuels. Their high thermal conductivity and density means that these fuel compositions can contain more uranium. Which will, in practice, either allow to reduce uranium enrichment (saving money at the enrichment stage and making fuel cheaper) or extend the fuel cycle from 18 to 24 months (enabling the nuclear power plant to generate and sell more electricity).

<https://world-nuclear-news.org/Articles/Viewpoint-How-ATF-could-shape-the-nuclear-fuel-mar>

Germany's role in US-Russian nuclear arms control

Steven Pifer

Brookings, June 03, 2021

It is likely that arms control talks between the U.S. and Russia will resume later this year, which will touch on issues that affect Germany and NATO. Steven Pifer explains why Berlin should begin considering now how they will impact German and European security. This post originally appeared in *Internationale Politik Quarterly*. The administration of U.S. President Joe Biden has indicated that it intends to seek “credible, serious, clear-eyed negotiations with [Russia] on hard strategic stability issues.” That envisages a broad set of issues, as strategic stability today is a far more complex concept than it was during the Cold War. It involves countries other than just the United States and Russia. And it is a matter not just of strategic offensive nuclear forces but of missile defense, long-range precision-guided conventional strike systems, and cyber capabilities, among others.

How U.S.-Russian strategic stability talks develop and what happens in ensuing negotiations could well impact German and European security. U.S. Secretary of State Antony Blinken has said Washington seeks to engage Russia in “arms control that addresses all of its nuclear weapons.” That would include Russian non-strategic nuclear weapons, which would mean that similar U.S. nuclear arms, including weapons based in Germany and Europe, would be on the table. Missile defense and conventional strike also have implications for European security.

<https://www.brookings.edu/blog/order-from-chaos/2021/06/03/germanys-role-in-us-russian-nuclear-arms-control/>

French technologies can solve nuclear waste problem, says French Ambassador

Sanjay Kumar

Korea Herald, June 3, 2021

S. Korea and France have opportunities for cooperation on nuclear power, French Ambassador to Korea Philippe Lefort said during an online press conference on Wednesday. At the event, Lefort highlighted France's strategies to address eco-friendly use of nuclear energy and said that it was a suitable time to discuss related issues in light of nuclear energy and climate change challenges the world faces. Referring to a recent report by the European Commission's Joint Research Center, Lefort said that there was no scientific evidence that shows nuclear energy is more hazardous to health and

environment than other power generation technologies included in the EU taxonomy for sustainable activities. French technologies can solve nuclear waste issues, he said.

The envoy spoke about spent nuclear fuel reprocessing and mentioned the La Hague plant in France that extracts plutonium and converts it into mixed oxide fuel. "Ten percent of the electricity produced by nuclear power comes from recycling in France. After treatment, the final residue is sealed with a high-strength packaging material, which reduces the volume by five times and the toxicity by 10 times."

http://www.koreaherald.com/view.php?ud=20210603000875&ACE_SEARCH=1

Ex-British envoy: Quitting JCPOA harmed U.S. reputation as reliable ally

Tehran Times, June 7, 2021

A former British ambassador to the United States says the Joe Biden administration is aware that abrogating the 2015 Iran nuclear deal – JCPOA - as well as other unilateral measures by former U.S. President Donald Trump have harmed Washington's reputation as a reliable ally.

"What Biden and many of the other members of his team will have been hearing from those countries who they are trying to persuade to do this or that is, 'How can we take America's word for it? Look what happened to the Iran nuclear deal: it got torn up by the next president.'" said Sir Peter Westmacott, according to Press TV. "What happens if there's another Trump or a Trump clone in the White House in four years' time? What's the point of reaching an agreement with you guys at this stage when it's not worth the paper it's printed on?' So I think they are conscious that harm has been done to America's reputation as a reliable ally," Westmacott warned. Trump unilaterally withdrew the U.S. from the JCPOA on May 8, 2018, against a background of worldwide disapproval, with the aim of putting enormous pressure on Tehran through sanctions.

The JCPOA was signed at the time of the administration of Barack Obama, when Biden was vice president. Biden and other Democrats also slammed Trump's withdrawal. When campaigning for president, Biden promised to rejoin the JCPOA and repeal Trump's so-called "maximum pressure" policy on Tehran. Multilateral talks began two months ago in Vienna to revive the JCPOA by returning the U.S. to all of its contractual commitments, including the lifting of sanctions, followed by Iran's reversal of its nuclear activities beyond the JCPOA limits.

<https://www.tehrantimes.com/news/461703/Ex-British-envoy-Quitting-JCPOA-harmed-U-S-reputation-as-reliable>

Germany warns: AI arms race already underway

DW, June 07, 2021

The world is entering a new era of warfare, with artificial intelligence taking center stage. AI is making militaries faster, smarter and more efficient. But if left unchecked, it threatens to destabilize the world. 'Loitering munitions' with a high degree of autonomy are already seeing action in conflict. An AI arms race is already underway. That's the blunt warning from Germany's foreign minister, Heiko Maas. "We're right in the middle of it. That's the reality we have to deal with," Maas told DW, speaking in a new DW documentary, "Future Wars — and How to Prevent Them." It's a reality at the heart of the struggle for supremacy between the world's greatest powers. "This is a race that cuts across the military and the civilian fields," said Amandeep Singh Gill, former chair of the United Nations group of governmental experts on lethal autonomous weapons. "This is a multi-trillion dollar question."

This is apparent in a recent report from the United States' National Security Commission on Artificial Intelligence. It speaks of a "new warfighting paradigm" pitting "algorithms against algorithms," and urges massive investments "to continuously out-innovate potential adversaries." And you can see it in China's latest five-year plan, which places AI at the center of a relentless ramp-up in research and development, while the People's Liberation Army girds for a future of what it calls "intelligentized warfare." As Russian President Vladimir Putin put it as early as 2017, "whoever becomes the leader in this sphere will become the ruler of the world." But it's not only great powers piling in.

<https://www.dw.com/en/artificial-intelligence-cyber-warfare-drones-future/a-57769444>

French nuclear firm trying to fix 'performance issue' at China plant

The Guardian, June 14, 2021

A French nuclear company has said it is working to resolve a "performance issue" at a plant it part-owns in China's southern Guangdong province after an earlier report of a potential leak there. Framatome, a subsidiary of the energy giant EDF, told Agence France-Presse news agency that it was "supporting resolution of a performance issue" at the plant. "According to the data available, the plant is operating within the safety parameters," it said, adding that an extraordinary meeting of the power plant's board had been called "to present all the data and the necessary decisions". The statement came shortly after the US TV network CNN reported that Framatome had previously warned the US energy department of an "imminent radiological threat" in a letter.

According to CNN, the letter included an accusation that the Chinese safety authority was "raising the acceptable limits for radiation detection outside the Taishan nuclear power plant in Guangdong province in order to avoid having to shut it down". China's state-run China General Nuclear Power Group said on Sunday that operations at its nuclear power station in south China met safety rules and the surrounding environment was safe. A US official told CNN "the Biden administration believes the facility is not yet at 'crisis level'".

<https://www.theguardian.com/world/2021/jun/14/french-nuclear-firm-trying-to-fix-performance-issue-at-china-plant>

Russia

'Very creative' approach needed to revive JCPOA, Russia says

Tehran Times, June 1, 2021

Russia's ambassador to the UN in Vienna has called for a creative and responsible approach to overcome difficulties concerning the Vienna nuclear talks between Iran and the West. "The areas of disagreement reduced significantly at the Vienna talks on JCPOA. But Mr. Araqchi is right: the remaining outstanding issues are rather complicated. A very creative and responsible approach is needed to find solutions," Mikhail Ulyanov said on Twitter in the midst of nuclear talks aimed to revive the 2015 Iran nuclear deal, officially known as the Joint Comprehensive Plan of Action (JCPOA).

"Talks are 'very complicated' and reached to main issues of dispute" The Russian diplomat was responding to remarks by Iran's Deputy Foreign Minister Seyed Abbas Araqchi who leads the Iranian

negotiating team in Vienna. The top Iranian nuclear negotiator has told Iranian state media that the Vienna talks are “very complicated” and reached to the main issues of dispute. Underlining that he was not sure if the current round of talks would be the last round, Araqchi noted that the negotiating delegations may need to return to capitals to make more consultations. The spokesman for Iran’s Foreign Ministry, Saeed Khatibzadeh, has also shed light on the latest developments in the nuclear talks, saying that the negotiating teams have not resolved the key issues yet. “If the remaining key issues are resolved, it could be the last round, but if it is not, it will continue. The Vienna talks have made good and significant progress in all three working groups, but key issues remain. These issues must also be addressed carefully,” Khatibzadeh said on Monday. “All JCPOA-related sanctions must be lifted and verified. This verification will take place in the formulas discussed in Vienna, and then Iran will reverse its compensatory measures.”

<https://www.tehrantimes.com/news/461598/Very-creative-approach-needed-to-revive-JCPOA-Russia-says>

Putin calls for guaranteeing N. Korea's security to resolve nuclear quandary

Yonhap

Korea Herald, June 5, 2021

Russian President Vladimir Putin called for guaranteeing the security of North Korea to resolve the standoff over its nuclear program, stressing that pressure and sanctions alone are not going to solve the quandary. Putin made the remark during a virtual session with chiefs of global news agencies at an annual economic forum in St. Petersburg on Friday (Russia time), as the nuclear negotiations between the North and the United States remain deadlocked after the breakdown of the Hanoi summit between North Korean leader Kim Jong-un and then-US President Donald Trump in early 2019.

"The North Korean nuclear problem is not going to be resolved by pressuring the North and toughening the sanctions against it," Putin said through an interpreter when asked by Cho Sung-boo, CEO and president of Yonhap News Agency in Seoul to comment on Moscow's stance on North Korean nuclear issues. "Only by ensuring the security of its people, and with patience and a careful approach, should we be able to resolve this problem," he said. Moscow has favored a phased-in approach to denuclearize the North that would come with reciprocal steps, including a partial lifting of UN sanctions, as the regime takes measures to roll back its nuclear program. Putin blamed the US for the deadlock in nuclear negotiations. "The North Korean leadership showed a constructive attitude, but the countries like the US seem to have abandoned the promise (they made) to the North," he said.

http://www.koreaherald.com/view.php?ud=20210605000052&ACE_SEARCH=1

Russia officially withdraws from Open Skies treaty

DW, June 07, 2021

Moscow's departure from the pact is the final nail in the coffin for the confidence-building agreement. Washington left the treaty in November last year. Russian President Vladimir Putin signed into law the country's departure from the Open Skies treaty on Monday, following in the footsteps of the former and current US presidential administrations. The agreement was set up after the Cold War to build confidence between Russia and NATO members by allowing signatory states to conduct unarmed surveillance missions over each other's territory. Putin is set to meet with President Joe Biden later in June. The only remaining weapons treaty between the two countries is the START agreement, limiting the number of nuclear warheads each may possess.

<https://www.dw.com/en/russia-officially-withdraws-from-open-skies-treaty/a-57798539>

All negotiators hope the six round of nuclear deal talks will be the last: Russia

Tehran Times, June 11, 2021

Mikhail Ulyanov, Russia's ambassador to the Vienna-based International Atomic Energy Organization, are hoping that the next round of nuclear deal talks aimed to revitalize the 2015 nuclear deal will be the "final round". The next round of nuclear deal talks is set to open on Saturday. It will be the sixth round of talks within the framework of the Joint Commission of the JCPOA. "The next meeting of the Joint Commission of #JCPOA will be held this weekend. It will mark the beginning of the sixth round of the #ViennaTalks on restoration of the nuclear deal. Will it be the final round? Nobody knows but all negotiators hope so," Ulyanov tweeted. The nuclear deal talks have reached a sensitive stage which according to diplomats entail political decisions at Washington and Tehran. However, diplomats are not optimistic as the U.S. is raising new issues which are not related to the JCPOA.

<https://www.tehrantimes.com/news/461865/All-negotiators-hope-the-six-round-of-nuclear-deal-talks-will>

Rosatom 'plans new nuclear technology exports'

World Nuclear News, June 11, 2021

Rosatom will soon submit to the Russian government its plan to invest RUB506 billion (USD7 billion) in new nuclear technologies by 2030, according to Kommersant. Of this, RUB150 billion will be from the state budget. The plan, dubbed 'New Atomic Energy', was presented for assessment to the working group of the State Council on Energy. If approved, it would be included in the government's socio-economic development strategy for the next decade, the newspaper says.

The plan aims to build four floating power units using RITM-200 reactors (55 MWe each) by the end of 2028 for the Baim Mining and Refining Plant in Chukotka. It aims to commission the first land-based nuclear power plant, using RITM-200N technology, by the end of 2030, for the Kyuchusskoye gold deposit in Yakutia. Also by the end of the decade, the plan expects to launch pilot units called Shelf M (up to 10 MWe) and Elena AM (400 kWe and 5 Gcal/h), in remote regions of the country. Rosatom hopes to conclude the first export contract for its small nuclear power plants at the end of 2026, and for six units by the end of 2030.

The only small nuclear power plant that has so far been commissioned in the world is Rosatom's 70 MWe floating unit Akademik Lomonosov. The second focus of the plan is the 'Waste-free Atom' project for a closed nuclear fuel cycle and the construction of fast neutron reactors. The BREST-300 lead-cooled fast reactor is to start operations at the end of 2027, according to Kommersant. By the end of the decade, the design documentation for the BN-1200M with sodium coolant will be ready, it added. The third is 'Pure Atom for the World', which concerns Rosatom's plan to export nuclear fuel for nuclear power plants of non-Russian design. The first contract for this is expected to be signed next year. By the end of 2030, a portfolio of four contracts and the expansion of the supply base by 18 PWR units (TVS-Kvadrat fuel assemblies) is envisaged. According to the article, Rosatom aims for 24% of the global nuclear fuel supply market by 2030, up from 17% currently.

<https://world-nuclear-news.org/Articles/Rosatom-plans-new-nuclear-technology-exports>

Putin denies Russia will provide Iran advanced satellite system

Tehran Times, June 12, 2021

Russian leader Vladimir Putin refuted on Friday a U.S. media report that Moscow is preparing to transfer to Iran an advanced satellite system that will substantially boost its surveillance capabilities. "We have plans for cooperation with Iran, including military and technical cooperation," Putin told NBC News. "It's all fake news. At the very least, I'm not familiar with this type of thing... It's all gibberish and garbage." In a report on Thursday, the Washington Post, citing current and former U.S. and West Asian officials, claimed the satellite system delivery might take place within months and is the product of several trips to Russia by Iranian officials.

<https://www.tehrantimes.com/news/461896/Putin-denies-Russia-will-provide-Iran-advanced-satellite-system>

West Asia

Iran

Iran nuclear chief sends letter to IAEA

Tehran Times, June 1, 2021

Ali Akbar Salehi, head of the Atomic Energy Organization of Iran (AEOI), has sent a letter to the chief of the UN nuclear watchdog informing him that a February deal between Iran and the International Atomic Energy Agency has expired but Iran decided to continue to store data related to monitoring activities. The letter was announced after the Agency released a quarterly report on Iran in which it accused Iran of failing to explain traces of uranium found at several allegedly undeclared sites. The letter also came after IAEA Director-General Rafael Grossi announced on May 24 that he had agreed with Iran to extend by one month a February deal between Iran and the IAEA allowing the UN nuclear watchdog to continue necessary monitoring activities.

However, Kazem Gharibabadi, Iran's permanent representative to the UN offices in Vienna, said that Salehi, in his letter, told Grossi that the monitoring deal has expired. "Dr. Salehi's letter to @rafaelmgrossi: Whereas the Technical Understanding was expired on May 24, Iran decided not to extend it, meanwhile we decided to continue recording for one month aimed at providing another opportunity to conclude bilateral tech negotiations with the Agency," Gharibabadi said on Twitter, adding, "On safeguards, Iran has so far done its utmost efforts to cooperate with the Agency substantively and provide the necessary clarifications and responses. We welcome the Agency's readiness for engaging in a proactive and focused effort to resolve the issues without any delay." The Iranian diplomat also said, "And as before, we would continue to cooperate constructively with the Agency. We highly expect such a mutually determination would result in reaching a visible practical outcome as quickly as possible."

<https://www.tehrantimes.com/news/461596/Iran-nuclear-chief-sends-letter-to-IAEA>

JCPOA Joint Commission convenes as fifth round of nuclear talks end without agreement

Tehran Times, June 2, 2021

The meeting was set to be held at end of the fifth round of nuclear talks which are aimed to revive the 2015 nuclear deal, officially known as the Joint Comprehensive Plan of Action (JCPOA). The European Union said in a statement on Wednesday that the Joint Commission will hold a meeting late on Wednesday night. "The Joint Commission of the Joint Comprehensive Plan of Action (JCPOA) will

resume this Wednesday 2 June, in Vienna. The Joint Commission will be chaired, on behalf of EU High Representative Josep Borrell, by the Deputy Secretary General/Political Director of the European External Action Service, Enrique Mora. It will be attended by representatives of China, France, Germany, Russia, the United Kingdom and Iran. Participants will continue their discussions in view of a possible return of the United States to the JCPOA and on how to ensure the full and effective implementation of the JCPOA,” the statement said.

Iran’s Deputy Foreign Minister Seyed Abbas Araqchi who is leading the Iranian negotiating team in the Vienna talks confirmed on his Telegram channel the JCPOA Joint Commission will convene on Wednesday night. In remarks to Iran’s TV, he also said that the meeting will conclude the fifth round of talks. “Today we are in a situation where we have to make a new conclusion on the negotiations that have taken place so far,” he said ahead of the meeting. He added, “All delegations concluded that visits should be made to the capitals for further consultation and further decision-making on disputes. Today we will have a final meeting of the Joint Commission, after which the delegations will return to their capitals.” The top Iranian nuclear negotiator said during the Wednesday meeting a return date will likely be set for delegations to return to Vienna.

<https://www.tehrantimes.com/news/461645/JCPOA-Joint-Commission-convenes-as-fifth-round-of-nuclear-talks>

Zarif calls on U.S. to avoid using sanctions as ‘leverage’

Tehran Times, June 6, 2021

Iranian Foreign Minister Mohammad Javad Zarif has called on the U.S. to return to its obligations and stop trying to use economic sanctions as a negotiating “leverage.” In a telephone conversation with UK Foreign Secretary Dominic Raab, Zarif said he agreed with his British counterpart on the need to resume the 2015 Iran nuclear deal, officially known as the Joint Comprehensive Plan of Action (JCPOA). “Agreed in phone call with FM @DominicRaab on need to resume full compliance with the JCPOA. Underlined that U.S. must return fully to its obligations & cease trying to use unlawful economic war against Iran as negotiating ‘leverage.’ Also discussed bilateral & consular issues,” Zarif said on Twitter.

<https://www.tehrantimes.com/news/461691/Zarif-calls-on-U-S-to-avoid-using-sanctions-as-leverage>

Tehran rejects Grossi’s assessment on Iran-IAEA cooperation

Tehran Times, June 8, 2021

Iran’s ambassador to the International Atomic Energy Agency (IAEA) has responded to the assessment of IAEA chief Rafael Grossi about the quality of cooperation between Iran and the UN body, advising him to avoid politicizing the Iranian nuclear program. Ambassador Kazem Gharibabadi said Rafael Grossi’s assessment that a lack of progress in cooperation between Iran and the IAEA seriously affects the Agency’s ability to make sure that Iran’s nuclear program is exclusively peaceful was not credible. In his opening statement to the quarterly session of the IAEA Board of Governors, Grossi claimed that technical discussions between the IAEA and Iran have not yielded the expected results, and the lack of progress in clarifying the Agency’s questions concerning the correctness and completeness of Iran’s safeguards declarations seriously affects the ability of the IAEA to provide assurance of the peaceful nature of Iran’s nuclear program.

“Iran has provided no new information in relation to one location, has not answered any of the Agency’s questions nor provided any information in relation to two other locations, and provided a

written statement on a fourth location without any substantiating documentation,” Grossi said, according to a statement issued by the IAEA.

<https://www.tehrantimes.com/news/461768/Tehran-rejects-Grossi-s-assessment-on-Iran-IAEA-cooperation>

Russia will provide Iran with cutting-edge satellite: Washington Post

Tehran Times, June 12, 2021

According to the Washington Post, Russia is planning to equip Iran with an advanced satellite that will allow it to track possible military targets across West Asia. According to the Post, the plan would provide a Russian-made Kanopus-V satellite outfitted with a high-resolution camera, which could be launched from Russia within months. The report was published only days before U.S. President Joe Biden and Russian President Vladimir Putin meet in Geneva, and as Iran and the U.S. engage in indirect discussions to resurrect a 2015 nuclear deal aimed to limit Iran's nuclear program in exchange for the lifting of economic sanctions.

According to the paper, the satellite would allow "continuous monitoring of facilities ranging from Persian Gulf oil refineries and Israeli military bases to Iraqi barracks that house U.S. troops," citing three unnamed sources - a current and former U.S. official, as well as a senior West Asian government official briefed on the sale. While the Kanopus-V is promoted for civilian use, officers of Iran's Islamic Revolution Guard Corps have traveled to Russia numerous times since 2018 to help negotiate the arrangement, according to the Post. Russian scientists flew to Iran this spring to assist in the training of crews who would operate the satellite from a newly built station near Karaj, west of Tehran, according to the report.

<https://www.tehrantimes.com/news/461874/Russia-will-provide-Iran-with-cutting-edge-satellite-Washington>

Tehran says Biden admin. is accomplice in brutal sanctions on Iranians

Tehran Times, June 14, 2021

Iran has expressed its strong dismay over the Joe Biden administration's failure to lift illegal sanctions against Iran despite the fact that 144 days have passed since Biden took over as president at the White House. In a Twitter message on Sunday, Iran's top nuclear negotiator Abbas Araghchi said, "The US has for the past 3 years targeted every single Iranian living anywhere with its brutal & unlawful sanctions." Araghchi said the sitting administration in the U.S. is an accomplice in crippling sanctions against Iran. Araqchi once again called illegal sanctions against Iran "crimes against humanity". "The current US admin has partaken in these crimes against humanity for 144 days," Araghchi lamented.

<https://www.tehrantimes.com/news/461960/Tehran-says-Biden-admin-is-accomplice-in-brutal-sanctions-on>

Iran enriching uranium to 63%, says Rouhani

June 14, 2021

President Hassan Rouhani said on Monday that Iran has mastered a level of knowledge that it is enriching uranium up to 63%, and that it can enrich uranium at any percentage it desires. Rouhani made the remarks while speaking at an inauguration ceremony unveiling the Defense Ministry plans. The

president reiterated Tehran's long held position that Iran's nuclear program is purely for civilian purposes, saying production of nuclear weapons is unacceptable.

"In the issue of defense in our country, we neither need weapons of mass destruction, nor we seek to acquire this weapon, nor do we consider it permissible; this is an explicit fatwa of the Supreme Leader." Rouhani said Iran is developing new technologies for domestic use. He added, "Our nuclear power is not for developing nuclear weapons. The United States and Europe should know this and understand that Iran's nuclear activity is completely peaceful and our enrichment is for the needs of the country in medical and energy sectors." The International Atomic Energy Agency announced on May 13 that based on the samples taken from the Natanz nuclear site, Iran has enriched uranium up to 63%. Iran decided to enrich uranium to 60 percent purity after Mossad operated an act of sabotage at the Natanz nuclear site.

<https://www.tehrantimes.com/news/461999/Iran-enriching-uranium-to-63-says-Rouhani>

Foreign Ministry: Iran will stand tall

Tehran Times, June 14, 2021

Speaking at his weekly press briefing on Monday, Iranian Foreign Ministry spokesman Saeed Khatibzadeh said that Iran's foes come and go, but at the end, it is the Islamic Republic that stands tall and proud. Khatibzadeh was openly referring to Benjamin Netanyahu who lost power to rivals. Netanyahu was maddeningly against the 2015 nuclear deal (JCPOA). However, the spokesman said, "Making vain and worthless claims has been the common heritage of all the leaders of the occupying regime."

He also dismissed rumors that the nuclear deal talks in Vienna have reached a deadlock. "The talks in Vienna have not reached a dead end and nothing is impossible. Negotiations are still underway on some technical, legal, executive and political issues." He also stated that the U.S. must make its decision and be aware of the fact that it is not in an equal position with Iran and the P4+1 countries. "The United States is the wrongdoer and violator of the JCPOA. It must provide the necessary guarantees not to repeat what happened under the Trump administration," he clarified. Khatibzadeh reiterated that the Vienna talks have nothing to do with the June 18 presidential elections and internal developments in Iran.

<https://www.tehrantimes.com/news/461995/Foreign-Ministry-Iran-will-stand-tall>

The world must know about Trump's anti-human crimes against Iranians: Rouhani

Tehran Times, June 15, 2021

It is necessary that the world become aware of Donald Trump's "anti-human crimes" against the Iranian people, President Hassan Rouhani said on Tuesday. "It is necessary that the document of the imposed economic war and implementers of the comprehensive and unprecedented sanctions to be published so that all become aware of the Trump administration's anti-human crimes against the Iranian nation," Rouhani stated. Trump abrogated the 2015 nuclear deal in May 2018 and imposed the harshest sanctions against Iran in line with his "maximum pressure" campaign against the Islamic Republic. He introduced a total ban on Iran's oil export as the main source of the country's income.

<https://www.tehrantimes.com/news/462046/The-world-must-know-about-Trump-s-anti-human-crimes-against-Iranians>

East Asia South Korea

S. Korea faces dilemma between carbon neutrality, anti-nuclear policy

Kim Byung-wook

Korea Herald, June 8, 2021

Minister of Trade, Industry and Energy Moon Sung-wook said Tuesday that the ministry will lead South Korea's carbon neutrality plan, but remained vague on whether the plan includes nuclear energy. At his first press conference since taking office early last month, Moon stressed that the industrial sector emits 37 percent of the nation's total carbon output and therefore the Industry Ministry should step up its efforts to help the country go carbon neutral by 2050. Asked whether the government is willing to reconsider its earlier pledge to phase out nuclear energy to aid the decarbonization drive by granting life extensions to aging nuclear power plants or restarting retired ones to seek carbon neutrality as witnessed in Japan and the US, the minister did not provide a clear answer.

"Our nuclear power plants are designed with maximum safety, but there are views whether it's the right thing to build new ones ... considering that nuclear power plants are concentrated in densely populated areas in the country's southeastern region," Moon said at the government office complex in Sejong. While some advanced countries are looking anew at the role of nuclear energy in the low-carbon economy, South Korea is sticking to its anti-nuclear policy, in tune with President Moon Jae-in's election pledge. Nuclear energy's carbon footprint is as low as solar or wind power, studies have shown.

http://www.koreaherald.com/view.php?ud=20210608000894&ACE_SEARCH=1

Korean collaboration to research marine SMR

World Nuclear News, June 11, 2021

A cooperation agreement signed by the two organisations on 8 June at Samsung Heavy Industries' Geoje Shipyard includes is aimed at joint research on MSR technology. This will include the design of an "offshore-based" small modular reactor, element technology/equipment development and performance verification, business model development and economic evaluation of offshore nuclear products. "MSR is a carbon-free energy source that can efficiently respond to climate change issues and is a next-generation technology that meets the vision of Samsung Heavy Industries," the company's president, Jin-taek Jeong, said.

The development of marine transport ships based on MSR technology "can be a game changer in international logistics. MSR is a carbon-free energy source that can efficiently respond to climate change issues," KAERI President Won-seok Park added. Shipping is seen as a 'hard-to-abate' sector for decarbonisation. The International Maritime Organisation aims to cut greenhouse gas emissions from international shipping by at least 50% by 2050 compared to 2008, and eventually to eliminate them completely.

<https://world-nuclear-news.org/Articles/Korean-collaboration-to-research-marine-SMR>

North Korea

N. Korean missiles pose increasing threat to US, allies: Secretary Austin

Yonhap

Korea Herald, June 11, 2021

North Korea continues to develop its nuclear and ballistic missile capabilities, posing an increasing threat to the United States and its allies, US Secretary of Defense Lloyd Austin said Thursday. "Pyongyang continues to develop its nuclear and ballistic missile programs, posing an increasing threat to regional allies and partners and with ambitions to be able to strike the US homeland," Austin said in written testimony to the Senate Armed Services Committee before a hearing on the Defense Department's request of a US\$715 billion budget for fiscal year 2022. Austin named North Korea as one of four countries that pose threats to the United States, along with China, Russia and Iran. Gen. Mark Milley, chairman of the Joint Chiefs of Staff, agreed the North poses a "real danger" to the US

He said the North "continues to enhance its ballistic missile capability and possesses the technical capacity to present a real danger to the US homeland as well as our allies and partners across the Indo-Pacific." "They show no signs of moderation in their focus on military capability at the expense of their most vulnerable citizens and peace of the Korean Peninsula," added Gen. Milley in his own written testimony.

http://www.koreaherald.com/view.php?ud=20210611000120&ACE_SEARCH=1

NK leader presides over Central Military Commission meeting, calls for 'high alert posture'

Yonhap

Korea Herald, June 12, 2021

North Korean leader Kim Jong-un has presided over a Central Military Commission meeting of the ruling Workers' Party and called for a "high alert posture" against the "fast-changing" situation on the Korean Peninsula, state media reported Saturday. During the meeting held on Friday, Kim also discussed "important tasks" to make "a fresh turn in the overall work of national defence," the official Korean Central News Agency said without elaborating on what the important tasks are.

"The enlarged meeting set forth important tasks for ... bringing about a fresh turn in the overall work of national defence as required by the recent fast-changing situation around the Korean peninsula and the internal and external environment of our revolution," the KCNA said. Kim analyzed the prevailing situation and the "real state" of the work of the People's Army and laid out the "strategic tasks to be permanently held fast to by it and ways for developing the revolutionary armed forces," according to the KCNA.

"The People's Army has to staunchly carry out the Party's line and policies on army building without an inch of deviation and keep a high alert posture to fulfill its noble mission and duty of firmly defending the sovereignty and security of the country," Kim was quoted as saying. The meeting also discussed organizational issues, including dismissing and appointing commanding officers and at the corps level, the KCNA said. Kim appears to have presided over the meeting ahead of a plenary session of the Central Committee of the Workers' Party that the North said it would hold in early June to take "additional state measures for solving pending problems urgent for the economic work and people's living." North Korean state media has not yet reported on when the scheduled party session will be held but Friday's meeting suggests that the plenary meeting is imminent.

The plenary session has been drawing keen attention as the North could unveil its policy directions on the United States and South Korea following Washington's recent completion of North Korea policy review. Last month, President Moon Jae-in and US President Joe Biden also agreed at a summit to pursue diplomacy to resolve the North's nuclear issue.

http://www.koreaherald.com/view.php?ud=20210612000023&ACE_SEARCH=1

Op-ed

Sanctions: What are they good for?

DW, June 5, 2021

When words are too weak and war is too costly, sanctions are increasingly the tool countries use to punish bad behavior around the world. What they achieve, however, often seems to fall short of their stated aims. Belarussian leader Lukashenko was the most recent leader to be hit with western sanctions. A dictator brutalizes his people. A country attacks its neighbor. A regime pursues nuclear weapons. These are common crises that threaten peace, stability, and national interests. How to confront them has long vexed policymakers, especially in the US and its allies, which peg their global credibility to safeguarding rules-based relations and free trade.

The options available to them are often more bad than good. A strongly worded condemnation may be worth little more than the paper — or tweet — it's written on. At the other extreme, armed intervention risks blood and treasure without certainty of success. That leaves sanctions — an attractive, albeit imperfect, middle ground. "They are the alternative between words and war," John Smith, a former top US sanctions official, told DW. "Every president, Democrat or Republican, and every Congress, Democrat- or Republican-led, loves the sanctions tool."

<https://www.dw.com/en/sanctions-what-are-they-good-for/a-57780906>

Policy of 'maximum pressure' has been ineffective: Fitzpatrick

Tehran Times, June 8, 2021

"He (Trump) is viewed as both a traitor and a clown," says associate fellow at the International Institute for Strategic Studies. Mark Fitzpatrick, an associate fellow at the International Institute for Strategic Studies (IISS), says that "strategy of continuing maximum pressure has been proven to be ineffective." "I frankly do not pay much attention anymore to opponents of the JCPOA, who no longer are in power. They should be ignored because their preferred strategy of continuing maximum pressure has been proven to be ineffective," Fitzpatrick tells the Tehran Times.

Former U.S. President Donald Trump, in his few public appearances since leaving office, has called President Joe Biden's foreign policy "shameful and embarrassing", particularly his approach to Iran. Before Biden took office, he announced his intention to return to the 2015 Iran nuclear deal that Trump had abandoned in May 2018. Trump called the Obama-era agreement a "disaster", abandoned it, and imposed hundreds of sanctions as part of his "maximum pressure" strategy against Iran. However, many political pundits believe that Trump's policies ended in failure. "Although Trump himself retains support from a large segment of the Republican Party, to the rest of the country he is viewed as both a traitor and a clown. Without access to social media, his power is waning," the former executive director of the IISS-Americas office notes.

<https://www.tehrantimes.com/news/461744/Policy-of-maximum-pressure-has-been-ineffective-Fitzpatrick>

Vienna talks: A multi-part American series

Abir Bassam

Tehran Times, June 15, 2021

Every time the Iranian government takes the decision to raise the enrichment level in its nuclear reactors, the Americans and the Europeans raise their voices. Their objections are repeated like a cracked disc. They are worried about whether Iran is close to building a nuclear bomb or not, although Iran has declared several times that it has no intentions of doing so, and its nuclear program is only for peaceful purposes. It is clear that America's exit from the nuclear agreement with Iran has to do with more vital hidden reasons. Ironically, the Iranian nuclear program was first initiated in 1957 by the Americans. The shah of Iran signed a nuclear program agreement with the United States. It was a "Proposed Agreement for Cooperation in the Field of Research and in the Field of Peaceful Uses of Atomic Energy" under the auspices of Eisenhower Program "Atoms for Peace". In 1967, the shah founded the Tehran Nuclear Research Center. Then, Iran signed the Nuclear Non-Proliferation Treaty in 1968, which made it subject to inspection and investigation by the International Atomic Energy Agency.

As a result of the outbreak of the Iranian Islamic Revolution in 1979, the shah was overthrown; hence, the nuclear program and Western support for it were halted. However, in 1981 the late Imam Khomeini authorized the coming back of research in nuclear energy. Once the decision was taken, the Iranian nuclear program was set in motion. Consequently, it became a problem for the Americans and Israelis to cope with it because the Islamic Revolution in Iran has clearly stated its support for the rights of the Palestinians. Since the beginning of the Islamic Revolution, a series of sanctions were imposed on Iran. In 1979, the U.S. froze nearly \$12 billion of Iranian assets, including bank deposits, gold, and several other properties, and the U.S. imposed an economic embargo. If we were about to recite the history of on-and-off sanctions on Iran, it would require a full research paper. However, to make the long story short, the sanctions were imposed because the Iranian political system was no longer a friendly one to "Israel". This fact has become a devastating fact to both the Americans as well as "Israel".

The escalation against Iran started in 1987 under several pretenses. Washington called it actions against the U.S. in the (Persian) Gulf and started supporting radical groups in different countries. And here is the crux of the matter! The Iranian revolution has declared itself as an advocate to the so-called radical Lebanese and Palestinian resistance forces against the Israeli occupation in South Lebanon and Palestine. The Americans still accuse Iran of executing the martyrdom operation against the U.S. Marines and the French troops in 1983 in Lebanon, killing huge numbers of them and driving the rest out of the country. However, the story does not lie there! It is an extended list of accusations and demands. The Americans are pushing towards closure by laying new demands on the negotiation table. However, the Iranians rejected it and refused to be pressured into discussing different agendas on the negotiation table. It is very clear that the negotiations that resulted in signing the Joint Comprehension Plan of Action [JCPOA] were not enough for both the Americans and the Israelis. The JCPOA did not stop their worries concerning the Iranian role in the region and the progress it reached in its missile industry.

<https://www.tehrantimes.com/news/461993/Vienna-talks-A-multi-part-American-series>

Biden-Putin summit: Experts warn of cyber nuclear nightmare

Cyberwarfare has become such a threat that NATO's Article 5 now covers it. As Joe Biden confronts Vladimir Putin, experts warn the worst could be yet to come, with cyber threats pushing toward a more dangerous threshold. A rendering of the US nuclear command and control system with a satellite in space. The US nuclear command and control system spans the globe and reaches into space. A global cyberwar has begun. And it will probably never end.

That is the brutal truth that governments, militaries, intelligence services, companies and individuals are facing up to — everywhere. And it is at the core of the conflict between the United States and Russia. It's a war that pits states against states and criminals against corporations, often blurring the lines between who is who. And increasingly, civilians are getting caught up in it, either as direct targets or as the collateral damage of the digital age. "You have a mix of state level and nonstate actors constantly probing and attacking networks around the world," said Martijn Rasser, a former CIA emerging technology analyst now at the prominent defense think tank, the Center for a New American Security. He was speaking in the recent DW documentary Future Wars — and How to Prevent Them. "That's just the reality of 21st-century life and something that we'll have to deal with," he said.

<https://www.dw.com/en/biden-putin-summit-experts-warn-of-cyber-nuclear-nightmare/a-57906147>

World/Misc

BRICS backs full implementation of JCPOA

Tehran Times, June 2, 2021

BRICS members – Brazil, Russia, India, China and South Africa – issued a statement on Tuesday expressing support for revival of the 2015 nuclear deal within the framework of the Joint Comprehensive Plan of Action. The statement was released by BRICS foreign ministers who held a virtual conference hosted by India. The foreign ministers also reiterated the full implementation of the JCPOA and the UN Security Council Resolution 2231 that endorsed the deal. The remaining members to the JCPOA – Iran, Russia, China and E3 (Britain, Germany and France) – along with the U.S. are negotiating in Vienna, Austria, to possibly revitalize the JCPOA.

The current U.S. administration under Joe Biden has expressed willingness to rejoin the multilateral nuclear deal which former president Donald Trump quit in May 2018 and introduced harshest sanctions against Iran in violation of international law. "The Ministers reiterated the need to resolve the Iran nuclear issue through peaceful and diplomatic means in accordance with international law, including the negotiations within the framework of the JCPOA, and the importance of the full implementation of the JCPOA and the UNSCR 2231," the BRICS statement said. BRICS also praised extension of a monitoring deal between Iran and the International Atomic Energy Agency (IAEA) intended to give negotiators in Vienna more time to settle the remaining differences. "They welcomed the extension of the 'technical understandings' between Iran and the IAEA that allowed for the continuation of necessary verification and monitoring activities," the statement added.

<https://www.tehrantimes.com/news/461655/BRICS-backs-full-implementation-of-JCPOA>

UN nuclear watchdog warns on North Korea and Iran

DW, June 14, 2021

IAEA Director Rafael Grossi says Pyongyang may be reprocessing plutonium and warns that Iran's lack of compliance is hurting prospects for salvaging the JCPOA. The IAEA's job has been made all

the more difficult by the fact that it has ever fewer inspectors on the ground International Atomic Energy Agency (IAEA) General Director Rafael Grossi on Monday issued dire warnings while delivering remarks at the UN watchdog's quarterly meeting of its 35-nation Board of Governors. Grossi reported that the agency, which has been shut out of North Korea since Pyongyang expelled inspectors in 2009, has seen indications that the country may be reprocessing spent fuel in order to glean plutonium that can in turn be enriched for use in nuclear weapons.

<https://www.dw.com/en/un-nuclear-watchdog-warns-on-north-korea-and-iran/a-57805992>

SIPRI warns of trend reversal in nuclear weapons decline

DW, June 15, 2021

World powers such as the US, Russia and China are rapidly modernizing their nuclear arsenals, researchers from SIPRI said in a new report. Major powers such as the US and Russia are increasing their nuclear warheads in operational deployment. Although the world's overall stockpile of nuclear weapons has decreased since last year, the number of operationally deployable weapons is on the rise, the Stockholm International Peace Research Institute (SIPRI) said in its Yearbook report published on Monday.

At the beginning of 2021, the US, Russia, the UK, France, China, India, Pakistan, Israel and North Korea possessed a total of 13,080 nuclear warheads, a decrease of 320 from the previous year. These figures include retired warheads which are set to be dismantled. Without those retired warheads, the total global arsenal rose from 9,380 to 9,620 from 2020 to 2021. At the same time, the report says the number of deployable weapons increased from 3,720 to 3,825 over the previous year. These weapons are either mounted on missiles or located on active bases.

<https://www.dw.com/en/sipri-warns-of-trend-reversal-in-nuclear-weapons-decline/a-57877320>

Contribute Articles

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

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

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