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India

Why India could be leasing a second nuclear powered attack submarine from Russia

Sandeep Unnithan

India Today, September 4, 2021

New Delhi signed a \$3 billion lease deal with Moscow in 2019 for the Chakra-3 submarine. But with growing Chinese naval presence and delays in its own nuclear submarine project, India needs as many submarines as it can get. Russian President Vladimir Putin is set to travel to New Delhi later this year for his first in-person summit meeting with Prime Minister Narendra Modi since the onset of the pandemic. Both countries are close strategic partners and have a thriving defence partnership. India has signed or is negotiating defence deals with Russia worth over \$15 billion (Rs 1.09 lakh crore). The deals include those for frontline military equipment, from long-range missiles to fighter jets and assault rifles, to modernise its armed forces.

But it is the prospect of India leasing a second nuclear-powered attack submarine (SSN)—for which both sides have opened discussions—that is intriguing. This is because India already hopes to induct one Russian SSN into its fleet by 2026. India concluded a \$3 billion (Rs 22,000 crore) deal with Russia in 2019 to modernise and upgrade the ‘Bratsk’, an Akula-class nuclear-powered attack submarine—now called ‘Chakra-3’. SSNs are true submarines in that they can stay and operate under water almost indefinitely; their endurance is limited only by food supplies for the crew. They are also equipped with a range of tactical weapons, such as torpedoes, anti-ship cruise missiles and land-attack cruise missiles. They form part of battle groups centred around aircraft carriers and are capable of independently projecting power into heavily contested enemy waters and performing escort duties for ballistic missile submarines (SSBNs).

<https://www.indiatoday.in/india-today-insight/story/why-india-is-leasing-a-second-nuclear-powered-attack-submarine-from-russia-1849277-2021-09-04>

India’s dual track approach to nuclear new-build

Nuclear Engineering, September 2021

India is to construct a fleet of domestically-designed reactors, along with VVERs imported from Russia and EPRs from France, Saurav Jha reports. With 22 operating reactors, one recently synchronised with the grid, ten under construction and ten more accorded firm sanction, India has one of the most active civil nuclear sectors in the world. India’s Department of Atomic Energy (DAE) expects to have 22,480MWe of nuclear capacity in operation by 2031. Its civil nuclear portfolio is also becoming more diverse, with the addition of pressurised water reactor (PWRs) alongside the construction of larger and improved Indian pressurised heavy water reactors (IPHWRs).

DAE also intends to commence construction on commercial fast breeder reactors (FBRs) in the 2020s based on the experience of the Prototype FBR (PFBR) at Kalpakkam, which DAE expects will be commissioned by October 2022. While the domestic industrial base is being consolidated via the construction of new 700MWe IPHWR-700s, India is looking overseas for PWR technology — and that need not only mean Russia. India continues to be interested in Western PWR technology, with NPCIL receiving a binding techno-commercial bid from France’s EDF in April 2021 for the supply of engineering studies and equipment with regards to the construction of six EPR-1650s at Jaitapur in Maharashtra.

<https://www.neimagazine.com/features/featureindias-dual-track-approach-9079860/>

China

Nato chief alarmed by construction of new Chinese nuclear missile silos

South China Morning Post, September 07, 2021

Nato Secretary General Jens Stoltenberg has expressed concern about the construction of new missile silos by China that could significantly step up the country's nuclear capabilities. China was also rapidly expanding its nuclear arsenal with more warheads and a more sophisticated delivery system in an unrestricted manner, Stoltenberg said on Monday at a Nato conference on arms control issues organised in Copenhagen. “As a global power, China has global responsibilities in arms control,” Stoltenberg said in a message to the economic superpower, which has so far largely refused to engage in talks on the subject.

Beijing would also benefit from mutual limitations, more transparency and predictability, the former Norwegian prime minister said.

Nato says China presents ‘systemic challenges’. At the end of July, the Federation of American Scientists (FAS) published a study on new construction work. With the help of satellite images, FAS discovered a large area near Hami in the northwestern region of Xinjiang where silos for nuclear missiles were under construction. Just a few weeks earlier, The Washington Post reported about a similar new site with missile storage or launch facilities near Yumen in Gansu province. There could be more than 200 new missile silos in total, FAS experts estimated. That would be more than Russia and half as many as the United States has in operation for intercontinental missiles. According to FAS, China has around 350 nuclear warheads – the US and Russia each have 4,000 in their military stockpile.

<https://www.scmp.com/news/world/europe/article/3147789/nato-chief-alarmed-construction-new-chinese-nuclear-missile-silos>

Chinese air force may have cracked how to land a hypersonic drone

Stephen Chen

South China Morning Post, September 07, 2021

Flight control computers' inability to calculate a descent quickly enough at Mach 5 has been an obstacle to using hypersonic aircraft. But Chinese military researchers say they have rethought the software to work around the problem. Landing an unmanned aircraft flying at above five times the speed of sound on a standard air strip is not easy, but Chinese military researchers say they have found a way to make it safer, potentially bringing applications for hypersonic flight a step closer. The technology has progressed considerably, with China and Russia deploying various types of hypersonic missiles in recent years, and growing interest in applying the advances to drones. But bringing such aircraft back to ground safely has proved problematic – even more so with the added urgency and complexity of a military setting. A modern plane relies on software to find an optimal path of descent, and humans can intervene if anything goes wrong. At hypervelocity, however, even the fastest flight control computer struggles to calculate it in time.

<https://www.scmp.com/news/china/science/article/3147769/chinese-air-force-may-have-cracked-how-land-hypersonic-drone>

Why China's attack on Nato 'double standards' suggests it will continue to build up nuclear arsenal

Liu Zhen

South China Morning Post, September 12, 2021

The alliance's head Jens Stoltenberg accused Beijing of increasing its firepower 'without constraint' and urged it to sign up to international arms controls. But Beijing hit back by criticising Nato's nuclear sharing arrangements and said the US and Russia should lead the way by disarming. China is expected to continue building up its arsenal of nuclear weapons despite Nato's appeal for it to sign up to international arms controls. Last week Nato Secretary-General Jens Stoltenberg criticised China's efforts to develop its nuclear capacity – by building more warheads, delivery systems and silos – “without any limitation or constraint”. He told Nato's annual arms control conference in Brussels that this was making the world “more unpredictable, more competitive and more dangerous”.

<https://www.scmp.com/news/china/military/article/3148425/why-chinas-attack-nato-double-standards-suggests-it-will>

China makes breakthrough in high-level radioactive waste disposal technique, achieves milestone in nuclear industry devt

Fan Anqi and Deng Xiaoci

Global Times, September 12, 2021

China's first high-level radioactive liquid waste disposal equipment, capable of melting waste into glass, has been officially put into use in Guangyuan, Southwest China's Sichuan Province, on Saturday, making China one of the few countries in the world to have acquired such a technique. Chinese experts believed that the technique could have been a better option for Japan to dispose the nuclear-contaminated Fukushima wastewater, but Japan "clearly does not want to pay the bill." The equipment is a milestone project at the back end of the nuclear industry chain, and is considered a major step

forward in the safe and green development of China's nuclear industry, the Global Times learned from the State Administration of Science, Technology, and Industry for National Defense on Sunday.

Nuclear waste treatment is the final part during the safe use of nuclear energy, of which the most difficult and technically advanced is the treatment of high-level radioactive liquid. To tackle the challenge, China's approach is to mix and melt liquid waste with glass materials at a temperature of 1,100 C or higher and then leave it to cool and form into glass, which can effectively and stably contain the radioactive elements inside, thanks to the low leaching and high strength of the glass, read a statement from the administration. Such an approach to deal with the waste is by far the most advanced method in the world, the statement said. Only the US, France, Germany, and a few others have mastered the technique previously.

<https://www.globaltimes.cn/page/202109/1234033.shtml>

China calls for restraint as North Korea tests cruise missile able to reach Japan

Kristin Huang

South China Morning Post, September 13, 2021

Pyongyang breaks the lull in testing with 'strategic weapon of great significance', KCNA says, but some experts see moderate military gains. Move ahead of Korean denuclearisation talks in Tokyo makes one analyst call for 'serious pressure', as concessions only seem to inspire more bad behaviour. North Korea's cruise missile tests over the weekend may have caught the world off guard, and prompted "concern" in neighbouring Japan, but indicate only a limited increase in the country's military strength, according to analysts. However, Pyongyang's latest move was certain to disappoint North Korea doves and make the hawks harden their stance, they said, as China called for restraint in the region. That came after the state-run Korean Central News Agency reported that North Korea had successfully carried out tests of a new long-range cruise missile over the weekend.

<https://www.scmp.com/news/china/diplomacy/article/3148586/china-calls-restraint-north-korea-tests-cruise-missile-able>

USA

American public woefully ignorant about Iran nuclear deal: American foreign policy expert

Tehran Times, September 8, 2021

Barbara Slavin, an American foreign policy expert, says the American public is "woefully ignorant" about the 2015 Iran nuclear deal. "Most Americans are woefully ignorant about the Iran deal – a majority believes Iran has nuclear weapons, for example," Slavin tells the Tehran Times. "This is despite our best efforts to educate them. Unfortunately, those who are extremely hawkish about Iran have a loud voice in the U.S. media," she adds. While American officials accuse Iran of violating the

nuclear deal signed in July 2015 between Iran and several world powers, including the United States, the world holds the U.S. responsible for undermining the Joint Comprehensive Plan of Action.

<https://www.tehrantimes.com/news/464830/American-public-woefully-ignorant-about-Iran-nuclear-deal-American>

U.S. pushes for resumption of Vienna talks as Iran urges patience

Tehran Times, September 10, 2021

While Iran has made it clear that the resumption of the Vienna nuclear talks is only a matter of time, western parties to the 2015 Iran nuclear deal mount pressures on Tehran to resume the talks in the latest sign that U.S. sanctions have failed to intimidate Iran. Over the last few days, the situation around the nuclear deal, officially known as the Joint Comprehensive Plan of Action (JCPOA), has become even more complicated, with the United States undertaking shuttle diplomacy to convince other parties to the deal into urging Iran to return to Vienna as soon as possible.

To this end, U.S. Special Envoy for Iran Rob Malley started a global tour that includes Russia and France. In Moscow, he met with Russian Deputy Foreign Minister Sergei Ryabkov to discuss “the prospects of restoring full-fledged implementation of the Joint Comprehensive Plan of Action,” according to the Russian foreign ministry. Earlier On September 7, the U.S. State Department had confirmed in a statement that Malley’s journey was to make “consultations with our Russia and European partners on Iran’s nuclear program and the need to quickly reach and implement an understanding on a mutual return to compliance with the Joint Comprehensive Plan of Action.”

<https://www.tehrantimes.com/news/464912/U-S-pushes-for-resumption-of-Vienna-talks-as-Iran-urges-patience>

US, Japan and South Korea meet after North Korea missile test

DW, September 13, 2021

Diplomats from the US, Japan and South Korea have met in Tokyo following North Korea’s announcement that it successfully conducted a long-range missile test. Senior envoys from Japan, the US and South Korea have held talks in Tokyo that focused on North Korea's missile and nuclear programs. The three diplomats agreed that "dialogue was urgent to accomplish the complete denuclearization of the Korean peninsula." according to South Korea's foreign ministry.

The trilateral talks involved US Special Representative for North Korea Policy Sung Kim, South Korea's Special Representative for Korean Peninsula Peace and Security Affairs Noh Kyu-duk and Japan's Director-General for Asian affairs Takehiro Funakoshi. The diplomats spoke of the importance of close cooperation between the three countries. In opening remarks US special envoy Sung Kim said: "The recent developments in the DPRK are a reminder of the importance of close communication and cooperation from the three countries." Kim also reaffirmed the US position to meet with Pyongyang with no preconditions attached to dialogue. "The United States has no hostile intent towards the

DPRK," said Kim, adding "We hope that the DPRK will respond positively to our multiple offers to meet without preconditions." The meeting follows announcements from North Korean state media that tests involving a new long-range missile over the weekend, had been successful.

<https://www.dw.com/en/us-japan-and-south-korea-meet-after-north-korea-missile-test/a-59171930>

US expert suggests elimination of NK chemical weapons as confidence-building step for nuke disarmament

Yonhap

Korea Herald, September 15, 2021

The elimination of North Korea's chemical weapons could serve as a confidence-building step to convince the communist nation to eventually give up its nuclear power, an American expert said Wednesday. Siegfried Hecker, a Stanford University professor known for his direct experience with Pyongyang's nuclear program, made the remarks during a Nunn-Lugar Cooperative Threat Reduction (CTR) workshop, stressing that the North will be more likely to agree to remove its chemical weapons before agreeing to give up nuclear weapons. "My view is we might be able to convince the North Koreans because they are not going to give up their nuclear weapons at this point because it's sort of their security blanket," he said. "But chemical weapons are not a deterrent, they're terrorist weapons, so one might be able to talk (to) them."

Hecker stressed the need to review the success of the CTR program in the former Soviet Union and to apply it to North Korea, pointing out that the US had assisted the Russians in getting rid of around 41,000 tons of chemical weapons. "So that would be the way that we could actually do confidence-building in the US political spectrum if you can actually see the North Koreans walking through and getting rid of their 5,000 or so tons of chemical weapons," he said. Unification Minister Lee In-young also stressed during his keynote speech that the CTR program can provide a comprehensive denuclearization model on the Korean Peninsula that can secure transparency and convince the North to come to the negotiating table. "I think that by applying the CTR, we can carry out a more verifiable and transparent denuclearization process through the early engagement of participant countries and cooperation between North Korea and countries that support the dismantlement," he said.

http://www.koreaherald.com/view.php?ud=20210915000763&ACE_SEARCH=1

Europe

Germany calls on Iran to resume nuclear talks

DW, September 1, 2021

Informal negotiations stalled after Iran's new hardline president was elected in June. Tehran has caused an international outcry in recent months over the broadening scope of its nuclear program. The German Foreign Ministry on Wednesday said it "vehemently" urged Iran to restart negotiations aimed at reviving a defunct nuclear deal. "We are ready to do so, but the time window won't be open

indefinitely," a ministry spokesman said. The French foreign ministry made a similar statement later on Wednesday.

However, the JCPOA quickly became the target of former US President Donald Trump's attempts to dismantle the foreign policy legacies of his predecessor, Barack Obama, and he withdrew the US from the deal in 2018. After Trump lost the 2020 US election, renewed attempts have been made to resurrect the agreement. Indirect talks between Tehran and Washington were held in Austria in April, before being put on hold entirely after hardliner Ebrahim Raisi was elected president of Iran in June.

<https://www.dw.com/en/germany-calls-on-iran-to-resume-nuclear-talks/a-59053930>

NATO chief urges China to join nuclear arms control talks

AP News, September 6, 2021

NATO Secretary-General Jens Stoltenberg urged China on Monday to join international efforts to limit the spread of nuclear weapons amid concerns that the Asian superpower is rapidly developing missiles capable of carrying atomic warheads. Laying out his priorities for nuclear disarmament at NATO's annual arms control conference, Stoltenberg said that more countries must be included in future missile restriction talks, not just Russia.

"As a global power, China has global responsibilities in arms control. And Beijing, too, would benefit from mutual limits on numbers, increased transparency, and more predictability," Stoltenberg said. "These are the foundations for international stability." Warning that Beijing's nuclear arsenal is rapidly expanding, he said "China is building a large number of missile silos, which can significantly increase its nuclear capability. All of this is happening without any limitation or constraint. And with a complete lack of transparency."

<https://apnews.com/article/europe-china-9374925e86e57697c264ed0a74587b88>

Germany arrests man for allegedly assisting Iran's nuclear program

DW, September 14, 2021

A German-Iranian man has been arrested for allegedly supplying laboratory equipment to an EU blacklisted company connected to Tehran's nuclear and missile programs. The prosecutor confirmed police had previously searched offices and apartments linked to the suspect in 11 separate locations, across three German states — Hamburg, Schleswig-Holstein and North Rhine-Westphalia. The man, known as Alexander J. under German privacy laws, allegedly exported equipment worth €1.1 million (\$1.3 million) to an Iranian individual whose company has been blacklisted by the European Union. The EU said the recipient used his firm as a front to procure equipment for Tehran's nuclear fuel enrichment. The federal prosecutor's office said Alexander J. was approached in 2018 and 2019 to procure laboratory equipment. According to the prosecutor, the suspect shipped a pair of spectrometers, procured for €166,000, to Iran in January 2020. Six months later he shipped two more spectrometers for €388,000. To do so, he should have applied for a special export licence, as the recipient is on the

EU's blacklist — something that he failed to do. Spectrometers can be used to analyse the magnetic field around atomic nuclei.

<https://www.dw.com/en/germany-arrests-man-for-allegedly-assisting-irans-nuclear-program/a-59181168>

Russia

Mikhail Khodorkovsky: 'Dialogue only strengthens Putin's regime'

DW, September 6, 2021

Mikhail Khodorkovsky, the Kremlin critic and former oil billionaire, talks with DW about Russia's planned power transfer in 2024 and accuses Angela Merkel and Joe Biden of strengthening Vladimir Putin's hand. Putin's regime is a danger, even for Western countries. But they cannot afford not to talk to him. But one has to be clear about one thing: Dialogue strengthens Putin's regime. It gives him additional legitimacy that he is lacking because there are no fair elections. The meeting with [US President Joe] Biden, [German Chancellor Angela] Merkel's visit and the like give him legitimacy. Elections can't do that and neither can economic success or the way the country is governed. This external legitimacy should only be granted to the regime in exchange for something important. If it is about the risk of coincidentally pressing the button for a global nuclear war, then of course one should talk to any criminal to avert this risk. If it's about the release of political prisoners, then you undoubtedly have to talk to the regime the way you talk to criminals about hostages.

But if you're talking about something like the green economy, you should be aware that there can be no strategic deals with these people, who in principle, are liars. You can only do short, clear deals with them. You are talking with a thug. Is it necessary to talk to thugs every now and then? It is. Should you forge an alliance with these thugs? No, you shouldn't - unless you yourself are a thug.

<https://www.dw.com/en/mikhail-khodorkovsky-dialogue-only-strengthens-putins-regime/a-59100697>

West Asia

Iran

Iran, France top diplomats discuss JCPOA

Tehran Times, September 1, 2021

France's foreign minister told his newly-appointed Iranian counterpart in a telephone call that it was urgent for Tehran to return to nuclear negotiations immediately, the French Foreign Ministry said in a statement on Wednesday. "The minister underlined the importance and the urgency of an immediate resumption of negotiations, interrupted by Iran since June," the Foreign Ministry said after the conversation between Jean-Yves Le Drian and Hossein Amir Abdollahian, Reuters reported.

Le Drian expressed his concern with regard to all the nuclear activities carried out by Iran in violation of a 2015 nuclear deal with world powers. Iran started to gradually remove limits on its nuclear program since Washington abandoned the nuclear agreement in 2018 and imposed sanctions against the country. The U.S. did it in violation of UN Security Council Resolution 2231 that endorsed the agreement.

<https://www.tehrantimes.com/news/464626/Iran-France-top-diplomats-discuss-JCPOA>

Iran warns against miscalculation at upcoming IAEA board meeting

Tehran Times, September 6, 2021

Iranian Foreign Ministry spokesman Saeed Khatibzadeh on Monday warned against any miscalculation in the next meeting of the International Atomic Energy Agency Board of Governors. “The next meeting of the Board of Governors is a regular one. I have said before, and I emphasize now, that neither side should make a miscalculation, not go in a direction that affects the negotiations in Vienna,” Khatibzadeh said when asked about a possible visit by Rafael Grossi, the International Atomic Energy Agency chief, to Iran on the eve of the board meeting. Speaking to reporters in his regular news briefing, he said, “The political use of the Agency’s technical platform will lead to a different response from Iran.” On the type of interaction between Iran and the IAEA, Khatibzadeh said, “Relations between Iran and the Agency are technical and respectful. There is a deep and right understanding between the two sides and we hope that the others will not interfere in this understanding.”

The Foreign Ministry spokesman also said the Vienna talks are completely technical and are intended to ensure a full implementation of the Joint Comprehensive Plan of Action (JCPOA) by the United States and the remaining parties. The nuclear talks to revive the JCPOA started in April. Six rounds of talks were held until June. The talks are expected to be resumed now that a new administration in Iran has taken the helm. Khatibzadeh added the nuclear talks in Vienna are not to reach a new text or accepting new commitments by Iran. Addressing the Washington officials, the diplomat said: “The American officials have been imposing sanctions and economic terrorism against the Iranian people for many years, and they should know that Iran will not wait forever for the United States to put pressure on the Iranian people with the illegal leverage of sanctions.”

<https://www.tehrantimes.com/news/464777/Iran-warns-against-miscalculation-at-upcoming-IAEA-board-meeting>

Iran will return to Vienna talks

September 6, 2021

In the past days, several Iranian officials have indicated that Tehran welcomes negotiations in principle, but opposes negotiation with pressure. This clearly shows that Iran is more than ready to have fruitful talks with any country, but is the other side willing too? Speaking in his first live TV interview on September 5, President Ebrahim Raisi stated that Iran is not opposed to the principle of negotiations, however, negotiations under pressure is unacceptable. “Negotiations is an option as a tool for diplomacy, but negotiation under pressure and threats is not acceptable at all,” the president insisted.

He added that dialogue has already been tested but it has not worked, referring to the “maximum pressure” policy that Donald Trump exercised against Iran during his presidency.

“Americans and Europeans have experienced that dialogue with pressure don’t go together,” he noted. One year after Trump quit the 2015 nuclear deal and returned sanctions, Iran started to gradually remove cap on its nuclear activities. Raisi underscored that the issue of nuclear talks is still on the agenda, but negotiations must be fruitful. First things first. Iran needs guarantees. “The focus of our talks is the interests of the Iranian people and the complete lifting of sanctions, from which we will not take a step back,” the president highlighted “We will not hesitate to talk and negotiate in any way, but what Westerners and Americans want is dialogue under pressure. Does that mean dialogue? If pressure is to be on the side of dialogue, what kind of dialogue is this?” he asked. This clearly indicated that Iran will definitely return to the negotiations table in Vienna.

<https://www.tehrantimes.com/news/464789/Iran-will-return-to-Vienna-talks>

Iran agrees to UN inspectors' surveillance cameras

DW, September 12, 2021

The head of the UN's nuclear watchdog was in Tehran for talks Sunday. Iran agreed to allow inspectors to resume monitoring its sensitive nuclear sites, but access to the data remains off limits. Iran said it had agreed Sunday to permit UN inspectors to place new memory cards in surveillance cameras monitoring the country's sensitive nuclear sites. Allowing filming to continue could help Tehran avert a diplomatic showdown with Western countries. Sunday's announcement followed a meeting with Rafael Grossi, the director-general of the Vienna-based International Atomic Energy Agency (IAEA), held in Tehran. Mohammad Eslami from the Atomic Energy Organization of Iran called the move to permit access to the monitoring equipment again "a routine and natural trend." Grossi, however, said the arrangement was not a "permanent solution," as IAEA inspectors will not be able to access the data stored by the devices. "This has always been seen, for me at least, as a stopgap, as a measure to allow time for diplomacy," he told reporters upon his return from Iran.

The IAEA told member states in its quarterly report that its efforts to monitor Iran's nuclear program have been "seriously undermined" by obstruction on Iran's part since February when Iran refused to permit inspectors access to monitoring equipment. The watchdog also said traces of uranium were found at several old and undeclared sites. Some of the monitoring equipment requires servicing every three months. The IAEA was given access to some of its monitoring equipment at one site and found of the four cameras, one had been destroyed and another badly damaged. While the equipment belongs to and is serviced by the IAEA, all requisite recordings are stored in Iran in an agreement between the two sides. There were no details of whether the IAEA would get access to the old recordings.

<https://www.dw.com/en/iran-agrees-to-un-inspectors-surveillance-cameras/a-59157971>

IAEA director meets Iran's new nuclear chief, plan to issue joint statement

Tehran Times, September 12, 2021

International Atomic Energy Agency director Rafael Grossi held talks with Mohammad Eslami, the new chief of the Atomic Energy Organization of Iran (AEOI) on Sunday morning. Grossi visited Tehran last night at the head of a delegation. Iran's ambassador to the IAEA, Kazem Gharibabadi, said on Saturday that Iran and the IAEA plan to issue a joint statement. The visit is taking place ahead of the IAEA Board of Governors meeting. This is also the first visit to Tehran since a new government has taken over in Iran.

<https://www.tehrantimes.com/news/464951/IAEA-director-meets-Iran-s-new-nuclear-chief-plan-to-issue-joint>

Nuclear dossier must be pursued independently, MP says

Tehran Times, September 12, 2021

A member of the National Security and Foreign Policy Committee of the Iranian Parliament says that the nuclear case should be pursued independently, but the role of the Ministry of Foreign Affairs as a diplomatic apparatus will be protected. Speaking to Mehr about the continuation of the nuclear talks on Sunday, Fadah Hossein Maleki said: "The president has a clear position on the continuation of the nuclear talks and has stated that Iran is not after attritional talks and all sanctions should to be lifted." The nuclear talks for a possible revival of the 2015 nuclear deal, officially called the Joint Comprehensive Plan of Action (JCPOA), is expected to be resumed now that a new government in Iran has come to power.

The nuclear talks for restoring the JCPOA started in April in Vienna and until June 20 six rounds of talks were held. However, since then no talks have taken place because Iran was in the process of transition. Referring to some consultations to transfer the nuclear case to the Supreme National Security Council (SNSC), he added: "In the previous administration, the Ministry of Foreign Affairs dedicated its time to nuclear talks and as a result regional talks and economic diplomacy were practically stopped."

<https://www.tehrantimes.com/news/464993/Nuclear-dossier-must-be-pursued-independently-MP-says>

Iran calls talks with IAEA director constructive

Tehran Times, September 12, 2021

The new chief of the Atomic Energy Organization of Iran (AEOI) Mohammad Eslami on Sunday described his talks with IAEA Director General Rafael Grossi as "good and constructive". "Mr. Rafael Grossi came to Tehran at the invitation of the Atomic Energy Organization of Iran and we had good and constructive talks with him," Mohammad Eslami made the remarks in a joint press conference with Grossi.

Eslami also said he will hold talks with Grossi on the sidelines of the International Atomic Energy Agency's Board Governors which will start in Vienna from Monday. "We decided to participate in the next meeting and continue our talks on the sidelines of the meeting," Iran's new nuclear chief stated.

Eslami added, "The spirit governing the negotiations is to create opportunities for the development of interactions, cooperation within the framework of the rules and regulations of the International Atomic Energy Agency." Stating that all issues between Iran and the IAEA are basically technical and that political issues have no place in relations between the two sides, Iran's nuclear chief said: "We decided to participate in the next meeting and continue our talks on the sidelines of the meeting."

<https://www.tehrantimes.com/news/464982/Iran-calls-talks-with-IAEA-director-constructive>

Grossi confirms demolition of IAEA surveillance cameras in Iran attributed to Mossad

Tehran Times, September 13, 2021

IAEA Director General Rafael Grossi said on Monday that an accident at Iran's Karaj nuclear plant attributed by many to Mossad may have destroyed some of the IAEA's monitoring equipment. Grossi did not mention who caused the incident, but said the data loss was a negative development and appeared to disapprove of sabotage acts against the Iranian nuclear facilities. Subsequently, he claimed that his Agency does not know how much monitoring data has been lost regarding the Iranian nuclear program from its broken and damaged cameras. "We have yet to see the extent of the gap," Grossi said, qualifying that he hoped other IAEA monitoring redundancies would help uncover any missing data from individual cameras.

Grossi has not yet explained how or why the cameras were broken or damaged. Driven by the fact that the Islamic Republic has ignored pressure by him to explain about alleged illicit nuclear material and undeclared nuclear sites for nearly two years, he replied, "More or less hard is in the eye of the beholder." On Sunday, Grossi said he had a new agreement with the new Iranian government to allow immediate "assistance" of its monitoring equipment, as well as plans for follow-up meetings by the end of September with top Iranian officials. However, Grossi acknowledged that Tehran would deny access to all electronic data dating back to February 24 until all the disputes with the U.S. over Iran's nuclear program are resolved.

<https://www.tehrantimes.com/news/465036/Grossi-confirms-demolition-of-IAEA-surveillance-cameras-in-Iran>

Iran: JCPOA-related cameras are inactive

Tehran Times, September 15, 2021

Iran's new nuclear chief said on Wednesday that he had briefed MPs sitting on the Majlis National Security and Foreign Policy about IAEA Director General Rafael Grossi's visit to Tehran. Mohammad Eslami stressed that Iran's peaceful nuclear program should advance quite transparently with an observation of the parliamentary Strategic Action law. "We should not allow ourselves to be accused of secrecy in the world," Eslami told reporters. Eslami also said that the Westerners were obliged to provide technical assistance to Iran in nuclear industry under the 2015 nuclear deal (JCPOA), but this commitment was not fulfilled.

Under the JCPOA, Iran agreed to put limits on its nuclear activities in exchange for termination of economic and financial sanctions as well as technical assistance in the nuclear field. Based on the agreement, Iran also agreed to implement the additional protocol which allows intensive inspections. “What Iran has been achieved in the field of nuclear technology is based on domestic research and development, and no one can stop this,” emphasized Eslami, a graduate of civil engineering.

<https://www.tehrantimes.com/news/465123/Iran-JCPOA-related-cameras-are-inactive>

East Asia

South Korea

S. Korea developing massive ballistic missile as powerful as tactical nuclear weapon

Yonhap

Korea Herald, September 2, 2021

South Korea has been developing a massive ballistic missile as powerful as a tactical nuclear weapon, sources said Thursday, after the full lifting of US-imposed restrictions on missile development. The surface-to-surface missile, which can carry a warhead of up to 3 tons with a flight range of 350-400 kilometers, is in the last stage of development and the timing of its deployment will be determined after several test-firings, according to the sources. Unveiling its defense blueprint for 2022-2026 earlier in the day, the defense ministry vowed to develop new missiles "with significantly enhanced destructive power," deploy new interceptors against long-range artillery threats and upgrade the Patriot system.

That suggests the new ballistic missile could be put into operation before 2026. The envisioned missile is designed to destroy underground missile facilities and bases by penetrating underground tunnels so as to effectively nullify nuclear and intercontinental ballistic missiles (ICBMs) ahead of their launches. They can also reach all areas of North Korea if fired from around the inter-Korean border, the sources said.

http://www.koreaherald.com/view.php?ud=20210902000796&ACE_SEARCH=1

Military to build ‘Korean Iron Dome,’ enhance strike capability

Choi Si-young

Korea Herald, September 2, 2021

The military said Thursday it will pursue a homegrown missile defense system and a greater strike capability as part of a 315 trillion-won (\$271 billion), five-year plan starting next year. About 106 trillion won goes to bolstering defense capabilities to build weapons, such as anti-missile systems and ballistic missiles, while the rest is set aside to cover operating costs. “We will have ironclad defense against North Korean fire targeting Seoul and the surrounding areas,” the Ministry of National Defense said, referring to the capital that is home to over 9 million people, nearly one-fifth of South Korea’s population.

The military plans to put up a missile shield, similar to Israel's Iron Dome, to protect the capital, which is well within range of North Korea's long-range rockets. The regime could be resuming nuclear reactors for weapons, according to the International Atomic Energy Agency last week.

http://www.koreaherald.com/view.php?ud=20210902000845&ACE_SEARCH=1

S. Korean nuclear envoy returns home from US visit

Yonhap

Korea Herald, September 2, 2021

Noh Kyu-duk, special representative for the Korean Peninsula peace and security affairs, answers questions from reporters Thursday at Incheon International Airport. (Yonhap)

Noh Kyu-duk, special representative for the Korean Peninsula peace and security affairs, answers questions from reporters Thursday at Incheon International Airport. (Yonhap)

South Korea's top nuclear envoy returned home Thursday after meeting with his US counterpart and other officials in Washington to discuss efforts to resume dialogue with North Korea.

Noh Kyu-duk, special representative for the Korean Peninsula peace and security affairs, said he had "in-depth" talks with the US side and that the visit was a "fairly productive" one. "We confirmed the US stance that it remains committed to resolving the North Korea issues with urgency and as a priority," he told reporters at Incheon International Airport. During the four-day trip, he had a series of meetings with his US counterpart, Sung Kim, and other administration officials, including the White House policy coordinator for Asia, Kurt Campbell.

http://www.koreaherald.com/view.php?ud=20210902000995&ACE_SEARCH=1

South Korea tests first SLBM

Choi Si-young

Korea Herald, September 7, 2021

South Korea has become the first non-nuclear state to develop a submarine-launched ballistic missile, having run a test-firing from a newly built submarine, sources said Tuesday. SLBMs have been developed by seven countries -- China, France, India, North Korea, Russia, the UK and the US -- all of which have nuclear weapons. A Dosan Ahn Chang-ho submarine, the country's first 3,000-ton underwater vessel, revealed last month, carried out the underwater ejection tests last week after similar tests from a submerged barge last month.

The homegrown SLBM, code-named Hyunmoo 4-4, is a variant of the Hyunmoo-2B ballistic missile, which could fly up to 500 kilometers and reach anywhere in North Korea. It will go through more tests before being deployed on the Dosan submarine. The Ministry of National Defense, which declined to confirm the details for security reasons, has said it will build more powerful missiles to enhance its strike capabilities as part of a 315 trillion won (\$271 billion), five-year plan starting next year. Seoul, which is aiming to target Pyongyang's heavily fortified bunkers and tunnels, is planning to put up a

stronger missile defense to protect the capital, which falls within the range of the North's long-range rockets.

http://www.koreaherald.com/view.php?ud=20210907000950&ACE_SEARCH=1

Missile tests renew North Korea's regional threat

Kim Tong-Hyung

AP News, September 13, 2021

North Korea says it successfully tested what it described as new long-range cruise missiles over the weekend, renewing concerns that its nuclear-armed leadership is building its capacity to deliver strikes against U.S. allies in South Korea and Japan. Experts weigh in on what the missile tests show about the ambitions of the North's isolated ruler, Kim Jong Un, and whether this signals a new threat. Experts say the missiles launched over the weekend resemble in appearance U.S. Tomahawk cruise missiles, and are likely designed to overwhelm the missile defenses of North Korea's neighbors. The North said the missiles it described as "new type long-range cruise missiles" were a "strategic weapon of great significance" that met leader Kim Jong Un's call to strengthen the country's military might — implying that they were being developed with an intent to carry nuclear weapons. Pyongyang's official Korean Central News Agency said Monday that the missiles traveled for 126 minutes along "oval and pattern-8 flight orbits" above land and water, demonstrating an ability to hit targets 1,500 kilometers (932 miles) away. While North Korea had tested anti-ship cruise missiles before, the missiles from its latest tests are likely built with different designs and engines that provide improved range and maneuverability, experts say.

While data from the tests are so far limited, it's clear the new missiles represent "another significant milestone for North Korea's nuclear program," said Melissa Hanham, an affiliate at Stanford University's Center for International Security and Cooperation. North Korea's rulers are likely moving toward putting their cruise missiles on submarines and other naval vessels, Hanham added, as they try producing new delivery mechanisms for nuclear weapons. "Cruise missiles are almost like little airplanes — they can be very accurate," Hanham said. "They can turn corners. They can go into valleys where radars would not see them easily. It would be a much more difficult problem for South Korea and Japan to monitor." Seoul, Washington and Tokyo said they were examining the North's latest tests but didn't immediately release specific assessments from their militaries. Kim has unilaterally halted North Korean testing of nuclear bombs and long-range ballistic missiles designed to target the American homeland since 2018 when he initiated diplomacy with former President Donald Trump while attempting to leverage his arsenal for sanctions relief. However, the North continues to pursue a policy threatening regional confrontation. While Kim has maintained the suspension on nuclear and long-range tests after his talks with Trump collapsed in 2019, the North has since tested a growing arsenal of short-range solid-fuel weapons fired from land-based launchers. Experts say those weapons threaten South Korea and Japan because they can be launched quickly from vehicles and travel at flattened trajectories that make them harder for defense systems to detect and intercept.

<https://apnews.com/article/technology-japan-business-south-korea-nuclear-weapons-4e2a3a671bd94a6e168dfa3018ade4b9>

North, South Korea test missiles amid rising tensions

DW, September 15, 2021

South Korea has said it carried out its first underwater-launched ballistic missile test just hours after the North fired two ballistic missiles into the sea. North Korea on Wednesday fired two ballistic missiles into the sea, according to the South Korean military. Hours later, South Korea said President Moon Jae-in observed Seoul's first underwater-launched missile test on Wednesday afternoon. The South's missile, fired from a 3,000-ton-class submarine, flew a previously set distance before hitting a designated target, the presidential Blue House said.

Possessing a submarine-launched ballistic missile was "expected to play a major role in self-reliant national defense and the establishment of peace on the Korean Peninsula going forward," the Blue House said. The tests came as China's foreign minister visited Seoul for talks about Pyongyang's recent testing of new long-range cruise missiles. The two "unidentified ballistic missiles" were launched from a site in central North Korea, toward the waters of the Korean Peninsula's east coast on Wednesday afternoon, South Korea's Joint Chiefs of Staff said in a statement. "South Korean and US intelligence agencies are conducting detailed analysis," they added, without immediately giving details of the missiles' range. Japan's coast guard said the missiles landed outside Japanese economic waters. If Wednesday's test were confirmed as a ballistic missile, it would be Pyongyang's first since March this year and a further violation of UN sanctions.

<https://www.dw.com/en/north-south-korea-test-missiles-amid-rising-tensions/a-59185563>

North Korea

North Korea holds major military parade on anniversary of foundation

DW, September 9, 2021

North Korea held a nighttime military parade attended by Leader Kim Jong Un, featuring its massive military personnel and machinery instead of nuclear weaponry. This is the third military parade in 12 months. North Korea held a major overnight military parade to mark the nation's 73rd anniversary on Thursday, with Kim Jong Un in attendance. Along with endless soldiers, the parade featured paramilitary and public security forces. Some personnel marched in orange hazmat suits. The display of weaponry was heavily toned down compared to the parades in January this year and October of last year, where North Korea displayed an array of its weaponry and defense systems, including ballistic missiles.

There was no show of nuclear weaponry during the toned-down event. Civil defense units, railway ministry detachments, fire brigades, Air Koryo and detachments from the Hungnam Fertilizer Complex were exhibited. Much of the hardware, like these motorcycle sidecars, had a distinct retro and low-budget flavor. This year, there were no missiles or heavy weapons to be seen. The procession had

detachments from the railway ministry, Air Koryo and the Hungnam Fertilizer Complex, and fire brigades, with only small artillery pieces dragged by agricultural tractors. Cavalry and motorcycle sidecars were also on show. "The columns of emergency epidemic prevention and the Ministry of Public Health were full of patriotic enthusiasm to display the advantages of the socialist system all over the world, while firmly protecting the security of the country and its people from the worldwide pandemic," the state-run KCNA news agency said in a written report.

<https://www.dw.com/en/north-korea-holds-major-military-parade-on-anniversary-of-foundation/a-59128761>

North Korea test-fires new long-range cruise missile

DW, September 13, 2021

State media claims the projectiles are capable of hitting targets 1,500 kilometers away. Japan says missiles with such a range pose a "serious threat to peace." North Korea conducted successful tests of a new long-range cruise missile over the weekend, state media reported on Monday. The exercise marks Pyongyang's first known testing activity in months and underpins how it continues to scale up its military arsenal amid a deadlock in nuclear talks with the United States.

The missiles are "a strategic weapon of great significance ... for more reliably guaranteeing the security of our state," the Korean Central News Agency (KCNA) said. It added that they successfully hit targets 1,500 kilometers (932 miles) away during flight tests on Saturday and Sunday, before falling into the country's territorial waters. North Korea's ruling Workers' Party's official newspaper, Rodong Sinmun, carried photos of the new cruise missile flying and being fired from a transporter-erector-launcher. The missiles have reportedly been under development for two years. "The test launches showed that the technical indices met the requirements of designs. In all, the efficiency and practicality of the weapon system operation was confirmed to be excellent," KCNA said.

<https://www.dw.com/en/north-korea-test-fires-new-long-range-cruise-missile/a-59162823>

North Korea says it tested new long-range cruise missiles

Kim Tong-Hyung

AP News, September 13, 2021

North Korea said Monday that it successfully tested newly developed long-range cruise missiles over the weekend, the first known testing activity in months, underscoring how the country continues to expand its military capabilities amid a stalemate in nuclear negotiations with the United States. The state-run Korean Central News Agency reported that the missiles showed they can hit targets 1,500 kilometers (930 miles) away on Saturday and Sunday. State media published photos of a projectile being fired from a launcher truck and what looked like a missile traveling in the air.

The North hailed its new missiles as a "strategic weapon of great significance" — wording that implies they were developed with the intent to arm them with nuclear warheads. North Korea says it needs nuclear weapons in order to deter what it claims is hostility from the U.S. and South Korea — and has

long attempted to use the threat of such an arsenal to extract much-needed economic aid or otherwise apply pressure. The North and ally China faced off against South Korea and U.S.-led U.N. forces in the 1950-53 Korean War, a conflict that ended in an armistice that has yet to be replaced with a peace treaty. The international community is bent on getting the North to abandon its nuclear arsenal and has long used a combination of the threat of sanctions and the promise of economic help to try to influence the North.

<https://apnews.com/article/united-states-south-korea-north-korea-11118aba91126b6ea2eba9fb35bc2b4f>

Inter-Korean missile race intensifies amid tension

Choi Si-young

Korea Herald, September 13, 2021

South Korea and North Korea are locked in an expanding arms race to bolster their naval power through submarine-launched ballistic missiles (SLBM) with no end to tensions in sight. SLBMs are hard to intercept because they are fired from submarines deep in the sea. Seven countries that have nuclear weapons -- China, France, India, North Korea, Russia, the UK and the US – have developed them. South Korea is the only non-nuclear state to have tested them recently. Nuclear warheads make North Korea's SLBMs far more powerful than South Korea's. But Seoul has a lead in submarines and is looking to widen the gap.

http://www.koreaherald.com/view.php?ud=20210913000902&ACE_SEARCH=1

NK seeks upper hand with missiles during Chinese FM's visit: analysts

Ahn Sung-mi

Korea Herald, Sept 15, 2021

North Korea could be trying to gain the upper hand in its relations with the US and China amid their intensifying rivalry, analysts say in reference to the ballistic missile tests that took place in the North on the same day that Chinese Foreign Minister Wang Yi met with South Korean leaders in Seoul. South Korea's Joint Chiefs of Staff said Pyongyang launched two ballistic missiles into the East Sea on Wednesday afternoon, just days after testing a new long-range cruise missile. The South Korean and US intelligence agencies are conducting detailed analysis, it added, without providing details.

Wang is in Seoul for a two-day visit as the final leg of his weeklong Asia tour, which is seen as a move to counter Washington's efforts to reassert its influence in the region. It's rare for North Korea to up the tension on the peninsula when China, its key ally and largest trade partner, is engaging in diplomatic activities. Observers say Pyongyang's missile launch was calculated to bolster its leverage over Beijing and Washington amid US-China competition, and to show that it is determined to develop strategic weapons in keeping with its five-year military buildup plan. "North Korea believes its value got bigger amid intensifying US-China rivalry," said Shin Beom-chul, director of the Center for Diplomacy and

Security at the Korea Research Institute for National Strategy. "Pyongyang also has faith that its ties with China won't falter as a result of the missile test."

http://www.koreaherald.com/view.php?ud=20210915001098&ACE_SEARCH=1

World/Misc

UN nuke watchdog: Iran pressing on with uranium enrichment

Kiyoko Metzler

AP News, September 8, 2021

Iran has continued to increase its stockpile of highly enriched uranium that could be used to make nuclear weapons in contravention of a 2015 accord with world powers that was meant to contain Tehran's nuclear program, the U.N. atomic watchdog said Tuesday. The International Atomic Energy Agency also told member states in its confidential quarterly report that its verification and monitoring activities have been "seriously undermined" since February by Iran's refusal to let inspectors access IAEA monitoring equipment.

The Vienna-based agency told members that its confidence in properly assessing Iran's activities — what it called the "continuity of knowledge" — was declining over time and that would continue "unless the situation is immediately rectified by Iran." The IAEA said certain monitoring and surveillance equipment cannot be left for more than three months without being serviced. It was provided with access this month to four surveillance cameras installed at one site, but one of the cameras had been destroyed and a second had been severely damaged, the agency said. Its director-general, Rafael Mariano Grossi, said he was willing to travel to Iran to meet the recently elected government for talks on the issue.

<https://apnews.com/article/europe-middle-east-iran-iran-nuclear-united-nations-8fea1cc096d34abbbf9f8edad9e0e238>

Guterres calls for improved UN amid 'more chaotic' world

DW, September 8, 2021

The UN chief has warned that the world is becoming "more chaotic, more insecure" and "more dangerous for everyone." He also said dialogue with the Taliban in Afghanistan was "absolutely essential." UN chief Antonio Guterres said humanitarian aid must be delivered to Afghanistan to prevent 'an economic meltdown' in the country. United Nations Secretary-General Antonio Guterres has said that the world was edging towards a "new abnormal," and called for changes within the international organization. Guterres submitted a new report to the General Assembly on Friday, proposing creation of "an emergency platform bringing together governments, the UN system, international financial institutions, civil society, the private sector and others, that would be triggered automatically in large-scale crises."

In the report, called "Our Common Agenda," Guterres proposed to hold a global summit in two years to discuss how to safeguard global assets such as peace, global health and the environment. "The summit would consider, too, a new agenda for peace that would include measures to reduce strategic risks from nuclear arms, cyberwarfare and lethal autonomous weapons," Guterres told reporters. He also suggested that a "special envoy for future generations" should represent "the interests of people who will be born over the coming century."

<https://www.dw.com/en/guterres-calls-for-improved-un-amid-more-chaotic-world/a-59150307>

IAEA chief Grossi visits Iran

Tehran Times, September 11, 2021

International Atomic Energy Agency Director General Rafael Grossi was to visit Iran on Saturday afternoon, Iran's ambassador to the Vienna-based international organizations confirmed on Saturday. Writing on his Twitter account, Kazem Gharibabadi said Grossi will hold talks with Iranian Vice President and chief of the Atomic Energy Organization of Iran (AEOI) Mohammad Eslami on Sunday. Ambassador Gharibabadi said the sides plan to issue a joint statement. This is the first visit to Tehran by Grossi since a new government took reign in Iran.

The visit by Grossi comes a few days before the IAEA Board of Governors holds a regular meeting, which the issue of Iran's nuclear program will feature high on the agenda. In a tweet on September 9, Gharibabadi said the "IAEA cannot disassociate itself from the destiny of the JCPOA." He warned "any counterproductive action, disrupts the negotiation process" in Vienna to revive the 2015 nuclear deal, the common name for the JCPOA. "Of course," the ambassador said, "I hope that wisdom prevails in the Board of Governors." Gharibabadi suggested "cooperation for cooperation - goodwill for goodwill - action for action." He added, "Depoliticization, impartiality, independence, and professionalism are essential for the credibility of the IAEA."

<https://www.tehrantimes.com/news/464937/IAEA-chief-Grossi-visits-Iran>

Think Tanks

Nuclear Notebook: How many nuclear weapons does Pakistan have in 2021?

Hans M. Kristensen, Matt Korda,

Bulletin of the Atomic Scientists, September 7, 2021

Pakistan continues to expand its nuclear arsenal with more warheads, more delivery systems, and a growing fissile materials production industry. Analysis of a large number of commercial satellite images of Pakistani army garrisons and air force bases shows what appear to be launchers and facilities that might be related to the nuclear forces. We estimate that Pakistan now has a nuclear weapons stockpile of approximately 165 warheads. The US Defense Intelligence Agency projected in 1999 that Pakistan would have 60 to 80 warheads by 2020 (US Defense Intelligence Agency 1999, 38), but several new weapon systems have been fielded and developed since then, which leads us to the higher estimate.

With several new delivery systems in development, four plutonium production reactors, and an expanding uranium enrichment infrastructure, however, Pakistan's stockpile has the potential to increase further over the next 10 years. The size of this projected increase will depend on several factors, including how many nuclear-capable launchers Pakistan plans to deploy, how its nuclear strategy evolves, and how much the Indian nuclear arsenal grows. Speculation that Pakistan may become the world's third-largest nuclear weapon state—with a stockpile of some 350 warheads a decade from now—are, we believe, exaggerated, not least because that would require a buildup two to three times faster than the growth rate over the past two decades. We estimate that the country's stockpile could more realistically grow to around 200 warheads by 2025, if the current trend continues. But unless India significantly expands its arsenal or further builds up its conventional forces, it seems reasonable to expect that Pakistan's nuclear arsenal will not continue to grow indefinitely but might begin to level off as its current weapons programs are completed.

<https://thebulletin.org/premium/2021-09/nuclear-notebook-how-many-nuclear-weapons-does-pakistan-have-in-2021/>

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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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