

Nuclear, Missile & Space Digest

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A Fortnightly Newsletter from the MP-IDSA

March 31, 2024

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A. India

India's Statement at Nuclear Energy Summit Brussels 2024

Department of Atomic Energy, March 21, 2024

India is committed to achieve the Net Zero emissions target by 2070 as announced by our Hon'ble Prime Minister Shri Narendra Modi at the 26th session of the Conference of the Parties (COP26) to the United Nations Framework Convention on Climate Change (UNFCCC) held in Glasgow, United Kingdom in November 2021.

In this regard, India has initiated steps to increase the share of nuclear power capacity. India firmly believes that nuclear power is a clean and environment friendly source of electricity, which is available 24X7, and can provide the country long-term energy security in a sustainable manner. The growth of the Indian nuclear power programme is imperative to meet the twin goals of energy security and sustainable development.

India's Statement at Nuclear Energy Summit Brussels 2024 | Department Of Atomic Energy | India (dae.gov.in)

World Leaders Convene for Nuclear Energy Summit

IAEA, March 20, 2024

Co-chaired by the Prime Minister of Belgium Alexander De Croo and the Director General of the IAEA Rafael Mariano Grossi, the Summit will be the highest-level meeting to date exclusively focused on the topic of nuclear energy. It comes in the wake of the historic inclusion of nuclear energy in the Global Stocktake agreed at the UN Climate Change Conference (COP28) in Dubai in December 2023, which called for accelerating its deployment along with other low carbon energy sources.

Director General Grossi said, "This historic summit will build on the momentum of COP28 where the world finally agreed it must invest in nuclear energy to meet its climate goals. Now is time for action, for

laying out the concrete steps that will make the investment happen."

World Leaders Convene for Nuclear Energy Summit | IAEA

B. China

China opens ten nuclear technology research facilities to the world to enhance international cooperation

Global times, 20 March 2024

China National Nuclear Corporation (CNNC) has opened ten of its nuclear technology research facilities and testing platforms, including China's new-generation "artificial sun" Huanliu-3 (HL-3) tokamak, to the world for the first time. The move will further enhance China's influence in nuclear science and technology globally, injecting strong "nuclear power" into promoting win-win cooperation worldwide, the Global Times learned from CNNC at a press conference on March 19 in Beijing during the 17th China International Nuclear Industry Exhibition.

China opens ten nuclear technology research facilities to the world to enhance international cooperation - Global Times

C. Russia

Nizhny Novgorod defense companies boost production by 2.5 times — Russian Defense Minister

TASS, March 21, 2024

The production output after the expansion of the capacity by Nizhny Novgorod defense companies has increased by almost 2.5 times, Russian Defense Minister Sergey Shoigu said at a working meeting with chief executives of Nizhny Novgorod defense plants.

"Following the start of operation of new facilities, the production volume has actually increased by nearly 2.5 times," Shoigu said.

Tasks were set earlier to plants on expansion of production facilities, the Russian Defense Minister stressed.

<https://tass.com/defense/1763305>

Russia's Volkhov sub test-fires Kalibr cruise missile in Sea of Japan

TASS, March 22, 2024

The Volkhov submarine of Russia's Pacific Fleet test-fired a Kalibr-PL cruise missile in the Sea of Japan, striking a target around 1,000 km away, the fleet's press service said.

"In accordance with the combat training schedule, the crew of the Volkhov diesel-electric submarine of Russia's Pacific Fleet performed a launch of a Kalibr cruise missile while in the underwater position. The missile was fired at a coastal target imitating a notional enemy's artillery position," the Pacific Fleet said.

<https://tass.com/defense/1763581>

Submarine Mozhaik performs deep dives in Baltic Sea

TASS, March 25, 2024

The crew of the multipurpose diesel-electric submarine The Mozhaik has performed deep dives in the Baltic Sea while practicing combat training tasks, the Baltic Fleet's press service has said.

"The crew of The Mozhaik submarine practiced tasks in the Baltic Sea at various depths, up to 190 meters," the news release said.

The crew checked the operation of all systems and mechanisms, practiced the algorithm of controlling the vessel at depths and various methods of surfacing.

Upon completing the underwater part of the exercise, The Mozhaik surfaced and continued to carry out activities in accordance with the fleet's combat training plan.

<https://tass.com/defense/1765563>

Russian missile troops to practice camouflaging Yars road-mobile ICBM launchers in drills

TASS, March 25, 2024

Russia's Strategic Missile Force will practice camouflaging Yars road-mobile ICBM (intercontinental ballistic missile) launchers during comprehensive drills in Eastern Siberia, Russia's Defense Ministry reported on Monday. The comprehensive inspection of the Irkutsk missile formation by the commission of the Strategic Missile Force's military command will focus on assessing the formation's combat readiness and interoperability of its personnel in accomplishing assigned missions, it specified.

<https://tass.com/defense/1765509>

Negotiations with Uzbekistan on NPP construction 'quite successful' – Rosatom

TASS, March 26, 2024

Negotiations between state corporation Rosatom and Uzbekistan on a contract for the construction of a nuclear power plant (NPP) in the country are going "quite successfully", the company's First Deputy General Director Kirill Komarov said on Tuesday. "Contract negotiations are going well. I always try not to mention such cases or give dates so as not to pressure anyone, because this is a critical decision. This is a decision that will shape the situation in Uzbekistan for the next century. So, I'll tell you this - it's better to take the extra time to discuss all the intricacies than to rush and make mistakes. However, we are ready to start the concrete implementation of this project at any time," Komarov said.

<https://tass.com/economy/1766349>

Rosatom, Syria sign plan of memorandum on cooperation on peaceful atom

TASS, March 26, 2024

Russia's state corporation Rosatom and the Atomic Energy Commission of Syria have

signed a plan for implementation of memorandum on cooperation in the area of non-energy employment of nuclear technologies for peaceful purposes at the Atomexpo forum, a TASS correspondent reports. Russia's state corporation Rosatom and the Atomic Energy Commission of Syria have signed a plan for implementation of memorandum on cooperation in the area of non-energy employment of nuclear technologies for peaceful purposes at the Atomexpo forum, a TASS correspondent reports.

<https://tass.com/economy/1766031>

Rosatom and Burkina Faso sign peaceful nuclear cooperation plan

TASS, March 26, 2024

Russian nuclear state corporation Rosatom and the Ministry of Mines, Quarries and Energy of Burkina Faso signed a roadmap for establishing cooperation on peaceful use of nuclear energy at the Atomexpo 2024 forum, the press service of the state corporation reported.

"The road map defines concrete steps to build the West African country's human resources capacity in the field of peaceful nuclear energy, develop nuclear infrastructure and create a positive public opinion regarding nuclear energy in Burkina Faso," the statement said.

<https://tass.com/economy/1765999>

Floating nuclear power plant plan for Russia's Far Eastern coast

World Nuclear News, March 27, 2024

Rosatom and the government of Primorsky Krai have signed an agreement for a feasibility study and location options for floating nuclear power units off its coast.

The agreement was signed at the Atomexpo 2024 event in Sochi and aims to produce reliable and carbon-free electricity generation facilities in the region, which borders China and North Korea and is about 250 miles across the sea from Japan.

Rosatom said the agreement will also include the financial, economic, legal and technical aspects of a prospective project, as well as how it would be organised. The Far Eastern region of Russia is estimated by the country's Unified Energy System operator to need at least 1.35 GW of power by 2029-2030.

<https://www.world-nuclear-news.org/Articles/Floating-nuclear-power-plant-plan-for-Russia-s-Far>

D. Europe

Germany aims to build fusion power plant

World Nuclear News, March 14, 2024

A new funding programme for nuclear fusion research has been announced by Germany's Federal Research Minister Bettina Stark-Watzinger aimed at paving the way for the first fusion power plant to be constructed in Germany by 2040.

"This institutional funding is supplemented by a second pillar with the new project funding programme," the ministry said. "The aim of the project funding is to advance the technologies, components and materials needed for a fusion power plant in a first phase by the early 2030s. In the second phase, the focus is on integration into a power plant design. The funding programme is open to technology and addresses both the technology of so-called magnetic confinement and laser fusion."

In order to achieve the construction of a fusion power plant as quickly as possible, the programme is essentially based on application-oriented collaborative research as a form of public-private partnership. Projects on specific sub-technologies are to be carried out jointly by research institutions, universities and industry. The ministry said this allows new findings from research to be taken up at an early stage and know-how to be transferred to the domestic industry for further use

<https://www.world-nuclear-news.org/Articles/Germany-aims-to-build-fusion-power-plant>

Lithuania Purchases Additional G36 Assault Rifles from Germany Valued at \$3.7 Million

Israel Defense, March 20, 2024

Lithuania is acquiring new G36 assault rifles from Germany. The Defense-blog.com website reports that the value of this procurement is approximately 3.5 million euros (\$3.7 million). These rifles, manufactured by the German company Heckler & Koch, are for the Lithuanian Riflemen's Union (LRU).

The G36 has served as the standard assault rifle for the Lithuanian Armed Forces in various versions since 2003. In October 2021, it was reported that the Lithuanian Ministry of Defense awarded a contract worth approximately •19 million to the German company Heckler and Koch for the production and supply of additional G36 assault rifles to its military.

The Lithuanian Riflemen's Union unites more than 14,000 citizens of the Republic of Lithuania. During peacetime, it prepares the citizens for both armed and unarmed resistance, ensuring public safety, and safeguarding Lithuania's integrity and independence. In wartime, the union would provide support to the Lithuanian Armed Forces through its fighting units and utilize other units to maintain internal stability, as well as defend critical infrastructure.

<https://www.israeldefense.co.il/en/node/61558>

France awards grants for molten salt reactor R&D

World Nuclear News, March 22, 2024

Molten salt reactor developers Thorizon and Stellaria, both in consortium with Orano, have been selected by the French government to receive funding through the France 2030 national investment plan.

Thorizon receives 10 Launched by President Emmanuel Macron in October 2021, the France 2030 re-industrialisation plan is endowed with EUR54 billion (USD58 billion) in funding schemes to be deployed over five years. In February 2022, Macron said EUR1 billion will be made available

through the plan for France's Nuward small modular reactor (SMR) project and "innovative reactors to close the fuel cycle and produce less waste". He said he had set "an ambitious goal" to construct a first prototype in France by 2030.

<https://www.world-nuclear-news.org/Articles/France-awards-grants-for-molten-salt-reactor-R-D>

France will help Brazil develop nuclear-powered submarines, Macron says

France 24, March 27, 2024

President Emmanuel Macron and counterpart Luiz Inacio Lula da Silva on Wednesday celebrated the launch of Brazil's third French-designed submarine, which will help secure the country's immense coastline, dubbed the "Blue Amazon." The two men highlighted the importance of their countries' defense partnership during a time of major global unrest, at a ceremony at Brazil's ultra-modern naval base in Itaguaí near Rio de Janeiro.

<https://www.france24.com/en/americas/20240327-france-to-help-brazil-develop-nuclear-technology-for-submarines>

French nuclear regulator finalising safety review of Flamanville plant

Reuters, March 26, 2024

France's nuclear regulator is finalising its safety review of EDF's Flamanville nuclear power plant and will soon start a public consultation process that will last at least two weeks, it said in a statement sent to Reuters on Tuesday. The agency's announcement effectively confirms a further delay to the Flamanville reactor, which was originally scheduled to enter service in 2012.

EDF had said it would begin fuel loading this month before connecting it to the grid in mid-2024.

<https://www.reuters.com/business/energy/france-start-public-consultation-flamanville-nuclear-plant-regulator-says-2024-03-26/>

Airbus acquire Infodas, after ending ATOS purchase talks

Airforce Technology, March 26, 2024

Airbus Defence and Space has acquired Infodas, a German cybersecurity company that provides IT solutions for defence and critical infrastructure elements of the public sector, with the deal expected to be finalised before the end of 2024.

Headquartered in Cologne, Infodas has around 250 employees and generates annual revenues of approximately •50m (\$54m), and has been working in the defence sector for almost 50 years.

<https://www.airforce-technology.com/news/airbus-acquire-infodas-ending-atos-purchase-talks/>

Germany selects Saab's Arexis sensor suite for Eurofighter EK

Airforce Technology, March 26, 2024

Sweden's aerospace prime Saab enters the supply chain as a subcontractor for the German Air Force's effort to equip 15 of its 141 Eurofighter Typhoons for electronic warfare (EW) missions.

Airbus Defence and Space, the prime contractor for the programme, looked to the Scandinavian company to supply its Arexis sensor suite as part of the programme.

The German defence procurement office announced in June 2023 that it had selected Arexis for the Eurofighter EK, an EW variant of the German Air Force's Eurofighter aircraft.

<https://www.airforce-technology.com/news/germany-selects-saabs-arexis-sensor-suite-for-eurofighter-ek/>

Denmark strikes deal to offload 24 F-16 fighter jets to Argentina

Airforce Technology, March 27, 2024

Denmark's Minister of Defence, Troels Lund Poulsen, has sealed a deal with Argentina's Minister of Defence, Luis Alfonso Petri, in Buenos Aires, paving the way for transferring 24 Danish F-16 fighter jets to Argentina.

The agreement, encapsulated in a letter of intent, reveals Denmark's decision to revamp its military assets by replacing its ageing F-16 fleet with the F-35 jet.

While the sale marks a milestone in Denmark's military modernisation efforts, it also signals Argentina's ambition to bolster its air defence capabilities.

<https://www.airforce-technology.com/news/denmark-strikes-deal-to-offload-24-f-16-fighter-jets-to-argentina/>

E. The United States of America

Kratos Receives \$57.6m contract for 70 BQM-177A aerial targets

Airforce Technology, March 20, 2024

US-based military aerial target provider Kratos Defense & Security Solutions has received a \$57.6m modification to a previously awarded firm-fixed-price contract from the US Department of Defense (DoD) to exercise options to procure full rate production Lot Five of the BQM-177A programme.

Under the terms of the deal, Kratos will provide for the production and delivery of 70 BQM-177A surface launched aerial targets and 70 rocket assisting takeoff attachment kits, as well as associated technical and administrative data in support of weapons system test, and evaluation, and fleet training for the US Navy.

<https://www.airforce-technology.com/news/kratos-receives-57-6m-contract-for-70-bqm-177a-aerial-targets/>

U.S. to Supply Bahrain with 50 M1A2 Abrams Main Battle Tanks

Israel Defense, March 21, 2024

The U.S. State Department has approved the sale of 50 M1A2 SEPv3 Abrams main battle tanks to Bahrain, with an estimated total cost of \$2.2 billion. Alongside these tanks, Bahrain will also receive four M88A2 HERCULES combat recovery vehicles, eight M1110 joint assault bridges, eight M1150 assault breacher vehicles, and

eight heavy assault scissor bridges (HASB), as well as light and heavy machine guns, M250 smoke grenade launchers, and various types of ammunition.

According to the U.S. State Department, this proposed sale will support the foreign policy and national security objectives of the United States by enhancing the security of a major non-NATO Ally. Bahrain is recognized as an important force for political stability and economic progress in the Middle East. It's emphasized that the proposed sale of this equipment and support will not disrupt the fundamental military balance in the region.

<https://www.israeldefense.co.il/en/node/61564>

U.S. to Supply Javelin Anti-Tank Missile Systems to Morocco

Israel Deefense, March 21, 2024

The U.S. State Department has approved the sale of Javelin anti-tank missile systems to Morocco at an estimated total cost of \$260 million. As part of this sale, Morocco will be supplied with 612 Javelin FGM-148F missiles, which include 12 fly-to-buy missiles, along with 200 Javelin lightweight command launch units (LWCLUs).

According to the U.S. State Department, this proposed sale will support the foreign policy and national security objectives of the United States by enhancing the security of a major non-NATO Ally. Morocco is recognized as an important force for political stability and economic progress in North Africa. It is emphasized that the proposed sale of this equipment and support will not disrupt the fundamental military balance in the region.

<https://www.israeldefense.co.il/en/node/61565>

Washington approves \$228 million in US military aid to the three Baltic states, Estonia says

Associated Press, March 23, 2024

The U.S. Congress has passed a bill that involves a total of \$228 million in military and defense aid to Estonia, Latvia and Lithuania this year under the Baltic Security

Initiative, Estonia's defense officials said Saturday.

The U.S. government funding legislation includes military aid to the three Baltic countries, which all are NATO members and neighbors of Russia, that was approved by lawmakers on Friday.

"Support from the U.S. has significantly helped Estonia, Latvia and Lithuania fast track several military infrastructure and capability development projects," Estonian Defense Minister Hanno Pevkur said in a statement. "The good news is that the support is slightly higher than last year."

<https://apnews.com/article/us-baltics-military-aid-estonia-latvia-lithuania-af6b938e56f2412cc5cee16182cb96c1>

US, Japan plan to strengthen security pact inked over 60 years ago

The Economic Times, March 25, 2024

The US military is enhancing its command headquarters in Japan to improve cooperation with Japan's self-defense forces against security threats from China and North Korea. Japan plans to establish a joint headquarters for its ground, maritime, and air forces by March 2025 to deepen cooperation with the US military. The move comes amid growing concerns over North Korea's missile tests and China's military activities. Japan and the US will discuss further details ahead of talks between their leaders next month.

<https://economictimes.indiatimes.com/news/defence/us-japan-plan-to-strengthen-security-pact-inked-over-60-years-ago/articleshow/108764990.cms?from=mdr>

Space Force, Space Command seek over \$2 billion for unfunded programs to counter anti-satellite threats

Space News, March 25, 2024

The U.S. Space Force and U.S. Space Command submitted a combined \$2.3 billion in "unfunded requirements" to

Congress last week, with the vast majority of the funds requested for classified programs aimed at space control, space superiority, and space domain awareness. These are broad categories of technologies sought by the military to protect U.S. assets in orbit from anti-satellite weapons being developed by China and Russia.

The unfunded priorities list is an annual ritual in which the military services detail important priorities and capabilities left out of the president's official budget request. The items in the Space Force's \$1.1 billion and Space Command's \$1.2 billion lists did not make it into the fiscal year 2025 budget proposal the Pentagon submitted to Congress on March 11, which included \$29.4 billion for the Space Force. Space Command is a combatant organization that relies on the Space Force to acquire the space hardware and systems needed for operations in the space domain.

<https://spacenews.com/space-force-space-command-seek-over-2-billion-for-unfunded-programs-to-counter-anti-satellite-threats/>

Biden Administration Will Lend \$1.5B to Restart Michigan Nuclear Power Plant, a First in the US

Associated Press, March 28, 2024

The federal government will provide a \$1.5 billion loan to restart a nuclear power plant in southwestern Michigan, officials announced Wednesday.

Holtec International acquired the 800-megawatt Palisades plant in 2022 with plans to dismantle it. But now the emphasis is on restarting it by late 2025, following support from the state of Michigan and the Biden administration.

Gov. Gretchen Whitmer said it would be the first nuclear power plant to be reopened in the U.S. It still faces hurdles, including inspections, testing and the blessing of the U.S. Nuclear Regulatory Commission, known as the NRC.

"Nuclear power is our single largest source of carbon-free electricity, directly supporting

100,000 jobs across the country and hundreds of thousands more indirectly," said Energy Secretary Jennifer Granholm, a former Michigan governor.

<https://apnews.com/article/michigan-nuclear-plant-federal-loan-cbafb1aad2402ecf7393d763a732c4f8>

F. Iran

Iran appointed as president of UN Conference on Disarmament

IRNA, March 19, 2024

Addressing the first meeting of the Conference on Disarmament, Bahraini explained Iran's plans during his presidency, saying that Iran, along with other peace-loving countries opposed to war and violence, will pursue the promotion of international peace and security through the elimination of weapons of mass destruction, especially nuclear weapons.

The Conference on Disarmament, which was established in 1978, is the only international multilateral negotiation body in the field of disarmament, which is responsible for negotiating and signing international treaties in this field.

It has negotiated, formulated and finalized several international disarmament treaties, including the Biological Weapons Convention (BWC) and the Comprehensive Nuclear-Test-Ban Treaty (CTBT).

Iran is to follow up implementation of the obligations of nuclear weapons holders regarding the complete, irreversible and verifiable destruction of nuclear weapons, the end of the nuclear arms race, the Middle East free from weapons of mass destruction, providing security guarantees to non-nuclear states, prohibiting the arms race, etc.

<https://en.irna.ir/news/85422795/Iran-appointed-as-president-of-UN-Conference-on-Disarmament>

US imposes new sanctions over Iran's missile, nuclear programs

IRNA, March 20, 2024

The US Treasury Department announced on March 13, 2024 that its Office of Foreign Assets Control (OFAC) had targeted three procurement networks operating in Iran, Turkey, Oman, and Germany, allegedly supporting Iran's ballistic missile, nuclear, and defense programs. The Treasury claimed that these networks were involved in procuring carbon fiber, epoxy resin, and other materials for Iran's missile industry.

Last month, the US Treasury announced sanctions targeting Iran's ballistic missile and drone procurement programs as part of Washington's pressure campaign against Tehran. The Joe Biden administration, which claimed a diplomatic approach towards Iran and efforts to return to the 2015 nuclear deal, has not only failed to return to the JCPOA, but has also pursued a series of sanctions under the pretext of Iran's defense programs.

<https://en.irna.ir/news/85423481/US-imposes-new-sanctions-over-Iran-s-missile-nuclear-programs>

Sanctions turned into strong point for Iran nuclear industry: AEOI official

IRNA, March 22, 2024

Despite the sanctions, Iran has turned into an exporter of radiopharmaceuticals at the international level, in addition to meeting domestic needs, Kamalvandi said on Friday.

On the political arena, attaining nuclear technology is also important, the official said, adding that as Supreme Leader of the Islamic Revolution Ayatollah Seyyed Ali Khamenei has said the nuclear industry enhances the country's sovereignty.

That's why enemies do not want to see the Islamic Republic obtain a home-grown nuclear industry, Kamalvandi added.

<https://en.irna.ir/news/85424562/Sanctions-turned-into-strong-point-for-Iran-nuclear-industry>

Iran, Europe insist on continuing talks to lift sanctions

IRNA, March 25, 2024

The two sides emphasized the importance of continuing talks and meetings for lifting the sanctions.

"The Islamic Republic of Iran has had a clear position on regional issues from the beginning and we have clearly said that resorting to war is not the solution," Amirabdollahian said.

Amirabdollahian called the repetition of claims about sending Iranian weapons to be used against Ukraine as boring and baseless story-telling.

Referring to the continuous talks and contacts between Mora and Bagheri, he stated that the Islamic Republic of Iran is determined to continue constructive cooperation with the International Atomic Energy Agency and, in return, it seriously expects the western parties to fully adhere to their commitments regarding nuclear negotiations and the lifting of sanctions.

<https://en.irna.ir/news/85427272/Iran-Europe-insist-on-continuing-talks-to-lift-sanctions>

G. Israel

Israel Aerospace Industries, Czech Ministry of Defense Sign Contract for Sustainability and Maintenance of MMR Radars

Israel Defense. March 17, 2024

Israel Aerospace Industries and the Czech Ministry of Defense signed a contract for the sustainability and maintenance of the Czech MMR radars. The contract is valid for 20 years and includes Czech companies that will be responsible for a wide range of processes as local subcontractors.

The contract included industrial cooperation between Israel Aerospace Industries (IAI) and local Czech companies RETIA and VTU. The MMR Radar is the world's most operational system that provides high-quality aerial

situational awareness. 200 MMR radar systems have been sold worldwide, and integrated into air-defense systems such as the Barak, David's sling, and Iron Dome.

The radars can handle multiple operations conducting different missions at the same time: air defense against aircraft, unmanned aerial vehicles and drones, artillery ranging against various enemy targets, identification and localization of enemy rocket, artillery, and mortar fire – and all this while identifying the firing and expected target location, and guiding interceptor missiles against these threats.

<https://www.israeldefense.co.il/en/node/61510>

Report: Elbit Supplies Philippines with First Batch of Guarani APCs

Israel Defense. March 17, 2024

Israeli defense giant Elbit Systems has dispatched the initial batch of Guarani 6×6 armored personnel carriers (APCs) to the Philippine Army. According to the Defense Post website, five APCs were unveiled for the first time during a ceremony in Santa Lucia, Tarlac. These vehicles are slated for use by the Philippine Army's Armor Division.

The vehicles are part of a \$46-million deal signed in February 2021 to deliver 28 Guaranis to a then-undisclosed country in the Asia Pacific region.

In March 2023, reports surfaced indicating that the implementation of the deal to supply Guarani APCs to the Philippine army faced obstacles and was halted.

<https://www.israeldefense.co.il/en/node/61514>

H. The United Arab Emirates

France to Provide UAE Navy with a Combat Management System

Israel Defense, March 18, 2024

The French defense company Naval Group signed an agreement to develop a national mission management system (NCMS) for the United Arab Emirates. The company signed a cooperation deal with the Emirati Military

Procurement Directorate with Marakeb Technologies, which will be the main contractor for the project.

This contract is part of a national effort in the United Arab Emirates to develop local defense industries. At the end of last year, Naval Group delivered the first corvette to the United Arab Emirates, as part of a broader agreement to supply additional naval vessels. The French company also supplied corvettes to the Greek navy and signed an agreement with the Indian government to upgrade submarines for the Indian navy. Two years ago, Naval Group outfitted the Philippines' navy with frigates and an anti-torpedo weapon system.

<https://www.israeldefense.co.il/en/node/61533>

I. Türkiye

Turkish military aircraft conduct training flight in int'l airspace of Mediterranean

Anadolu Agency, March 23, 2024

A training flight comprising Turkish combat and support aircraft was conducted in the international airspace of the Mediterranean, Türkiye's National Defense Ministry said on Saturday. "On March 21, 2024, a training flight was carried out in the international airspace of the Mediterranean, in the south of Cyprus Island, with the participation of our combat and support aircraft taking off from various bases affiliated with our Air Forces Command," the ministry said on X. The ministry also shared footage of the training.

<https://www.aa.com.tr/en/turkiye/turkish-military-aircraft-conduct-training-flight-in-int-l-airspace-of-mediterranean/3172973>

NATO Allies strengthen cooperation on military aviation training

NATO, March 25, 2024

On Monday (25 March 2024), twelve NATO Allies (Belgium, Czechia, Germany,

Greece, Hungary, Italy, Montenegro, North Macedonia, Romania, Spain, Türkiye, and the United Kingdom) agreed to further expand military aviation training across the Alliance through the NATO Flight Training Europe (NFTE) initiative. This includes the first ever placement of around fifty student pilots in four locations beginning this year, the addition of nine new training campuses, as well as the establishment of a dedicated industry advisory body. NFTE aims to fundamentally change the way Allies train the full range of aircrews, including pilots for jets, helicopters, and remotely piloted air systems.

https://www.nato.int/cps/en/natohq/news_223953.htm

J. Africa

South Africa aims to be global supplier of HTR fuel

World Nuclear News, March 25, 2024

Tokozile Xasa, South Africa's ambassador to Belgium, Luxembourg and the European Union, gave an outline of South Africa's nuclear energy ambitions at the international summit organised jointly by the International Atomic Energy Agency and Belgium.

She said that while South Africa has 93% access to electricity, there are 600 million people on the African continent that do not, and South Africa believes that "if we are to eradicate poverty, unemployment, and inequality in Africa, we need to get rid of energy poverty and guarantee energy security".

As part of its diversified energy mix nuclear has a role, she said, with the Koeberg nuclear power plant, the only operating nuclear power plant in Africa, set to have its life extended by a further 20 years. The Request for Proposals for 2500 MWe of nuclear new build - which had originally been due to be issued this month - would be "issued to the market within this calendar year"

South Africa aims to be global supplier of HTR fuel : New Nuclear - World Nuclear News (world-nuclear-news.org)

Advancing Africa potential through Nuclear Energy

Nuclear Newswire, March 26, 2024

Data from the African Development Bank shows that Africans have an electricity access rate of 40 percent—the lowest in the world.

Developments in advanced reactor technology are opening the door to all nations and promise to be critical to attaining climate and energy security goals. As we engage various countries on the African continent regarding their desire to pursue nuclear as an important part of their energy mix, Ghana has emerged as a nation that offers a unique partner profile that is aligned with our mission to support emerging markets and build regional leaders while also being motivated by its own sense of urgency in deploying new nuclear.

Unlocking Africa's potential through nuclear energy – ANS/Nuclear Newswire

African Nation Backs Nuclear With \$83 Million Budget For First Research Reactor

NucNet, March 26, 2024

Kenya has unveiled plans for the development of a nuclear power programme over the next five years that would see it allocate \$83m (•76m) by 2027 towards the cost of its first nuclear research reactor. The Nuclear Power and Energy Agency (NUPEA), the state agency leading the country's nuclear power programme, said the research reactor could be commissioned between 2030 and 2034 and would be a stepping stone towards full commercial nuclear power production. It said the initial five-year budget for the overall nuclear programme is \$273m. This would include nuclear infrastructure development, stakeholder engagement, research and innovation, energy capacity development and a research reactor programme

Kenya / African Nation Backs Nuclear With \$83 Million Budget For First Research Reactor (nucnet.org)

K. East Asia

From South Korea To Belgium: Testing a high density research reactor fuel

Nuclear Newswire, March 28, 2024

The Korea Atomic Energy Research Institute has developed a high-density uranium silicide fuel designed to replace high-enriched uranium in research reactors. Recent irradiation tests appear to be successful, KAERI reports, which means the fuel could be commercialized to continue a key global nuclear non-proliferation effort – converting research reactors to run on low-enriched uranium fuel.

The fuel: The plate-type uranium silicide (U_3Si_2) fuel has a uranium density of 5.3 g/cm³, which KAERI says is about 10 percent higher than fuels currently used in most material and test reactor fuel assemblies, which have a density of about 4.8 gU/cm³.

KAERI initiated research and development on the new fuel in 2020 by developing a uranium silicide spherical-particle powder using an atomization technique. That powder has been used to develop different research reactor fuels. To test and qualify its plate-type, high-density fuel, KAERI turned to SCK-CEN of Belgium.

From South Korea to Belgium: Testing a high-density research reactor fuel – ANS/Nuclear Newswire

Minister: S. Korea Pushing Policies to Expand Nuclear Energy Use

KBS World, March 23, 2024

Science and ICT minister Lee Jong-ho said South Korea is pushing ahead with policies aimed at expanding nuclear energy use in line with the international community.

Speaking at the Nuclear Energy Summit 2024 in Brussels on Thursday, Lee explained Seoul's nuclear energy policies, such as construction of the Shin Hanul Three and Four reactors, continued operation of existing plants, and technological advances in next-generation reactors.

Emphasizing that South Korea is the world's fifth in nuclear power generation capacity, the minister pledged to continue research and development investments for promising technologies, like small modular reactors, aimed at tripling the world's nuclear power generation by 2050.

Minister: S. Korea Pushing Policies to Expand Nuclear Energy Use | KBS WORLD

North Korea resumes missile tests, raising tensions with its rivals after their military drills' end

AP News, March 18, 2024

North Korea fired multiple short-range ballistic missiles toward its eastern waters Monday morning, its neighbors said, days after the end of the South Korean-U.S. military drills that the North views as an invasion rehearsal.

The launches – North Korea's first known missile testing activities in about a month – came as U.S. Secretary of State Antony Blinken was in Seoul for a democracy summit.

North Korea resume missile test days after South Korea, US end military drills | AP News

North Korea claims progress in developing a hypersonic missile designed to strike distant U.S. targets

PBS, March 20, 2024

North Korea successfully tested a solid-fuel engine for its new-type intermediate-range hypersonic missile, state media reported Wednesday, claiming a progress in efforts to develop a more powerful, agile missile designed to strike faraway U.S. targets in the region.

A hypersonic missile is among an array of high-tech weapons systems that North Korean leader Kim Jong Un publicly vowed to introduce in 2021 to cope with what he called deepening U.S. hostility.

Outside experts say Kim wants a modernized weapons arsenal to wrest U.S. concessions like sanctions relief when diplomacy resumes.

North Korea claims progress in developing a hypersonic missile designed to strike distant U.S. targets | PBS NewsHour

North Korea says Kim Jong Un supervised tests of rocket launchers targeting Seoul

AP News, March 19, 2024

North Korean leader Kim Jong Un supervised a live-fire drill of nuclear-capable “super-large” multiple rocket launchers designed to target South Korea’s capital as he vowed to boost his war deterrent in the face of deepening confrontations with rivals, state media said Tuesday.

The report came a day after South Korea and Japan said they detected North Korea firing multiple short-range ballistic missiles toward waters off its eastern coast, adding to a streak of weapons displays that have raised regional tensions.

North Korea says Kim Jong Un supervised tests of rocket launchers targeting Seoul | AP News

Korea gears up for advanced reactor development

World Nuclear News, March 22, 2024

While nuclear power is emerging as a core strategic technology due to the global climate crisis and reorganisation of the energy supply chain, competition for next-generation nuclear reactors such as small modular reactors (SMRs) and non-light water reactors is intensifying worldwide as market demand for nuclear power generation diversifies,” the ministry said. “Accordingly, the government has been actively promoting the securing of core technologies for the development of next-generation nuclear reactors, but in order to flexibly respond to rapidly changing market demand and successfully utilise the results of research and development so far, active

participation and investment from the private sector is also necessary.”

A ceremony was held on 20 March in Seoul to mark the signing of the MoU between MSIT and the eight private companies: Century, Daewoo Engineering & Construction, Doosan Energy, HD Korea Shipbuilding & Marine Engineering, Hyundai Engineering, Hyundai Engineering & Construction, POSCO E&C and Samsung Heavy Industries.

The ministry said the MoU is expected to serve as a foundation for disseminating the results accumulated through government-led research and development to the private sector and promoting private-led technology development, demonstration and commercialisation.

Korea gears up for advanced reactor development : New Nuclear - World Nuclear News (world-nuclear-news.org)

U.S., Japan seek U.N. resolution calling for ban on nuclear weapons in outer space

Asahi Shimbun, March 19, 2024

The United States and Japan are sponsoring a U.N. Security Council resolution calling on all nations not to deploy or develop nuclear weapons in space, the U.S. ambassador announced Monday.

Linda Thomas-Greenfield told a U.N. Security Council meeting that “any placement of nuclear weapons into orbit around the Earth would be unprecedented, dangerous, and unacceptable.”

The Outer Space Treaty ratified by about 114 countries including the United States and Russia prohibits the deployment of “nuclear weapons or any other kinds of weapons of mass destruction” in orbit or the stationing of “weapons in outer space in any other manner.”

Japan’s Foreign Minister Yoko Kamikawa, who chaired the council meeting, said that

even during “the confrontational environment” of the Cold War, the rivals agreed to ensure that outer space remained peaceful.

U.S., Japan seek U.N. resolution calling for ban on nuclear weapons in outer space | The Asahi Shimbun: Breaking News, Japan News and Analysis

Japan vows to launch new dialogue on nuclear material ban treaty

The Japan Times, March 19, 2024

Foreign Minister Yoko Kamikawa pledged Monday to launch a new dialogue framework to start negotiations for a multinational treaty banning the production of nuclear materials that have the potential to be used for weapons.

With Japan holding the U.N. Security Council’s monthly chair for March, Kamikawa said at an open briefing session in New York that the “Friends” meeting with like-minded countries is aiming to “enhance political attention” to the Fissile Material Cut-off Treaty.

Japan vows to launch new dialogue on nuclear material ban treaty - The Japan Times

L. South East Asia

Singapore studying safety of deploying nuclear energy in small, densely populated areas

Straight Times, March 20, 2024

With limited options for renewable energy, Singapore is not ruling out the use of nuclear energy to cut emissions from its power sector while safeguarding the nation’s energy security – and the Republic is learning from the best minds in the field as part of the decision-making process. Given the technical complexity and ongoing developments in advanced nuclear energy and fusion technologies, Singapore is building capabilities to better understand the safety implications of deploying such technologies in small and densely populated countries. (This includes) engaging international

organisations and partners to deepen our understanding of evolving nuclear technologies and facilitate information sharing.” These organisations include the International Atomic Energy Agency, a United Nations agency that promotes the safe, secure and peaceful use of nuclear technologies; the UK Atomic Energy Authority, which researches fusion energy; and the Max Planck Institute in Germany.

S’pore studying safety of deploying nuclear energy in small, densely populated areas | The Straits Times

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