

# Nuclear, Missile & Space Digest

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A Fortnightly Newsletter from the Indian Pugwash Society

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## A. India

- After Chandrayaan-3 launch, ISRO prepares for a PSLV mission
- Space start-ups over the moon with govt's FDI push, Isro's tech transfer
- France, India expand cooperation to include SMRs
- Delivery of First MCA Barge, LSAM 7 (YARD 75) at INS Tunir, Mumbai
- ISRO: India space chief says no mystery over rocket debris on Australian beach
- Launch of Second ACTCM Barge, YARD 126 (LSAM 16) at M/s Suryadipta Projects Pvt Ltd, Thane
- Dr Jitendra Singh says nuclear power capacity set to increase from 7480 MW to 22480 MW by 2031
- Handing Over of INS Kirpan to VPN - 22 Jul 23
- NSIL schedules second commercial space mission for Singapore on 31 July
- Union Minister Dr Jitendra Singh says, highest priority is accorded to safety in all aspects of nuclear power viz. siting, design, construction, commissioning, and operation
- How India's space economy could hit \$100 billion by 2040
- Union Minister Dr Jitendra Singh says, there is adequate and sufficient insurance coverage offered for nuclear incidents in the country
- 8<sup>th</sup> India-Australia Defence Policy Talks held in Canberra
- ISRO successfully places seven Singaporean satellites into intended orbit

## B. Russia

- FSB smokes out spy giving away positions of Russian forces protecting ZNPP
- Foreign media picking up US biolabs story despite West's best efforts – top brass
- Work to replace foreign components of Russia's Luna-27 moon mission continue – scientist
- Risk of Kiev committing terrorist act on Zaporozhye NPP still high – official
- Russia has big plans on exploration of near, remote space – Putin
- ZNPP staff that question management decisions were offered to leave – official



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- Russia insisted on IAEA presence at ZNPP, Ukraine sought to prevent it – Rosenergoatom
- Cosmonauts prepare to undock Progress MS-22 space freighter from ISS
- Russia's Roscosmos hoping to share its expertise with BRICS partners
- Russia proposes joint research module on space station for BRICS members – Roscosmos CEO
- Russia can decide about measures to protect ZNPP on its own – diplomat
- Space station's orbit raised by 790 meters ahead of Soyuz spacecraft launch
- Roscosmos to boost cooperation with African countries
- RKK Energia sends Russian Orbital Station preliminary design for examination – CEO
- Russia celebrates Navy Day with massive naval parade on Neva River
- Soyuz-5 launch vehicle to be ready for start by 2025 year-end – senior executive

### C. China

- Pakistan's Chashma Nuclear Power Plant imports one more Hualong-One generator from China
- Why China is opposed to the release of treated water in Fukushima
- China-Pakistan nuclear cooperation marks a milestone
- PLA Rocket Force explodes in capability, but China refuses to explain why
- Taiwan says looking to buy NASAMS air defence system from US
- Chinese envoy opposes use of AI to seek military hegemony at UN's first-ever debate on AI
- Technology remains core battle with Beijing
- China is serious about winning the new space race
- China's total known uranium resources increase by one-third in past decade: report
- China studies nuclear risk in the context of the Ukraine war
- China's CH UAV develops new-type loitering munition with super-long-range
- PLA rolls out longer-range missiles near Taiwan: military experts
- China successfully tests high-thrust engine for moon landing
- Taiwan air raid drills simulate response to China missile attacks
- Contracts inked for nuclear tech expansion in Shandong
- Chinese, Russian warships continue exercises in Sea of Japan; North Korea resumes missile launches
- China's nuclear weapons build-up and its implications for Northeast Asian security
- China's first commercial spacecraft launch site in Hainan to commence normalized launch missions in 2024
- Discerning the drivers of China's nuclear force development: models, indicators, and data
- FAST makes new discovery of black hole phenomenon, opens up new avenues for observing and studying black hole emissions
- Thailand launches first experimental tokamak device in collaboration with China
- Implications of China's nuclear expansion for strategic stability
- New nuclear technology sees vast export potential
- China employs 'nuclear cabbage' strategy for dominance in South China Sea
- Xi appoints new chief of China's nuclear arsenal
- China ousts top generals from nuclear Rocket Force

### D. Pakistan

- Pakistan / Construction Begins Of China-Supplied Hualong One Nuclear Plant At Chasnupp

## E. Europe

- Slovakia's JAVYS signs AP1000 and AP300 MoUs
- UK government bets on small-scale nuclear
- UK / Government Announces £157 Million In Grants And SMR Competition As Part Of 'Massive Revival' Of Nuclear Industry
- Sweden / SMR Project Company Announces •2 Million 'Breakthrough' Investment
- Advanced Reactors / Agreement Could Lead To Seaborg Nuclear Plants In Norway
- European official: EU likely to keep missile sanctions on Iran
- Why EU sanctions don't include Russian nuclear industry
- Czechia to build first small modular reactor by 2032
- France's EDF updates Rhone river reactor warning, set to restart Cattenom
- From AI to nuclear: the technologies driving UK space exploration
- Ultra Safe gets USD29 million UK grant
- Nuward / French SMR Company Submits Safety File To Nuclear Regulator
- IAEA Mission Says Lithuania's Siting Plans for Deep Geological Disposal for Radioactive Waste are Safe, Sees Areas for Improvement
- Bulgaria / Regulator Begins Licensing Process For Westinghouse Nuclear Fuel At Kozloduy-5

## F. Belarus

- CSTO drills in Belarus to focus on dealing with aftermath of nuclear facility accident

## G. Ukraine

- Update 174 - IAEA Director General Statement on Situation in Ukraine
- Update 175 - IAEA Director General Statement on Situation in Ukraine
- Update 176 - IAEA Director General Statement on Situation in Ukraine

## H. United States of America

- US Remains Concerned North Korea Will Conduct Another Missile Test
- US ignores Iran's active nuclear weapons activities by using 'defective' definition: Expert
- US falling behind China in tech advancements, Govini report finds
- US to send additional jets, warship to Middle East
- First US nuclear sub docks in South Korea since 1981
- US, South Korea Kick Off Nuclear Consultative Group in Seoul
- America's forgotten nuclear migration: The Marshallese displaced by US bomb testing face new challenges
- Multiple Xe-100 SMRs planned for Washington State
- Blinken on reviving Iran nuclear deal: 'We're now in a place where we're not talking about a nuclear agreement'
- NASA's Houston-based mission control briefly lost communication with ISS
- Blinken Says Door Open for New Zealand 'to Engage' in AUKUS Pact
- US proposal for talks with Russia on keeping nuclear arms curbs in limbo
- First U.S. nuclear reactor built from scratch in decades enters commercial operation in Georgia
- US Senate votes to 'onshore' nuclear fuel production
- The United States Reaffirms Commitment to the Treaty on the Non-Proliferation of Nuclear Weapons

## I. South America

- Venezuela joins Russian-Chinese lunar station project

## West Asia

### J. Iran

- IRGC Chief: Iran-Pakistan Cooperation to Eradicate Terrorism
- US Sending More Planes, Ships To Mideast To Counter Iran
- Iran Downplays US Deployment of Navy Destroyer, More Warplanes in West Asia
- Iranian, Bolivian ministers ink defense MOU
- AEOI Chief: Iran to Run 6 More Uranium Mines
- Iran's Su-24, F-4 Jets Annihilate Mock-Up Targets During Massive Drills
- Iran naval forces receive dozens of cruise missiles
- IRGC Commander: Iran's AI-Powered Cruise Missile Game-Changer in Confronting US Aircraft Carrier
- Iran-Russia Fighter Jet Deal Far Might Not Materialize, Reports Say
- Nuclear Chief: Iran-IAEA Interaction Constant, Sustainable
- Airborne Commander: Iranian Air Force Equipping with Modern, State-of-Art Equipment

### K. Israel

- IAI Signs Cooperation Agreement with German Missile Systems Company MBDA
- UK to Integrate Rafael's Trophy Active Protection System into Challenger 3 Tanks
- Italian Army Signs Spike Missile Deal
- Elbit Awarded \$150 Million Contract to Supply PULS Rocket Artillery Systems to Int'l Customer
- Plasan Secures Major US Deal
- Elbit opens UK R&D, manufacturing facility
- Israel Receives Three New F-35 Fighter Jets
- Israeli-German Cooperation to Supply Hungary with Hero Loitering Munitions
- Aeronautics Integrates CRFS' RF Technology into Aerostar UAV
- Rafael Systems' Subsidiary to Supply Ukraine With 80 Heidrun Reconnaissance Drones
- India to Purchase Software-Defined Radios for Tanks Based on Elbit's Technology
- Cyber Cooperation in the Middle East: a Way to Counter the Iranian Threat?
- Thales Acquires Cybersecurity Company Imperva, Established in Israel
- Major Deal for Israeli Defense Industry: Redback Chosen as Australian Army's Future APC
- IAI's DS-SAR Satellite Successfully Launched, Enters Orbit
- Elbit Awarded \$60 Million Contract to Supply Artillery Shells to the Israel MoD

### L. Saudi Arabia

- Saudi Arabia buys Turkish drones during Erdogan's visit
- Saudi Arabia to showcase defense, security capabilities and technologies at Istanbul military fair

## M. Qatar

- After Qatar talks, France sees chance to develop defence partnership
- Qatar Interested in Additional Rafale Fighter Jets

## N. Turkey

- Kosovo buys batch of famed Turkish Bayraktar TB2 drones
- 'National technologies, local production vital to Turkish defense industry'
- The Netherlands lifts some defense industry restrictions on Türkiye
- Türkiye's 1st long-range early warning radar to enter inventory soon
- Turkish army adds domestic unmanned ground vehicle Barkan to inventory
- Following Saudi drone deal, Turkey's Erdogan targets \$6B in defense sales
- Türkiye inks defense, military cooperation deals with Kenya, Tajikistan
- Türkiye to modernize F-16 aircraft by 2025
- Pakistani official eyes cooperation with Türkiye on UAVs, advanced fighters
- Major international fair IDEF sees several defense deals
- Türkiye's homegrown fighter jet KAAN to take wing in December
- Azerbaijan's Su-25 jet passes 1st test flight after Turkish upgrade
- Turkey's Indigenous Fighter Jet to Take to the Skies 5 Years Earlier than Expected
- Ukraine inks deal with Türkiye's Baykar on drones repair

## O. United Arab Emirates

- Türkiye, UAE sign 13 deals worth \$50.7B
- UAE launches nuclear educational courses
- Emirati company, Turkish defense cluster sign deal

## P. East Asia

- North Korea's Kim Yo Jong Warns US Against 'Foolish Act' That Risks Security
- Beijing tells NATO to stay out of East Asia
- US, South Korean officials huddle for new nuclear war planning talks
- US Nuclear Submarine Visits South Korea in Show of Force
- S. Korean nuclear envoy heads to Japan for trilateral talks on N.K. threats
- South Korea sends a warning to Pyongyang as nuclear-capable US sub visits the country
- North Korea makes nuclear threat over US sub in South Korea
- Top nuclear envoys of S. Korea, U.S., Japan denounce N. Korea's latest missile test
- North Korea fires 'several' cruise missiles into sea, South says, amid soaring tensions
- Thailand debuts first tokamak with help of Chinese scientists in milestone for Southeast Asia's clean energy research

## Q. Australia

- Supporting US military against China could draw Australia into nuclear war, expert warns
- Australia says nuclear isn't part of its energy mix. Here's why
- Australian Prime Minister Confident US Will Deliver Nuclear-Powered Submarines



## A. India

### After Chandrayaan-3 launch, ISRO prepares for a PSLV mission

*The Hindu, July 16, 2023*

PSLV-C56, a commercial mission that will have seven satellites as payloads, scheduled to lift off from Sriharikota on July 26. ISRO has used the PSLV-Core Alone variant for several missions including the latest, the PSLV-C55 mission, which was launched successfully on April 22, 2023. A commercial mission, the PSLV-C56 will have seven payloads in all including the 351.9 kg earth observation satellite DS-SAR (short for Synthetic Aperture Radar) from Singapore. The others are Arcade (23.58 kg), Velox-AM (23 kg) and Orb-12 Strider (12.8 kg). The remaining three are nanosatellites weighing less than 10 kg each. They are the Galassia-2 (3.84 kg), SCOOB-II (4.1 kg) and NuLion (3.05 kg), according to a list provided by the VSSC. These satellites will be placed in a Low Earth Orbit (LEO).

<https://www.thehindu.com/sci-tech/after-chandrayaan-3-launch-isro-prepares-for-a-pslv-mission/article67087333.ece>

### Space start-ups over the moon with govt's FDI push, Isro's tech transfer

*Business Standard, July 16, 2023*

If successful, the Chandrayaan-3 mission may well boost the space start-up sector in India, which has seen the number of players increasing from a mere 21 in 2020 to 146 now, say industry experts.

The government plans to give it a further boost by increasing the scope of foreign direct investment (FDI) in the sector, while the Indian Space Research Organisation (Isro) is aggressively increasing the pace of technology transfer to the private sector.

[https://www.business-standard.com/india-news/pvt-sector-in-space-govt-adds-steam-to-fdi-talks-transfer-of-technology-123071600394\\_1.html](https://www.business-standard.com/india-news/pvt-sector-in-space-govt-adds-steam-to-fdi-talks-transfer-of-technology-123071600394_1.html)

### France, India expand cooperation to include SMRs

*World Nuclear News, July 17, 2023*

France and India are to launch a cooperation programme on small modular reactors and advanced modular reactors. The announcement came after a meeting in Paris between Indian Prime Minister Narendra Modi and President of France Emmanuel Macron, during which they noted progress made on the six-EPR power plant project in Jaitapur, India. At the invitation of Macron, Modi concluded an historical visit as the Guest of Honour at the National Day of the French Republic on the occasion of the 25th anniversary of the India-France Strategic Partnership.

<https://world-nuclear-news.org/Articles/France,-India-expand-cooperation-to-include-SMRs>

### Delivery of First MCA Barge, LSAM 7 (YARD 75) at INS Tunir, Mumbai

*PIB, July 18, 2023*

Contract for construction of 08 x Missile Cum Ammunition (MCA) Barge was concluded with M/s SECON Engineering Projects Pvt Ltd, Visakhapatnam, a MSME, in consonance with "Aatmanirbhar Bharat" initiatives of the Government of India. First Barge of the series LSAM 7 (Yard 75) has been delivered to Indian Navy on 18 Jul 23 in presence of Cmde Iftekhar Alam, Commanding Officer, INS Tunir. The Barge has been built under the classification rules of Indian Register of Shipping (IRS) with a service life of 30 years. With all major/ auxiliary equipment sourced from indigenous manufacturers, the Barge is proud flag bearer of "Make in India" initiative of Ministry of Defence.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1940552>

## **ISRO: India space chief says no mystery over rocket debris on Australian beach**

*BBC News, July 18, 2023*

India's space chief says a giant metal dome that washed up on an Australian beach was definitely part of a rocket - but may or may not be Indian. "We can't confirm it's ours unless we analyse it," S Somanath told the BBC. There has been wild speculation about the object ever since it was discovered at Green Head beach, about 250km (155 miles) north of Perth, at the weekend. Some even said it may be from India's latest Moon mission launch last Friday but experts quickly ruled that out.

The cylindrical object, about 2.5m wide and between 2.5m and 3m long, has generated a lot of excitement among the residents of Green Head beach. It was initially speculated that the wreckage could be a part of MH370 - a plane that went missing off the west Australian coast in 2014 with 239 passengers on board.

<https://www.bbc.com/news/world-asia-india-66234420>

## **Launch of Second ACTCM Barge, YARD 126 (LSAM 16) at M/s Suryadipta Projects Pvt Ltd, Thane**

*PIB, July 19, 2023*

Ammunition Cum Torpedo Cum Missile (ACTCM) Barge, Yard 126 (LSAM 16) was launched by Cmde Sunil Kaushik, Warship Production Superintendent (Mumbai) on 19 Jul 23 at M/s Suryadipta Projects Pvt Ltd, Thane. With all major and auxiliary equipment/ systems sourced from indigenous manufacturers, this Barge is proud flag bearer of "Make in India" initiative of Ministry of Defence. Contract for construction of 11 x ACTCM Barge was concluded with M/s Suryadipta Projects Pvt Ltd, Thane, a MSME, in consonance with "Aatmanirbhar Bharat" initiatives of the Government of India. This Barge is being built with a service life of 30 years. The availability of ACTCM Barges will provide impetus to Operational commitments of IN by facilitating Transportation,

Embarkation and Disembarkation of articles / ammunition to IN Ships both alongside jetties and at outer harbours.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1940915>

## **Dr Jitendra Singh says nuclear power capacity set to increase from 7480 MW to 22480 MW by 2031**

*PIB, July 20, 2023*

Union Minister of State (Independent Charge) Science & Technology; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh today said the present installed nuclear power capacity in the country is 7480 MW comprising of 23 nuclear power reactors. Stating this in a written reply in the Rajya Sabha, Dr Jitendra Singh said nuclear power reactors generated 46982 Million Units of electricity (including infirm generation) in the year 2022-23. Dr Jitendra Singh said the share of nuclear power in the total electricity generation in the country was about 2.8% in the year 2022-23. The details are given in annexure. The present installed nuclear power capacity is set to increase from 7480 MW to 22480 MW by 2031 on progressive completion of projects under construction and accorded sanction.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1941010>

## **Handing Over of INS Kirpan to VPN - 22 Jul 23**

*PIB, July 22, 2023*

"Today's handing-over ceremony symbolises the deep-rooted friendship and strategic partnership between India and Vietnam. What makes this occasion even more significant is the fact that this is the first-ever occasion that India is offering a fully-operational Corvette to any Friendly Foreign Country" - Adm R Hari Kumar, CNS. On completing 32 years of illustrious service to the nation, Indian Naval Ship Kirpan has been Decommissioned from the Indian Navy and Handed Over to Vietnam People's

Navy (VPN) today at Cam Ranh, Vietnam. The Decommissioning and Handing Over Ceremony of INS *Kirpan* to VPN was presided over by Adm R Hari Kumar, Chief of Naval Staff, Indian Navy and Rear Adm Pham Manh Hung, Deputy Commander-in-Chief and Chief of Staff, VPN.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1941807>

## **NSIL schedules second commercial space mission for Singapore on 31 July**

*Mint, July 24, 2023*

NewSpace India Ltd (NSIL), the commercial space missions arm of the Indian Space Research Organization (Isro), on Monday announced the second consecutive commercial space mission, scheduled to take-off aboard Isro's trusted rocket Polar Satellite Launch Vehicle (PSLV) on 31 July.

The mission, numbered PSLV-C56, will deploy one primary and six additional satellites as part of the mission's entire payload.

The primary payload for the mission is the Singapore government's Defence Science and Technology Agency (DSTA)'s DS-SAR satellite, which will be used by Singapore government agencies for satellite imaging applications.

<https://www.livemint.com/technology/tech-news/nsil-schedules-second-commercial-space-mission-for-singapore-on-31-july-11690199894343.html>

## **Union Minister Dr Jitendra Singh says, highest priority is accorded to safety in all aspects of nuclear power viz. siting, design, construction, commissioning, and operation**

*PIB, July 26, 2023*

Union Minister of State (Independent Charge) Science & Technology; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh today said, highest priority is accorded to

safety in all aspects of nuclear power viz. siting, design, construction, commissioning, and operation.

In a written reply to a question in the Lok Sabha, Dr Jitendra Singh said, nuclear power plants are designed adopting safety principles of redundancy, diversity and provide fail-safe design features following a defence-in-depth approach. This ensures that there are multiple barriers between the source of radioactivity and the environment, he added.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1942861>

## **How India's space economy could hit \$100 billion by 2040**

*Forbes, July 26, 2023*

The global space industry is undergoing an important shift, from the traditional government-led programmes to a mix of actors, led more by private companies, a new report on the sector by Arthur D Little (ADL), a multinational management consultancy, notes. The nascent spacetech startup landscape in India, helped by the country's liberalised space economy rules and supported by Isro, is an example of this shift. And, with the right initiatives, India could tap this shift to go from a \$8 billion space economy to \$100 billion by 2040, according to ADL's report, titled 'India in Space: A \$100 billion Industry by 2040', released today.

<https://www.forbesindia.com/article/news/how-indias-space-economy-could-hit-100-billion-by-2040/87001/1>

## **Union Minister Dr Jitendra Singh says, there is adequate and sufficient insurance coverage offered for nuclear incidents in the country**

*PIB, July 26, 2023*

Union Minister of State (Independent Charge) Science & Technology; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra



Singh today said, there is adequate and sufficient insurance coverage offered for nuclear incidents in the country.

In a written reply to a question in the Lok Sabha, Dr Jitendra Singh said, India has enacted Civil Liability for Nuclear Damage (CLND) Act 2010 to provide for civil liability for nuclear damage and prompt compensation to the victims of a nuclear incident through a no-fault liability regime channelling liability to the operator. Under the Act, the operator has to maintain insurance or financial securities or a combination of both, for covering his liability in respect of the nuclear incident. The Act also limits the liability of the nuclear operator for each nuclear incident.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1942866>

### 8<sup>th</sup> India-Australia Defence Policy Talks held in Canberra

*PIB, July 26, 2023*

The 8<sup>th</sup> India-Australia Defence Policy Talks (DPT) was held at Canberra in Australia on 24-25 July 2023. The Defence policy talks were co-chaired by Special Secretary in Ministry of Defence Smt. Nivedita Shukla Verma, and Acting Deputy Secretary in Department of Defence, Australia Mr Steven Moore.

During the Defence Policy talks, both sides reviewed the bilateral defence cooperation between the two countries and explored new initiatives to further strengthen and deepen bilateral defence engagements. The discussions also focused on identifying ways to strengthen partnership in co-development and co-production of defence equipment. Both sides reaffirmed their commitment to fully implement the Comprehensive Strategic Partnership based on mutual trust and understanding, common interests and shared values of democracy and rule of law. The Indian side highlighted the potential of the Indian defence industry with capacity and capability to cooperate with Australian Armed forces in its shipbuilding and maintenance plans.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1942826>

### ISRO successfully places seven Singaporean satellites into intended orbit

*Indian Express, July 31, 2023*

A tracking image of PSLV-C56 shared by ISRO on their official Twitter handle.

Listen to this article

ISRO successfully launched its proven PSLV rocket carrying seven Singaporean satellites Sunday from Satish Dhawan Space Centre in Sriharikota, Andhra Pradesh and placed them into intended orbits. Around 23 minutes after lift-off, the primary satellite got separated and it was followed by six other co-passenger satellites, which were deployed into the intended orbits sequentially, ISRO said. On the successful launch and separation of the satellites, ISRO posted on Twitter, "PSLV-C56/DS-SAR Mission: The mission is successfully accomplished. PSLV-C56 vehicle launched all seven satellites precisely into their intended orbits. Thanks to @NSIL\_India and Singapore, for the contract."

<https://indianexpress.com/article/technology/science/isro-seven-singapore-satellites-orbit-nsil-chandrayaan-3-8867297/>

### B. Russia

#### FSB smokes out spy giving away positions of Russian forces protecting ZNPP

*TASS, July 18, 2023*

Officers of the Russian Federal Security Service (FSB) Directorate in the Zaporozhye Region have thwarted the activity of a local resident in Energodar, who was transmitting the coordinates of positions of the Russian military protecting the Zaporozhye Nuclear Power Plant (ZNPP), the directorate's press service told journalists on Tuesday.

"The directorate's officers identified a resident of Energodar who was giving away the coordinates of the positions of the Russian military protecting the Zaporozhye nuclear power plant," the

press service said. “The malefactor sent the received information to his relative serving in an artillery unit of the Ukrainian Defense Ministry, operating in the Zaporozhye area.

<https://tass.com/defense/1648563>

### **Foreign media picking up US biolabs story despite West’s best efforts – top brass**

*TASS, July 18, 2023*

Information about US biolaboratories in Ukraine has reached foreign media despite Western countries’ censorship, Lieutenant General Igor Kirillov, head of the Russian military’s Radiation, Chemical and Biological Defense Forces, said on Tuesday.

“The information that we publish has been heard by foreign media despite strict Western censorship,” he told a briefing analyzing documents related to US military biological activities. According to Kirillov, such media outlets as The Times, The Guardian, the New York Post and the Sky News TV channel have all published information on this issue. .

<https://tass.com/defense/1648595>

### **Work to replace foreign components of Russia’s Luna-27 moon mission continue – scientist**

*TASS, July 19, 2023*

The effort to replace a number of foreign-made components of Russia’s the Luna-27 robotic mission to the Moon with domestically-made equivalents is “in full swing,” a prominent Russian scientist has told TASS. “We had to re-design several pieces of equipment, because earlier designs included the use of foreign-made components. We are now in the process of replacing them with domestically made equivalents,” said Igor Mitrofanov, who heads the Nuclear Planetology Department at the Space Research Institute (IKI) of the Russian Academy of Sciences.

The work is “in full swing,” he added.

<https://tass.com/science/1648797>

### **Risk of Kiev committing terrorist act on Zaporozhye NPP still high – official**

*TASS, July 19, 2023*

The probability of a Ukrainian terrorist attack targeting the Zaporozhye Nuclear Power Plant (NPP) remains high, Renat Karchaa, advisor to the CEO of Russia’s Rosenergoatom nuclear power plant operator, opined on Wednesday.

“I might stop at a 7 (on a danger scale from 1 to 10 - TASS). The danger is high indeed. I regret to repeat that our main enemy is not even the Ukrainian regime, as they [the Ukrainian authorities] are not independent. It is hard to guess what the forces located thousands of kilometers away from this place would decide for them. These forces have believed in their impunity and invincibility. <...> Therefore, the probability remains high,” he said on Channel One.

<https://tass.com/defense/1649181>

### **Russia has big plans on exploration of near, remote space – Putin**

*TASS, July 19, 2023*

Russia makes big plans on exploration of space, both its near and remote parts, Russian President Vladimir Putin said Tuesday.

“We have big plans on both near space and remote space. There are things to work on, to deal with,” he noted.

The head of state pointed out that space exploration is important both for Russia and the entire mankind.

<https://tass.com/science/1649117>

### **ZNPP staff that question management decisions were offered to leave – official**

*TASS, July 20, 2023*

The staff of the Zaporozhye nuclear power plant, who question the decisions of the company’s management due to the differences between Russian and

Ukrainian nuclear industry legislation, are free to leave the region and work at Ukrainian plants, Renat Karchaa, an adviser to the general director of Rosenergoatom, told TASS on Thursday.

The Ukrainian company Energoatom, which used to operate the plant, said earlier that 30 employees of the plant allegedly refused to restart ZNPP's fourth reactor, citing Ukrainian regulations.

"If they value the Ukrainian regulator's license so much, no one is holding them back," Karchaa said. "Let them go to any nuclear plant in Ukraine with this license and let them continue working there."

<https://tass.com/defense/1649723>

### **Russia insisted on IAEA presence at ZNPP, Ukraine sought to prevent it – Rosenergoatom**

*TASS, July 21, 2023*

The permanent presence of the International Atomic Energy Agency (IAEA) mission at the Zaporozhye Nuclear Power Plant (ZNPP) is a credit to Russia's persistence in the face of Ukrainian opposition, Renat Karchaa, an adviser to the director general of Russia's Rosenergoatom nuclear power engineering company, said on Friday.

"It should be borne in mind that it was us who insisted on the presence of an IAEA mission there. Ukraine had nothing to do with this. Moreover, they actively sought to prevent it. Thus, on the night before [IAEA Secretary General Rafael] Grossi's first visit there, they created total chaos, bombing the entire city: residential quarters and schools. To intimidate Grossi," he said in an interview with Russia's TV Channel One.

<https://tass.com/defense/1650337>

### **Cosmonauts prepare to undock Progress MS-22 space freighter from ISS**

*TASS, July 21, 2023*

Russian crew members of the International Space Station (ISS) have begun preparations to undock the Progress MS-22 cargo

spacecraft, TASS special correspondent onboard the ISS, cosmonaut Dmitry Petelin, said on Friday.

The undocking is expected to take place in the second half of August.

Among other things, cosmonauts will have to load the outgoing cargo into the space freighter.

Progress MS-22 docked with the ISS on February 11. The craft has already steered the ISS clear of space debris on two occasions (on March 6 and March 11) and has also performed six scheduled adjustments of its orbit (on February 20, March 8, April 30, May 18, June 16 and July 5).

<https://tass.com/science/1649815>

### **Russia's Roscosmos hoping to share its expertise with BRICS partners**

*TASS, July 24, 2023*

Russia has offered to educate its BRICS partners, or Brazil, India, China, and South Africa, in the area of space science, CEO of Russia's state space corporation Roscosmos Yury Borisov said on Monday.

"We are offering our partners a program of additional professional education in the area of space science at Russia's leading universities with Roscosmos' assistance," he said at a meeting of the BRICS space cooperation committee.

According to Borisov, BRICS countries have a common goal of creating equal opportunities for developing and ensuring their sovereignty in conditions of the present-day digital economy as well as a common educational and scientific space.

<https://tass.com/science/1651075>

### **Russia proposes joint research module on space station for BRICS members – Roscosmos CEO**

*TASS, July 24, 2023*

Russia has proposed creating a dedicated specialized module for the Russian Orbital Station (ROS) to allow BRICS countries to

conduct scientific research, Yury Borisov, CEO of Russian state space corporation Roscosmos, said on Monday.

“I would like to propose that our partners in BRICS consider the opportunity to take part in this project and create a full-fledged module through joint efforts, which would enable BRICS countries, as part of the ROS project, to use the opportunity offered by [the ROS’] low near-Earth orbit to carry out their respective national space programs,” Borisov said.

The ROS would be the next step in developing piloted spacecraft, he added.

<https://tass.com/science/1651097>

### **Russia can decide about measures to protect ZNPP on its own – diplomat**

*TASS, July 26, 2023*

Russia has the right to take measures to protect the Zaporozhye Nuclear Power Plant (ZNPP) depending on its own estimate of the scope of threats to the facility, Russian Deputy Permanent Representative to the Vienna-based international organizations Roman Ustinov told TASS on Tuesday.

Being a signatory to the Convention on the Physical Protection of Nuclear Material (CPPNM), Russia can assess threats on its own.

“The current situation around the plant, which is located on the combat engagement line with the permanent risks of seizure attempts by Ukrainian troops, requires relevant measures of ensuring its security. In this context, our decision to use additional means of protection such as mines is quite justified.

<https://tass.com/russia/1651949>

### **Space station’s orbit raised by 790 meters ahead of Soyuz spacecraft launch**

*TASS, July 27, 2023*

The orbit of the International Space Station (ISS) was adjusted to create ballistic

conditions for the launch of the Soyuz MS-24 spacecraft and the return of the Soyuz MS-23 spaceship to Earth, Russia’s State Space Corporation Roscosmos announced on Thursday.

“Today the orbit of the International Space Station was adjusted to provide for the launch of the Soyuz MS-24 manned spacecraft and the landing of the Soyuz MS-23,” the federal space agency said in a statement.

The launch of the Soyuz MS-24 spacecraft is scheduled for September 15, Roscosmos said.

<https://tass.com/science/1653077>

### **Roscosmos to boost cooperation with African countries**

*TASS, July 28, 2023*

Russia and a number of African countries have agreed to boost cooperation in the space domain, Russian state-run space corporation Roscosmos said on the sidelines of the Russia-Africa summit.

“Russia and a number of countries of the African continent have agreed to boost cooperation in the space domain. As part of Roscosmos delegation’s work during the Russia-Africa second summit and economic and humanitarian forum in St. Petersburg on July 27, the corporation’s top management held bilateral meetings with officials from various ministries and agencies of Egypt, Zimbabwe, Uganda, South Africa and Djibouti,” the state corporation said.

<https://tass.com/science/1653189>

### **RKK Energia sends Russian Orbital Station preliminary design for examination – CEO**

*TASS, July 29, 2023*

The Energia Rocket and Space Corporation sent the preliminary design of the upcoming Russian Orbital Station (ROS) for examination in Roscosmos’ Head Research and Development Organization



(GNIO), Roscosmos CEO Yury Borisov said on the sidelines of the Russia-Africa Summit.

“RKK Energia sent the ROS preliminary design to Roscosmos’ GNIO, it is currently being examined,” Borisov said, answering a question.

According to the official, the preliminary design will be presented and reviewed in August.

<https://tass.com/science/1653953>

### **Russia celebrates Navy Day with massive naval parade on Neva River**

*TASS, July 30, 2023*

A massive naval parade involving cutting-edge combat ships, gunboats and submarines took place on the Neva River in St. Petersburg to celebrate Russia’s Navy Day.

Russian President, Supreme Commander-in-Chief Vladimir Putin reviewed the Main Naval Parade on the Neva River in St. Petersburg. The Russian leader traditionally reviews the naval parade that takes place on Russia’s Navy Day on the Neva River and makes the rounds along the parade formation of combat ships in the Kronshadt roadstead aboard a presidential review boat. Upon opening the event, he delivers his congratulations to the sailors of the Russian Navy.

<https://tass.com/defense/1654355>

### **Soyuz-5 launch vehicle to be ready for start by 2025 year-end – senior executive**

*TASS, July 30, 2023*

The Soyuz-5 perspective launch vehicle will be ready for a start from the Baikonur launch site in late 2025, deputy CEO of the Progress Space Rocket Center Daniil Subbotin told TASS on the sidelines of the Russia-Africa summit.

“The Soyuz-5 rocket is our present. It is being produced for the Baiterek joint Russian-Kazakh projects. Trials of launch vehicle components are currently

underway. It will be ready for launching from the Baikonur launch site in late 2025,” Subbotin said.

<https://tass.com/science/1654305>

### **C. China**

### **Pakistan’s Chashma Nuclear Power Plant imports one more Hualong-One generator from China**

*Global Times, July 16, 2023*

The groundbreaking ceremony for the Unit 5 of the Chashma Nuclear Power Plant in Pakistan was held on Friday, the third one-million-kilowatt-class unit of Hualong-One, China’s domestically developed third-generation nuclear power generator, exported from China to Pakistan. It marks China’s 7th nuclear power generator exported to Pakistan, another milestone in nuclear energy cooperation between the two countries, the China National Nuclear Corporation (CNNC), the builder of the Hualong One, announced.

<https://www.globaltimes.cn/page/202307/1294451.shtml>

### **Why China is opposed to the release of treated water in Fukushima**

*The Japan Times, July 16, 2023*

Ahead of the planned release of treated radioactive water from the Fukushima nuclear power plant, Hong Kong and mainland China – Japan’s top two seafood export destinations – are saying no to once-sought-after food products from Japan. “As a preventive measure, once Japan discharges the wastewater into the sea, the Hong Kong city government will immediately ban all aquatic products from 10 prefectures in Japan,” the Hong Kong government said.

<https://www.japantimes.co.jp/news/2023/07/16/national/china-japan-fukushima-water-release-explainer/>

## China-Pakistan nuclear cooperation marks a milestone

Zheng Xin

*China Daily, July 17, 2023*

The construction of Chashma Nuclear Power Plant Unit 5 in Pakistan marks another milestone in nuclear energy cooperation between China and Pakistan, while further enhancing the influence of China's nuclear power technology worldwide, said its operator China National Nuclear Corporation. The construction of the C-5 project will further enhance Pakistan's energy security, help promote Pakistan's economic development, and improve the well-being of local people, said the CNNC.

<https://global.chinadaily.com.cn/a/202307/17/WS64b4d2d4a31035260b816d18.html>

## PLA Rocket Force explodes in capability, but China refuses to explain why

ANI, July 18, 2023

It is worrying when a military increases its Intercontinental Ballistic Missile (ICBM) launchers fivefold. China has done exactly this, but Beijing has never explained the reasons for this blunder. The People's Liberation Army (PLA) is a secret organization, but the Missile Force takes the confusion to a whole new level. However, a researcher in the United States has shed much-needed light on the PLA Rocket Force (PLA RF), which is responsible for China's conventional and nuclear-tipped missile inventory. In total, the PLA RF has 41 combat missile brigades, many of which were created only in the last decade.

<https://www.aninews.in/news/world/asia/pla-rocket-force-explodes-in-capability-but-china-refuses-to-explain-why20230718085922/>

## Taiwan says looking to buy NASAMS air defence system from US

*The Economic Times, July 18, 2023*

Taiwan is looking to buy National Advanced Surface-to-Air Missile Systems, or

NASAMS, from the United States to upgrade its air defence capabilities having seen how well they work in Ukraine, the island's defence minister said. China, which claims Taiwan as its own territory, has stepped up military and political pressure over the past three years to try to force the democratically governed island to accept Beijing's rule.

<https://economictimes.indiatimes.com/news/defence/taiwan-says-looking-to-buy-nasams-air-defence-system-from-usa/articleshow/101852378.cms?from=mdr>

## Chinese envoy opposes use of AI to seek military hegemony at UN's first-ever debate on AI

*Global Times, July 19, 2023*

The UN Security Council met for the first time on artificial intelligence (AI) risks, with the UN secretary-general warning of "deeply alarming" risks concerning the interaction between AI and nuclear weapons, and the Chinese envoy clearly opposed to the use of AI as a means to seek military hegemony. Addressing the meeting, Zhang Jun, China's permanent representative to the UN, urged all countries to uphold a responsible defense policy, oppose the use of AI to seek military hegemony or to undermine the sovereignty and territorial integrity of other countries, and avoid the abuse, unintentional misuse or intentional misuse of AI weapon systems.

<https://www.globaltimes.cn/page/202307/1294710.shtml>

## Technology remains core battle with Beijing

Demetri Sevastopulo

*Financial Times, July 19, 2023*

China's test of a hypersonic weapon that circumnavigated the globe, in 2021, provided a startling reminder that the country has become a formidable military rival to the US even faster than expected. Pentagon experts were stunned that Chinese scientists had overcome

constraints posed by the laws of physics in developing a missile that was able to fire another projectile as it flew at hypersonic speed.

<https://www.ft.com/content/68f78a57-c2f4-4382-bbdd-39131630b236>

### **China is serious about winning the new space race**

*David Ignatius*

*The Washington Post, July 20, 2023*

Of all the potential threats that China poses to the United States, the most worrisome for me is future domination of space. Quietly but persistently, the Chinese are developing an arsenal of weapons to challenge America – the nation that landed the first man on the moon – for preeminence in this domain. The Chinese tested the first anti-satellite weapon in 2007, which left a field of thousands of pieces of debris that still endanger other satellites. Since then, they have tested satellites that can snatch other craft and carry them to a distant orbit known as the “graveyard zone.”

<https://www.washingtonpost.com/opinions/2023/07/20/china-united-states-space-competition/>

### **China’s total known uranium resources increase by one-third in past decade: report**

*Chu Daye and Fan Wei*

*Global Times, July 21, 2023*

China has added one-third of its total known uranium resources, accumulated in the past 68 years, during extensive survey and exploration work during the past 10 years, while 70 percent of the newly discovered resources are fine, extractable resources, according to an industry report published by the China Nuclear Geology, a subsidiary of Chinese nuclear giant China National Nuclear Corporation (CNNC).

<https://www.globaltimes.cn/page/202307/1294827.shtml>

### **China studies nuclear risk in the context of the Ukraine war**

*Lyle Goldstein and Nathan Waechter*

*The Diplomat, July 21, 2023*

In shaping patterns of future warfare, there is little doubt that militaries across the world will be seeking to absorb the key lessons of the Russia-Ukraine War, ranging from the employment of tanks to the use of anti-ship cruise missiles and the ubiquitous drones. For the Chinese military, these lessons might even assume a greater importance, since the People’s Liberation Army (PLA) both lacks major, recent combat experience, and has also leaned heavily on Russian weapons and doctrine for its rapid modernization over the last few decades.

<https://thediplomat.com/2023/07/china-studies-nuclear-risk-in-the-context-of-the-ukraine-war/>

### **China’s CH UAV develops new-type loitering munition with super-long-range**

*Liu Xuanzun*

*Global Times, July 21, 2023*

China’s CH UAV company announced recently that it is developing a new type of super-long-range loitering munition which delivers a number of new functions. Aerospace CH UAV Co Ltd is developing a type of loitering munition product based on AR air-to-ground missile series technology, the Global Times learned from the company.

It can carry out missions including communications relay on the battlefield, radar disturbance and suppression, precision strikes against time-sensitive targets as well as battle damage evaluation.

<https://www.globaltimes.cn/page/202307/1294826.shtml>

## PLA rolls out longer-range missiles near Taiwan: military experts

Jack Lau

*South China Morning Post, July 23, 2023*

The Chinese military has expanded its missile force over the past decade and rolled out modern missiles allowing it to target Taiwan and its allies in the event of a cross-strait war, according to military analysts. According to a report released earlier this month by Decker Eveleth, a researcher at the Middlebury Institute of International Studies, the People's Liberation Army Rocket Force is widely deploying DF-17 medium-range ballistic missiles near Taiwan.

<https://www.scmp.com/news/china/military/article/3228592/military-experts-say-pla-rolling-out-longer-range-missiles-near-taiwan>

## China successfully tests high-thrust engine for moon landing

Leng Shumei

*Global Times, July 23, 2023*

China successfully carried out a trial test on the main engine of the Long March-10, a new carrier rocket designed for manned moon landing missions, on Saturday, as the country actively makes progress on the road to realizing its goal of landing taikonauts on the moon by the year 2030. The test assessed all the requirements for the engine, and provided strong support for the solidification for its technical state, the establishment of the technical baseline of the product and improving reliability, the Global Times learned from the China Aerospace Science and Technology Corporation (CASC).

<https://www.globaltimes.cn/page/202307/1294879.shtml>

## Taiwan air raid drills simulate response to China missile attacks

*Thai PBS World, July 24, 2023*

Taiwan held air raid drills simulating its response to Chinese missile attacks in several

cities on the same day the island's military kicked off its annual war games. Self-ruled Taiwan holds frequent defence drills in the face of increasing military and political pressures from China, which regards the island as its territory. Preparation efforts also extend to its civilian population, with authorities stepping up drills in cities, citing lessons learned from Russia's invasion of Ukraine where the street-to-street warfare appears to be part of the defence strategy playbook.

<https://www.thaipbsworld.com/taiwan-air-raid-drills-simulate-response-to-china-missile-attacks/>

## Contracts inked for nuclear tech expansion in Shandong

*China Daily, July 24, 2023*

State Power Investment Corporation sealed a bundle of contracts worth 5 billion yuan (\$694.8 million) related to its Guohe One nuclear power technology during a nuclear energy industry supply and demand conference held in Shandong province. As one of China's most advanced and independently developed third-generation pieces of nuclear technology, Guohe One is one of the crowning achievements in China's nuclear power research. As part of efforts to step up strategic cooperation with Shandong province, SPIC has installed 2.5 million kilowatts of nuclear power capacity, with 5.5 million kilowatts under construction.

<https://global.chinadaily.com.cn/a/202307/24/WS64be65f1a31035260b818318.html>

## Chinese, Russian warships continue exercises in Sea of Japan; North Korea resumes missile launches

*Dzirhan Mahadzir*

*USNI, July 25, 2023*

The People's Liberation Army Navy and Russian Navy wrapped up their joint exercise "Northern Interaction 2023" in the Sea of Japan before the combined fleet



arrived at Vladivostok, where the PLAN ships are making a port visit. The Northern Interaction 2023 exercise began and involved a PLAN Surface Action Group consisting of destroyers CNS Guiyang (119) and CNS Qiqihar (121), frigates CNS Zaozhuang (542) and CNS Rizhao (598) and fleet oiler CNS Taihu (889) and a Russian Navy SAG made up of destroyers RFS Admiral Panteleyev (548) and RFS Admiral Tributs (564) and corvettes RFS Gremyashchiy (337) and RFS Hero of the Russian Federation Aldar Tsydenzhapov (339).

<https://news.usni.org/2023/07/25/chinese-russian-warships-continue-exercises-in-sea-of-japan-north-korea-resumes-missile-launches>

### **China's nuclear weapons build-up and its implications for Northeast Asian security**

*Lami Kim*

*Asia-Pacific Leadership Network, July 25, 2023*

China's nuclear modernisation should concern the United States less because it poses a nuclear threat to the US homeland, and more because it poses a risk to vital US interests in Northeast Asia. China's nuclear modernisation increases the risk that it will be emboldened to invade Taiwan, as well as the risk that Japan and South Korea might request deployment of US tactical nuclear weapons on their territory or chose to develop their own nuclear weapons. Although it will be hard for Washington to stop China from continuing to build up its nuclear arsenal, it should seek to manage these risks by strengthening deterrence measures around the Taiwan Strait and giving stronger assurances to its regional allies. Additionally, Washington and Beijing should enhance transparency as to their nuclear posture and missile testing, and also establish viable crisis management mechanisms.

<https://www.apln.network/analysis/policy-briefs/chinas-nuclear-weapons-build-up-and-its-implications-for-northeast-asian-security>

### **China's first commercial spacecraft launch site in Hainan to commence normalized launch missions in 2024**

*Ni Hao and Tao Mingyang*

*Global Times, July 26, 2023*

China's first commercial spacecraft launch site in Wenchang, South China's Hainan Province, is ramping up the final stages of construction, and plans to commence normalized commercial launch operations in 2024, a representative from the launch site told the Global Times. The construction of the commercial spacecraft launch site began in July 2022, and the infrastructure needed for the site will be finished by the end of 2023. The first commercial launch mission will commence in the first half of 2024, and the launch site will enter the operations and normalized launch mission in the same year.

<https://www.globaltimes.cn/page/202307/1295103.shtml>

### **Discerning the drivers of China's nuclear force development: models, indicators, and data**

*David C. Logan and Phillip C. Saunders*

*National Defence University Press, July 26, 2023*

For decades following its first test in 1964, China maintained a small nuclear force and a doctrine emphasizing deterrence and no-first-use of nuclear weapons. China has recently embarked on an unprecedented campaign of expansion and modernization, which is changing the size, structure, and operational posture of its nuclear forces. The growing discrepancy between China's restrained declaratory policy and advancing nuclear capabilities raises important questions about the status and future trajectory of China's nuclear forces, with major implications for the United States.

<https://ndupress.ndu.edu/Media/News/News-Article-View/Article/3471053/discerning-the-drivers-of-chinas-nuclear-force-development-models-indicators-an/>

## FAST makes new discovery of black hole phenomenon, opens up new avenues for observing and studying black hole emissions

*Deng Xiaoci*

*Global Times, July 27, 2023*

China's Five-hundred-meter Aperture Spherical radio Telescope (FAST), or known as the Tianyan (Heaven's Eye,) has made world's first observation of sub-millisecond low-frequency radio quasi-periodic oscillations in microquasars, renewing men's understanding of the mysterious black hole by revealing the direct correlation between the quasi-periodic oscillations in black hole systems and relativistic jets.

<https://www.globaltimes.cn/page/202307/1295141.shtml#:~:text=China's%20Five%20hundred%20meter%20Aperture%20by%20revealing%20the%20direct>

## Thailand launches first experimental tokamak device in collaboration with China

*Xinhua, July 27, 2023*

Thailand's first experimental tokamak device was officially launched in a joint collaboration with China. The device, a joint collaboration between the Institute of Plasma Physics Chinese Academy of Sciences (ASIPP) and the Thailand Institute of Nuclear Technology (TINT), arrived in Thailand in January and commenced trial runs in May. Thawatchai Onjun, executive director of the TINT, emphasized that the operation will propel Thailand's advancements in nuclear fusion applications, impacting academic research, engineering technology, and talent development. Song Yuntao, director of ASIPP, told Xinhua that China's research in the field of nuclear fusion applications adheres to an open and friendly approach.

<https://english.news.cn/20230727/6d90decd317a4072bcc5a82062edcb61/c.html>

## Implications of China's nuclear expansion for strategic stability

*Aaron Miles,*

*War on the Rocks, July 27, 2023*

Will China's dramatic nuclear expansion, including more than 300 new silos for intercontinental-range ballistic missiles require a counter-expansion of U.S. nuclear capabilities, or posturing existing forces differently? Will the dynamics of a three-sided system undermine strategic stability by creating first-strike incentives that drive nuclear escalation in crisis, and by driving a new arms race spiral that would make limits on strategic nuclear arms untenable? Does the longstanding U.S. policy of maintaining nuclear counterforce capabilities for targeting adversary nuclear forces make these challenges unmanageable? Fortunately, the worst outcomes are avoidable if each peer maintains a high degree of survivability for a sufficient portion of its forces.

<https://warontherocks.com/2023/07/implications-of-chinas-nuclear-expansion-for-strategic-stability/>

## New nuclear technology sees vast export potential

*Tao Mingyang and Chu Daye*

*Global Times, July 27, 2023*

The Linglong One, a multi-functional small modular and pressurized-water nuclear reactor (SMR), will be ready for operation in South China's Hainan Province by the end of 2025, almost five months ahead of schedule, according to its builder, as China expands its nuclear power generation capacity on the path to green development. "After the core module is placed in the container of the Linglong One nuclear plant in early August, relevant assembly work of other

equipment will start, and the nuclear reactor may enter operation by 2025. It will provide more clean energy for enterprises participating in the construction of the Hainan Free Trade Port," Chen Jianxin, chief engineer of the Hainan Nuclear Power Co, the operator of the Changjiang Nuclear Power Plant, told the Global Times.

<https://www.globaltimes.cn/page/202307/1295190.shtml>

### **China employs 'nuclear cabbage' strategy for dominance in South China Sea**

*Vipul Tamhane*

*WION, July 27, 2023*

China's plan entails encircling disputed islands with as many ships as possible, a tactic known as "the cabbage strategy." This approach entails encircling contested islands with as many ships as possible, and China employs the cabbage technique to gradually take over contested territory. The South China Sea tensions are rising, with nations detaining trespassers and threatening to impose an air identification zone over the South China Sea. The United States is presently in a difficult position: it does not want to risk triggering a fight with China, but it also wants China to cease pressuring its regional allies.

<https://www.wionews.com/opinions-blogs/chinas-nuclear-cabbage-619972>

### **Xi appoints new chief of China's nuclear arsenal**

*Reuters, July 31, 2023*

Chinese President Xi Jinping, also the military's commander-in-chief, appointed a new head of the armed force overseeing the nation's conventional - and nuclear - missiles, one day before the anniversary of the People's Liberation Army. Wang Houbin, former deputy commander of the navy, was named the new head of the PLA Rocket Force, and Xu Xisheng, its new political commissar, with both men

acquiring the top rank of general, according to state media.

<https://www.reuters.com/world/china/xi-appoints-new-chief-chinas-nuclear-arsenal-2023-07-31/>

### **China ousts top generals from nuclear Rocket Force**

*Kathrin Hille*

*Financial Times, July 31, 2023*

China's leader Xi Jinping has replaced the two missing generals who had been in command of the country's missile forces, in effect confirming the largest purge at the top levels of the military in a decade. General Li Yuchao, commander of the People's Liberation Army Rocket Force, and his deputy General Liu Guangbin disappeared from public view several months ago amid what foreign experts and intelligence officials said was a drive to crack down on corruption and enforce Communist party discipline.

<https://www.ft.com/content/0375c760-7902-4a41-b8f4-1b41026a38fd>

## **D. Pakistan**

### **Pakistan / Construction Begins Of China-Supplied Hualong One Nuclear Plant At Chasnupp**

*Nucnet, July 17, 2023*

Pakistan has begun construction of its seventh commercial nuclear power plant, the China supplied Chasnupp-5 (also known as Chasma-5).

Prime minister Shehbaz Sharif and senior Chinese officials attended a televised groundbreaking ceremony for the plant in the central city of Chashma on Friday (14 July). Press reports said the new plant is estimated to cost at least \$3.5bn (•3.1bn).

The plant will become the third in Pakistan to use China's domestically developed Generation III pressurised water nuclear technology, the Hualong One or HPR1000.

China has already supplied two Hualong One units for the Kanupp, or Karachi, nuclear power station, west of the city of Karachi in southern Pakistan.

<https://www.nucnet.org/news/construction-begins-of-china-supplied-hualong-one-nuclear-plant-at-chasnupp-7-1-2023>

### *E. Europe*

#### **Slovakia's JAVYS signs AP1000 and AP300 MoUs**

*World Nuclear News, July 17, 2023*

Westinghouse said that the MoUs “will create a framework for the two parties to collaborate on detailed technical and developmental plans, while exploring the next steps to implement the proven reactor technologies in Slovakia”.

Gautam Rana, the US Ambassador to Slovakia, said: “This represents another milestone in joint efforts by the governments of the United States and the Slovak Republic to achieve energy security and sustainability in Slovakia with a forward-looking focus on world-class technology.”

<https://www.world-nuclear-news.org/Articles/Slovakia-signs-MoU-over-AP1000-and-AP300-SMRs>

#### **UK government bets on small-scale nuclear**

*Politico, July 18, 2023*

The U.K. government has set its sights on a new generation of small-scale nuclear reactors in its bid to protect domestic energy security and hit net zero targets.

Energy Secretary Grant Shapps hailed the potential for “billions of pounds of public and private sector investment” in small modular reactors (SMRs) ahead of the long-awaited launch of Great British Nuclear (GBN) later Tuesday.

“Unlike conventional reactors, SMRs can be built inside factories, transported across the country, and then reassembled in power stations,” the government said in a statement ahead of the launch – essentially, its

component parts are made in one place, moved and then bolted together somewhere else.

<https://www.politico.eu/article/uk-energy-nuclear-small-scale/>

#### **UK/ Government Announces £157 Million In Grants And SMR Competition As Part Of ‘Massive Revival’ Of Nuclear Industry**

*Nucnet, July 18, 2023*

The UK government is to offer grants of £157m (•182m, \$205m) as part of its launch of a new body to support the nuclear power industry with the government saying a “massive revival” of nuclear power is underway.

<https://www.nucnet.org/news/government-announces-gbp157-million-in-grants-as-part-of-massive-revival-of-nuclear-energy-industry-7-2-2023>

#### **Sweden/ SMR Project Company Announces •2 Million ‘Breakthrough’ Investment**

*Nucnet, July 18, 2023*

Swedish small modular reactor project development company Kärnfull Next has announced a •2m (\$2.25m) investment from two “sustainable” investors – a breakthrough it says signifies one of the first instances of EU-based climate funds investing in nuclear energy.

<https://www.nucnet.org/news/smr-project-company-announces-eur2-million-break-through-investment-7-2-2023>

#### **Advanced Reactors/ Agreement Could Lead To Seaborg Nuclear Plants In Norway**

*Nucnet, July 19, 2023*

Danish nuclear company Seaborg has signed a letter of intent with Bergen, Norway-based energy company Norsk Kjernekraft to investigate the possibility of establishing Seaborg’s Generation IV compact molten salt reactor (CMSR) technology in Norway.



Seaborg said it has made significant progress in the development and commercialisation of its technology, including agreements on the construction of power plants and fuel development in Asia.

Seaborg said Norsk Kjernekraft, which aims to build, own and operate small modular nuclear power plants in Norway, will participate in this development, with the goal of introducing the technology in Norway.

<https://www.nucnet.org/news/agreement-could-lead-to-seaborg-nuclear-plants-in-norway-7-3-2023>

### **European official: EU likely to keep missile sanctions on Iran**

*Reuters, July 19, 2023*

A European official on Tuesday said he expected no difficulty persuading EU nations to maintain ballistic missile sanctions on Iran that are due to expire in October.

The official, who spoke on condition of anonymity, also said he sees a window of opportunity by the end of 2023 to try to negotiate a de-escalatory nuclear deal with Iran.

"We may have a small window of opportunity to try to resume discussions with them on (a) return to the JCPOA or at least to an agreement of de-escalation ... before the end of the year," the official told reporters in Washington.

<https://www.reuters.com/world/europe/european-official-eu-nations-likely-keep-missile-sanctions-iran-2023-07-18/>

### **Why EU sanctions don't include Russian nuclear industry**

*DW News, July 19, 2023*

While the European Union is on course to wean itself off Russian fossil fuels, it's struggling to kick its nuclear habit. That's because Russia's nuclear industry still wields huge clout. Less than a week after the first Russian tanks rolled into Ukraine, an Ilyushin Il-76 cargo aircraft, belonging to

Russian cargo airline Volga-Dnepr, flew across Belarus and Poland before landing in Slovakia. The mysterious jet taking off from Russia took flight trackers by surprise as only a day ago the European Union had closed its airspace to Russian airlines and private jets in response to Moscow's invasion of Ukraine. Soon, it became clear that the plane was exempted from the ban as it was shipping critical nuclear fuel for Slovakia's four Russian-designed nuclear reactors.

<https://www.dw.com/en/russia-nuclear-industry-eu/a-66275352>

### **Czechia to build first small modular reactor by 2032**

*Euractiv, July 19, 2023*

Czechia will build its first small modular reactor in 2032 to increase energy security and climate protection in a project backed by Czech President Petr Pavel, who stressed the role of nuclear energy in the country's future energy mix.

Czechia already has two conventional nuclear plants in Temelín and Dukovany but plans to expand its nuclear energy capacities with small modular reactors and build new blocks of traditional plants.

"I am convinced that the future of energy for the Czech Republic is clearly linked to nuclear energy, but also that we must have the right mix of nuclear energy. This means both large reactors and small modular ones," the Czech president said on Tuesday.

<https://www.euractiv.com/section/politics/news/czechia-to-build-first-small-modular-reactor-by-2032/>

### **France's EDF updates Rhone river reactor warning, set to restart Cattenom**

*S&P Global, July 19, 2023*

EDF has updated the river temperature warning for its 3.6-GW Bugey nuclear power plant with only one unit potentially impacted from July 22, the French utility said July 19. One of the four 900-MW units

at Bugey was temporarily halted during the July 15/16 weekend due to environmental reasons, with river temperatures above a critical threshold for aquatic life.

“Due to the high temperatures forecasts on Rhone river, production restrictions are likely to affect Bugey nuclear production from July 22. However for grid constraints the production will be at least 1,800 MW and it may change according to the grid needs,” EDF said in the updated transparency note with the first warning from July 10 canceled.

<https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/electric-power/071923-frances-edf-updates-rhone-river-reactor-warning-set-to-restart-cattenom>

### **From AI to nuclear: the technologies driving UK space exploration**

*UK Government, July 20, 2023*

The Space Exploration Technology Roadmap will guide research and development activity and future funding decisions over the next decade, putting the UK's growing space sector in a stronger position to collaborate with international partners including NASA, the European Space Agency and JAXA (Japan's space agency).

The roadmap identifies a number of gaps to be addressed as well as areas of existing strength which should be built upon for the UK to fully benefit from the increasing commercialisation of space exploration and the global space economy, which is estimated to reach \$1 trillion by 2040.

<https://www.gov.uk/government/news/from-ai-to-nuclear-the-technologies-driving-uk-space-exploration>

### **Ultra Safe gets USD29 million UK grant**

*World Nuclear News, July 20, 2023*

The award, which was announced alongside the launch of Great British Nuclear on Tuesday, is a matching funds grant through the UK's Advanced Modular Reactor Research, Development and Demonstration programme. The application was submitted by a joint team of USNC and

Jacobs, which will support the front-end engineering design programme as a leading subcontractor.

The UK department is seeking to accelerate commercial technology readiness in the advanced nuclear market to support deployment by 2050 - with the aim being for a USNC demonstrator high-temperature gas-cooled reactor by the early 2030s.

<https://www.world-nuclear-news.org/Articles/Ultra-Safe-and-Jacobs-get-USD29-million-UK-grant>

### **Nuward/ French SMR Company Submits Safety File To Nuclear Regulator**

*Nucnet, July 25, 2023*

French small modular reactor developer Nuward has submitted the safety options file to the French nuclear regulator ASN, marking the start of the pre-licensing process for the plant.

The file was submitted by state power company EDF, which will operate the first Nuward plant in France. Nuward is an EDF subsidiary dedicated to development of the Nuward SMR.

The file details the safety objectives, the design features, and the main principles for operation and risk management for the Nuward SMR.

Nuward said it allows for early feedback from ASN before any application is submitted to start building a plant in France.

<https://www.nucnet.org/news/french-smr-company-submits-safety-file-to-nuclear-regulator-7-2-2023>

### **IAEA Mission Says Lithuania's Siting Plans for Deep Geological Disposal for Radioactive Waste are Safe, Sees Areas for Improvement**

*IAEA, July 27, 2023*

An International Atomic Energy Agency (IAEA) mission said that Lithuania's process to select a site for the country's first

deep geological repository (DGR) for spent nuclear fuel and long-lived radioactive waste is in line with international safety standards. The review identified specific areas for additional efforts including for the government to establish intermediate milestones and assign appropriate decision making responsibilities as it progresses with the site selection.

The Integrated Review Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation (ARTEMIS) review team concluded a ten day mission to Lithuania on 25 July to review the country's siting selection process for the planned DGR. The review was carried out at the request of the Lithuanian government.

<https://www.iaea.org/newscenter/pressreleases/iaea-mission-says-lithuanias-siting-plans-for-deep-geological-disposal-for-radioactive-waste-are-safe-sees-areas-for-improvement>

### **Bulgaria/ Regulator Begins Licensing Process For Westinghouse Nuclear Fuel At Kozloduy-5**

*Nucnet, July 27, 2023*

The licensing process has begun for the use of Westinghouse-manufactured VVER-1000 fuel in Unit 5 of the Kozloduy nuclear power station as Bulgaria steps up efforts to diversify from Russia-supplied reactor fuel.

The Bulgarian Nuclear Regulatory Agency said it had received an application for the use of Westinghouse fuel. It said the application comprised more than 80 documents totalling more than 8,400 pages. In December 2022 the Bulgarian ministry of energy confirmed the signing of a 10-year contract with US-based Westinghouse for the delivery of nuclear fuel for Kozloduy-5, calling it a "new era" for the country's nuclear energy sector.

A month earlier, Bulgaria's parliament had passed a motion to speed up licensing procedures and potential supply of non-Russian nuclear fuel for Kozloduy's two units, Kozloduy-5 and -6.

<https://www.nucnet.org/news/regulator-begins-licensing-process-for-westinghouse-nuclear-fuel-at-kozloduy-5-7-4-2023>

### **F. Belarus**

#### **CSTO drills in Belarus to focus on dealing with aftermath of nuclear facility accident**

*TASS, July 25, 2023*

A clean-up operation following an accident at a nuclear facility will be the theme of the Rock 2023 drills of emergency units from the countries of the Collective Security Treaty Organization (CSTO) which will be held in the Minsk Region in early September, Belarusian Emergencies Minister Vadim Sinyavsky said.

"The Rock's theme is an accident at a nuclear facility with the engagement and deployment of the CSTO forces and, of course, with our actions, by the Emergencies Ministry of the Republic of Belarus. This is the order of managing this process, the defense plans, internal and external, which will be worked out in training in the event of such an accident. These are the issues of interaction with executive power bodies, with military authorities, a number of other tasks," he told the Belarus-1 TV channel.

<https://tass.com/defense/1651343>

### **G. Ukraine**

#### **Update 174 - IAEA Director General Statement on Situation in Ukraine**

*IAEA, July 20, 2023*

International Atomic Energy Agency (IAEA) experts have carried out additional inspections and walkdowns at Ukraine's Zaporizhzhya Nuclear Power Plant (ZNPP) over the past week - so far without observing any heavy military equipment, explosives or mines - but they are still awaiting access to the rooftops of the reactor buildings, Director General Rafael Mariano Grossi said today.

Following their visits to units 1 and 3 earlier in July, the IAEA experts went to the reactor building of unit 2 on 17 July and unit 4 the following day. In each case,

the team checked the main control room, reactor hall, spent fuel pool, emergency control room, rooms where electrical cabinets of the safety systems are located, and the turbine hall.

<https://www.iaea.org/newscenter/pressreleases/update-174-iaea-director-general-statement-on-situation-in-ukraine>

### **Update 175 – IAEA Director General Statement on Situation in Ukraine**

*IAEA, July 24, 2023*

International Atomic Energy Agency (IAEA) experts have observed directional anti-personnel mines on the periphery of the site of Ukraine’s Zaporizhzhya Nuclear Power Plant (ZNPP), Director General Rafael Mariano Grossi said today.

During a walkdown on 23 July, the IAEA team saw some mines located in a buffer zone between the site’s internal and external perimeter barriers. The experts reported that they were situated in a restricted area that operating plant personnel cannot access and were facing away from the site. The team did not observe any within the inner site perimeter during the walkdown.

<https://www.iaea.org/newscenter/pressreleases/update-175-iaea-director-general-statement-on-situation-in-ukraine>

### **Update 176 – IAEA Director General Statement on Situation in Ukraine**

*IAEA, July 29, 2023*

Ukraine’s Zaporizhzhya Nuclear Power Plant (ZNPP) has completed the planned transition of its reactor unit 5 to cold shutdown while moving reactor unit 4 to hot shutdown, Director General Rafael Mariano Grossi said today.

The ZNPP conducted this change in reactor status in order to carry out maintenance activities at unit 5 that are only possible in cold shutdown. Unit 5 was transitioned into cold shutdown yesterday morning, three days after unit 4 shifted to hot shutdown, its steam now being used to treat wastewater at the ZNPP. The other units remain in cold shutdown.

The IAEA experts at the site have been encouraging the ZNPP to investigate all possible options to install an external boiler instead to generate the steam required, which would enable the site to bring all units into a cold shutdown state.

<https://www.iaea.org/newscenter/pressreleases/update-176-iaea-director-general-statement-on-situation-in-ukraine>

### **H. United States of America**

#### **US Remains Concerned North Korea Will Conduct Another Missile Test**

*VOA News, July 16, 2023*

White House national security adviser Jake Sullivan said on Sunday the Biden administration remains concerned that North Korea will move forward with another intercontinental ballistic missile test.

“I have been concerned for some time that North Korea would conduct what would be its seventh nuclear test,” Sullivan said during an interview with CBS’s “Face the Nation.”

“I don’t see any immediate indications that’s going to happen, but it would not come as a surprise if North Korea moves forward with another test with respect to its intercontinental ballistic missile capability,” he said.

In June, North Korea fired two short-range missiles off its east coast as Sullivan met his Japanese and South Korean counterparts in Tokyo.

<https://www.voanews.com/a/us-remains-concerned-north-korea-will-conduct-another-missile-test/7183144.html>

#### **US ignores Iran’s active nuclear weapons activities by using ‘defective’ definition: Expert**

*Fox News, July 17, 2023*

Reps. Jared Moskowitz, D-Fla., and Mike Lawler, R-N.Y., analyze the legislation targeting illicit Iranian oil purchases on ‘Special Report.’



A leading American expert on Iran's alleged nuclear weapons program asserts the U.S. Office of the Director of National Intelligence's new report applied an obsolete definition when it assessed last week that Tehran is not currently pursuing atomic weapons.

The two-page unclassified U.S. intelligence report, which was released last week, stated "Iran is not currently undertaking the key nuclear weapons-development activities that would be necessary to produce a testable nuclear device."

<https://www.foxnews.com/world/us-ignores-irans-active-nuclear-weapons-activities-by-using-defective-definition-expert>

## US falling behind China in tech advancements, Govini report finds

*Defense News, July 18, 2023*

China's rapid technological growth poses a threat to the U.S. defense industrial base, according to a new report from data analytics firm Govini.

The report, released Monday, details the U.S. federal government's nearly \$200 billion in fiscal 2022 spending on critical technologies – but warns China is still outpacing the United States. In FY22, biotechnology topped the list of the 12 identified critical technologies the U.S. invested in, at \$81.3 billion.

This difference in the pace of technological advancement between the U.S. and China is largely due to accessibility to patents, according to Govini. Over the last five years, the report finds, the number of patents associated with critical technology areas and issued to U.S.-based companies has stagnated, while the number for Chinese companies has steadily increased.

<https://www.defensenews.com/industry/2023/07/17/us-falling-behind-china-in-tech-advancements-govini-report-finds/>

## US to send additional jets, warship to Middle East

*Reuters, July 18, 2023*

The United States will send additional F-35 and F-16 fighter jets, along with a warship to the Middle East, the Pentagon said on Monday, in a bid to monitor key waterways in the region following Iran's seizure and harassment of commercial shipping vessels in recent months.

In May, the White House had announced that the Biden administration would be making a series of moves in the region, but at the time did not say what it would include. "The (Pentagon) is increasing our presence and ability to monitor the (Strait of Hormuz) and surrounding waters," Pentagon spokeswoman Sabrina Singh told reporters. It was not clear where exactly the additional jets would be placed and how long they would stay in the region.

<https://www.reuters.com/world/middle-east/us-send-additional-jets-warship-middle-east-2023-07-17/>

## First US nuclear sub docks in South Korea since 1981

*BBC, July 18, 2023*

A US submarine armed with nuclear weapons has docked in South Korea for the first time in four decades, amid escalating tensions with Pyongyang.

The sub, identified by South Korean officials as the USS Kentucky, docked in Busan port on Tuesday.

In April, the US agreed to periodically deploy nuclear-armed subs to South Korea, to counter increasing aggression from North Korea.

But Pyongyang has warned the move could escalate nuclear tensions.

On Monday, Kim Yo Jong, the influential sister of North Korea's leader Kim Jong-Un, said the regime was "ready for resolutely countering any acts of violating its sovereignty".

Speaking after North Korea engaged in fresh missile tests last week, she said the deployment of the USS Kentucky would make [Pyongyang] go farther away" from any possible nuclear talks with the US.

<https://www.bbc.com/news/world-asia-66233802>

## US, South Korea Kick Off Nuclear Consultative Group in Seoul

*VOA News, July 18, 2023*

A day that was supposed to celebrate strengthened nuclear coordination between the United States and South Korea was complicated by an American soldier who crossed into North Korea at the border, apparently on his own volition.

The highly unusual move occurred as senior U.S. and South Korean officials were set to face the media Tuesday afternoon in Seoul to discuss the inaugural meeting of the long-lauded Nuclear Consultative Group (NCG).

The establishment of the group was first announced in April as part of the Washington Declaration, in which the leaders of the two countries laid out plans to strengthen U.S. extended deterrence against North Korea's nuclear threats.

White House Indo-Pacific National Security Coordinator Kurt Campbell characterized the efforts going into the NCG as unequalled since "the early periods of the Cold War."

<https://www.voanews.com/a/us-south-korea-kick-off-nuclear-consultative-group-in-seoul-/7186711.html>

## America's forgotten nuclear migration: The Marshallese displaced by US bomb testing face new challenges

*ABC News, July 19, 2023*

Jonithen Jackson remembers the stories his mother and grandmother used to tell him before bed, Marshallese folk stories teaching lessons of hope and kindness. Embedded in these stories, Jackson tried to understand why his people couldn't live on their home island anymore.

"Everybody's sick; they get sick and die young," Jackson told ABC News. "When the bomb is erupted, the white powder they come to on the water... everybody realize, 'oh, that's the poison.'"

Jackson's home island is Enewetak Atoll, where the United States tested 43 nuclear bombs from 1948 to 1958.

<https://abcnews.go.com/International/americas-forgotten-nuclear-migration-micronesians-displaced-us-bomb/story?id=101328719>

## Multiple Xe-100 SMRs planned for Washington State

*World Nuclear News, July 19, 2023*

A joint development agreement (JDA) has been signed between US utility Energy Northwest and X-Energy Reactor Company for the deployment of up to 12 Xe-100 small modular reactors (SMRs) in central Washington State. Energy Northwest expects to bring the first Xe-100 module online by 2030. The agreement defines and details the scope, location, and schedule under which the commercial development of the project will move forward. The companies will also work together to determine the best approaches to licensing and regulatory matters, as well as the project delivery model.

<https://world-nuclear-news.org/Articles/Multiple-Xe-100-SMRs-planned-for-Washington-State>

## Blinken on reviving Iran nuclear deal: 'We're now in a place where we're not talking about a nuclear agreement'

*The Hill, July 23, 2023*

Secretary of State Antony Blinken, when asked Sunday about reviving the Iran nuclear deal, said that U.S. officials are currently not talking about an agreement with their counterparts in Tehran.

During an appearance on CNN's "GPS" with Fareed Zakaria, Blinken said that it was a terrible mistake for the Trump administration to pull out of the nuclear deal reached with Iran in 2015.

“There have been some developments and some changes since the time we got out of the deal and the time we were trying to get back in it. But fundamentally what we tried to do was to get back into the existing agreement with some modest modifications,” Blinken said. “An agreement was on the table. Iran either couldn’t or wouldn’t say yes. We’re not about to take any deal. Of course, it has to meet our security objectives. It has to meet our interests.”

<https://thehill.com/homenews/administration/4114521-blinken-on-reviving-iran-nuclear-deal-were-now-in-a-place-where-were-not-talking-about-a-nuclear-agreement/>

### **NASA’s Houston-based mission control briefly lost communication with ISS**

*TASS, July 26, 2023*

The Houston Mission Control Center of the National Aeronautics and Space Administration (NASA) briefly lost communication with the International Space Station (ISS) on Tuesday due to power supply problems on the ground, International Space Station (ISS) Program Manager Joel Montalbano told reporters.

“Earlier this morning, [at] about eight o’clock central time [4:00 p.m. Moscow time], we had a power problem in the Mission Control Center Houston, where we lost command, telemetry, voice to the ISS from Mission Control Center Houston,” he said. “There was no issue on board, it was clearly a ground problem. We were able to talk to the crew through Russian assets about 20 minutes after the failure. At no time was the crew or the vehicle in any danger.”

<https://tass.com/world/1651945>

### **Blinken Says Door Open for New Zealand ‘to Engage’ in AUKUS Pact**

*VOA News, July 26, 2023*

U.S. Secretary of State Antony Blinken on Thursday raised the possibility of New

Zealand and other nations taking part in the AUKUS defense pact, cooperation that could rile Wellington’s key trade partner China.

“The door’s very much open for New Zealand and other partners to engage as they see appropriate going forward,” Blinken said, as Wellington mulls cooperation on non-nuclear aspects of the joint Australia-U.K.-U.S. accord.

New Zealand Prime Minister Chris Hipkins on Wednesday said New Zealand was “open to conversations” about a possible role in AUKUS, so long as it did not relate to the development of nuclear-powered submarines.

New Zealand has been nuclear-free since the mid-1980s.

<https://www.voanews.com/a/blinken-says-door-open-for-new-zealand-to-engage-in-aukus-pact-7199954.html>

### **US proposal for talks with Russia on keeping nuclear arms curbs in limbo**

*Reuters, July 27, 2023*

The United States and Russia blamed each other for a lack of progress on arms control following a U.S. proposal to open talks on a “framework” that would preserve curbs on strategic nuclear weapons deployments when the current limits expire in 2026.

Russia’s apparent rejection of the plan last week and what several arms control experts say was a White House failure to formally convey it to Moscow have fueled concerns about whether there would be enough time to reach a new pact. “There is no excuse that the administration has delayed for nearly two months the formal communication of this proposal to the Kremlin,” said Daryl Kimball, executive director of the Arms Control Association (ACA) advocacy group.

<https://www.reuters.com/world/us-proposal-talks-with-russia-keeping-nuclear-arms-curbs-limbo-2023-07-26/>

## First U.S. nuclear reactor built from scratch in decades enters commercial operation in Georgia

*NBC News, July 31, 2023*

A new reactor at a nuclear power plant in Georgia has entered commercial operation, becoming the first new American reactor built from scratch in decades.

Georgia Power Co. announced Monday that Unit 3 at Plant Vogtle, southeast of Augusta, has completed testing and is now sending power to the grid reliably.

At its full output of 1,100 megawatts of electricity, Unit 3 can power 500,000 homes and businesses. Utilities in Georgia, Florida and Alabama are receiving the electricity.

Nuclear power now makes up about 25% of the generation of Georgia Power, the largest unit of Atlanta-based Southern Co.

A fourth reactor is also nearing completion at the site, where two earlier reactors have been generating electricity for decades.

<https://www.nbcnews.com/science/science-news/first-us-nuclear-reactor-built-scratch-decades-enters-commercial-opera-rcna97258>

## US Senate votes to 'onshore' nuclear fuel production

*World Nuclear News, July 31, 2023*

The US Senate has voted by 96-3 to approve legislation that would strengthen domestic nuclear fuel production and ensure that disruptions in uranium supply will not impact the development of advanced reactors or the operation of the USA's existing power reactor fleet. The bipartisan amendment to the National Defense Authorization Act for Fiscal Year 2024 was introduced to Congress in February by Senators Joe Manchin, John Barrasso and Jim Risch. Manchin and Barrasso are, respectively, Chairman and Ranking Member of the US Senate Energy and Natural Resources Committee. Risch is Ranking Member of the US Senate Foreign Relations committee.

<https://world-nuclear-news.org/Articles/US-Senate-votes-to-onshore-nuclear-fuel-production>

## The United States Reaffirms Commitment to the Treaty on the Non-Proliferation of Nuclear Weapons

*U.S. Department of State, July 31, 2023*

For more than fifty years, the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) has endured as the foundation of a system built on nuclear restraint. For the next two weeks, the United States, led by Special Representative of the President for Nuclear Nonproliferation Adam Scheinman, will join other NPT States Parties for the 2023 Preparatory Committee Meeting (PrepCom) in Vienna to address the top challenges facing the nonproliferation regime and further strengthen the NPT.

The United States stands firm in its commitment to work with States Parties at this Preparatory Committee meeting to ensure the agenda for the 2026 NPT Review Conference takes a balanced approach in addressing the Treaty's three pillars: nonproliferation, peaceful uses of nuclear energy, and further progress on disarmament.

<https://www.state.gov/the-united-states-reaffirms-commitment-to-the-treaty-on-the-non-proliferation-of-nuclear-weapons/>

### I. South America

#### Venezuela joins Russian-Chinese lunar station project

*TASS, July 19, 2023*

Venezuela's Bolivarian Agency for Space Activities and the China National Space Administration have signed a declaration on cooperation in space exploration whereby Venezuela will participate in the Russian-Chinese International Lunar Research Station (ILRS) project, Venezuelan Minister of Science and Technology Gabriela Jimenez said on Tuesday.

"Venezuela and China signed a joint declaration on the International Lunar Research Station and deep space.



Venezuela and China are entering a new stage of cooperation in space exploration," she wrote on her Twitter account. "Venezuela is the first country from the Americas to join this important project."

<https://tass.com/science/1648671>

## West Asia

### J. Iran

#### **IRGC Chief: Iran-Pakistan Cooperation to Eradicate Terrorism**

*Fars News Agency, July 16, 2023*

Maj. Gen. Salami made the remarks in a meeting with Pakistani Army Chief Asim Munir in Tehran on Saturday. The expansion of interaction between Tehran and Islamabad would uproot terrorists and establish sustainable security and stability in border areas, the IRGC commander stressed. He also stressed the importance of promoting cooperation to fight terrorist groups and annul security threats posed to the border areas, adding that security challenges and clashes on the Iran-Pakistan border are in line with the "dangerous policies of the arrogant system to sow bloody discord among Muslims". "West Asia has always been affected by international political forces," the senior commander stated, adding, "There are powers who do not tolerate unity and coherence among Muslims."

<https://www.farsnews.ir/en/news/14020425000228/IRGC-Chief-Iran-Pakistan-Cooperation-Eradicate-Terrorism>

#### **US Sending More Planes, Ships To Mideast To Counter Iran**

*Iran International, July 18, 2023*

The United States has officially confirmed earlier reports of sending more warplanes and additional warships to the Persian Gulf region to deter Iranian moves. The Pentagon said Monday that it will send additional F-35 and F-16 fighter jets, along with a warship to the Middle East, in a bid to monitor key waterways in the region following Iran's seizure and harassment of commercial shipping vessels in recent

months. Meanwhile, in a telephone conversation on Monday US President Joe Biden and Israeli Prime Minister Benjamin Netanyahu discussed security challenges Iran poses in the region.

<https://www.iranintl.com/en/202307182044>

#### **Iran Downplays US Deployment of Navy Destroyer, More Warplanes in West Asia**

*Fars News Agency, July 19, 2023*

Speaking to reporters after a cabinet session on Wednesday, Brig. Gen. Ashtiani shrugged off the US plan to dispatch a new fleet of jets and the destroyer USS Thomas Hudner to the Persian Gulf, underscoring that Tehran does not care about Washington, which is pursuing its own agenda. "Basically, Iran has reached such a stage of power that nobody would be able to threaten it," the minister stressed. He stated that Iran plays an important regional and international role without feeling any threat. Pentagon announced on Monday it plans to send additional fighters and naval assets to the Persian Gulf region to increase US military presence in the region in a bid to "protect ships" from "Iranian seizures".

<https://www.farsnews.ir/en/news/14020428000502/Iran-Downplays-US-Deployment-of-Navy-Destroyer-More-Warplanes-in-West-Asia>

#### **Iranian, Bolivian ministers ink defense MOU**

*Tehran Times, July 21, 2023*

Speaking on the sidelines of the signing ceremony, Iranian Defense Minister Mohammad Reza Ashtiani said Latin American countries are of special significance in Iran's foreign and defense policy, calling Latin America a highly significant and sensitive region. Regarding Bolivia's needs in the field of border defense and combating drug trafficking, Brigadier General Ashtiani said the Iranian side have tried to have interactions with the Latin American country to provide it with the necessary equipment. This sort of

cooperation can serve as a role model for other nations in South America, the Iranian defense chief remarked.

<https://www.tehrantimes.com/news/487081/Iranian-Bolivian-ministers-ink-defense-MOU#:~:text=TEHRAN%20-%20The%20defense%20ministers%20of,and%20security%20affairs%2C%20IRNA%20reported.>

### **AEOI Chief: Iran to Run 6 More Uranium Mines**

*Fars News Agency, July 24, 2023*

Head of the Atomic Energy Organization of Iran (AEOI) Mohammad Eslami announced that his country's uranium reserves are much larger than previous estimates, and said that the country plans to operate six more uranium mines by the end of the current Iranian calendar year (which will end on March 20, 2024). "Currently eight uranium mines are operating in the country," Eslami said. "Our uranium reserves in the country now exceed the previous estimates. We are currently operating eight mines, and six more mines are planned to come on stream by the end of the [Iranian calendar] year," he added.

<https://www.farsnews.ir/en/news/14020502000632/AEOI-Chief-Iran-Rn-6-Mre-Uranim-Mines>

### **Iran's Su-24, F-4 Jets Annihilate Mock-Up Targets During Massive Drills**

*Fars News Agency, July 24, 2023*

Spokesman for the wargames General Alireza Roudbari said the strategic Su-24 military aircraft successfully bombarded mock enemy targets and the F4 jets then flew at low altitudes to fire upgraded indigenous Qassed missiles at the designated targets. A range of missiles, including laser-guided, thermal and radar-guided ones as well as various domestically-produced bombs and rockets were utilized in the maneuver to hit the aerial targets in various altitudes, he added.

F-4 aircraft deployed flares to lighten up the battlefield and help identify targets, and F-

14 aircraft drilled aerial fueling from a Boeing 707 tanker, the spokesperson continued.

<https://www.farsnews.ir/en/news/14020502000398/Iran's-S-24-F-4-Jes-Annihila-Mck-Up-Targes-Dring-Massive-Drills>

### **Iran naval forces receive dozens of cruise missiles**

*Islamic Republic News Agency, July 25, 2023*

The Iranian Navy and the Islamic Revolution Guards Corps (IRGC) Navy took delivery of the "Abu Mahdi" cruise missiles in a ceremony attended by senior commanders on Tuesday. The Abu Mahdi cruise missile, with a range of over 1,000 kilometers, has been produced by the Aerospace Industries Organization of Iran's Defense Ministry. It can destroy mobile naval targets and is capable of covering a wide range of operations while streaking at low altitudes to evade enemy radars. The cruise missile is able to destroy all types of ships, frigates and destroyers thanks to its high destructive power and the explosives in its warhead. Abu Mahdi is the first long-range cruise missile that uses artificial intelligence to plan its flight path and has the ability to pass over natural and artificial obstacles as well as the enemy's radar and defense systems.

<https://en.irna.ir/news/85180394/Iran-naval-forces-receive-dozens-of-cruise-missiles>

### **IRGC Commander: Iran's AI-Powered Cruise Missile Game-Changer in Confronting US Aircraft Carrier**

*Fars News Agency, July 25, 2023*

Commander of the Islamic Revolution Guards Corps (IRGC) Navy Rear Admiral Alireza Tangsiri underlined the vital role the Abu Mahdi cruise missile will play in enhancing the country's naval forces' defensive power and underscored that the missile is capable of turning US aircraft carriers to metal scrap. He said that Abu

Mahdi cruise missile exemplifies the pinnacle of Iran's technological prowess, stressing, "A main feature of the new missile is keeping the enemy away from the Iranian coasts." "We can fire the Abu Mahdi missile from deep inside the country. The missile has a dual seeker and performs successfully against the enemy's electronic warfare," the top general said.

<https://www.farsnews.ir/en/news/14020503000399/IRGC-Commander-Iran's-AI-Powered-Cruise-Missile-Game-Changer-in-Cntfrning>

### **Iran-Russia Fighter Jet Deal Far Might Not Materialize, Reports Say**

*Israel Defense, July 25, 2023*

It is possible that the deal for the advanced Russian combat aircraft, SU-34, to Iran, might not be realized. Iran claims to be manufacturing its own domestically-produced aircraft.

The British Guardian reports that in January this year, Tehran ordered 24 Russian SU-34 fourth-generation dual-engine aircraft, with a delivery summary after three months, which would be around March 21st, according to the Iranian parliament member, Haidar Haidari.

However, seven months after the deal was closed, the aircraft still haven't arrived in Iran.

<https://www.israeldefense.co.il/en/node/59027>

### **Nuclear Chief: Iran-IAEA Interaction Constant, Sustainable**

*Fars News Agency, July 26, 2023*

Head of the Atomic Energy Organization of Iran (AEOI) Mohammad Eslami described the coordination between his country and the International Atomic Energy Agency (IAEA) as constant and sustainable, and once again underlined that the interaction between the two sides is in accordance with the Non-Proliferation Treaty (NPT) and the Safeguards Agreement. Speaking to reporters on the sidelines of a cabinet meeting on Wednesday, Eslami underscored Tehran and the United Nations nuclear watchdog have continuous and stable cooperation based on an agreement reached

months ago. The bilateral collaboration conforms with the Safeguards Agreement and the NPT, the official stated.

<https://www.farsnews.ir/en/news/14020504000609/Nuclear-Chief-Iran-IAEA-Interaction-Constant-Sustainable>

### **Airborne Commander: Iranian Air Force Equipping with Modern, State-of-Art Equipment**

*Fars News Agency, July 30, 2023*

Iranian Army Airborne Commander General Yousef Qorbani said that his country enjoys the most powerful helicopter fleet in West Asia despite severe sanctions in the aviation field, adding that the Army Ground Force has armed its copters with precision striking missiles. The ranking commander stated on Sunday that Iran is in possession of the largest and strongest fleet of military helicopters in West Asia with the highest aviation combat preparedness. He noted that the Iranian Army Aviation is in a very desirable state in terms of combat readiness, pointing to the aviation's self-sufficiency, component-manufacturing campaign and installation of indigenous night vision cameras as some of the achievements of the unit.

<https://www.farsnews.ir/en/news/14020508000533/Airbrne-Commander-Iranian-Air-Frce-Eipping-wih-Mdern-Sae-f-Ar-Eipmen>

*K. Israel*

### **IAI Signs Cooperation Agreement with German Missile Systems Company MBDA**

*Israel Defense, July 16, 2023*

Israel Aerospace Industries (IAI) and MBDA Germany have signed a cooperation agreement for the production, integration, sales, and marketing of IAI's loitering ammunition systems in Germany. MBDA is a leader in Germany in developing, producing, and maintaining guided missiles, air defense systems, and effective systems. Four decades ago, IAI was the first company in the world to develop loitering ammunition. The current

IAI Loitering Munition portfolio includes the Harop, Harpy, Mini-Harpy, and Rotem systems. Together with MBDA Germany, IAI offers this loitering ammunition portfolio to the German Armed Forces to close capability gaps in the Air Force, Navy and Army.

<https://www.israeldefense.co.il/en/node/58894>

### **UK to Integrate Rafael's Trophy Active Protection System into Challenger 3 Tanks**

*Israel Defense, July 17, 2023*

The British government has awarded Rafael a £20 million contract in order to purchase hardware for the Trophy Active Protection System, for its Challenger 3 tanks, says a UK Defense Journal report.

The contract will allow the acquisition of multiple systems, countermeasures, and testing equipment required for certification and integration activities for the upcoming demonstration phase. The tank is expected to enter service in 2027. The Challenger 3 tank is being developed within the framework of a £800 million contract from 2021, awarded to RBSL to deliver 148 fully digital, upgraded combat tanks. According to reports in the UK, the Challenger 3 is within budget and ahead of schedule.

<https://www.israeldefense.co.il/en/node/58904>

### **Italian Army Signs Spike Missile Deal**

*Israel Defense, July 18, 2023*

The Italian Ministry of Defense has decided to acquire Spike LR2 missiles from Israel's Rafael. This purchase was made through a single-source procurement process without a tender, as reported by Ares Osservatorio Difesa. According to the publication, the contract value signed with Rafael is 143 million euros, and the program will be operational from 2023 until 2030. The new missiles will be integrated into the landing force of the Italian Navy and other units of the Italian Army. The Spike LR2 missile can be used effectively on land, and mounted on various vehicles, helicopters, and naval

units. It is the most advanced version of the SPIKE Long Range series, weighing less than 13 kg, with a length of 1.2 meters and a diameter of 130 mm.

<https://www.israeldefense.co.il/en/node/58932>

### **Elbit Awarded \$150 Million Contract to Supply PULS Rocket Artillery Systems to Int'l Customer**

*Israel Defense, July 18, 2023*

Elbit Systems was awarded a \$150 million contract to supply PULS™ (Precise and Universal Launching Systems) rocket launchers and a package of precision-guided long-range rockets to an international customer. The contract will be performed over a period of three years. Elbit's PULS provides a comprehensive solution that can launch unguided rockets, precision-guided munitions, and missiles with an effective range of up to 300km. With its unique design, the PULS can also support future growth capabilities such as the ability to launch loitering munitions, including the canister-launched configuration of Elbit Systems' SkyStriker loitering munition. The PULS launcher is fully adaptable to existing wheeled and tracked platforms, enabling a significant reduction in maintenance and training costs.

<https://www.israeldefense.co.il/en/node/58941>

### **Plasan Secures Major US Deal**

*Israel Defense, July 19, 2023*

Plasan North America (PNA), a manufacturer of advanced survivability solutions and a subsidiary of Israel's Plasan, has announced its selection as a subcontractor for the Joint Light Tactical Vehicle A2 (JLTV) program by AM General. The subcontract award is valued at \$300 million over five years and includes supplying the major subcomponents of the armored vehicle. "We are honored to be selected as a subcontractor for the JLTV A2 program by AM General," said COL (Ret.) John Cavedo, president of Plasan North



America. "This partnership recognizes our long-standing dedication to the success of the program and our unwavering commitment to supporting our armed forces. We are proud to build on our legacy and expand our involvement with the JLTV A2, create new job opportunities for West Michigan, and contribute to the growth of our local community."

<https://www.israeldefense.co.il/en/node/58949>

### **Elbit opens UK R&D, manufacturing facility**

*Israel Defense, July 23, 2023*

Elbit Systems UK has opened a manufacturing and development facility in Bristol, England, following three years of planning and more than £35 million (U.S. \$46 million) in investments. The facility will act as a research, development, and manufacturing hub for the high-tech solutions already being provided to the British Armed Forces and other NATO customers by Elbit Systems UK. At the opening ceremony, a number of capabilities of Elbit Systems UK were demonstrated, including EW Solutions for multiple domains (air, land, and naval applications) including the MEWSIC1 program of the Royal Navy; interim combined armed virtual simulator (deployable); full land integrated systems demonstration; ground-based surveillance radar; nv33 night vision goggles; and a range of unmanned systems.

<https://www.israeldefense.co.il/en/node/58979>

### **Israel Receives Three New F-35 Fighter Jets**

*Israel Defense, July 23, 2023*

The Israeli Air Force received three new F-35 Lightning II ("Adir") aircraft on Thursday. The Lockheed Martin aircraft arrived from the US and landed in the Nevatim Air Force base. Normally, the Lightning II armament is installed inside the aircraft, in order to preserve its stealth characteristics. However, this time, the Israeli Air Force carried out a test flight with heavy external armament, the JDAM 84 bomb, under the aircraft's wings. This

demonstrated the capabilities of engineering cooperation between the IAF and Lockheed Martin. The three new aircraft will join the 140 "Golden Eagle" Squadron at the Nevatim Air Base, and bring the total number of Israeli Lightning II fighter jets to 39.

<https://www.israeldefense.co.il/en/node/58993>

### **Israeli-German Cooperation to Supply Hungary with Hero Loitering Munitions**

*Israel Defense, July 24, 2023*

Israeli company UVision and Germany's Rheinmetall has secured an order from Hungary for Hero Loitering Munitions. Contracts to this effect have now been signed. The munitions are worth a figure in the low three-digit million-euro range. Delivery will begin in 2024 and is scheduled to end in 2025. The Hero loitering munitions is a family of operationally proven, widely used effectors which Rheinmetall fabricates and markets in Europe under a cooperation agreement with UVision Air Ltd. of Israel. In October 2021 Rheinmetall and UVision embarked on a strategic partnership aimed at addressing sharply increased demand for remotely controlled precision munitions.

<https://www.israeldefense.co.il/en/node/59003>

### **Aeronautics Integrates CRFS' RF Technology into Aerostar UAV**

*Israel Defense, July 24, 2023*

Israeli company Aeronautics has integrated UK Company CRFS' RF technology on Aeronautics family of Aerostar UAVs with the first system already deployed with an undisclosed European customer. Shephardmedia.com website reported that Aeronautics approached CRFS to enhance a SIGINT/ELINT capability by integrating the company's RFeye technology for RF signal detection, capture, and geolocation missions across a wideband spectrum range (10MHz-18GHz).

<https://www.israeldefense.co.il/en/node/59004>

## Rafael Systems' Subsidiary to Supply Ukraine With 80 Heidrun Reconnaissance Drones

*Israel Defense, July 24, 2023*

Dynamit Nobel Defense (DND), a subsidiary of Israeli Rafael Systems, is to deliver 80 Heidrun reconnaissance drones to Ukraine. The delivery is financed by the Federal Republic of Germany. The German website Soldat & Technik reports that the Heidrun is a combat-proved system and was first delivered to Ukraine in 2022 as part of Denmark's military aid – at the time still via Danish manufacturer Sky-Watch. In addition, several systems were produced through a crowdfunding campaign led by Hollywood star Mark Hamill (Luke Skywalker from Star Wars) and were also handed over to the Ukrainian armed forces.

<https://www.israeldefense.co.il/en/node/59017>

## India to Purchase Software-Defined Radios for Tanks Based on Elbit's Technology

*Israel Defense, July 25, 2023*

Bangalore-based company Alpha Design Technologies has signed an order to supply 400 Software-Defined Radios (SDRs) manufactured locally, which will be installed in tanks operated by the Indian Army. This, according to a Times of India report. The technology is based on developments by Elbit Systems, which were transferred to Alpha Design as part of a collaboration between the companies.

The Times of India quoted a senior Alpha Design official who said that “The Indian Army took a significant step by ordering 400 SDR systems for some of its tanks. We have already signed the contract, and the manufacturing is underway.”

<https://www.israeldefense.co.il/en/node/59025>

## Cyber Cooperation in the Middle East: a Way to Counter the Iranian Threat?

*Israel Defense, July 25, 2023*

In recent years, the Arab world, particularly in the Middle East, has experienced significant political and strategic changes in the form of the Abraham Accords.

The Abraham Accords are a series of joint declarations of normalizing the relations between Israel, the United Arab Emirates (UAE), and Bahrain, followed by Morocco and Sudan. These agreements manifest new diplomatic, economic, and security relations between Israel and those countries, and also open the door to a new form of cooperation at the cyber level.

<https://www.israeldefense.co.il/en/node/59029>

## Thales Acquires Cybersecurity Company Imperva, Established in Israel

*Israel Defense, July 27, 2023*

French multinational Thales announced today that it has reached an agreement with Thoma Bravo, a major software investment firm, for the acquisition of 100% of Imperva, a leading data and application cybersecurity company, for an enterprise value of \$3.6 billion. Established in Israel, Imperva moved its center of operations to the US over 10 years ago.

“With this acquisition, Thales is taking its cybersecurity business to the next level. Imperva will enable growth in data security and Thales' entry into the attractive application security market. Thales total cybersecurity business will generate more than • 2.4 billion in revenues,” says the Thales statement. The transaction price is based on a \$3.6 billion enterprise value.

<https://www.israeldefense.co.il/en/node/59054>

## Major Deal for Israeli Defense Industry: Redback Chosen as Australian Army's Future APC

*Israel Defense, July 27, 2023*

The Australian press is reporting in recent days that the big winner in the Australian Army's future APC tender - LAND 400 program - is the South Korean company Hanwha Defense, which will produce and supply the Australian Army with 129 Redback APCs.

From the Israeli perspective, what is special about this APC is the wealth of Israeli systems installed in it: Rafael's "Spike" anti-tank missile launchers; Elbit's "Iron Fist" active protection system, a turret, and Electro-optics devices; and Plasan's armor protection.

<https://www.israeldefense.co.il/en/node/59064>

## IAI's DS-SAR Satellite Successfully Launched, Enters Orbit

*Israel Defense, July 30, 2023*

The DS-SAR radar satellite, developed and produced by the Israel Aerospace Industries (IAI), was successfully launched into space on a PSLV-C56 (Polar Satellite Launch Vehicle) rocket, this morning at 04:00 from the launch site SDSC SHAR Sriharikota, India. In line with the original launch program, the satellite entered its orbit around the Earth, began transmitting data, and underwent a series of preliminary performance tests, conducted by IAI's engineers, who validated the correct functioning and performance level of the systems. While in orbit, the satellite will begin a preplanned series of tests, and following their completion, will be formally handed over to its Singaporean customers DSTA and ST Electronics.

<https://www.israeldefense.co.il/en/node/59076>

## Elbit Awarded \$60 Million Contract to Supply Artillery Shells to the Israel MoD

*Israel Defense, July 31, 2023*

Elbit Systems announced that it was awarded a contract worth approximately \$60 million to supply thousands of 155mm artillery shells to the Israel Defence Forces' Artillery Corps. The contract will be performed over a period of one year. "Elbit Systems is proud to be a leading supplier to the IDF, supporting its ongoing operational requirements. The expansion and the upgrade of our production infrastructure enable the provision of rapid production of a range of high-quality solutions to the Israel Ministry of Defense," said Yehuda (Udi) Vered, General Manager of Elbit Systems Land.

<https://www.israeldefense.co.il/en/node/59102>

## L. Saudi Arabia

### Saudi Arabia buys Turkish drones during Erdogan's visit

*Aljazeera, July 18, 2023*

Saudi Arabia has agreed to buy Turkish drones, one of several lucrative contracts President Recep Tayyip Erdogan secured for Turkey's struggling economy as Ankara reaps the benefits of his recent diplomatic push to repair ties with Gulf Arab powers.

Erdogan arrived in Saudi Arabia on Monday, accompanied by an entourage of some 200 businesspeople, according to the Foreign Economic Relations Board of Turkey, as part of a three-stop tour of the region. Both countries signed several memorandums of understanding (MoUs) in many fields, including energy, direct investments and defence industries.

<https://www.aljazeera.com/news/2023/7/18/saudi-arabia-buys-turkish-drones-during-erdogans-visit>

## Saudi Arabia to showcase defense, security capabilities and technologies at Istanbul military fair

*Arab News, July 21, 2023*

Saudi Arabia's General Authority for Military Industries will showcase the nation's military and security capabilities, and related investment opportunities, during the International Defense Industry Fair 2023 in Turkiye this month, the Saudi Press Agency reported on Thursday. The authority, the Kingdom's defense regulator, will join government agencies, national institutions, and businesses operating in the military, defense and security industries, in the Saudi pavilion at the event, which runs from July 25 to 28 at the Tuyap Fair Convention and Congress Center in Istanbul. The authority said its aims at the fair include highlighting high-quality investment opportunities in the sector and encouraging international cooperation with major regional and global companies, and enabling Saudi companies in the defense and security industries to forge strategic partnerships.

<https://www.arabnews.com/node/2341426/saudi-arabia>

### M. Qatar

## After Qatar talks, France sees chance to develop defence partnership

*Reuters, July 25, 2023*

France and Qatar have a common will to develop a defence partnership that builds on the existing cooperation with Rafale fighter jets, a French defence ministry source said on Tuesday, days after the minister visited Doha to cement military ties. Qatar did not immediately respond to a request for comment. The source declined to confirm a report from economic daily La Tribune newspaper on Tuesday that Doha wanted to buy 24 extra Dassault-made planes PA> and possibly upgrade its existing fleet with the latest technologies. La Tribune did not identify its sources. Sebastien Lecornu held

talks with Emir Sheikh Tamim bin Hamad al-Thani in Qatar last week.

<https://www.reuters.com/business/aerospace-defense/france-eyes-new-qatar-rafale-warplane-deal-defence-ministry-source-2023-07-25/>

## Qatar Interested in Additional Rafale Fighter Jets

*Israel Defense, July 27, 2023*

France is exploring a new deal with Qatar for the supply of additional Dassault Rafale fighter jets, according to Reuters. Qatar has expressed its desire to acquire more Rafale fighter jets after purchasing 36 aircraft in 2015 and 2017. A source in the French defense ministry confirmed to Reuters that Qatar has shown interest in buying 24 additional Rafale jets. The French source stated that there was a feeling that Doha was satisfied with the purchase of Rafale jets, and their impression was that Qatar wanted to continue the partnership. This could imply the acquisition of new aircraft and upgrades to the existing fleet, potentially to the F4 standard.

<https://www.israeldefense.co.il/en/node/59051>

### N. Turkey

## Kosovo buys batch of famed Turkish Bayraktar TB2 drones

*Daily Sabah, July 17, 2023*

Kosovo on Sunday announced the purchase of a batch of pioneering Turkish-made armed drones, in what comes when the Balkan country faces unrest in the north where ethnic Serbs refuse to recognize the Pristina authorities. In a Facebook post, photographed in front of a Bayraktar TB2 unmanned combat aerial vehicle (UCAV), Prime Minister Albin Kurti said the latest security spending was making the country safer. "We have added the Bayraktar TB2 UAVs, which we purchased from Türkiye as a state, to our army's inventory!" said Kurti, posing in front of the Kosovo-flagged drone along with Defense Minister Armend Mehaj and



Kosovo Security Force (KSF) Commander Bashkim Jashari.

<https://www.dailysabah.com/business/defense/kosovo-buys-batch-of-famed-turkish-bayraktar-tb2-drones>

### **'National technologies, local production vital to Turkish defense industry'**

*Daily Sabah, July 18, 2023*

Developing national technologies and local production is essential for the growing Turkish defense industry, said Deputy Defense Minister Celal Sami Tüfekci Tuesday. Speaking at a gathering between the Machinery and Chemical Industry (MKE), SAHA Istanbul Defense and Aerospace Cluster Association, sector representatives and subcontractors in the capital Ankara, Tüfekci underlined that "Türkiye aims to reach the super league in terms of the defense industry." "Our policy in the defense industry, of which MKE is a part, is not to grow the MKE on its own, but let an ecosystem of defense industry grow with it together. Therefore, we aim to increase the indigenusness of our defense industry with new cooperations and the transformation of our product range," Tüfekci continued.

<https://www.dailysabah.com/business/defense/national-technologies-local-production-vital-to-turkish-defense-industry>

### **The Netherlands lifts some defense industry restrictions on Türkiye**

*Daily Sabah, July 18, 2023*

The Netherlands announced that it lifted some restrictions on the export of defense industry equipment to Türkiye, Dutch ministries announced on Tuesday. The Dutch Foreign Ministry, Defense Ministry and the Economy and Climate Affairs Ministry released a joint statement on the lifting of restrictions. The statement included a list of precautions taken by the Dutch government related to restrictions on weapons exports. Noting that the Dutch government wants to strengthen defense cooperation in Europe, the statement

pointed out that there is a need for fair competition in the EU. It also pointed out that the Dutch defense sector's vitality mostly depends on exports and that more than half of this sector's revenue is generated from exports.

<https://www.dailysabah.com/business/defense/the-netherlands-lifts-some-defense-industry-restrictions-on-turkiye>

### **Türkiye's 1st long-range early warning radar to enter inventory soon**

*Daily Sabah, July 19, 2023*

Türkiye is counting the days for its first long-range domestically-produced, early warning radar, ERALP, to enter the inventory. The radar was developed by the defense giant Aselsan, which will be showcasing its capabilities in communications, air defense, avionics, electro-optics, electronic warfare, radar and unmanned systems to local and foreign visitors at the upcoming 16th International Defense Industry Fair (IDEF 2023) to be held in Istanbul on July 25-28. ERALP Portable Early Warning Radar System, which was developed in line with the needs of the Turkish Air Forces Command, will also be exhibited at IDEF 2023.

<https://www.dailysabah.com/business/defense/turkiyes-1st-long-range-early-warning-radar-to-enter-inventory-soon>

### **Turkish army adds domestic unmanned ground vehicle Barkan to inventory**

*Daily Sabah, July 23, 2023*

The Turkish defense industry achieved a significant milestone as the unmanned land vehicle "Barkan" officially entered the inventory of the country's security forces.

Developed by Havelsan, this cutting-edge unmanned ground vehicle is set to be showcased at the upcoming 16th International Defense Industry Fair (IDEF 2023), scheduled to take place in Istanbul

from July 25 to 28. The exhibition will provide an opportunity for Havelsan to present the latest advancements in unmanned vehicle solutions under the theme of “digital unity.”

<https://www.dailysabah.com/business/defense/turkish-army-adds-domestic-unmanned-ground-vehicle-barkan-to-inventory>

### **Following Saudi drone deal, Turkey's Erdogan targets \$6B in defense sales**

*Al-Monitor, July 25, 2023*

Turkish President Recep Tayyip Erdogan said Tuesday that Turkey expected to reach \$6 billion in arms sales in 2023, hoping for a nearly 36.3% rise from last year's \$4.4 billion. “We have already achieved a record export level of \$2.3 billion in the first half of the year,” Erdogan said in a video message to the International Defense Industry Fair 2023 (IDEF'23), held in Istanbul between July 25-28./ The Turkish defense and aeronautics sector's export revenues passed the \$4 billion mark in 2022, up from \$3.2 billion in 2021. The sharp defense export rise is attributed mainly to aerospace and the country's popular drones used by more than 30 countries.

<https://www.al-monitor.com/originals/2023/07/following-saudi-drone-deal-turkeys-erdogan-targets-6b-defense-sales>

### **Türkiye inks defense, military cooperation deals with Kenya, Tajikistan**

*Daily Sabah, July 26, 2023*

In a bid to bolster bilateral relations in the defense sector and enhance the supply and development of defense industry products and services, Türkiye and Kenya have officially signed a “Defense Industry Cooperation Agreement.” The agreement was inked during the 16th International Defense Industry Fair, IDEF'23, currently held in Istanbul. The signing ceremony took place between Presidency of Defense Industries (SSB) head Haluk Görgün and Kenya's Defense Minister Aden Duale, highlighting the mutual commitment to

collaborate on various aspects of defense and security.

<https://www.dailysabah.com/business/defense/turkiye-inks-defense-military-cooperation-deals-with-kenya-tajikistan>

### **Türkiye to modernize F-16 aircraft by 2025**

*Daily Sabah, July 26, 2023*

Türkiye will complete the modernization of its F-16 Block-30 and F-16 Block-40/50 type fighter jets by 2025, according to an agreement signed at the 16th International Defense Industry Fair (IDEF) in Istanbul on Wednesday. The Presidency of Defense Industries (SSB) project will be conducted by the Turkish Aerospace Industries (TAI). The head of SSB, Haluk Görgün, said the F-16s will be modernized with indigenous avionic equipment. Software and hardware for the jets will be changed to integrate them with indigenous ammunition, he noted.

<https://www.dailysabah.com/business/defense/turkiye-to-modernize-f-16-aircraft-by-2025>

### **Pakistani official eyes cooperation with Türkiye on UAVs, advanced fighters**

*Daily Sabah, July 27, 2023*

Saying that the defense industries of Türkiye and Pakistan have been working together for more than two decades, the Pakistani secretary for defense production added that the two countries will consolidate their work and look ahead to new fields, including unmanned aerial vehicles (UAVs) and advanced fighters. Turkish-Pakistani relations have expanded “exponentially” over the last decade, Humayun Aziz told Anadolu Agency (AA).

He stressed that Turkish Aerospace Industries (TAI), Pakistan Aeronautical Complex (PAC), Pakistani Karachi Shipyard, and Turkish defense firm STM have established ties.

<https://www.dailysabah.com/business/defense/pakistani-official-eyes-cooperation-with-turkiye-on-uavs-advanced-fighters>

## Major international fair IDEF sees several defense deals

*Anadolu Agency, July 28, 2023*

Several deals in the defense and aviation sectors were signed at the 16th International Defense Industry Fair (IDEF). The four-day event, which closed on Friday, saw the participation of around 1,500 domestic and foreign companies in Istanbul. Türkiye's Defense Industry Agency (SSB) has signed an agreement for radar systems and the production and integration process of some missiles. TAI Engine Industries (TEI) and Petroleum Pipeline Corporation (Botas) signed a deal for maintenance and support of turbine and natural gas compressor systems.

<https://www.aa.com.tr/en/economy/major-international-fair-idef-sees-several-defense-deals/2956941>

## Türkiye's homegrown fighter jet KAAN to take wing in December

*Daily Sabah, July 28, 2023*

Türkiye's domestically developed 5th-generation fighter jet "KAAN" will start flights in December, according to the head of Turkish Aerospace Industries (TAI). TAI General Manager Temel Kotil told a television program that they chose Dec. 27, for KAAN's first appearance in Turkish skies, five years earlier than planned. On Dec. 27, 1919, Mustafa Kemal Atatürk, founder of the Republic of Türkiye, and his brothers-in-arms arrived in Ankara, which was one of the watershed moments in the establishment of the independent Turkish republic and the beginning of the War of Independence.

<https://www.dailysabah.com/business/defense/turkiyes-homegrown-fighter-jet-kaan-to-take-wing-in-december>

## Azerbaijan's Su-25 jet passes 1st test flight after Turkish upgrade

*Daily Sabah, July 29, 2023*

Azerbaijan's Su-25 fighter jet modernized by Türkiye's aerospace and defense company has successfully passed its first

tests, the country's Defense Ministry said Saturday. "The process of modernization of the Azerbaijan Army's weapons and equipment is being carried out by the application of the latest technologies," Azerbaijan's Defense Ministry said in a statement. "According to plan, the Su-25 attack aircraft sent to Türkiye was brought back to Azerbaijan after modernization work by Turkish Aerospace Industries," the statement noted.

<https://www.dailysabah.com/business/defense/azerbaijans-su-25-jet-passes-1st-test-flight-after-turkish-upgrade>

## Turkey's Indigenous Fighter Jet to Take to the Skies 5 Years Earlier than Expected

*Israel Defense, July 31, 2023*

Turkey's indigenous fighter jet, KAAN, is expected to start flights in December of this year, five years ahead of schedule. The Turkish Aerospace Industries General Manager, Temel Kotil, announced the news on Friday and said that chosen date is December 27th – a significant date in modern Turkish history. That day, in 1919, the founder of the Turkish Republic Mustafa Kemal Atatürk arrived in Ankara.

Turkey's state-run Anadolu Agency notes that the aircraft is 21 meters long, and can reach a maximum speed of Mach 1.8 thanks to its twin engines. The KAAN project, which was launched in 2016, was expected to be delivered to the Turkish Air Force by 2028. The aircraft's capabilities also include situational awareness, optimized pilot workload, combat damage detection, new-generation mission systems, low observability, precision strikes, and an internal weapon bay.

<https://www.israeldefense.co.il/en/node/59082>

## Ukraine inks deal with Türkiye's Baykar on drones repair

*Daily Sabah, July 31, 2023*

Ukraine's defense ministry signed an agreement with Turkish drone magnate

Baykar Makina to build a service center for the repair and maintenance of drones in Ukraine, a ministry official said on Monday. Ukraine is seeking to boost domestic production of drones to build an "Army of Drones" in its fight against Russian forces who invaded the country in February 2022. "The creation of a service center will be a significant contribution to strengthening Ukraine's defense capabilities and will help bring our victory closer," the ministry's state secretary Kostiantyn Vashchenko said in a statement.

<https://www.dailysabah.com/business/defense/ukraine-inks-deal-with-turkiyes-baykar-on-drones-repair>

### O. United Arab Emirates

#### **Türkiye, UAE sign 13 deals worth \$50.7B**

*Anadolu Agency, July 19, 2023*

Türkiye and the United Arab Emirates (UAE) on Wednesday signed a total of 13 deals worth \$50.7 billion, the Turkish Communications Directorate said. In a statement, the directorate said that both sides have reached an agreement to establish a High-Level Strategic Council, to be chaired by the presidents of Türkiye and the UAE. Türkiye's relations with the UAE have been elevated to the level of strategic partnership as a result of the agreement, it said.

<https://www.aa.com.tr/en/middle-east/turkiye-uae-sign-13-deals-worth-507b/2949799>

#### **UAE launches nuclear educational courses**

*World Nuclear News, July 20, 2023*

Nawah - Emirates Nuclear Energy Corporation's (ENEC's) joint venture operating and maintenance subsidiary - said it is committed to Emiratisation as part of its efforts to develop a sustainable nuclear energy industry in the UAE. The Diploma in Nuclear Technology (DNT) is a 24-month, entry level programme for high-performing students. The programme is aimed to encourage, support and nurture the next generation of UAE Nationals to discover and pursue a career as nuclear

professionals, ENEC said. The first intake of high school graduates will begin their training in September and following successful completion of the training and assessment programme, will become local operators at Barakah. The programme will be delivered at ENEC headquarters and at the Barakah plant, located in the Al Dhafra Region of Abu Dhabi.

<https://world-nuclear-news.org/Articles/UAE-launches-nuclear-educational-courses>

#### **Emirati company, Turkish defense cluster sign deal**

*Anadolu Agency, July 27, 2023*

Abu Dhabi-based tactical equipment maker Black Cobra Military Supplies (BCMS) and Türkiye's OSTIM Defense and Aviation Cluster (OSSA) have reportedly signed a cooperation deal during an ongoing defense fair in Istanbul. At the 16th International Defense Industry Fair (IDEF), negotiations were held between the managers of both parties, according to information received on Thursday by Anadolu. Following discussions in line with the vision of strengthening cooperation between Türkiye and the United Arab Emirates, a cooperation agreement was drawn up to create a roadmap for mutual business development activities with Turkish small- and medium-sized enterprises, technology transfer, and establishing strategic partnerships.

<https://www.aa.com.tr/en/middle-east/emirati-company-turkish-defense-cluster-sign-deal/2955790>

### P. East Asia

#### **North Korea's Kim Yo Jong Warns US Against 'Foolish Act' That Risks Security**

*U.S. News, July 17, 2023*

North Korea's Kim Yo Jong, sister of leader Kim Jong Un, said on Monday that the United States should avoid any "foolish act" that could put its security at risk and rejected offers of talks as a ploy, state news agency KCNA reported.



Kim made her comments after White House national security adviser Jake Sullivan said the United States remained concerned that North Korea would carry out another intercontinental ballistic missile (ICBM) test, after it last week fired an ICBM off its east coast.

“The U.S. should stop its foolish act of provoking the DPRK even by imperilling its security,” Kim said in a statement carried by KCNA. DPRK refers to the North’s official name, the Democratic People’s Republic of Korea.

<https://www.usnews.com/news/world/articles/2023-07-17/north-koreas-kim-yo-jong-says-us-should-stop-foolish-act-that-risks-security>

### **Beijing tells NATO to stay out of East Asia**

*Asia News Network, July 17, 2023*

Beijing on Friday criticized attempts to undermine the Association of Southeast Asian Nations’ central role in the East Asian regional cooperation architecture, and dismissed NATO’s ambition to meddle in the region.

Wang Yi, director of the Office of the Foreign Affairs Commission of the Communist Party of China Central Committee, made the stern warning in Jakarta when attending the annual East Asia Summit Foreign Ministers’ Meeting.

The meeting in the Indonesian capital gathered representatives of 10 ASEAN countries along with eight other countries – Australia, China, Japan, India, New Zealand, the Republic of Korea, Russia and the United States.

Wang called on countries to “earnestly support the central role of ASEAN and build a solid foundation for peace”.

<https://asianews.network/beijing-tells-nato-to-stay-out-of-east-asia/>

### **US, South Korean officials huddle for new nuclear war planning talks**

*The Straits Times, July 18, 2023*

South Korean President Yoon Suk-yeol said on Tuesday that a new nuclear consultative

group between South Korea and the United States would be a “starting point” to build a strong and effective deterrence against North Korea.

Officials from the US and South Korea are meeting on Tuesday in Seoul for the first Nuclear Consultative Group (NCG) discussion, aimed at better coordinating allied nuclear response in the event of a war with North Korea.

“Through a South Korea-US alliance upgraded to a new nuclear-based paradigm, we will make substantial efforts to fundamentally block North Korea’s nuclear and missile threats,” Mr Yoon told a briefing.

The NCG was first announced during the bilateral summit in Washington in April amid growing calls in South Korea for its own nuclear bombs, a step Washington opposes.

<https://www.straitstimes.com/asia/east-asia/us-south-korean-officials-huddle-for-new-nuclear-war-planning-talks>

### **US Nuclear Submarine Visits South Korea in Show of Force**

*VOA News, July 18, 2023*

The United States is backing tough talk on provocations and saber-rattling by North Korea with a show of force, sending a nuclear-armed submarine on a visit to South Korea.

The Ohio-class nuclear ballistic missile submarine *USS Kentucky* arrived Tuesday in the South Korean port of Busan, escorted by two, U.S. guided missile destroyers.

A statement from U.S. Forces Korea said the visit “reflects the United States’ ironclad commitment to the Republic of Korea,” and also “demonstrates the flexibility, survivability, readiness, resolve, and capability of the U.S. Navy submarine forces.”

<https://www.voanews.com/a/us-nuclear-submarine-visits-south-korea-in-show-of-force/7185628.html>

## S. Korean nuclear envoy heads to Japan for trilateral talks on N.K. threats

*Yonhap News Agency, July 19, 2023*

South Korea's top nuclear envoy on Wednesday traveled to Japan to hold talks with his United States and Japanese counterparts on North Korea's evolving nuclear and missile provocations.

Kim Gunn, special representative for Korean Peninsula peace and security affairs, plans to meet with his American and Japanese counterparts, Sung Kim and Takehiro Funakoshi, respectively, in Tokyo on Thursday.

The three sides are expected to discuss ways to deal with Pyongyang's growing provocations, highlighted by the launch of a Hwasong-18 solid-fuel intercontinental ballistic missile last week.

<https://en.yna.co.kr/view/AEN20230719007300325>

## South Korea sends a warning to Pyongyang as nuclear-capable US sub visits the country

*Euronews, July 19, 2023*

South Korea's President Yoon Suk Yeol boarded an American nuclear-capable submarine in the southern port city of Busan on Wednesday. It was the first time in more than four decades that a United States' submarine of this type has docked in the country.

And the president's visit to it was intended to send a strong message to North Korea.

"South Korea and the US will show overwhelming response to North Korea's heightened nuclear threats through Nuclear Consultative Group and by regularly deploying strategic assets such as SSBNs (ballistic missile submarines)," Yoon said.

<https://www.euronews.com/2023/07/19/south-korea-sends-a-warning-to-pyongyang-as-nuclear-capable-us-sub-visits-the-country>

## North Korea makes nuclear threat over US sub in South Korea

*The Hill, July 20, 2023*

"The military security situation in the area of the Korean peninsula, which has undergone a fundamental change due to the reckless military moves of the U.S. and its followers, more clearly indicates what mission the nuclear weapons of the [North Korea] should carry out," Kang Sun Nam, North Korea's defense minister, said in a statement.

"I remind the U.S. military of the fact that the ever-increasing visibility of the deployment of the strategic nuclear submarine and other strategic assets may fall under the conditions of the use of nuclear weapons specified in the [North Korean] law on the nuclear force policy," he added. "The U.S. military side should realize that its nuclear assets have entered extremely dangerous waters."

<https://thehill.com/policy/defense/4108863-north-korea-makes-nuclear-threat-over-us-sub-in-south-korea/>

## Top nuclear envoys of S. Korea, U.S., Japan denounce N. Korea's latest missile test

*Yonhap News Agency, July 20, 2023*

The top nuclear negotiators of South Korea, the United States and Japan met in Japan on Thursday and strongly condemned North Korea's recent ballistic missile launch, Seoul's foreign ministry said.

Kim Gunn, special representative for Korean Peninsula peace and security affairs, and his U.S. and Japanese counterparts, Sung Kim and Takehiro Funakoshi, respectively, delivered the message at a trilateral meeting in Karuizawa, a day after Pyongyang fired two short-range ballistic missiles into the East Sea.

The three sides discussed ways to "effectively counter" North Korea's

continued provocations and agreed to step up efforts to prevent illicit revenue from flowing into the North's weapons development programs, the ministry said.

<https://en.yna.co.kr/view/AEN20230720004600325>

### **North Korea fires 'several' cruise missiles into sea, South says, amid soaring tensions**

*The Guardian, July 22, 2023*

North Korea has fired "several cruise missiles" into the Yellow Sea between China and the Korean Peninsula, South Korea's joint chiefs of staff (JCS) says.

The launches, which the military said took place about 4am on Saturday (1900 GMT Friday), come as relations between the two Koreas are at one of their lowest points ever and as Pyongyang remained silent about the fate of a US soldier who fled across the border on Tuesday.

"South Korean and US intelligence authorities were analysing the launches while monitoring signs of additional activities," the JCS said.

North Korea fired two ballistic missiles into the sea on its opposite coast towards Japan just three days earlier.

<https://www.theguardian.com/world/2023/jul/22/north-korea-fires-several-cruise-missiles-into-sea-south-says-amid-soaring-tensions>

### **Thailand debuts first tokamak with help of Chinese scientists in milestone for Southeast Asia's clean energy research**

*South China Morning Post, July 26, 2023*

With the help of Chinese scientists, Thailand debuted its first tokamak device – a machine designed to replicate the sun's nuclear fusion process – in a milestone for sustainable energy research and scientific cooperation between the countries.

The Thailand Tokamak-1, which started operating on Tuesday, is a joint effort between the Thailand Institute of

Nuclear Technology and the Chinese Academy of Sciences' Institute of Plasma Physics in the southeastern city of Hefei.

The device is the first tokamak for a member of the Association of Southeast Asian Nations. Thailand is expected to design and build its own tokamak for domestic use in the next decade, with an aim to become Southeast Asia's hub for fusion technology development, according to the Thai Public Broadcasting Service.

<https://www.scmp.com/news/china/science/article/3229021/thailand-debuts-first-tokamak-help-chinese-scientists-milestone-southeast-asias-clean-energy>

### **Q. Australia**

#### **Supporting US military against China could draw Australia into nuclear war, expert warns**

*Daniel Hurst*

*The Guardian, July 16, 2023*

Australia is making itself a bigger military target for China and risks being drawn into a war that "could end in nuclear catastrophe", a leading defence analyst has argued. Sam Roggeveen, the director of the Lowy Institute's international security program and a former Australian intelligence analyst, issues the stark warning in an essay. "Australia has taken the decision to bring US combat forces, and its military strategy to fight China, on to our shores," Roggeveen wrote in the latest edition of the Australian Foreign Affairs journal.

<https://www.theguardian.com/australia-news/2023/jul/17/supporting-us-military-against-china-could-draw-australia-into-nuclear-war-expert-warns>

#### **Australia says nuclear isn't part of its energy mix. Here's why**

*CNBC, July 24, 2023*

Nuclear energy has never been part of Australia's energy mix as it has abundant renewables, according to Australia's minister for climate change and energy.

"I'm not here to tell other countries what to do. Nuclear plays a role in various countries' mix, but in Australia, it never has," Chris Bowen told CNBC on the sidelines of the G20 energy ministers meeting in Goa, India.

"Wherever you look, there's issues from our point of view with nuclear energy," he said, outlining problems that can come from adopting nuclear energy.

Apart from being extremely expensive, it generates large amounts of waste and is an inflexible energy source, he told CNBC's Sri Jegarajah on Saturday.

<https://www.cnn.com/2023/07/25/australia-minister-chris-bowen-on-why-nuclear-isnt-in-its-energy-mix.html>

### **Australian Prime Minister Confident US Will Deliver Nuclear-Powered Submarines**

*VOA News, July 28, 2023*

Australian Prime Minister Anthony Albanese said Friday he was confident of securing bipartisan political support in the United States for a deal to provide his country with submarines powered by U.S. nuclear technology.

The so-called AUKUS partnership — an acronym for Australia, the United Kingdom and the United States — is being discussed by U.S. Defense Secretary Lloyd Austin and U.S. Secretary of State Antony Blinken in meetings with Albanese and other Australian officials in Brisbane on Friday and Saturday.

Under the deal, Australia will buy three Virginia-class submarines from the United States and build five of a new AUKUS-class submarine in cooperation with Britain.

<https://www.voanews.com/a/australian-prime-minister-confident-us-will-deliver-nuclear-powered-submarines-7201631.html>



## Contribute Articles

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

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