

Nuclear, Missile & Space Digest

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March 31, 2025

A. India

- India welcomes newest Rajasthan unit to the grid
- India to build five Bharat nuclear reactors with private participation, soon: Govt
- US approves Holtec to build nuclear reactors in India with Tata, L&T
- India successfully tests fires surface-to-air missile from Odisha coast
- Defence Ministry signs contracts worth ¹ 2,500 crore for anti-tank missile systems, light vehicles

B. China

- China's private rocket firm Galactic Energy sends eight satellites into orbits
- Beijing meeting on Iran's nuclear issue backs rule of law, multilateralism
- Chinese nuclear scientists identify flaw in Nasa's lunar reactor design
- China's HQ-19 system to shield against hypersonic weapons and nuclear threats
- China builds mega network for space weather forecasting
- China to send regenerative flatworms to space station for scientific study
- China's Rocket Force and the manifestation dilemma
- China aims to have Xinghuo, world's first fusion-fission power plant, running by 2030
- Comac C949: China unveils quiet supersonic jet with 50% longer range than Concorde
- China launches new communication technology test satellite
- US officially recognizes the Type 094 Jin-class submarine as China's first credible naval nuclear deterrent

C. Pakistan

- New frontier: Pakistan's space ambitions accelerate with China manned mission deal

D. Russia

- Pentagon is closely monitoring Russia and China test military capabilities in space
- Airbus replaces Russia in search for life on Mars
- Russian satellites rehearse attack and defence in low orbit
- Russia launches nuclear sub with missile 'Impossible' to intercept
- Lukashenko wants second Russian nuclear power plant in Belarus

E. United States of America

- US wants to negotiate with Iran on nuclear programme: US envoy
- US DOE re-issues SMR funding solicitation
- US approves first sale of laser-guided precision rockets to Saudi Arabia
- Can Trump's \$100 billion 'Golden Dome' shield the US from nuclear and hypersonic missile threats?

F. South Asia

Bangladesh

- Hydraulic tests completed at Bangladesh's Rooppur 1
- Rooppur NPP Unit 2 to get new heavy crane from Russia
- Rosatom tests primary circuit at Rooppur 1

G. East Asia

Japan

- Japan, Korea develop prototype nuclear batteries
- Dismantling of Hamaoka 2 reactor starts
- Japan develops uranium-based battery to reuse radioactive waste
- Three Ageing reactors in Japan's Fukui prefecture set to continue operation
- Japan to deploy anti-ship missiles on Kyushu Island amid growing China and North Korea threats

North Korea

- North Korea tests anti-aircraft weapons as Russia's security chief arrives
- North Korea won't abandon nukes and is ready to conduct nuclear test, US says
- North Korea's nuclear-powered missile submarine: A mystery wrapped around a riddle and an enigma

South Korea

- KHNP pulls out of Dutch reactor project
- South Korea to propose its new Cheonryong cruise missile on both KF-21 fighter and FA-50 light attack aircraft

H. Southeast Asia

Indonesia

- Indonesia keen on BrahMos missiles

Malaysia

- Malaysian Army Fires "ASTROS II" MLRS During Exercise Lembing Sakti

Myanmar

- Russia to build nuclear power plant near Myanmar's capital Naypyidaw

Philippines

- Plans to procure more missile system, platforms from India: Top Philippines General
- US startup to build nuclear 'micro' reactor in PH

Singapore

- Rethinking Singapore's defence innovation in a multipolar world

Thailand

- Accord with Thailand to raise nuclear power cooperation

Vietnam

- Nuclear power plant development in Vietnam: Many key steps taken

I. Central Asia

Kazakhstan

- Kazakhstan sets up nuclear energy agency
- Kazakhstan considers South Korea for nuclear technology partnership
- Kazakhstan is ready to power the world's green transition

Tajikistan

- Roketsan conducts live-firing test of Levent air-defence missile

Turkmenistan

- Turkmenistan on the way to create one of the promising centers of energy, transportation and humanitarian cooperation in the region

J. West Asia

Cyprus

- Cyprus receives first H145M heliops Gareth Jennings

Georgia

- Greece might acquire two Bergamini-class frigates from Italy following FREMM EVO commissioning
- US Army conducts the first flight of new Hellhound S3 turbojet kamikaze drone in Georgia

Iran

- US wants to negotiate with Iran on nuclear programme: US envoy
- After proxies and nuclear program threats, Iran may turn to terror abroad
- US intelligence says Iran could produce enough uranium for one nuclear bomb in under a week
- Iran shows off 'missile city' – But has it just exposed a critical weakness to the US and Israel?

- Iran's nuclear timetable: The weapon potential
- Iran, E3 states hold nuclear talks in Geneva
- Iran rejects direct nuclear talks with Trump, open to indirect negotiations
- Iran puts missiles on alert after Donald Trump's warning of massive strikes
- Iran readied missiles for potential response amid US threats
- Trump says "there will be bombing" if Iran does not make nuclear deal

Israel

- Israel upgrades Iron dome air defence system to counter drones and cruise missiles
- Netanyahu's nuclear gamble: The risks of escalation with Iran

Lebanon

- Israel launches more strikes on Lebanon after rocket fire

Qatar

- Qatar receives US approval to acquire eight MQ-9B drones to enhance surveillance capabilities
- US approves \$1.96bn MQ-9B RPA sale to Qatar

Saudi Arabia

- Saudi Arabia's rejection of China's J35A fighter jet: A blow to Beijing's ambitions in the gulf
- Facilitating discussions on nuclear law in Saudi Arabia
- US approves first sale of laser-guided precision rockets to Saudi Arabia

United Arab Emirates

- UAE and Brazil join forces to compete in anti-ship missile market at the international level
- UAE presents its national report on spent nuclear fuel, radioactive waste management
- UAE, China strengthens cooperation in nuclear regulation

K. Europe

Bulgaria

- Ukraine to acquire Bulgarian reactors for Khmelnytsky
- Bulgarian Parliament Approves \$83 Million Javelin Missile Deal Amid Heated Debate

France

- EDF may get state loan for six new reactors
- France to develop new nuclear air base armed with Rafale F5s, hypersonic missiles
- Rocket Lab launches final 5 satellites for French 'Internet of Things' constellation

Finland

- Fortum continues preparations for nuclear new-build
- Finland opens factory for F-35 engines assembly

Germany

- Germany expects to deploy US missiles in 2026
- Norway and Germany team-up for Naval Strike Missile maintenance
- German nuclear association calls for restart of reactors
- Germany proposes accelerating search for repository site

Italy

- France, Italy, UK order additional Aster missiles
- Italy lifts nuclear ban, paving way for energy security and sustainability
- The challenges facing Italy's nuclear comeback

Poland

- Poland signs \$2bn Patriot missile deal with US amid calls for EU air-defence shield

Ukraine

- U.S. restores satellite imagery support to Ukraine amid ceasefire tensions
- Ukraine and Czechia Are Launching Suziria Satellite Constellation for Optical Reconnaissance
- Does Trump want Ukraine's nuclear power plants, what has Kyiv said?
- Will Ukraine's Neptune long-range missile make a difference?

United Kingdom

- Britain will finance the production of 5,000 anti-tank missiles for Ukraine
- Europe doesn't know if it can rely on America's nuclear weapons for protection. Some countries are looking elsewhere
- Costain chosen to upgrade UK enrichment plant
- UK government-funded project milestone for borehole disposal
- UK PM boasts about nuclear deterrent against Russia
- Multimillion-pound investment gives rocket boost to South West space sector

L. Africa

Egypt

- Reactor vessel assembled for El Dabaa's first unit

Kenya

- Kenya signs MOU on Nuclear power collaboration with China

South Africa

- Minister announces funds for new reactor as Safari-1 turns 60

M. The Americas

- Deep Atomic begins pre-application process for data centre nuclear reactors
- Argentina to receive first prototype of locally-made IA-100B Malvina trainer after years of development.

Brazil

- Brazil aiming to develop national microreactor
- Brazil signs uranium deal with Russia
- Brazilian marines establish coastal defence missile capability

Canada

- As tensions rise, Canada to lean on U.S. for uranium enrichment

N. Oceania

Australia

- Canada announces C\$6bn deal with Australia to develop Arctic radar missile-detection system
- Contract signed to establish Australia's first missile factory
- Australia fires LRASM missile from Super Hornet

New Zealand

- New Zealand test-fires Penguin anti-ship missile

A. India

India welcomes newest Rajasthan unit to the grid

World Nuclear News, March 17, 2025

"With the clearance from the Atomic Energy Regulatory Board AERB and passing all tests with flying colours, unit 7 is now synchronised with the National Grid," Nuclear Power Corporation of India Ltd (NPCIL) said in a video released to mark the achievement. Once a new unit has been connected to the grid, it undergoes a process known as power ascension testing when its power levels are gradually raised - under approval from the regulator - until it reaches full capacity. It will then enter commercial operation. RAPP-7 follows Kakrapar 3 and 4 in a planned fleet of 700 MWe pressurised heavy water reactors (PHWRs): unit 3 achieved first criticality in July 2020, was connected to the grid in January 2021 and was declared to be in commercial operation in July 2023. Unit 4, which reached first criticality in December 2023, was connected to the grid in February and entered commercial operation in March 2024.

<https://www.world-nuclear-news.org/articles/india-welcomes-newest-rajasthan-unit-to-the-grid>

India to build five Bharat nuclear reactors with private participation, soon: Govt

Rakesh Mohan Chaturvedi

The Economic Times, March 27, 2025

Five indigenously-manufactured modular reactors — named Bharat nuclear reactors — will be manufactured in the next few years with the help of private participation in the nuclear sector, the government stated in the Rajya Sabha on March 27. The plan to generate 100 Gigawatt by 2047 is functional with a 170% increase in the nuclear energy budget in the last decade. Replying to supplementary questions during Question Hour in the Upper House, Minister of State in the Prime Minister's Office Jitendra Singh said the "out of the box" thinking and decision to remove past "taboos" of not involving private players in

the nuclear sector have given a huge impetus to the civil nuclear programme in the country.

<https://economictimes.indiatimes.com/industry/energy/power/india-to-build-five-bharat-nuclear-reactors-with-private-participation-soon-govt/articleshow/119609160.cms?from=mdr>

US approves Holtec to build nuclear reactors in India with Tata, L&T

Rishabh Sharma

Business Standard, March 30, 2025

In a major breakthrough for India-US nuclear cooperation, the US Department of Energy (DoE) has granted Holtec International a critical regulatory approval, allowing the company to transfer small modular reactor (SMR) technology to India. The March 26, 2025, authorisation clears a significant roadblock that had stalled the commercial implementation of the 2007 India-US civil nuclear agreement, according to a report in The Indian Express. This approval permits Holtec to share unclassified SMR technology with three Indian entities — Holtec Asia (its regional subsidiary), Tata Consulting Engineers Ltd, and Larsen & Toubro Ltd. The move is expected to deepen India's nuclear expertise, localise SMR manufacturing, and strengthen New Delhi's position in the global SMR market.

https://www.business-standard.com/external-affairs-defence-security/news/us-india-nuclear-energy-holtec-tata-consulting-engineers-larsen-toubro-smr-125033000130_1.html

India successfully tests fires surface-to-air missile from Odisha coast

The Economic Times, March 26, 2025

India March 26 successfully flight-test of indigenously-developed Vertically-Launched Short-Range Surface-to-Air Missile (VLSRSAM) from the Integrated Test Range (ITR), Chandipur, off the coast of the Odisha, defence sources said.

Defence Research & Development Organisation (DRDO) and the Indian Navy conducted test launching of the VLSRSAM. The flight-test was carried out from a land-based vertical launcher against a high-speed aerial target at very close range and low altitude. It has established the Near-Boundary-Low Altitude capability of the missile system. The flight-test was carried out from a land-based vertical launcher against a high-speed aerial target at very close range and low altitude. It has established the Near-Boundary-Low Altitude capability of the missile system

<https://economictimes.indiatimes.com/news/defence/india-successfully-test-fires-surface-to-air-missile-from-odisha-coast/articleshow/119547134.cms?from=mdr>

Defence Ministry signs contracts worth ¹ 2,500 crore for anti-tank missile systems, light vehicles

The Hindu, March 27, 2025

The Union Ministry of Defence (MoD) on Thursday (March 27, 2025) signed contracts worth ¹ 2,500 crore for the procurement of the tracked version of the Nag Anti-Tank Missile System (NAMIS) for the Indian Army's mechanised formations, and another with Force Motors Limited and Mahindra & Mahindra Limited for around 5,000 light vehicles for the Armed Forces. The total cost of the contract for the procurement of tracked NAMIS, developed by the Defence Research and Development Laboratory of the Defence Research and Development Organisation, is ¹ 1,801.34 crore, the MoD said in a statement. In a separate development, Zen Technologies Limited announced that it has been awarded an approximately ¹ 152 crore contract by the Defence Ministry for the supply of Integrated Air Defence Combat Simulators (IADCS) for the Army's L70 air defence guns.

<https://www.thehindu.com/news/national/defence-ministry-signs-contracts-worth-2500-crore-for-anti-tank-missile-systems-light-vehicles/article69381548.ece>

B. China

China's private rocket firm Galactic Energy sends eight satellites into orbits

Global Times, March 17, 2025

Chinese commercial space company Galactic Energy announced that it successfully deployed eight satellites into sun-synchronous orbits from the Jiuquan Satellite Launch Center in Northwest China's Gansu Province. Six of the satellites launched, designated No.55 to No.60 of the Yunyao constellation, are capable of collecting data on atmospheric temperature, humidity, pressure, and ionospheric electron density. This data has broad applications in meteorological observation, offering crucial support for weather forecasting, climate monitoring, and space weather earlywarning systems, the company said.

<https://www.globaltimes.cn/page/202503/1330271.shtml>

Beijing meeting on Iran's nuclear issue backs rule of law, multilateralism

Xinhua, March 17, 2025

The recent Beijing meeting between China, Russia, and Iran on the Iranian nuclear issue has helped lay the cornerstone for backing the rule of law at the international level and promoting multilateralism, Iranian Foreign Ministry spokesperson Esmail Baghaei said. "In the meeting, the cornerstone was laid for a constructive and fruitful process for the three countries as well as supporting the rule of law at the international level and promoting multilateralism," Baghaei told a weekly press conference. Expressing gratitude to China for hosting the meeting and to Russia for its participation, Baghaei said such meetings will continue in the future.

<https://english.news.cn/20250317/70da035953d74dee85358824ce0d0c89/c.html>

Chinese nuclear scientists identify flaw in Nasa's lunar reactor design

Stephen Chen

South China Morning Post, March 18, 2025

Chinese nuclear engineers have discovered a critical inefficiency issue in Nasa's lunar nuclear reactor design – but, they claim, minor structural adjustments could slash fuel consumption by 75 per cent while boosting power output and longevity. The findings, from a study led by Zhao Shouzhi, chief reactor designer at the China National Nuclear Corporation (CNNC), have already been integrated into China's lunar base reactor programme – a development that could tilt the ongoing moon race in Beijing's favour.

<https://www.scmp.com/news/china/science/article/3302163/chinese-nuclear-scientists-identify-flaw-nasas-lunar-reactor-design>

China's HQ-19 system to shield against hypersonic weapons and nuclear threats

Hayley Wong

South China Morning Post, March 19, 2025

After 14 years of testing, China has debuted the Hongqi-19 (HQ-19), an anti-ballistic missile system capable of intercepting threats beyond the atmosphere, as well as those moving at hypersonic speeds within the atmosphere. The HQ-19, also known as the Red Flag-19, has been touted as a more competent rival of the US Army's Terminal High Altitude Area Defence (THAAD) anti-missile system developed in the 1990s. The new anti-ballistic missile system is expected to be crucial for defending Chinese territory from a high altitude against ballistic missiles, which can be armed with nuclear warheads.

<https://www.scmp.com/news/china/military/article/3302865/chinas-hq-19-system-shield-against-hypersonic-weapons-and-nuclear-threats>

China builds mega network for space weather forecasting

Xinhua, March 21, 2025

One of China's key scientific infrastructures, the Chinese Meridian Project (CMP), successfully passed national acceptance for its second phase. It will boost cutting-edge scientific research and provide key support for the country's space weather forecasting services, according to the National Space Science Center of the Chinese Academy of Sciences. The project, also known as the Ground-based Space Environment Monitoring Network, is the world's first comprehensive ground-based monitoring facility to cover Sun-Earth space from the solar atmosphere to near-Earth space.

<https://english.news.cn/20250321/455369da2ba44a4d99ab683a3942107a/c.html>

China to send regenerative flatworms to space station for scientific study

Xinhua, March 21, 2025

China's space station is set to introduce a novel participant in its space science experiments – the planarian, a creature renowned for its extraordinary regenerative capabilities, China Media Group reported. Researchers aim to investigate how the space environment affects the regenerative processes and physiological behavior of planarians. They will also explore the molecular mechanisms behind space-induced effects on planarian regeneration, thereby advancing our understanding of regenerative biology.

[https://english.news.cn/20250323/256961474dd94cc180982101403a8047/c.html#:~:text=BEIJING%2C%20March%2023%20\(Xinhua\),Media%20Group%20reported%20on%20Saturday.](https://english.news.cn/20250323/256961474dd94cc180982101403a8047/c.html#:~:text=BEIJING%2C%20March%2023%20(Xinhua),Media%20Group%20reported%20on%20Saturday.)

China's Rocket Force and the manifestation dilemma

Lieutenant Colonel Srikumar Bharathi P

The Week, March 27, 2025

Historically, Beijing always maintained a muted stance on nuclear vectors, even though its first nuclear test was conducted way back in 1964. Mao himself was assertive about nuclear weapons, calling it “paper tiger”, though immediately after the establishment of the People's Republic of China (PRC), the country started its nuclear weapons and Intercontinental Ballistic Missile (ICBM) programme. Though China's official stance remains as ‘No First Use’, the present thought process among Chinese strategists have evolved and internal debates are raging in China about the maintenance of unconditional ‘No First Use policy’.

<https://www.theweek.in/news/defence/2025/03/27/chinas-rocket-force-and-the-manifestationdilemma.html>

China aims to have Xinghuo, world's first fusion-fission power plant, running by 2030

Ling Xin

South China Morning Post, March 27, 2025

China is poised to start building the world's first fusion-fission hybrid power plant, with the goal of generating 100 megawatts of continuous electricity and connecting to the grid by the end of the decade. The 20-billion-yuan (US\$2.76 billion) Xinghuo high-temperature superconducting reactor has entered its first phase with a public tender for an environmental impact assessment. The facility will be built on Yaohu Science Island in the hi-tech zone of Nanchang, Jiangxi province, in central China.

<https://www.scmp.com/news/china/science/article/3303923/china-aims-have-xinghuo-worldsfirst-fusion-fission-power-plant-running-2030>

Comac C949: China unveils quiet supersonic jet with 50% longer range than Concorde

Stephen Chen

South China Morning Post, March 29, 2025

The first details of C949, a supersonic airliner project, have been quietly unveiled by Chinese stateowned aerospace giant Comac, signalling its ambitions to dominate the skies with the radical new jet that could redefine global air travel. In a recent academic paper, Comac engineers revealed the blueprint of a 1.6-Mach airliner designed to fly further and much more quietly than the retired Concorde – a feat that could position China at the forefront of a 21st century supersonic renaissance.

<https://www.scmp.com/news/china/science/article/3304082/comac-c949-china-unveils-quietsupersonic-jet-50-longer-range-concorde>

China launches new communication technology test satellite

CGTN, March 30, 2025

China sent a new communication technology test satellite into the planned orbit from the Wenchang Space Launch Site on the coast of the southern island province of Hainan. The satellite was launched by a Long March-7A rocket at 1205 hrs. It will be used mainly for multi-band and high-speed communication technology validation. This launch was the 566th mission of the Long March carrier rocket series.

<https://news.cgtn.com/news/2025-03-30/China-launches-new-communication-technology-testsatellite-1Ca5EIVMmwo/index.html>

US officially recognizes the Type 094 Jin-class submarine as China's first credible naval nuclear deterrent

Army Recognition Group, March 31, 2025

On March 26, 2025, the U.S. Strategic Command officially assessed that the Chinese People's Liberation Army Navy (PLAN) operates six Jin-class (Type 094) ballistic missile submarines (SSBNs), constituting China's first credible sea-based nuclear deterrent, as each vessel is equipped with up to 12 submarine-launched ballistic missiles (SLBMs). This capability provides China with a naval second-strike option and is part of a broader expansion of its strategic forces, aligning with President Xi Jinping's directive for the military to be prepared for a potential operation against Taiwan by 2027, which has driven investments in land-based missiles, strategic bombers, and naval assets.

<https://armyrecognition.com/news/navy-news/2025/us-officially-recognizes-the-type-094-jinclass-submarine-as-chinas-first-credible-naval-nuclear-deterrent>

C. Pakistan

New frontier: Pakistan's space ambitions accelerate with China manned mission deal

Amir Latif Arain

Anadolu Ajansi, March 26, 2025

Pakistan has initiated the process to select astronauts for its inaugural manned mission to China's space station, marking a significant step towards Islamabad's ambitions in human spaceflight. "We have already started the selection of astronauts in Pakistan, which will culminate by the last quarter of 2025," Amer Ahsan Gilani, secretary of the Pakistan Human Spaceflight Cooperation at the Space and Upper Atmosphere Research Commission (SUPARCO), told Anadolu. The astronaut selection process follows an agreement

signed last month between the China Manned Space Engineering Office (CMSEO) and SUPARCO. Under this landmark agreement, a Pakistani astronaut will become the first foreign visitor to China's Tiangong Space Station (CSS).

<https://www.aa.com.tr/en/asia-pacific/new-frontier-pakistan-s-space-ambitions-accelerate-with-china-manned-mission-deal/3520593#:~:text=According%20to%20the%20current%20timeline,the%20CSS%20crew%20rotation%20schedule.>

D. Russia

Pentagon is closely monitoring Russia and China test military capabilities in space

Zachary Cohen, Oren Libermann

CNN, March 16, 2025

US military officials believe Russia and China are aggressively testing new offensive space capabilities, pointing to a series of satellite training missions conducted by both countries in recent months as growing evidence of an effort to weaponize outer space. As recently as last week, Russian satellites were practicing "attack and defend tactics," maneuvers intended to increase the proficiency of their space force, according to a US defence official. US officials watched multiple Russian satellites work together to surround and isolate another satellite that was positioned in low-Earth orbit, demonstrating how they could potentially target enemy spacecraft in a future conflict, the official added. Russia's goal remains to put a nuclear weapon in space, the defence official said. Recent Russian satellite movements also suggest they are actively preparing for a potential armed conflict in space, the official added.

<https://edition.cnn.com/2025/03/16/politics/pentagon-monitoring-russia-chinaspace/index.html>

Airbus replaces Russia in search for life on Mars

Danny Fullbrook

BBC, March 31, 2025

Airbus Defence and Space has replaced a Russian corporation in a European project to search for signs of life on Mars. Scientists at its site in Stevenage, Hertfordshire, will work on the ExoMars lander which will place the Rosalind Franklin rover on the surface of the planet. Russian state space agency Roscosmos had worked on a landing platform called Kazachok, but the mission was postponed after the country's full-scale invasion of Ukraine. The landing platform developed by Airbus will land on the Mars surface using a parachute assisted braking system, before deploying the rover.

<https://www.bbc.com/news/articles/c1egpwqw4vjo>

Russian satellites rehearse attack and defence in low orbit

Boyko Nikolov

Bulgarian Military, March 17, 2025

The U.S. Department of Defence has reported that several Russian satellites recently engaged in maneuvers described as practicing "attack and defence" tactics in space, according to a statement aired by CNN. These actions, observed last week by American military officials, involved coordinated movements by Russian spacecraft in low Earth orbit, approximately 500 miles above the planet. A Pentagon spokesperson stated that the satellites appeared to be training for scenarios that could enhance their effectiveness in a potential conflict, including the ability to encircle and isolate another satellite.

https://bulgarianmilitary.com/2025/03/17/russian-satellites-rehearse-attack-and-defense-in-low-orbit/#google_vignette

Russia launches nuclear sub with missile 'Impossible' to intercept

Inder Singh Bisht

The Defense Post, March 31, 2025

Russia has launched its first nuclear submarine armed with the Zircon hypersonic cruise missile. The Perm is the sixth vessel in the Yasen-class Project 885/885M family and is expected to be commissioned into the Russian Navy's Pacific Fleet next year. "I congratulate you, all the naval sailors and shipbuilders of Russia, on this great, milestone event," Russian President Vladimir Putin said at the launch. "Today, in Severodvinsk, at the legendary Sevmash, a new multipurpose nuclear submarine Perm is being launched. We continue serial production of modern submarine missile carriers, and this is already the fifth nuclear submarine of the Yasen-M project. Next year, it should join the Navy and begin performing combat missions."

<https://thedefensepost.com/2025/03/31/russia-nuclear-sub-missile/>

Lukashenko wants second Russian nuclear power plant in Belarus

World Nuclear News, March 17, 2025

Lukashenko, who held talks with Russia's President Vladimir Putin at which the two countries' closing economic integration and a second nuclear power plant was discussed, said: "The construction of the Belarusian nuclear power plant has become the most high-tech and large-scale project in the history of Belarusian Russian relations." He said that the Belarusian nuclear power plant had been built despite opposition from Lithuania, Poland and some internal fears dating back to the Chernobyl accident. The main reason for a second power plant was the projected increase in electricity demand as cars,

heating and industry are increasingly electrified: "That's why we asked the Russians, if possible, to build a second power plant. We will build it ourselves, except for the reactor. We have specialists."

<https://www.world-nuclear-news.org/articles/lukashenko-wants-second-russian-nuclear-power-plant-in-belarus>

E. United States of America

US wants to negotiate with Iran on nuclear programme: US envoy

Al-Jazeera, March 23, 2025

US President Donald Trump's outreach to Iran's Supreme leader, Ayatollah Ali Khamenei, on a possible new nuclear deal is an attempt to avoid direct military action, US special envoy Steve Witkoff has said. "We don't need to solve everything militarily," Witkoff told Fox News on Sunday. "Our signal to Iran is 'Let's sit down and see if we can, through dialogue, through diplomacy, get to the right place'. If we can, we are prepared to do that. And if we can't, the alternative is not a great alternative." Witkoff's comments come after Trump said on March 7 that he sent a letter to the Iranian leadership seeking to engage in talks over Iran's nuclear activities and warning of potential military action if it refused. The approach was slammed by Khamenei, who said Iran was not going to engage with a "bully".

<https://www.aljazeera.com/news/2025/3/23/us-wants-to-negotiate-with-iran-on-nuclear-programme-us-envoy>

US DOE re-issues SMR funding solicitation

World Nuclear News, March 25, 2025

The funding to de-risk the deployment of Generation III+ light-water small modular reactors (SMRs) is offered through two tiers. Tier 1 - First Mover Team Support - will provide up to USD800 million to support up to two first mover teams of utility, reactor vendor, constructor, and end-users/off-takers committed to deploying a first plant while facilitating a multi-reactor, Gen III+

SMR order book. It will also provide the opportunity to work with the National Nuclear Security Administration to incorporate safeguards and security by design into the projects. Tier 2 - Fast Follower Deployment Support - will provide around USD100 million to spur additional Gen III+ SMR deployments "by addressing key gaps that have hindered the domestic nuclear industry in areas such as design, licensing, supply chain, and site preparation".

<https://www.world-nuclear-news.org/articles/us-doe-re-issues-smr-funding-solicitation>

US approves first sale of laser-guided precision rockets to Saudi Arabia

Al-Jazeera, March 21, 2025

The US State Department has approved what would be the first sale of advanced precision kill weapon systems to Saudi Arabia for an estimated cost of \$100m, according to the Pentagon. The Advanced Precision Kill Weapon System (APKWS) approved for sale to Saudi Arabia is a laser-guided rocket that can hit both airborne and surface targets, it said in a statement on March 20. "The proposed sale will improve the Kingdom of Saudi Arabia's capability to meet current and future threats and give it the ability to precisely engage targets with much less risk of collateral damage than other guided missile systems," it said in a statement on March 20.

<https://www.aljazeera.com/news/2025/3/21/pentagon-greenlights-100mln-weapon-deal-with-saudi-arabia>

Can Trump's \$100 billion 'Golden Dome' shield the US from nuclear and hypersonic missile threats?

The Economic Times, March 25, 2025

Forty years ago, President Ronald Reagan imagined a missile defence system that could shield the US from nuclear threats. His vision, the Strategic Defense Initiative, was mocked as "Star Wars" and ultimately

shelved. Now, under President Donald Trump's directive, that idea has been reborn as the "Golden Dome." Announced in a congressional address, Trump positioned the initiative as a critical step in bolstering national security. "As a first step, I'm asking Congress to fund a state-of-the-art 'Golden Dome' missile defence shield to protect our homeland. All made in the USA," he declared. Unlike Israel's Iron Dome, which focuses on short-range threats, the Golden Dome is designed to counter a wide range of missile attacks, including intercontinental ballistic missiles (ICBMs) and hypersonic weapons. The challenge? The sheer size of the US means covering the entire country is a vastly more complex undertaking.

<https://economictimes.indiatimes.com/news/defence/can-trumps-100-billion-golden-dome-shield-the-us-from-nuclear-and-hypersonic-missile-threats/articleshow/119480162.cms?from=mdr>

F. South Asia

Bangladesh

Hydraulic tests completed at Bangladesh's Rooppur 1

World Nuclear News, March 20, 2025

The two-unit Rooppur nuclear energy plant will be Bangladesh's first. It will feature two VVER-1200 reactors, being built by Russia's Rosatom. Hydraulic 24.5 MPa tests include filling the primary circuit with water, achieving the required pressure and temperature and preparing the main and adjacent systems, with specialists checking equipment status to ensure everything is in line with design requirements and international safety standards. An automated process control system was put into operation during the hydraulic tests. Alexey Deriy, ASE JSC vice president for projects in Bangladesh, said: "The hydraulic tests successfully completed at the Rooppur NPP power unit 1 confirms the high level of quality and safety of our project.

<https://www.world-nuclear-news.org/articles/hydraulic-tests-completed-at-bangladeshs-rooppur-1>

Rooppur NPP Unit 2 to get new heavy crane from Russia

Dhaka Tribune, March 19, 2025

A 50-ton capacity bridge crane for the second unit of the Rooppur Nuclear Power Plant is ready for shipment from the Russian port of Novorossiysk, said Rosatom, the Russian state nuclear agency. Earlier, modern electric gantry cranes with lifting capacities of 16 and 32 tons were delivered to the port. The equipment was manufactured in Russia and will be used for loading and unloading operations at the Rooppur project. Before shipment, specialists of the Rosatom Engineering Division and VPO ZAES conducted a thorough inspection of all the components to ensure compliance with high quality and safety standards "We adhere to high quality and reliability standards.

<https://www.dhakatribune.com/bangladesh/power-energy/376529/rooppur-npp-unit-2-to-get-new-heavy-cranes-from>

Rosatom tests primary circuit at Rooppur 1

Nuclear Engineering International, March 20, 2025

The Engineering Division of Rosatom has completed hydraulic tests of systems and equipment for the primary circuit at unit 1 of the Rooppur NPP under construction in Bangladesh. The process included several stages including pre-training, filling the primary circuit with water, creating the necessary pressure and temperature, as well as preparing the main and related systems. An automated process control system was put into operation, providing control of technological parameters during hydraulic tests. Tests for density and strength were carried out at a pressure of 24.5 MPa. The specialists thoroughly monitored the condition of the equipment, recording all indicators in accordance with project requirements and international safety standards.

<https://www.neimagazine.com/news/rosatom-tests-primary-circuit-at-rooppur-1/>

G. East Asia

Japan

Japan, Korea develop prototype nuclear batteries

World Nuclear News, March 26, 2025

The Japan Atomic Energy Agency has developed what it says is the world's first "uranium rechargeable battery" and that tests have verified its performance in charging and discharging. Meanwhile, South Korean researchers have developed a prototype betavoltaic battery powered by the carbon-14 isotope. The uranium storage battery utilises depleted uranium (DU) as the negative electrode active material and iron as the positive one, the Japan Atomic Energy Agency (JAEA) said. The single-cell voltage of the prototype uranium rechargeable battery is 1.3 volts, which is close to that of a common alkaline battery (1.5 volts). The battery was charged and discharged 10 times, and the performance of the battery was almost unchanged, indicating relatively stable cycling characteristics.

<https://www.world-nuclear-news.org/articles/japan-korea-develop-prototype-nuclear-batteries>

Dismantling of Hamaoka 2 reactor starts

World Nuclear News, March 17, 2025

Japanese utility Chubu Electric Power Company announced it has removed the upper lid of the pressure vessel of unit 2 at its Hamaoka nuclear power plant in Shizuoka prefecture as it begins to dismantle the reactor. It becomes the first commercial power reactor in Japan to enter dismantling. Hamaoka 1 and 2 are both boiling water reactors, starting up in 1973 and 1978, respectively. Unit 1 had a capacity of 540 MWe while unit 2's capacity was 840 MWe. Chubu decided to close both units in January 2009 as they required expensive modifications to meet seismic standards imposed after the July 2007 Niigata Chuetsu offshore earthquake. The utility submitted a decommissioning plan for Hamaoka 1 and 2 in June 2009, which was subsequently revised in September of that year. The overall

plan divided the decommissioning of the two units into four stages.

<https://www.world-nuclear-news.org/articles/dismantling-of-hamaoka-2-reactor-starts>

Japan develops uranium-based battery to reuse radioactive waste

Kyodo News, March 22, 2025

Japan's national nuclear research and development institute has developed what it calls the world's first uranium-based rechargeable battery that may pave the way for the use of massive stockpiles of radioactive material generated in the nuclear fuel manufacturing process. According to the Japan Atomic Energy Agency, the research team confirmed the charging and discharging performance of a battery that uses uranium as an "active material" to trigger a chemical reaction and generate electricity. The uranium used in the study had the same chemical properties as depleted uranium, a byproduct of enriching natural uranium for nuclear fuel.

https://english.kyodonews.net/news/2025/03/d40e9783a2eb-japan-develops-uranium-based-battery-to-reuse-radioactive-waste.html#google_vignette

Three Ageing reactors in Japan's Fukui prefecture set to continue operation

David Dalton

Nucnet, March 28, 2025

The governor of Fukui prefecture in western Japan has effectively approved the continued operations of three aging nuclear reactors in the prefecture from next fiscal year. Tatsuji Sugimoto approved Kansai Electric Power's revised roadmap for shipping spent nuclear fuel from the Mihama-3, Takahama-1 and Takahama-2 nuclear plants. Kansai Electric had said it would halt reactor operations if it failed to gain the prefecture's understanding for the roadmap by the end of the current fiscal year, which ends this month. All three

reactors have been in operation for around 50 years. According to International Atomic Energy Agency data, Mihama-3 began commercial operation in 1976, Takahama-1 in 1974 and Takahama-2 in 1975.

<https://www.nucnet.org/news/three-ageing-reactors-in-japan-s-fukui-prefecture-set-to-continue-operation-3-5-2025>

Japan to deploy anti-ship missiles on Kyushu Island amid growing China and North Korea threats

Army Recognition, March 16, 2025

According to information published by the Japanese Press Agency Kyodo News on March 15, 2024, the Japanese government has announced plans to consider deploying long-range missiles on the southwestern island of Kyushu. This decision is part of Japan's broader efforts to enhance its "counterstrike capabilities," a crucial component of the country's defense strategy to respond more effectively to emerging threats in the region. The main reasons for this deployment include Japan's increasing concern over China's growing military assertiveness, particularly regarding Taiwan, and the ongoing missile and nuclear threats posed by North Korea.

<https://armyrecognition.com/news/army-news/2025/breaking-news-japan-to-deploy-anti-ship-missiles-on-kyushu-island-amid-growing-china-and-north-korea-threats>

North Korea

North Korea tests anti-aircraft weapons as Russia's security chief arrives

Al-Jazeera, March 21, 2025

North Korean leader Kim Jong Un has overseen the test-firing of the country's latest anti-aircraft missile system, according to state media, as Russia's security chief arrived in Pyongyang for talks. The Korean Central News Agency (KCNA) reported on Friday that the latest test proved that the new weapons are "highly reliable", adding that the country's combat response was "advantageous". The announcement came just a day after South Korea wrapped up

an annual joint military exercise with the US, which Pyongyang separately denounced on Friday as "a rehearsal of war of aggression". KCNA said Thursday's test conducted by North Korea's Missile Administration was to examine the performance of a system whose production has already begun.

<https://www.aljazeera.com/news/2025/3/21/kim-jong-un-oversees-n-koreas-latest-test-of-new-weapons>

North Korea won't abandon nukes and is ready to conduct nuclear test, US says

Jooheon Kim, Shreyan Reddy

NK News, March 26, 2025

North Korea has no intention of abandoning its nuclear weapon program and appears prepared to carry out a nuclear test on short notice, according to a new U.S. intelligence assessment, providing a glimpse of how the Trump administration may approach DPRK threats. The 2025 Annual Threat Assessment released by the Office of the Director of National Intelligence (ODNI) on Tuesday warned that Kim Jong Un will continue pursuing "strategic and conventional military capabilities" to target the U.S. and its allies in a bid to undermine Washington's power and reshape the regional security environment. "Kim has no intention of negotiating away his strategic weapons programs, which he perceives as a guarantor of regime security and national pride," the report stated.

<https://www.nknews.org/2025/03/north-korea-wont-abandon-nukes-and-is-ready-to-conduct-nuclear-test-us-says/>

North Korea's nuclear-powered missile submarine: A mystery wrapped around a riddle and an enigma

Vann H. Van Diepen

38 North, March 28, 2025

On March 8, North Korean (Democratic People's Republic of Korea or DPRK)

media reported that Kim Jong Un, during undated visits to major shipyards, “learned about the building of a nuclear-powered strategic guided missile submarine, which is being pushed forward according to the decisions of the Eighth Congress of the WPK [Workers Party of Korea].” Associated photos showed Kim walking past a portion of the hull of a new-type submarine (sub) under construction inside a building. The key components of a nuclear missile sub are the hull, the missile system it carries, and the nuclear reactor wrapped within it. The current status of all three is uncertain. The photos indicate the new sub’s hull will be much larger than what is used for North Korea’s current subs, and could be about the size of the first US nuclear-powered ballistic missile submarine (SSBN).

<https://www.38north.org/2025/03/north-koreas-nuclear-powered-missile-submarine-a-mystery-wrapped-around-a-riddle-and-an-enigma/>

South Korea

KHNP pulls out of Dutch reactor project

World Nuclear News, March 19, 2025

In December 2021, the Netherlands’ new coalition government placed nuclear power at the heart of its climate and energy policy. Based on preliminary plans, two new reactors will be completed around 2035, and each will have a capacity of 1000-1650 MWe. The two reactors would provide 9-13% of the Netherlands’ electricity production in 2035. The cabinet announced in December 2022 that it currently sees Borssele as the most suitable location for the construction of the new reactors. Korea Hydro & Nuclear Power (KHNP) was contracted in December 2023 to conduct a feasibility study into the construction of two Korean-supplied reactors at Borssele. The contract came as the South Korean and Dutch governments signed a memorandum of understanding to cooperate on nuclear energy. Similar contracts for feasibility studies were also signed with EDF of France and Westinghouse of the USA.

<https://www.world-nuclear-news.org/articles/khnp-pulls-out-of-dutch-reactor-project>

South Korea to propose its new Cheonryong cruise missile on both KF-21 fighter and FA-50 light attack aircraft.

Army Recognition, March 24, 2025

As reported by Biz.Hankook on February 14, 2025, South Korea’s domestically developed air-launched cruise missile (KALCM), the Cheonryong, is currently undergoing flight tests after being mounted on the FA-50 light attack aircraft in Sacheon. Originally intended as a primary strike weapon for the KF-21 Boramae fighter jet, the Cheonryong’s testing on the FA-50 aims to fill a gap created by the retirement of the F-4 Phantom II, which was used in earlier separation tests. As the KF-21 remains in the flight testing phase and is not scheduled for operational deployment until 2026, the FA-50 has been selected as an interim test platform. Flight testing on the FA-50 began in late 2024, including a reported flight on December 18.

<https://armyrecognition.com/news/aerospace-news/2025/south-korea-to-propose-its-new-cheonryong-cruise-missile-on-both-kf-21-fighter-and-fa-50-light-attack-aircraft>

H. Southeast Asia

Indonesia

Indonesia keen on BrahMos missiles

GBP, March 21, 2025

After the Philippines, India is likely to export its BrahMos missile systems to Indonesia. According to Indian defence ministry sources, Jakarta has formally expressed interest in acquiring the missiles, jointly developed by India and Russia. The deal is pegged at around US\$450 million and is expected to be discussed during Indonesian President Prabowo Subianto’s visit to India on January 26. On the table are two export variants of the BrahMos cruise missiles—the land-based weapon complex and the ship-launched variant with inclined and vertical configuration. It is understood that India may offer a loan

to facilitate the purchase of the missile system. BrahMos Aerospace expects to close the deal this year, according to informed sources. Indonesia, which recently joined BRICS –an intergovernmental organisation consisting of 9 other countries Brazil, Russia, India, China, South Africa, Egypt, Ethiopia, Iran and the United Arab Emirates, could potentially explore Indian Rupee-Indonesian Rupiah transactions under the expanded grouping.

https://gbp.com.sg/regional_stories/indonesia-keen-on-brahmos-missiles/

Malaysia

Malaysian Army Fires “ASTROS II” MLRS During Exercise Lembing Sakti

Defence Security Asia, March 31, 2025

The Malaysian Army conducted a live-fire exercise using the ASTROS II Multiple Launch Rocket System (MLRS) during Exercise “Leming Sakti” at Tanjung Hantu, Lumut, on May 30, 2024. The exercise was observed by Army Chief General Tan Sri Muhammad Hafizuddeain Jantan and other senior officers of the Malaysian Army. According to the Malaysian Army’s social media statement, Exercise “Leming Sakti” is an annual training event for the Rocket Artillery Brigade, conducted since 2003. It focuses on coastal defense and includes the Complete Round Proof (CRP) test firing of SS 40 rockets. This year’s exercise also featured the firing of SS 30 rockets and Base Bleed shells from the 155 mm G5 MK III howitzers, with tracking conducted at Tanjung Hantu using the 61 RAD’s ATHUR radar.

<https://defencesecurityasia.com/en/malaysian-army-fires-astros-ii-mlrs-during-exercise-lembing-sakti/>

Myanmar

Russia to build nuclear power plant near Myanmar’s capital Naypyidaw

DVB, March 20, 2025

The CEO of Russia’s state-owned nuclear energy corporation Rosatom told Russian

state TV channel Rossiya 1 on March 4 that a nuclear power plant project signed between Naypyidaw and Moscow would be built near Myanmar’s capital city. “We can handle logistics, because Rosatom is also a logistics company. We have never been afraid of long distances: we are building in Bolivia, we are building in Africa, we are building in the Far East at home, in Yakutia, Chukotka, therefore, in this sense, logistics does not frighten us at all,” said Alexey Likhachev. His comment followed a meeting between regime leader Min Aung Hlaing and Russian President Vladimir Putin at the Kremlin in Moscow earlier that day. President Putin stated that this would create further economic development between the two countries and create thousands of new jobs.

<https://english.dvb.no/russia-to-build-nuclear-power-plant-near-myanmars-capital-naypyidaw/>

Philippines

Plans to procure more missile system, platforms from India: Top Philippines General

The Economic Times, March 19, 2025

The Philippines is looking at the possibility of procuring more missile systems and other military platforms from India, General Romeo Saturnino Brawner Jr., Chief of Staff of the armed forces of the Philippines, said on Wednesday, emphasising his country’s commitment to deepening its defence partnership with New Delhi amid growing competition from China in the Indo-Pacific region. In an interview with PTI Videos, Gen Brawner expressed satisfaction with the Philippines’ existing stock of BrahMos missile systems, acquired from India, and emphasised their strategic value.

<https://economictimes.indiatimes.com/news/defence/plans-to-procure-more-missile-system-platforms-from-india-top-philippines-general/articleshow/119210460.cms?from=mdr>

US startup to build nuclear 'micro' reactor in PH

Jordeen B. Lagare

Inquirer Net, March 24, 2025

American startup Valar Atomics Inc. is building a 100-kilowatt nuclear reactor in the Philippines in cooperation with the Philippine Nuclear Research Institute (PNRI), seeking to demonstrate the project's potential for bringing down electricity costs in the country. Kip Mock, president of Valar Atomics, said the total budget for building the first micro high-temperature gas-cooled reactor in the country will be "tens of millions" in US dollars. "It's not going to be connected to the grid or generating electricity. It's simply a proof of concept, the pilot project for future commercial reactors that we hope to break here to the Philippines soon," Mock said last week in Makati City.

<https://business.inquirer.net/514945/us-startup-to-build-nuclear-micro-reactor-in-ph>

Singapore

Rethinking Singapore's defence innovation in a multipolar world

Michael Raska

The Straits times, March 25, 2025

Singapore's recent announcement that it will deepen investments in drones, countermeasures and the new Defence Cyber Command marks a significant step in bolstering its defence capabilities. The Singapore Armed Forces (SAF) is establishing new units to integrate uncrewed vehicles with the air force and army, alongside setting up counter-drone capabilities and cyber defences to protect critical national infrastructure. However, these hardware acquisitions, while essential for the ongoing next-generation SAF transformation, only address part of the challenge for developing Singapore's defence-technological capabilities.

<https://www.straitstimes.com/opinion/rethinking-singapores-defence-innovation-in-a-multipolar-world>

Thailand

Accord with Thailand to raise nuclear power cooperation

Koh Hyunjeong

Korea Net, March 24, 2025

A recently concluded bilateral agreement will raise cooperation in nuclear energy with Thailand. The Ministry of Foreign Affairs in Seoul on March 21 said the governments of both countries held a signing ceremony in Bangkok for the accord on the peaceful use of nuclear power. Ambassador to Thailand Park Yongmin and Thai Minister of Higher Education, Science, Research and Innovation Supamas Isarabhakdi that day formally signed the agreement. Both countries are members of the International Atomic Energy Agency and signatories to the Treaty on the Non-Proliferation of Nuclear Weapons. Stressing top priority on nuclear safety and environmental protection, Seoul and Bangkok concluded the deal to pursue social and economic development through the peaceful use of nuclear technology.

<https://www.korea.net/NewsFocus/policies/view?articleId=268552>

Vietnam

Nuclear power plant development in Vietnam: Many key steps taken

Vietnam Law and Legal Forum, March 21, 2025

The process of building the first nuclear power plant in Vietnam requires a significant amount of time, with many stages to be done. Over the recent past, the country has taken many key steps to ensure that this plant can become operational by 2032 to meet the national energy demand and secure sustainable development. The process of building the first nuclear power plant in Vietnam requires a significant amount of time, with many stages to be done. Over the recent past, the country has taken many key steps to ensure that this plant can become

operational by 2032 to meet the national energy demand and secure sustainable development.

<https://vietnamlawmagazine.vn/nuclear-power-plant-development-in-vietnam-many-key-steps-taken-73800.html>

I. Central Asia

Kazakhstan

Kazakhstan sets up nuclear energy agency

World Nuclear News, March 19, 2025

Separate decrees signed by Tokayev on 18 March establish the Agency of the Republic of Kazakhstan for Atomic Energy as a state body directly subordinate to and accountable to the President of the Republic of Kazakhstan and appoint Satkaliyev - formerly Minister of Energy - as its chairman. According to the decree, the agency will take on the functions and powers previously held by the Ministry of Energy "in the areas of subsoil use, use of atomic energy, ensuring radiation safety of the population, the creation and operation of the Semipalatinsk nuclear safety zone in the field of uranium production".

<https://www.world-nuclear-news.org/articles/kazakhstan-sets-up-nuclear-energy-agency>

Kazakhstan considers South Korea for nuclear technology partnership

The Astana Times, March 27, 2025

Almassadam Satkaliyev, the chairman of Kazakhstan's newly established Nuclear Energy Agency, completed negotiations with Korea Hydro and Nuclear Power (KHNP) President and CEO Whang Joo-ho, a potential supplier of nuclear technologies for the construction of a nuclear power plant on March 26, Kazinform reported, citing the agency's press service. Satkaliyev highlighted KHNP's experience designing, constructing, and operating modern reactors, emphasizing the importance of an open and competitive dialogue with international partners. Whang Joo-ho expressed South

Korea's readiness to share its experience and expand cooperation.

<https://astanatimes.com/2025/03/kazakhstan-considers-south-korea-for-nuclear-technology-partnership/>

Kazakhstan is ready to power the world's green transition

Meirzhan Yussupov

American Nuclear Society, March 26, 2025

As Western countries accelerate their decarbonization efforts, nuclear power is set to play a key role in achieving net-zero emissions by 2050. For instance, the United Kingdom's goal of expanding nuclear capacity to 24 gigawatts by mid-century, meeting 25 percent of projected electricity demand, highlights the need for reliable, low-carbon energy sources. As the world's top uranium producer, Kazakhstan is poised to be a vital partner in this transition, supplying the fuel that powers nuclear reactors and supports the U.K.'s and other Western countries' clean energy goals. At COP28 in 2023, the International Atomic Energy Agency emphasized the urgent need to accelerate deployment of nuclear power to achieve net-zero carbon emissions. This sentiment was reinforced the following year at COP29, where 31 countries committed to tripling nuclear capacity by 2050 to meet global climate goals.

<https://www.ans.org/news/2025-03-26/article-6824/kazakhstan-is-ready-to-power-the-worlds-green-transition/>

Tajikistan

Roketsan conducts live-firing test of Levent air-defence missile

Cem Devrim Yaylali

Janes, March 26, 2025

The Turkish Navy corvette TCG Beykoz returned to the Black Sea in March 2025 for a naval air-defence test firing one month after another such test. The previous test involved the Gökür air-

defence missile developed by Aselsan. This time, the corvette was equipped with Roketsan's Levent missile and its launcher. The live firing was announced in a video shared by Roketsan on the social media platform X on 24 March. The Levent close-in air-defence system (CIADS) launches the Levent missile, with an effective engagement range of up to 11 km. The missile measures 3.2 m in length, with a diameter of 128 mm, and a total weight of 75 kg. It uses a passive radio frequency (RF) guidance system with an infrared imaging (IIR) seeker designed to improve accuracy. The warhead consists of a 10 kg fragmentation payload equipped with a proximity sensor.

<https://www.janes.com/osint-insights/defence-news/defence/roketan-conducts-live-firing-test-of-levent-air-defence-missile>

Turkmenistan

Turkmenistan on the way to create one of the promising centers of energy, transportation and humanitarian cooperation in the region

Turkmenistan Golden age, March 22, 2025

Turkmenistan, which has great potential in the energy, transport and communications sectors, regularly initiates a number of major international and regional projects. In the future, their implementation will bring out economic and trade cooperation between Central Asian countries and neighboring regions to a modern level, give a powerful impulse to multilateral interregional connections, and lay the foundation of the architecture of the new geo-economic space. Turkmenistan, committed to the principles of peace, good neighborliness and openness, in the modern era, under the leadership of President Serdar Berdimuhamedov, is invariably follows the foreign policy, which was laid down by the National Leader of the Turkmen people, the chairman of the Hulk Maslahaty, Gurbanguly Berdimuhamedov.

<https://turkmenistan.gov.tm/en/post/93205/turkmenistan-way-create-one-promising-centers-energy-transportation-and-humanitarian-cooperation-region>

J. West Asia

Cyprus

Cyprus receives first H145M helos Gareth Jennings

Janes, March 27, 2025

One of the two H145M helicopters now delivered to Cyprus. The eastern Mediterranean country will receive its four remaining helicopters by the end of 2025. Cyprus has received the first two of six Airbus Helicopters H145M rotorcraft ordered in 2022, the manufacturer announced. Airbus Helicopters said on 26 March that deliveries of the rotorcraft ordered for the National Guard of the Republic of Cyprus had now commenced and will be completed by the end of 2025. "With hybrid warfare set to play an increasing role in future conflicts, militaries will seek versatile helicopters that can perform a variety of pivotal functions," Olivier Michalon, executive vice-president for global business of Airbus Helicopters, said, adding, "The Republic of Cyprus joins a large group of European militaries operating the multirole H145M for a wide range of missions including training, special operations, troop transport, and light attack."

<https://www.janes.com/osintinsights/defence-news/defence/cyprusreceives-first-h145m-helos>

Georgia

Greece might acquire two Bergaminiclass frigates from Italy following FREMM EVO commissioning

Army Recognition, March 24, 2025

As reported by Doureios on March 23, 2025, Italy has formally notified Greece of the availability of two FREMM-class frigates, the Carlo Bergamini (F 590) and Virginio Fasan (F 591), for potential transfer after 2028. The information, first conveyed to the Greek side earlier this year, is currently under review by the Ministry of National Defence. These discussions are linked to the Italian Navy's fleet

modernisation, which includes the replacement of older Bergamini-class frigates with new FREMM EVO units scheduled for delivery in 2029 and 2030. This offer marks a continuation of Greece's broader effort to address gaps in surface combatant capabilities by supplementing its fleet with both new and used ships. The two proposed vessels were the first units built for the Italian Navy under the Carlo Bergamini-class FREMM program and entered service in 2013. The Carlo Bergamini is a General Purpose (GP) variant, while the Virginio Fasan is configured for Anti-Submarine Warfare (ASW). Italian sources have clarified that only these two frigates are being offered at this stage, and there is no mention of future availability of additional units. The Italian Navy currently operates four FREMM GP and four FREMM ASW frigates, with two additional GP-e variants expected to enter service within the year.

<https://www.armyrecognition.com/news/navy-news/2025/greece-might-acquire-two-bergamini-class-frigates-from-italy-following-fremm-evo-commissioning>

US Army conducts the first flight of new Hellhound S3 turbojet kamikaze drone in Georgia

Army Recognition, March 28, 2025

As reported by The Georgia Virtue on March 24, 2025, the Hellhound S3, a turbojet-powered, 3D-printed kamikaze drone developed by Cummings Aerospace, completed its first flight on a U.S. Army test range. The system, designated Hellhound S3, conducted a GPS-guided mission using an inert warhead payload at Fort Moore, Georgia, on January 30, 2025, during the Army Expeditionary Warrior Experiment (AEWE) 2025. According to the company, the drone met all primary mission objectives, and the demonstration revalidated the airframe and its key subsystems at Technology Readiness Level 7 (TRL-7), confirming operational reliability in a tactically relevant environment. The Hellhound S3 is designed as a man-portable

unmanned aircraft system (UAS) for use by Infantry Brigade Combat Teams (IBCTs). It is intended to provide capabilities for long-range, precision strikes against armored vehicles, tanks, and fortified positions. The platform integrates a turbojet propulsion system and demonstrated a speed of 384 miles per hour (around 618 km/h) during tests held in early January 2025.

<https://armyrecognition.com/news/armynews/2025/us-army-conducts-the-first-flight-of-new-hellhound-s3-turbojet-kamikaze-drone-in-georgia>

Iran

US wants to negotiate with Iran on nuclear programme: US envoy

Al-Jazeera, March 23, 2025

US President Donald Trump's outreach to Iran's Supreme leader, Ayatollah Ali Khamenei, on a possible new nuclear deal is an attempt to avoid direct military action, US special envoy Steve Witkoff has said. "We don't need to solve everything militarily," Witkoff told Fox News on Sunday. "Our signal to Iran is 'Let's sit down and see if we can, through dialogue, through diplomacy, get to the right place.' If we can, we are prepared to do that. And if we can't, the alternative is not a great alternative." Witkoff's comments come after Trump said on March 7 that he sent a letter to the Iranian leadership seeking to engage in talks over Iran's nuclear activities and warning of potential military action if it refused. The approach was slammed by Khamenei, who said Iran was not going to engage with a "bully". Trump has also threatened Tehran over any support for the Iran-aligned Houthis in Yemen, who have resumed their military support for Palestinians by targeting Israel after it blockaded aid and then resumed its war in Gaza.

<https://www.aljazeera.com/news/2025/3/23/us-wants-to-negotiate-with-iran-on-nuclear-programme-us-envoy>

After proxies and nuclear program threats, Iran may turn to terror abroad

Alex Plitsas

Atlantic Council, March 25, 2025

Iran has strategically wielded its nuclear program as a dual-purpose tool: a bargaining chip in international negotiations and a deterrent against adversaries like Israel and the United States. But as threats mount of a possible Israeli strike on Tehran's nuclear facilities, paired with a weakening of its numerous proxies since the Gaza war, the Islamic Republic could turn towards transnational terrorism absent a more coordinated approach from Washington and its allies. The 2015 Joint Comprehensive Plan of Action (JCPOA) aimed to limit Iran's nuclear activities in exchange for sanctions relief, but the US withdrawal in 2018 during President Donald Trump's first term prompted Tehran to resume uranium enrichment, leveraging it to pressure the West for economic concessions. By September 2024, reports indicated Iran had amassed enough enriched uranium for multiple nuclear devices if further processed, amplifying its strategic leverage and creating uncertainty for potential aggressors. Alongside its nuclear pursuits, Iran employs proxy forces such as Hezbollah in Lebanon, Shiite militias in Iraq, and the Houthis in Yemen to project power indirectly.

<https://www.atlanticcouncil.org/blogs/menasource/increasing-threat-irantransnational-terrorism/>

US intelligence says Iran could produce enough uranium for one nuclear bomb in under a week

Army Recognition, March 27, 2025

The 2025 Congressional Posture Statement from the United States Strategic Command has raised renewed concerns over Iran's accelerating nuclear activities. According to the statement, Iran has significantly expanded its stockpile of highly enriched uranium and installed additional advanced centrifuge systems. These developments

have reduced Iran's estimated "breakout time" — the period required to produce enough weapons-grade uranium for one nuclear bomb — from 10–15 days to under one week. This represents a substantial escalation in the proliferation threat posed by Tehran and has prompted heightened scrutiny from international observers and policymakers. Following the United States' withdrawal from the Joint Comprehensive Plan of Action (JCPOA) in 2018, Iran gradually increased its enrichment activities. By early 2025, the International Atomic Energy Agency (IAEA) reported that Iran had accumulated a significant quantity of uranium enriched to 60% purity, a level that could, if further enriched, fuel multiple nuclear weapons.

<https://armyrecognition.com/news/armynews/2025/us-intelligence-says-irancould-produce-enough-uranium-for-onenuclear-bomb-in-under-a-week>

Iran shows off 'missile city' — But has it just exposed a critical weakness to the US and Israel?

The Economic Times, March 27, 2025

Deep beneath Iranian soil, a labyrinth of tunnels stretches into darkness, packed with some of the country's most formidable missiles. Iran's state media aired footage of Major General Mohammad Hossein Bagheri, Chief of Staff of the Armed Forces, and Brigadier General Amir Ali Hajizadeh, head of the IRGC Aerospace Force, inspecting the facility. Rows of deadly weaponry lined the cavernous halls: the Kheibar Shekan (900-mile range), Haj Qassem (850 miles), Ghadr-H (1,240 miles), Sejil (1,550 miles), and Emad (1,050 miles), alongside the Paveh Land Attack Cruise Missile. These are the very same weapons Iran has reportedly used in recent strikes on Israel. Yet, while the video was intended as a show of power, it also exposed a glaring weakness. Analysts quickly pointed out that the munitions were stored in vast, open tunnels without blast doors or fortified barriers. This layout, they warned, could prove catastrophic in the

event of an attack, triggering devastating chain explosions inside the base.

<https://economictimes.indiatimes.com/news/defence/iran-shows-off-missile-citybut-has-it-just-exposed-a-critical-weakness-to-the-us-and-israel/articleshow/119595579.cms?from=mdr>

Iran's nuclear timetable: The weapon potential

Valerie Lincy

Iran Watch, March 28, 2025

Iran could enrich enough uranium to fuel a small nuclear arsenal. It assumes Iran would try to build an arsenal of at least five warheads of the implosion type – the goal Iran set for itself when it began to work on nuclear weapons decades ago. With its thousands of gas centrifuges in operation and thousands of kilograms of enriched uranium in its stockpile, Iran can now quickly enrich uranium to a grade suitable for nuclear weapons. The analysis below reflects the status of Iran's enrichment program as of February 8, 2025, the date of the latest estimates provided by the International Atomic Energy Agency (IAEA). Because Iran has reduced its cooperation with the Agency, the IAEA is no longer able to precisely verify Iran's stockpile of enriched uranium at any one time. The Agency can verify uranium product that has been removed from the enrichment process, but it must rely on information provided by Iran to account for the amount that remains in-process.

<https://www.iranwatch.org/ourpublications/articles-reports/iransnuclear-timetable-weapon-potential>

Iran, E3 states hold nuclear talks in Geneva

Mehr News, March 29, 2025

Iran's Deputy Foreign Minister for Legal and International Affairs has announced the holding of expert-level nuclear discussions between Iran and three European countries in Geneva. "In line with the agreements made during the fourth round of diplomatic negotiations between Iran and the three European countries, specialised and

technical discussions on the nuclear issue and the lifting of sanctions were held at the expert level in Geneva on Thursday," Kazem Gharibabadi. In a phone conversation with UK Foreign Secretary David Lammy, Iranian Foreign Minister Abbas Araghchi reiterated Iran's willingness to engage diplomatically regarding its peaceful nuclear program but emphasised that direct negotiations under "maximum pressure" and "military threats" are meaningless.

<https://en.mehrnews.com/news/230026/Iran-E3-states-hold-nuclear-talks-in-Geneva>

Iran rejects direct nuclear talks with Trump, open to indirect negotiations

Al-Jazeera, March 30, 2025

Iranian President Masoud Pezeshkian has ruled out direct negotiations with the administration of US President Donald Trump over the country's nuclear programme but signalled a willingness for indirect talks, while Trump threatened bombings and secondary tariffs if Tehran does not come to an agreement with Washington. "We responded to the US president's letter via Oman and rejected the option of direct talks, but we are open to indirect negotiations," Pezeshkian said during a cabinet meeting in Tehran. He stressed that while Iran is not against negotiations in principle, Washington must first rectify its past "misconduct" and rebuild trust. His remarks, reported by the ISNA news agency, come amid escalating tensions between the two nations.

<https://www.aljazeera.com/news/2025/3/30/iran-rejects-direct-nuclear-talks-with-trump-open-to-indirect-negotiations>

Iran puts missiles on alert after Donald Trump's warning of massive strikes

Rimjhim Singh

Business Standard, March 31, 2025

Hours after US President Donald Trump warned of "unprecedented bombing" if Iran refused to negotiate a new nuclear

deal, Tehran has reportedly prepared its missile forces. According to Tehran Times, Iran's military has activated missiles capable of striking US-linked positions worldwide. "A significant number of these launch-ready missiles are located in underground facilities scattered across the country, designed to withstand airstrikes," the report said. In an interview with NBC News, Trump issued a stark warning, saying, "If they don't make a deal, there will be bombing. It will be bombing the likes of which they have never seen before." Beyond military threats, he also suggested the reimposition of secondary tariffs on Iran and its trade partners. A final decision on these economic measures, he said, would depend on Tehran's response in the coming weeks.

https://www.business-standard.com/worldnews/us-trump-iran-nuclear-deal-missilethreats-tehran-125033100236_1.html

Iran readied missiles for potential response amid US threats

Mehr News, March 31, 2025

Iran's armed forces have readied missiles with the capability to strike US-related positions, amid ongoing threats of military action from President Donald Trump, a news outlet has learned. The Tehran Times has learned that Iran's armed forces have readied missiles with the capability to strike US-related positions, amid ongoing threats of military action from President Donald Trump if Tehran does not agree to a new nuclear agreement on his terms. A significant number of these launch-ready missiles are located in underground facilities scattered across the country, designed to withstand airstrikes. Since his inauguration in January, Trump has repeatedly stated that he would bomb Iran if the country does not make the concessions he wants. Reports indicate these concessions include the complete dismantling of its nuclear program, ties with Resistance groups, and aspects of its missiles and drones program. Iranians have refused to directly negotiate with the US under the current circumstances, stating they are ready to respond to any aggression decisively.

<https://en.mehrnews.com/news/230066/Iran-readied-missiles-for-potential-responseamid-US-threats>

Trump says "there will be bombing" if Iran does not make nuclear deal

The Economic Times, March 31, 2025

U.S. President Donald Trump warned Iran of bombings and secondary tariffs if Tehran did not agree to a deal with Washington over its nuclear programme. Speaking in a telephone interview with NBC News, Trump confirmed that U.S. and Iranian officials were in talks but did not provide further details. "If they don't make a deal, there will be bombing," Trump stated. "But there's a chance that if they don't make a deal, that I will do secondary tariffs on them like I did four years ago." During his previous term from 2017 to 2021, Trump withdrew the U.S. from the 2015 nuclear agreement between Iran and world powers. The deal had imposed strict limits on Tehran's nuclear activities in exchange for sanctions relief. Trump later reinstated broad U.S. sanctions, which led Iran to increase its uranium enrichment beyond agreed levels.

<https://economictimes.indiatimes.com/news/international/global-trends/trump-says-there-will-be-bombing-if-iran-does-not-make-nucleardeal/articleshow/119759425.cms?from=mdr>

Israel

Israel upgrades Iron dome air defence system to counter drones and cruise missiles

Army Recognition, March 24, 2025

As aerial threats to Israel continue to escalate, the Ministry of Defence announced on March 21, 2025, an upgrade to the Iron Dome air defence system. This enhancement follows a rocket barrage launched by Hamas toward central Israel, marking the first such attack since October 7 of the previous year. According to the Ministry of Defence, the improvements aim to strengthen the system's interception capabilities against current threats while preparing for future challenges, including cruise missiles and drones. Developed and manufactured by Rafael Advanced Defence Systems, Iron

Dome is a mobile system designed to intercept short-range rockets, 155 mm artillery shells, and mortar projectiles. It operates within 5 to 70 km range and remains effective in various weather conditions, including low clouds, rain, sandstorms, and fog. Its architecture integrates a detection and tracking radar, a battle management and weapon control system, and a firing unit equipped with interceptor missiles. This modular design allows for rapid deployment to protect strategic infrastructure, urban areas, and military units in transit.

<https://armyrecognition.com/news/armynews/2025/israel-upgrades-iron-dome-airdefense-system-to-counter-drones-andcruise-missiles>

Netanyahu's nuclear gamble: The risks of escalation with Iran

Oral Toga

Daily Sabah, March 27, 2025

While Netanyahu convinces the Israeli public and the U.S. administration to wage war on Iran, it cannot be known 'for whom the bells will toll' at the end of such an escalation. In 1992, when he was a 42-year-old Knesset member, Benjamin Netanyahu raised concerns about Iran's nuclear threat, stating, "Iran is close to producing a nuclear weapon within three to five years, and this threat needs to be uprooted by an international front led by the U.S." In 1995, in his book, he discussed Iran's nuclear threat and emphasised that it was a vital issue for Israel. A year later, he came to power for the first time. The Israeli prime minister's political career has been marked by security-focused rhetoric. In a country like Israel with high security concerns, this is not unusual, but what makes Netanyahu different is his constant focus on issues like Iran, Hamas and Palestine, and his personalisation of the message that "only I can protect Israel."

<https://www.dailysabah.com/opinion/oped/netanyahus-nuclear-gamble-the-risksof-escalation-with-iran>

Lebanon

Israel launches more strikes on Lebanon after rocket fire

Joana Saba, Cyril Julien

Al-Monitor, March 22, 2025

Israel launched a new wave of strikes on Lebanon in response to a rocket attack from across the border, as militant group Hezbollah denied responsibility for the launch. Israeli Prime Minister Benjamin Netanyahu and Defence Minister Israel Katz ordered "a second wave of strikes against dozens of Hezbollah targets in Lebanon", the defence ministry said, in the largest escalation since a November 27 ceasefire. It said the strikes were "a response to rocket fire towards Israel and a continuation of the first series of strikes carried out this morning" against southern Lebanon. Lebanon's official National News Agency reported one girl among five people killed in an Israeli strike during the day on the southern town of Touloun. Smoke billows after an Israeli air strike on the southern Lebanese village of Kfar Melki. The agency later said three people were killed in an Israeli strike on the city of Tyre, targeted in the second wave of strikes on the south and east, with multiple injuries also reported.

<https://www.almonitor.com/originals/2025/03/israel-launches-more-strikes-lebanon-after-rocket-fire>

Qatar

Qatar receives US approval to acquire eight MQ-9B drones to enhance surveillance capabilities

Army Recognition, March 27, 2025

On March 26, 2025, the U.S. Department of State officially approved a potential Foreign Military Sale to the Government of Qatar for the acquisition of MQ-9B drones and associated equipment, with an estimated value of \$1.96 billion. The notification was submitted to Congress the

same day by the Defence Security Cooperation Agency (DSCA), in accordance with regulatory procedures governing such strategic transactions between the United States and its international partners. According to the information released, Qatar has requested the purchase of eight MQ-9B Remotely Piloted Aircraft (RPA), capable of conducting intelligence, surveillance, target acquisition, and precision strike missions. The order includes a significant quantity of armaments and onboard sensors: two hundred KMU-572 tail kits for JDAM-guided bombs (GBU-38 or laser-guided GBU-54), three hundred BLU-111 500-lb general-purpose bombs, one hundred MXU-650 airfoil groups for the Paveway II GBU-12, and one hundred MAU-169 computer control groups for the same munition.

<https://armyrecognition.com/news/aerospace-news/2025/qatar-receives-us-approval-to-acquire-eight-mq-9b-drones-to-enhance-surveillance-capabilities>

US approves \$1.96bn MQ-9B RPA sale to Qatar

Airforce Technology, March 28, 2025

The Defence Security Cooperation Agency has notified Congress of this prospective transaction. General Atomics Aeronautical Systems, Lockheed Martin, RTX, L3Harris, Boeing, and Leonardo are set to be the principal suppliers for the deal. The sale includes eight MQ-9B RPA, 200 KMU-572 joint direct attack munition tail kits for guided bomb unit GBU-38 or laser JDAM GBU-54, and more. In addition to the aircraft and munitions, the package encompasses a range of non-major depressive episode equipment. It includes Honeywell TPE-331 turboprop engines, certifiable ground control stations, fuse systems, and communication security devices, among others. The deal also covers spare and repair parts, consumables and accessories, and repair and return support, US Government and contractor engineering, technical, logistics support services, and more. This proposed sale is aligned with US foreign policy and national security objectives. It aims to enhance Qatar's defence capabilities against current and future threats, contributing to political

stability and economic progress in the Middle East.

<https://www.airforcetechnology.com/news/us-mq-9b-qatar/?cfview>

Saudi Arabia

Saudi Arabia's rejection of China's J35A fighter jet: A blow to Beijing's ambitions in the gulf

Defence Security Asia, March 18, 2025

In what is seen as a significant setback to China's strategic ambitions in the Middle East, Saudi Arabia has reportedly declined Beijing's offer to sell its J-35A stealth fighter jets, a fifth-generation warplane that China hoped would challenge Western dominance in the region. The rejection delivers a direct blow to Chinese President Xi Jinping's broader Middle East strategy, which aims to displace American-made military platforms in the Gulf with Chinese defence technology. Beijing has actively sought to expand its arms footprint in a region historically aligned with Western defence contractors, but Riyadh's move signals that Gulf states remain wary of fully integrating Chinese-made military hardware into their arsenals. According to experts cited in an Indian defence report, Xi Jinping had anticipated that if a major Gulf military power like Saudi Arabia opted for the J-35A, it would disrupt Washington's dominance in the regional arms market.

https://defencesecurityasia.com/en/saudi-arabias-rejection-of-chinas-j-35a-fighter-jet-a-blow-to-beijings-ambitions-in-the-gulf/#google_vignette

Facilitating discussions on nuclear law in Saudi Arabia

International Atomic Energy Agency, March 19, 2025

As part of Saudi Arabia's commitment to strengthening its nuclear legal framework, a national workshop on nuclear law was held in Riyadh, Saudi Arabia, from 17 to 18 February 2025. Organised by the IAEA in cooperation with the Nuclear and Radiological Regulatory Commission

(NRRC), the workshop was attended by over 50 participants from a range of national stakeholders including the Ministry of Justice, the Ministry of Energy, the Saudi Central Bank, the Public Prosecution, the National Security Centre, the Preparatory Committee for the Ministerial Committee for Administrative Organisation, the Presidency of State Security and the Bureau of Experts. The participation of these entities enabled in depth discussions on the legal, regulatory and operational aspects of nuclear law in Saudi Arabia, fostering inter-agency collaboration and shared expertise. Khalid Aleissa, Chief Executive Officer of the NRRC, said, "This is a useful event enabling the NRRC to bring together and engage with our key national partners, as a further opportunity to discuss and analyse the existing national nuclear legal framework."

<https://www.iaea.org/newscenter/news/facilitating-discussions-on-nuclear-law-insaudi-arabia>

US approves first sale of laser-guided precision rockets to Saudi Arabia

Al-Jazeera, March 21, 2025

The US State Department has approved what would be the first sale of advanced precision kill weapon systems to Saudi Arabia for an estimated cost of \$100m, according to the Pentagon. The Advanced Precision Kill Weapon System (APKWS) approved for sale to Saudi Arabia is a laser-guided rocket that can hit both airborne and surface targets. "The proposed sale will improve the Kingdom of Saudi Arabia's capability to meet current and future threats and give it the ability to precisely engage targets with much less risk of collateral damage than other guided missile systems. The price of the weapon is about \$22,000, making it a cost-effective choice for shooting down low-cost small armed drones like those used by Yemen's Houthi rebels. The Pentagon's Defence Security Cooperation Agency notified Congress of the possible sale of 2,000 APKWS and associated equipment and training. "This proposed sale will support the foreign policy goals and national security objectives of the United States by improving the security of a partner

country that is a force for political stability and economic progress in the Gulf Region," the Pentagon noted.

<https://www.aljazeera.com/news/2025/3/21/pentagon-greenlights-100mln-weapondeal-with-saudi-arabia>

United Arab Emirates

UAE and Brazil join forces to compete in anti-ship missile market at the International level

Army Recognition, March 18, 2025

The first acquisition follows an agreement signed by both parties (EDGE and SIATT) in April 2023, after which the Brazilian Navy, seeking advanced anti-ship technology for its national project named MANSUP, became involved. In this regard, SIATT (Integrated Systems of High Technological Content) provides essential components, such as navigation, guidance, control, and telemetry systems. Edge Group was formed by the union of multiple companies from the United Arab Emirates. In total, 20 companies came together to create an Edge Group. Since its creation in 2019, the group has expanded through several acquisitions in Brazil, Estonia, Poland, and Switzerland, and has also formed partnerships with companies from Italy and Spain. The decision to invest in Brazilian companies is strategic. As a member of BRICS, both Brazil and the United Arab Emirates are rising powers. Brazil, as an emerging economic force, can produce advanced technologies at very competitive costs compared to other, more developed countries. The MANSUP missile gives Brazil a significant capability. It can now manufacture very advanced missiles with the participation of local industry. The missile, with a diameter of 330mm, can operate in all weather conditions up to 70km with a transonic speed of 870 km/h, challenging its competitor on the market.

<https://armyrecognition.com/news/armynews/2025/uae-and-brazil-join-forces-to-compete-in-anti-ship-missile-market-at-international-level>

UAE presents its national report on spent nuclear fuel, radioactive waste management

Emirate News Agency, March 19, 2025

The United Arab Emirates presented its Fifth National Report on Compliance with the Obligations of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management. The UAE is participating as a Contracting Party to the Joint Convention, which is holding its 8th review meeting at the headquarters of the International Atomic Energy Agency (IAEA) in Vienna, Austria. The UAE's delegation is led by Ambassador Hamad Al Kaabi, the UAE's Permanent Representative to the IAEA as well as representative of national nuclear stakeholders including: Federal Authority for Nuclear Regulation, the Emirates Nuclear Energy Company (ENEC); and other national stakeholders. "The UAE remains committed to upholding the highest standards of nuclear safety and security, in line with our international obligations and best practices. Our participation in the Eighth Review Meeting of the Joint Convention on the Safety of Spent Fuel Management and Radioactive Waste Management reflects our dedication to transparency, collaboration, and continuous improvement in managing radioactive waste.

<https://www.wam.ae/en/article/biq1qbuae-presents-its-national-report-spentnuclear>

UAE, China strengthens cooperation in nuclear regulation

Gulf News, March 22, 2025

The Federal Authority for Nuclear Regulation (FANR) welcomed a high-level Chinese delegation at its headquarters in Abu Dhabi, led by Dong Baotong, Vice Minister of the Ministry of Ecology and Environment and Administrator of the National Nuclear Safety Administration (NNSA) of China. Dong Baotong was received by Abdulla Nasser Al Suwaidi, Chairman of FANR's Board of Management, along with senior FANR leadership. The discussions focused on enhancing

cooperation in knowledge exchange, research and development, capacity building in nuclear safety and security, nuclear non-proliferation, and regulatory frameworks for advanced nuclear technologies. This visit is part of the ongoing collaboration between China's National Nuclear Safety Administration and the UAE's Federal Authority for Nuclear Regulation. In November 2024, both sides signed a three-year action plan establishing a framework for cooperation across various nuclear regulatory sectors. Additionally, a Memorandum of Understanding was signed in 2018, focusing on nuclear safety, nonproliferation, and capacity building. During the visit, FANR officials presented their regulatory oversight of the Barakah Nuclear Power Plant, while the Chinese delegation provided updates on the latest developments in China's nuclear programmes.

<https://gulfnews.com/uae/government/15h9c0e-uae-china-strengthen-cooperationnuclear-1.500069225>

K. Europe

Bulgaria

Ukraine to acquire Bulgarian reactors for Khmelnytsky

Nuclear Engineering International, March 18, 2025

President Volodymyr Zelensky of Ukraine has signed the law on the procurement of equipment for the completion of units 3&4 at the Khmelnytsky NPP. The law establishes the legal framework and grants permission for the procurement of equipment from the Bulgarian Belene NPP. In February, Ukraine's Verkhovna Rada (parliament) passed the law allowing nuclear utility Energoatom to buy two Soviet-designed nuclear reactors from Bulgaria's cancelled Belene project for Khmelnytsky expansion. The decision followed discussions led by International Atomic Energy Agency (IAEA) Director General Rafael Grossi during a visit to Ukraine.

<https://www.neimagazine.com/news/ukraine-to-acquire-bulgarian-reactors-for-khmelnytsky/>

Bulgarian Parliament Approves \$83 Million Javelin Missile Deal Amid Heated Debate

Novinite, March 26, 2025

The Bulgarian Parliament has approved the purchase of Javelin anti-tank missiles from the United States for 153 million leva, with the contract ratified in two consecutive votes in a single day. The decision was supported by political parties GERB, BSP, TISP, WCC-DB, and both factions of DPS, along with the "Greatness" party. Opposing the purchase were "Revival," MECH, and one MP from Dogan's DPS. The payment for the missiles will be made in installments, and the acquisition is part of a broader package that includes Stryker combat vehicles, as previously announced by the government in February. During the parliamentary debate, the pro-Russian party "Revival" strongly criticized the deal, claiming that Javelin missiles are outdated and that Bulgaria should prioritize domestic military production.

<https://www.novinite.com/articles/231513/Bulgarian+Parliament+Approves+%2483+Million+Javelin+Missile+Deal+Amid+Heated+Debate>

France

EDF may get state loan for six new reactors

World Nuclear News, March 18, 2025

In February 2022, Macron announced that the time was right for a nuclear renaissance in France, saying the operation of all existing reactors should be extended without compromising safety and unveiling a proposed programme for six new EPR2 reactors, with an option for a further eight EPR2 reactors to follow. The first three pairs of EPR2 reactors are proposed to be built, in order, at the Penly, Gravelines and Bugey sites. Construction is expected to start in 2027. The cost was originally estimated at EUR51.7 billion (USD56.4 billion), but this was revised to EUR67.4 billion in 2023. The EPR2 reactor is a pressurised water reactor project developed by EDF and Framatome. It meets the general safety objectives of the third generation of reactors. Its aim is to

incorporate design, construction and commissioning experience feedback from the EPR reactor, as well as operating experience from the nuclear reactors currently in service.

<https://www.world-nuclear-news.org/articles/edf-may-get-state-loan-for-six-new-reactors#:~:text=In%20February%202022%2C%20Macron%20announced,eight%20EPR2%20reactors%20to%20follow.>

France to develop new nuclear air base armed with Rafale F5s, hypersonic missiles

The Economic Times, March 20, 2025

France is on course to deploy an advanced version of the Rafale fighters armed with hypersonic nuclear missiles by the middle of the next decade to counter what it believes is the Russian threat from the east. Just days after proposing a nuclear umbrella to Europe in the event of US President Donald Trump withdrawing from the NATO military alliance, French President Emmanuel Macron on March 18 announced that an air base near the German border will have Rafale F5 combat jets armed with Air-Sol Nucleaire de 4eme Generation (ASN4G) hypersonic nuclear missiles.

<https://economictimes.indiatimes.com/news/defence/france-to-develop-new-nuclear-air-base-armed-with-rafale-f5s-hypersonic-missiles/articleshow/119246288.cms?from=mdr>

Rocket Lab launches final 5 satellites for French 'Internet of Things' constellation

Mike Wall

Space, March 17, 2025

Rocket Lab launched the final five satellites for the French company Kinéis' "Internet of Things" constellation March 17. An Electron vehicle carrying five of Kinéis' "Internet of Things" spacecraft lifted off from Rocket Lab's New Zealand site today at 9:31 p.m. EDT (0131 GMT and 2:31 p.m. local New Zealand time on March 18). The Electron deployed the five

satellites into a circular orbit 404 miles (650 kilometers) above Earth about 66.5 minutes after liftoff as planned. Tonight's mission, which Rocket Lab called "High Five," finished the assembly of Kinéis' 25-nanosatellite constellation. The other 20 spacecraft went up on four Electron launches, in June, September and November of 2024 and February of this year.

<https://www.space.com/space-exploration/launches-spacecraft/rocket-lab-kineis-internet-of-things-high-five-launch>

Finland

Fortum continues preparations for nuclear new-build

World Nuclear News, March 24, 2025

Fortum launched the feasibility study in October 2022 to explore the commercial, technological, and societal prerequisites for new nuclear in the two Nordic countries. The study involved in-depth discussions with several technology vendors, potential partners and customers as well as societal stakeholders. "Fortum will now continue to develop its capabilities to have new nuclear as an option to meet future customer demand in the Nordics in the longer term," the company said. "In addition, Fortum sees the development work as a step in preparing for the eventual replacement of the existing nuclear capacity."

<https://www.world-nuclear-news.org/articles/fortum-continues-preparations-for-nuclear-new-build>

Finland Opens Factory for F-35 Engines Assembly

Roman Pryhodko

Militarnyi, March 17, 2025

Finland has officially broken ground on a state-of-the-art facility dedicated to the assembly and maintenance of engines for the F-35 fighters. The Ministry of Defence of Finland announced this on its official website. The groundbreaking ceremony took place on March 14, 2025, at the future site of the plant in Linnavuori, Nokia, where F-135 engines will be both assembled and

serviced. This construction is part of extensive cooperation between the Finnish defense sector and the F-35 program, which is currently the most successful fighter jet project in the world. The assembly and maintenance hall, which is set to be completed in the fall of 2025, will rapidly repair F135 engines for European users. This will also help reduce the workload of Pratt & Whitney, the company that manufactures these engines.

<https://militarnyi.com/en/news/finland-opens-factory-for-f-35-engines-assembly/>

Germany

Germany expects to deploy US missiles in 2026

Alimat Aliyeva

Azer News, March 25, 2025

Germany is still counting on the deployment of American long-range missiles in 2026, which aligns with the logic of the national security strategy outlined in October 2023, Azernews reports. At the same time, the United States is seeking to reduce its involvement in ensuring European security. The Bundestag has already acknowledged that Donald Trump may reconsider his decision on the missile deployment to avoid worsening relations with Russia. Experts also suggest that the growing rift between the United States and Europe could lead not only to the abandonment of the missile deployment in Europe but potentially even to the withdrawal of tactical nuclear weapons from Germany, as noted in the report.

<https://www.azernews.az/region/239474.html#:~:text=Germany%20is%20still%20counting%20on,in%20October%202023%2C%20Azernews%20reports.>

Norway and Germany team-up for Naval Strike Missile maintenance

Naval News, March 18, 2025

Cooperation on maintenance was recently established in Luxembourg through

NATO's procurement function NATO Support and Procurement Agency (NSPA), through a so-called partnership agreement. In addition to being an agreement for Norway and Germany, the partnership agreement also opens up for other nations that have acquired, or will to procure NSM, to apply for membership. "The fact that several nations join forces in a joint operation and maintenance programme through the NATO Support and Procurement Agency provides major advantages in areas such as maintenance, spare parts, documentation, configuration management, data sharing and experience. In addition, it provides significantly lower costs for the individual nation, while at the same time placing a clear and long-term responsibility on NSPA," Jære points out.

<https://www.navalnews.com/naval-news/2025/03/norway-and-germany-team-up-for-naval-strike-missile-maintenance/>

German nuclear association calls for restart of reactors

World Nuclear News, March 27, 2025

In August 2011, the 13th amendment of the Nuclear Power Act came into effect, which underlined the political will to phase out fission nuclear power in Germany. As a result, eight units were closed down immediately: Biblis A and B, Brunsbüttel, Isar 1, Krümmel, Neckarwestheim 1, Phillipsburg 1 and Unterweser. The Brokdorf, Grohnde and Gundremmingen C plants were permanently shut down at the end of December 2021. The country's final three units - Emsland, Isar 2 and Neckarwestheim 2 - shut down in April 2023. All the units are now at various stages of decommissioning. The expansion of renewable energy, which was to compensate for the closure of the reactors, has varied greatly between individual federal states, with the expansion of wind energy particularly progressing very slowly in Bavaria.

<https://www.world-nuclear-news.org/articles/german-nuclear-association-calls-for-restart-of-reactors>

Germany proposes accelerating search for repository site

World Nuclear News, March 21, 2025

Last year, the Federal Office for the Safety of Nuclear Waste Management (BASE) published a study which determined timescales up to 2074 to find the site with the best possible safety for a million years. The Federal Company for Radioactive Waste Disposal (BGE) - which is responsible for proposing a suitable site - notes that, in addition to permits, the exploration work requires a variety of rights of use and access to the land on which the exploration is to be carried out. This represents a bottleneck, and this entails considerable time-related risks, BGE said. In order to be able to carry out the exploration work in the designated siting regions promptly, specific legal adjustments are necessary to accelerate the process. BGE proposes applying regulations that have already proven successful in the expansion of renewable energies to the search for a final repository.

<https://www.world-nuclear-news.org/articles/germany-proposes-accelerating-search-for-repository-site>

Italy

France, Italy, UK order additional Aster missiles

Kate Tringham

Janes, March 17, 2025

France, Italy, and the United Kingdom have confirmed the procurement of an additional batch of more than 200 Aster 15 and 30 surface-to-air missiles (SAMs) as well as the acceleration of deliveries for missiles already ordered from Eurosam, a joint venture between MBDA and Thales. The contract amendment, announced on 14 March by the French defence procurement agency (DGA), was awarded by the European arms procurement agency Organisation for Joint Armament Cooperation (OCCAR) to Eurosam on 11 March on behalf of the three countries for

their respective armed forces. It covers the production of 218 additional Aster missiles, comprising Aster 30 Block 1 missiles for the SAMP/T NG ground-based air-defence batteries operated by the French air force, Italian Army, and Italian Air Force and the naval air-defence systems of all three countries; as well as Aster 15 missiles for the French Navy.

<https://www.janes.com/osint-insights/defence-news/sea/france-italy-uk-order-additional-aster-missiles#:~:text=France%2C%20Italy%2C%20and%20the%20United,venture%20between%20MBDA%20and%20Thales.>

Italy Lifts Nuclear Ban, Paving Way for Energy Security and Sustainability

Jonathan Doyle

Nuclear Insider, March 18, 2025

Italy has ended a nearly 40-year ban on nuclear energy, planning to deploy advanced modular reactors by 2027 to enhance energy security, decarbonize industries, and potentially save \$17.69 billion in decarbonization costs by 2050. Italy's government has enacted a new law that sets the stage for the return of nuclear energy, ending an almost 40-year ban. Prime Minister Giorgia Meloni described the move as a crucial step toward energy security and self-sufficiency. The law grants the government a mandate to establish detailed decrees for the nuclear transition, with Energy Minister Gilberto Pichetto Fratin expecting the process to be completed by the end of 2027. Italy plans to leverage advanced modular reactors to generate sustainable energy and help decarbonize its most polluting industries.

<https://nuclearinsider.com/italy-lifts-nuclear-ban-paving-way-for-energy-security-and-sustainability/#:~:text=Italy%20has%20ended%20a%20nearly%20decade,carbonization%20costs%20by%202050.>

The Challenges Facing Italy's Nuclear Comeback

Startfor, March 26, 2025

Italy is seeking to return to nuclear power in a bid to bolster its energy security, cut

carbon emissions and reduce electricity prices, but the eventual revival of a nuclear program will take years to materialize and likely face potential public opposition and technical constraints. On Feb. 28, the Italian government approved a draft law that, if passed by parliament, would give it a mandate to adopt detailed legislation for the reintroduction of nuclear power, including for the establishment of a national nuclear program, the commissioning of scientific research, the training of a specialized workforce, and the creation of independent safety authority to regulate and supervise nuclear infrastructure. Rather than returning to past large-scale reactors, the draft calls for a focus on fusion and next-generation fission technologies like small modular reactors (SMRs) and fourth-generation reactors.

<https://worldview.stratfor.com/article/challenges-facing-italys-nuclear-comeback>

Poland

Poland signs \$2bn Patriot missile deal with US amid calls for EU air-defence shield

First Post, March 31, 2025

Poland will sign a \$2 billion contract with the United States on Monday to provide critical logistical and technical support for its Patriot missile-defence systems, marking the final step in making the country's air-defence network fully operational. The deal, announced by Defence Minister Władysław Kosiniak-Kamysz in Kraków, points to Warsaw's determination to fortify its airspace as Russia's war in Ukraine enters its third year and European leaders debate how best to strengthen the continent's defences, Bloomberg reported. "Air-defence is the biggest investment into the Polish army, requiring the largest funds," Kosiniak-Kamysz told broadcaster Polsat.

<https://www.firstpost.com/world/poland-signs-2bn-patriot-missile-deal-with-us-amid-calls-for-eu-air-defence-shield-13876080.html>

Ukraine

U.S. restores satellite imagery support to Ukraine amid ceasefire tensions

Sandra Erwin

Space News, March 18, 2025

The Trump administration has reinstated U.S. satellite imagery support for Ukraine, reversing a suspension imposed less than two weeks ago amid growing diplomatic tensions between Washington and Kyiv over a potential ceasefire in Ukraine's ongoing war with Russia. A spokesperson for the National Geospatial Intelligence Agency (NGA) confirmed March 18 that Ukraine has regained access to the commercial satellite imagery platform that has been a crucial component of its intelligence-gathering capabilities since Russia's full-scale invasion in 2022. "In accordance with the administration's directive on support to Ukraine, NGA has resumed access to the Global Enhanced GEOINT Delivery system, or GEGD, which is the primary portal for access to U.S. government-purchased commercial imagery," the agency said in a statement.

<https://spacenews.com/u-s-restores-satellite-imagery-support-to-ukraine-amid-ceasefire-tensions/>

Ukraine and Czechia Are Launching Suziria Satellite Constellation for Optical Reconnaissance

Amira Barkhush

United 24 Media, March 21, 2025

Ukraine and Czechia are launching a satellite constellation for optical reconnaissance, named "Suziria." This was announced by the editor-in-chief of the Czech publication Armádní Noviny, Jan Grohmann, in his blog on Militarnyi. Grohmann wrote that in October 2022, the governments of Czechia and Ukraine reached a political agreement to establish a defense cluster. As part of this initiative, a

project for Czech-Ukrainian cooperation in space was launched, which includes the formation of the "Suziria" satellite monitoring constellation. The key component of the constellation will be TROLL-type satellites, with future Czech-Ukrainian satellites set to join them. The second element of the constellation will be the Drak satellite, currently under development by companies within the Czech Brno Space Cluster.

<https://united24media.com/latest-news/ukraine-and-czechia-are-launching-suziria-satellite-constellation-for-optical-reconnaissance-6944>

Does Trump want Ukraine's nuclear power plants, what has Kyiv said?

Mansur Mirovalev

Al-Jazeera, March 21, 2025

While urging Kyiv to give away its nuclear power plants to Washington, United States President Donald Trump may have forgotten one of the scariest words to ever come out of Ukraine. Chernobyl, a synonym of the world's worst nuclear disaster. The 1986 explosion at the nuclear power plant in then-Soviet Ukraine was hundreds of times mightier than the two atomic bombs Washington dropped on Hiroshima and Nagasaki in 1945. The Chernobyl blast rocketed red-hot, highly irradiated graphite and dust, making parts of the cordoned-off "exclusion zone" around the shutdown plant unfit for human habitation for tens of thousands of years. If it was not for thousands of servicemen and emergency workers who prevented a much bigger bang of Reactor Four, where uranium fuel rods melted into a giant "elephant foot", most of Eastern Europe would have been similarly uninhabitable.

<https://www.aljazeera.com/news/2025/3/21/does-trump-want-ukraines-nuclear-power-plants-what-has-kyiv-said>

Will Ukraine's Neptune long-range missile make a difference?

Oleksandr Kunytskyj

DW, March 21, 2025

Earlier this week, Ukrainian President Volodymyr Zelenskyy said the new Neptune missile had successfully passed all of its tests and proven itself in battle. "It is a new Ukrainian rocket, very precise. It has a range of 1,000 kilometers [620 miles]. Many thanks to our Ukrainian developers, manufacturers and our military," he wrote on Telegram, without giving further information as to potential targets. Open source intelligence analysts and media outlets have reported that Ukraine used the new rocket to hit a Russian oil refinery in the Black Sea port of Tuapse this past weekend. Regional Russian officials confirmed a fire at a facility in the town — some 550 kilometers from the front line. Experts told DW that the new rocket is likely a modification of Ukraine's Neptune R-360 anti-ship missile.

<https://www.dw.com/en/will-ukraines-neptune-long-range-missile-make-a-difference/a-71998877>

United Kingdom

Britain will finance the production of 5,000 anti-tank missiles for Ukraine

UNN, March 22, 2025

The British government and the Irish company "Thales" have signed a contract for the production of more than 5,000 anti-tank guided missiles for Ukraine. Funding up to £1.6 billion. The British government and the Irish company "Thales" have signed a contract for the production of more than 5,000 anti-tank guided missiles for Ukraine. This is reported by UNN with reference to the publication The Economist. It is noted that the agreement worth up to 1.6 billion pounds is financed by a British loan of 3.5 billion pounds to Ukraine for the purchase of British weapons. The signed contract will also contribute to the rapid development of the Irish company "Thales".

<https://unn.ua/en/news/britain-will-finance-the-production-of-5000-anti-tank-missiles-for-ukraine>

Europe doesn't know if it can rely on America's nuclear weapons for protection. Some countries are looking elsewhere

Bridget Rollason

*Australian Broadcasting Corporation
March 17, 2025*

Two European countries. Two nuclear arsenals operated differently and one big question. Would the United States use its nuclear weapons to defend Europe in the unpredictable era of Donald Trump? No ally wants to confront the possibility of nuclear war, or the US turning its back on them. But as fears grow that Mr Trump is increasingly sympathetic to Russia, and moving away from old friends, European nations are now discussing how it would tackle the threat of a nuclear attack without America's assistance. Countries are turning to France and the United Kingdom, the only two European nations with nuclear arsenals of their own, for a possible way forward.

<https://www.abc.net.au/news/2025-03-17/france-united-kingdom-nuclear-weapons-european-protection/105055186>

Costain chosen to upgrade UK enrichment plant

Warwick Pipe

World Nuclear News, March 20, 2025

The framework is expected to see contracts awarded to Costain over a minimum of three years. Costain will lead and deliver an integrated programme of Urenco's infrastructure investment activities, including developing the design, procurement, construction and commissioning of works and upgrades at Capenhurst. Costain said it will work closely with local supply chain partners and provide strategic direction, integration, assurance and governance of the works. "Ensuring the supply of safe, low-carbon electricity is critical for creating a sustainable future," said Sam White, managing director, natural resources at Costain.

<https://www.world-nuclear-news.org/articles/costain-chosen-to-upgrade-uk-enrichment-plant>

UK government-funded project milestone for borehole disposal

World Nuclear News, March 17, 2025

A multi-year project in collaboration with the UK Advanced Manufacturing Research Centre (AMRC), NAC International, Inc, and the University of Sheffield has culminated in the manufacture of a first-of-its-kind disposal canister prototype and elevated Deep Isolation's technology readiness level. A multi-year project in collaboration with the UK Advanced Manufacturing Research Centre (AMRC), NAC International, Inc, and the University of Sheffield has culminated in the manufacture of a first-of-its-kind disposal canister prototype and elevated Deep Isolation's technology readiness level.

<https://www.world-nuclear-news.org/articles/uk-government-funded-project-milestone-for-bore-hole-disposal>

UK PM boasts about nuclear deterrent against Russia

Mehr News Agency, March 21, 2025

The British prime minister issued his warning to the Russian president after meeting officials from 31 countries at the Northwood military base outside London, where they have started sketching out which western forces might be deployed to protect Ukraine in the future, The Guardian reported. Starmer said Putin would not be allowed to veto how Kyiv decides to defend itself, after the Russian president demanded Ukraine's demilitarisation as part of any peace deal. But the prime minister did not reiterate his promise to put boots on the ground, instead saying allied forces would be deployed to support Ukrainian troops, including by sea and air, rather than replacing them.

<https://en.mehrnews.com/news/229836/UK-PM-threatens-Russia-with-using-nuclear-weapons>

Multimillion-pound investment gives rocket boost to South West space sector

Government of UK, March 19, 2025

The South West will benefit from a multimillion-pound investment from leading German space company OHB, creating up to 50 specialist jobs in Bristol working on satellites and exploration spacecraft, and supporting the government's Plan for Change in delivering more skilled jobs, higher living standards, and productivity growth in every part of the United Kingdom. Industry Minister Sarah Jones will announce the investment in a speech to the Farnborough International Space Show 19 March, welcoming the news as a major win for the South West's world-leading aerospace cluster, and the latest vote of confidence in the UK's investment environment.

<https://www.gov.uk/government/news/multi-million-pound-investment-gives-rocket-boost-to-south-west-space-sector#:~:text=Minister%20Jones%20has%20announced%20a,leading%20German%20space%20company%20OHB.&text=New%20multimillion%2Dpound%20investment%20from,creating%20specialist%20jobs%20in%20Bristol.>

L. Africa

Egypt

Reactor vessel assembled for El Dabaa's first unit

World Nuclear News, March 21, 2025

According to Rosatom, there was continuous heating of the weld and workers used about two tonnes of flux and more than 1.5 tonnes of special wire during the work at the Izhora production site in St Petersburg. "After welding, the reactor vessel will undergo a heat treatment process, and then a full range of control measures will be carried out in the weld seam areas: X-ray flaw detection,

ultrasonic and capillary testing,” Rosatom said. “This is necessary to ensure safe operation of the NPP for at least 60 years.” The completed reactor pressure vessel, measuring 13 metres in length and 4.5 metres in width, is expected to be delivered to the El Dabaa nuclear power plant site this year.

<https://www.world-nuclear-news.org/articles/reactor-vessel-assembled-for-el-dabaas-first-unit>

Kenya

Kenya signs MOU on Nuclear power collaboration with China

Ministry of Energy and Petroleum, March 19, 2025

The Nuclear Power and Energy Agency (NUPEA) and the China Nuclear Engineering and Construction Corporation (CNECC) International have signed a Memorandum of Understanding (MOU) that provides for collaboration in technical transfer in Nuclear energy implementation and development towards nuclear power programs in Kenya. The MOU signing between NUPEA Chief Executive Officer, Justus Wabuyabo and the President of the CNECC, Li Xiaohong, witnessed by Cabinet Secretary (CS) for Petroleum and Energy, Opiyo Wandayi at the Kawi Complex in Nairobi also provides a framework to ensure Kenya’s nuclear Agency benefits from exchange of technical expertise in research and innovation and enhance corporation in the development of 19 nuclear infrastructure elements.

<https://www.energy.go.ke/kenya-signs-mou-nuclear-power-collaboration-china#:~:text=The%20Nuclear%20Power%20and%20Energy,nuclear%20power%20programs%20in%20Kenya>

South Africa

Minister announces funds for new reactor as Safari-1 turns 60

World Nuclear News, March 27, 2025

Addressing the celebrations held by the Nuclear Energy Corporation of South Africa

(NECSA) on 25 March, Ramokgopa said the ZAR1.2 billion is included in the government’s 2025 budget, which is currently awaiting final parliamentary approval. Safari-1 is a tank-in-pool research reactor which reached first criticality in 1965 with a capacity of 6.67 MWt. Over its 60 years of operation it has undergone various power uprates and been converted to use low-enriched uranium fuel and low-enriched uranium targets for isotope production. Today, it has a licensed operating power of 20 MWt and is one of the world’s major commercial producers of medical and industrial radioisotopes. It is also used for activation analyses, material modification (such as the neutron transmutation doping of silicon for the semi-conductor industry) and provides support services such as neutron radiography and neutron diffraction for both industry and research.

<https://www.world-nuclear-news.org/articles/minister-announces-funds-for-new-reactor-as-safari-1-turns-60#:~:text=The%20South%20African%20cabinet%20approved,1%20research%20reactor%2C%20in%202021>

M. The Americas

Deep Atomic Begins Pre-Application Process for Data Centre Nuclear Reactors

David Dalton

Nucnet, March 27, 2025

Deep Atomic, a nuclear energy startup specialising in small modular reactors (SMRs) for data centres, has entered the US Nuclear Regulatory Commission (NRC) pre-application process for design certification of its flagship MK60 SMR. The company, which has offices in the US and Switzerland, said the MK60 is uniquely engineered to deliver 60 MW of electricity alongside 60 MW of cooling capacity, making Deep Atomic the first SMR developer with a fully integrated power-and-cooling solution specifically targeting the data centre industry. Deep Atomic said engaging with the NRC marks “a pivotal

step" towards licensing the MK60 in the US, a market it is prioritising for its initial deployments.

<https://www.nucnet.org/news/deep-atomic-begins-pre-application-process-for-data-centre-nuclear-reactors-3-4-2025>

Argentina to receive first prototype of locally-made IA-100B Malvina trainer after years of development.

Army Recognition, March 26, 2025

The IA-100 program began in December 2014 as a project led by FAdEA to assess local design and production capabilities for a low-wing, tandem-seat trainer aircraft. Initially conceived as a technology demonstrator, the IA-100A flew for the first time on August 8, 2016, to demonstrate FAdEA's production capabilities using composite materials. This early prototype, configured as a side-by-side, low-wing composite monoplane with fixed landing gear and powered by a 180 hp Lycoming AEIO-360 B1F engine, was not intended for series production but served as a technological benchmark. After a hiatus, the project was restarted in 2020, and in August of that year, the Ministry of Defense officially designated the new version as Malvina. The current IA-100B version, however, is an entirely new aircraft built from the ground up to meet modern military training standards. It incorporates significant structural changes compared to the IA-100A, including new wing and fuselage designs, as well as a more powerful engine.

<http://armyrecognition.com/news/aerospace-news/2025/argentine-to-receive-first-prototype-of-locally-made-ia-100b-malvina-trainer-after-years-of-development>

Brazil

Brazil aiming to develop national microreactor

World Nuclear News, March 19, 2025

The vision is for the microreactor to fit within a 40-foot container and be operated remotely for more than 10 years without any need for refuelling. Suggested uses including

providing reliable power to remote towns, to hospitals and factories and reducing dependency on diesel generators. Various universities and the Brazilian Navy and Amazônia Azul Defense Technologies are also involved in the project. The National Nuclear Energy Commission (CNEN) says its Institute of Energy and Nuclear Research (IPEN) will be responsible for the research and development of essential materials for the microreactor, and its Institute of Nuclear Engineering (IEN) will be in charge of assembling a subcritical unit, to demonstrate the viability but without a self-sustaining chain reaction.

<https://www.world-nuclear-news.org/articles/brazil-to-begin-development-of-microreactor>

Brazil signs uranium deal with Russia

Nuclear Engineering International, March 18, 2025

Nuclear Industries of Brazil (INB – Indústrias Nucleares do Brasil) has signed a contract with Internexco GmbH (part of Rosatom) for the temporary conversion and enrichment abroad of up to 275,000 kg of uranium concentrate (U₃O₈) produced at the Uranium Concentration Unit in Caetite, Bahia. The final product will be returned by December 2027 in the form of UF₆ enriched to 4.25% and will be used in the manufacture of nuclear fuel for the Angra dos Reis NPP. INB President Adauto Seixas said logistics planning for land operations in Brazil for the shipment is already underway as well as contracting for international shipping from the port of Salvador to Russia, and the licensing of exports.

<https://www.neimagazine.com/news/brazil-signs-uranium-deal-with-russia/>

Brazilian marines establish coastal defence missile capability

Victor Barreira

Janes, March 25, 2025

The Brazilian Navy's Marine Corps is establishing an Anti-ship Missile Battery within the Marine Artillery Battalion

(Batalhão de Artilharia de Fuzileiros Navais: BtlArtFuzNav), creating a coastal defence missile capability, General Commander of the Marine Corps Fleet Admiral Carlos Chagas Vianna Braga said on 13 March. Two Avibras (AV) LMU (Lançadora Múltipla Universal) 6×6 launch vehicles were already converted to launch the Brazilian-made MANSUP (Míssil Antinavio Nacional de Superfície) surface-to-surface anti-ship missile. A third AV-LMU vehicle would be converted to fire the naval weapon for the Marine Corps' Fleet Marine Force, Adm Carlos Chagas said during a lecture at the Naval Club in Rio de Janeiro, Brazil.

<https://www.janes.com/osint-insights/defence-news/defence/brazilian-marines-establish-coastal-defence-missile-capability#:~:text=The%20Brazilian%20Navy's%20Marine%20Corps,Braga%20said%20on%2013%20March>

Canada

As tensions rise, Canada to lean on U.S. for uranium enrichment

Matthew McClearn

World Nuclear Industry Status Report, March 17, 2025

Canada's 17 operating reactors are of the homegrown Candu design, which consume natural uranium. Canada possesses uranium in abundance and has long made its own fuel. But nearly all the reactors promoted for construction now require enriched uranium, which Canada can't produce. Proposals by Canadian utilities to build new reactors attracted American vendors, including GE-Hitachi Nuclear Energy (which is designing the BWRX-300, planned for deployment at Darlington and in Saskatchewan), Westinghouse Electric Co. and ARC Clean Technology. Until the past few months, the risks of the U.S. government weaponizing nuclear fuel against allies for political purposes seemed distant.

<https://www.worldnuclearreport.org/As-tensions-rise-Canada-to-lean-on-U-S-for-uranium-enrichment>

N. Oceania

Australia

Canada announces C\$6bn deal with Australia to develop Arctic radar missile-detection system

The Guardian, March 18, 2025

The Canadian prime minister, Mark Carney, has announced a C\$6bn deal (A\$6.6bn) with Australia to develop an Arctic radar system, warning that Canada must take more responsibility for its defence as US priorities shift. Carney made the announcement on Tuesday in Iqaluit, capital of the Nunavut territory in the Canadian Arctic, on the final leg of his first official trip as prime minister since taking over from Justin Trudeau last week. Carney – who has previously described the US under President Donald Trump as a country Canada “can no longer trust” – characterised the radar deal as part of a broader effort to assert Canadian sovereignty over the Arctic.

<https://www.theguardian.com/world/2025/mar/19/canada-australia-arctic-radar-defence-system>

Contract signed to establish Australia's first missile factory

Australian Government Defence, March 28, 2025

Defence has signed a contract with Kongsberg Defence Australia to establish Australia's first guided weapons production factory in Newcastle, NSW. This is the next step towards implementing the announcement made by the Australian Government on 22 August 2024. The world-class factory, to be built at the Newcastle Airport precinct, will manufacture and service the Naval Strike Missile and Joint Strike Missile for the ADF and international partners. Missile production at the factory is anticipated to start in 2027. Based on current schedules, the new Australian facility will be the first outside of Norway to manufacture and

maintain both the Naval Strike Missile and the Joint Strike Missile.

<https://www.defence.gov.au/news-events/releases/2025-03-28/contract-signed-establish-australias-first-missile-factory#:~:text=Missile%20production%20at%20the%20factory,and%20the%20Joint%20Strike%20Missile>.

Australia fires LRASM missile from Super Hornet

Naval News, March 21, 2025

The LRASM is now ready for operational use after the operational test, which was conducted by Royal Australian Air Force (RAAF) F/A-18F Super Hornet off the coast of California last month, and supported by the United States Navy. A total of \$895.5 million has been allocated for the acquisition of the LRASM, which will increase the RAAF's maritime strike range to more than 370 kilometres. The Albanese Government is investing \$28–35 billion over the next decade to develop and enhance targeting and long-range strike capabilities across Defence.

<https://www.navalnews.com/naval-news/2025/03/australia-fires-lrasm-missile-from-super-hornet/>

New Zealand

New Zealand test-fires Penguin anti-ship missile

Akhil Kadilal

Janes, March 17, 2025

The recent test launch of a Kongsberg Penguin 2 Mod 7 anti-ship guided missile from a New Zealand Kaman Super Seasprite SH-2G(I) helicopter was part of preparations to ensure that the aircraft could provide “force protection” for a Royal New Zealand Navy (RNZN) vessel deploying in the Arabian Sea region, the New Zealand Defence Force (NZDF) has said. The NZDF described the launch, which was conducted in the second week of February, as a “world-first” from a Seasprite helicopter. In a statement on 7 March, the NZDF said that the helicopter and crew were embarked on HMNZS Te Kaha (F77), which subsequently

deployed in the Arabian Sea in support of CTF150 (Combined Task Force 150). The task force is focused on maritime security in the Middle East region, the service added.

<https://www.janes.com/osint-insights/defence-news/defence/new-zealand-test-fires-penguin-anti-ship-missile#:~:text=The%20recent%20test%20launch%20of,Arabian%20Sea%20region%2C%20the%20New>

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