

Nuclear, Missile & Space Digest

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A Fortnightly Newsletter from the MP-IDSA

March 15, 2024

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- Senegal Signs its Fourth Country Programme Framework (CPF) for 2024–2029
- Africa's emerging nuclear energy sector can help to build sustainable economic development
- MTN and Huawei Sign Memorandum of Understanding for Joint Innovation Tech Lab to Boost Digital Transformation in Africa.
- AFCONE and DeepGeo launch African nuclear initiative
- Government agencies and esteemed experts discussed the development of nuclear power projects at Africa Energy Indaba

T. East Asia

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A. India

India's tech sector growth rate seen halving to 3.8% in FY24 - Nasscom

Reuters, February 16, 2024

India's technology sector is expected to grow at a slower pace this fiscal year as clients hold back spending and delay decision-making, its main industry body said on Friday.

The National Association of Software and Service Companies (Nasscom) expects the industry's revenue to grow 3.8% to \$253.9 billion, compared with the previous fiscal year's 8.4%.

The expansion this year will likely be driven by lower- to mid-single-digit contributions from all segments, including information technology, business process management, software products, engineering research and development.

India's tech sector growth rate seen halving to 3.8% in FY24 - Nasscom | Reuters

India seeks \$26 billion of private nuclear power investments

Reuters, February 21, 2024

India will invite private firms to invest about \$26 billion in its nuclear energy sector to increase the amount of electricity from sources that don't produce carbon dioxide emissions. This is the first time New Delhi is pursuing private investment in nuclear power, a non-carbon-emitting energy source that contributes less than 2% of India's total electricity generation. The funding would help India to achieve its target of having 50% of its installed electric generation capacity use non-fossil fuels by 2030, up from 42% now.

The government is in talks with at least five private firms including Reliance Industries, Tata Power, Adani Power and Vedanta Ltd to invest around 440 billion rupees (\$5.30 billion) each.

Exclusive: India seeks \$26 billion of private nuclear power investments | Reuters

India to add 18 more Nuclear power reactors with total capacity of 13,800 MWe by 2032: NPCIL

The Economic Times, February 25, 2024

India will add 18 more nuclear power reactors with a cumulative capacity to generate 13,800 MWe of electricity, taking the total share of atomic power in the energy mix to 22,480 MWe by 2031-32. This was announced by the Nuclear Power Corporation of India Limited (NPCIL) after Prime Minister Narendra Modi dedicated two home-built 700 MW nuclear power reactors at Kakrapar in Gujarat last week.

Presently, the NPCIL operates 24 reactors with a total capacity of 8,180 MWe.

India to add 18 more Nuclear power reactors with total capacity of 13,800 MWe by 2032: NPCIL - The Economic Times (indiatimes.com)

India's newest nuclear reactor connects to grid

Nuclear News Wire, February 28, 2024

Unit 4 at Kakrapar nuclear power plant was connected to the grid on February 20, the Nuclear Power Corporation of India Ltd. (NPCIL) has announced. The 700-MWe pressurized heavy water reactor achieved first criticality on December 17, 2023.

The company announced the grid connection as part of Indian prime minister Narendra Modi's visit to the plant last week. Modi also officially dedicated Units 3 and 4 at Kakrapar, which is located along India's west coast in the state of Gujarat.

<https://www.world-nuclear-news.org/Articles/India-s-newest-nuclear-unit-connected-to-grid>

Fuel loading begins at Indian fast breeder reactor

World Nuclear News, 4 March, 2024

Indian Prime Minister Narendra Modi witnessed the start of fuel loading at the

500 MWe Prototype Fast Breeder Reactor at Kalpakkam in Tamil Nadu. Fast breeder reactors form the second stage of India's three-stage nuclear programme

The Prototype Fast Breeder Reactor (PFBR) has been developed by BHAVINI (Bharatiya Nabhikiya Vidyut Nigam Limited), a government enterprise under the Department of Atomic Energy (DAE) which was set up in 2003 to focus on fast breeder reactors. Construction of the PFBR began in 2004, with an original expected completion date of 2010.

India has adopted a three-stage nuclear power programme, with the long-term goal of deploying a thorium-based closed nuclear fuel cycle. The first stage involves the use of pressurised heavy water reactors (PHWRs), fuelled by natural uranium, and light water reactors. The second stage involves reprocessing used fuel from the first stage to recover the plutonium to fuel FBRs. In stage 3, Advanced Heavy Water Reactors (AHWRs) will burn thorium-plutonium fuels and breed fissile uranium-233.

Fuel loading begins at Indian fast breeder reactor : New Nuclear - World Nuclear News (world-nuclear-news.org)

India test-fires Agni-V ballistic missile with multiple warhead technology under Mission Divyastra

The Hindu, 11 March, 2024

Prime Minister Narendra Modi lauds DRDO scientists on first flight test of Agni-V missile

In a major technological breakthrough and building in redundancy into the country's nuclear weapons programme, Prime Minister Narendra Modi on Monday announced the successful test firing of Agni-V ballistic missile with Multiple Independently Targetable Re-entry Vehicle (MIRV) technology by the Defence Research and Development Organisation (DRDO) under Mission Divyastra. The MIRV technology means a single missile can carry multiple warheads.

India test-fires Agni-V ballistic missile with multiple warhead technology under Mission Divyastra - The Hindu

India, Russia in discussions on thermonuclear research, transit potential of North Sea: Rosatom CEO

The Times of India, 12 March, 2024

India and Russia are in discussions to collaborate on a range of activities including research on controlled thermonuclear fusion and joint development of the transit potential of the Northern Sea route. AE Likhacheva, CEO of Rosatom said the main topic of discussion with India was on the prospects of further cooperation in the field of nuclear technologies and in non-energy and non-nuclear areas.

Likhacheva, who visited the Kudankulam Nuclear Power Plant (KNPP) in Tamil Nadu last month, said both sides have gained enormous experience in cooperation during the construction of KNPP's first units. Besides that, Russia is also in discussions with India on the joint development of the transit potential of the Northern Sea Route, which is operated by Rosatom.

This will help ensure supplies of Russian oil, coal and liquefied natural gas to India via the said route, with transshipment in Russian Far Eastern ports.

India, Russia in discussions on thermonuclear research, transit potential of North sea: Rosatom CEO (indiatimes.com)

India conducts first flight of missile that can carry multiple warheads

Al Jazeera, 11 March, 2024

India has completed the first flight test of a home-grown missile with multiple independently targetable re-entry vehicle (MIRV) technology, India's Prime Minister Narendra Modi has said. The technology delivers multiple warheads to different targets fired from the same missile on the Agni-V platform, which has a range of 5,000 km (3,100 miles), making it India's sole contender for intercontinental ballistic missile (ICBM) long-range category.

India conducts first flight of missile that can carry multiple warheads | Nuclear Energy News | Al Jazeera

B. Pakistan

Pakistan-bound vessel with nuclear shipment from China stopped

Tribune India, March 4, 2024

A Karachi-bound ship from China and intercepted at Mumbai has been found to be carrying a suspected nuclear consignment. A team from the Defence Research and Development Organisation (DRDO) examined the same, which included a Computer Numerical Control (CNC) machine, and confirmed its potential use in Pakistan's nuclear programme.

tPakistan-bound vessel with nuclear shipment from China stopped : The Tribune India

C. China

Index reflects nation's strength in AI governance

China Daily, February 17, 2024

China plays a leading role in the global development of artificial intelligence and has performed well in the area of AI governance, according to the recently published AI Governance International Evaluation Index. The AGILE Index was initiated by the Centre for Long-term Artificial Intelligence and the International Research Centre for AI Ethics and Governance under the Chinese Academy of Sciences' Institute of Automation. The index reveals that China, with a score of 68.5, ranks second overall among the 14 evaluated countries, with the United States heading the table with a score of slightly above 70.

Index reflects nation's strength in AI governance - Chinadaily.com.cn

Chinese scientists create a plasma stealth device to take military aircraft off the radar

South China Morning Post, February 19, 2024

A new-generation plasma stealth device that can make almost any military aircraft vanish from a radar screen is claimed to have been developed by a team of scientists and

engineers from western China. Unlike its predecessors, which generate a cloud of plasma draped over a plane, this innovation

can be tailored to fit a sensitive section of a military aircraft – areas like the radar dome, cockpit or other spots that are most prone to enemy radar detection. This “closed electron beam plasma stealth device”, which focuses on protecting key areas instead of the entire aircraft, can be switched on at a moment's notice to fool radar operators.

Chinese scientists create a plasma stealth device to take military aircraft off the radar | South China Morning Post (scmp.com)

Coercive space activities: the view from PRC sources

China Aerospace Studies Institute, Air University, February 19, 2024

The People's Republic of China (PRC) is developing space technologies, in part, to deter and compel the United States from taking actions that Beijing deems counter to its national security interests. PRC coercive space efforts are intended to achieve effects in, from, and to space. People's Liberation Army (PLA) researchers have assessed space capabilities as playing an outsized role in strategic coercive efforts. In comparison to nuclear capabilities, PLA researchers perceive space capabilities as a more usable and effective method of influencing an adversary. PRC writings on space deterrence and compellence highlight several factors that may complicate the ability of the United States to deter the PRC from taking military action.

Coercive Space Activities: The View From PRC Sources > Air University (AU) > China Aerospace Studies Institute (af.edu)

China must embrace new era of AI revolution

China Daily, February 20, 2024

In the global AI competition, both China and the United States prioritize AI,

investing significant amounts of resources in the sector. The US holds a leading position in cutting-edge chip design, new algorithms and underlying technologies. It also has an advantage in the number of AI unicorn companies and top talents. But China's vast population, robust data collection capability, and continuous innovation of apps are propelling the development of the country's AI industry. To be sure, for both China and the US, the path to AI development is challenging and requires substantial effort. If the two countries collaborate and complement each other in terms of resources, they can leverage their relative strengths to get mutual benefits, promote technological progress, and ensure the safe, trustworthy and reliable application of AI.

China must embrace new era of AI revolution - Opinion - Chinadaily.com.cn

China unveils export version of attack helicopter

Defence News, February 20, 2024

China unveiled the export version of the signature attack helicopter by the People's Liberation Army at the Singapore Airshow. Though China has participated in the biennial event in previous years, this marks the first time Chinese state-owned companies had a full-scale military aircraft on static display at an air show outside the country. China unveiled the Z-10ME at Airshow China 2021; some analysts have since compared it to Boeing's AH-64 Apache. The PLA has used the helicopter for military exercises near Taiwan and India. More than 200 Z-10s and its numerous variations are in active service with the PLA, according to the Military Balance 2023 report from the International Institute for Strategic Studies think tank.

China unveils export version of attack helicopter (defensenews.com)

China sends new naval fleet for escort mission in Gulf of Aden

China Daily, February 21, 2024

The 46th fleet of the Chinese People's Liberation Army Navy set sail from a

military port in the coastal city of Zhanjiang in south China's Guangdong Province to take over an escort mission from the 45th naval fleet in the Gulf of Aden and the waters off Somalia. The 46th fleet includes the guided-missile destroyer Jiaozuo, the missile frigate Xuchang, and the comprehensive replenishment vessel Honghu. It has over 700 officers and soldiers, including dozens of special forces personnel, and two helicopters onboard.

China sends new naval fleet for escort mission in Gulf of Aden - Chinadaily.com.cn

China debuts latest Z-10ME attack helicopter at Singapore Airshow

China Morning Post, February 21, 2024

China's latest Z-10ME attack helicopter is on display at the Singapore Airshow, the first time it has been featured in an overseas exhibition. Analysts said the international debut indicated China was on the lookout for new buyers as global weapons demand soars. The Z-10 is already in service with the People's Liberation Army, and is among the helicopter models used in drills on the border with India and near Taiwan. State-owned Aviation Industry Corporation of China (AVIC), one of the developers of the aircraft, said an upgraded export version was being showcased at the Singapore Airshow. This comes about six years after a production-ready version of the multirole attack helicopter was unveiled at a national air show in China.

China debuts latest Z-10ME attack helicopter at Singapore Airshow | South China Morning Post (scmp.com)

China begins construction on 2nd phase of Zhangzhou nuclear power project

Xinhua, February 22, 2024

China has begun construction on the second phase of the Zhangzhou nuclear power project using Hualong One reactors, domestically developed third-generation reactors, in the city of Zhangzhou, east China's Fujian Province.

The first four Hualong One units have been completed and put into operation, according to the China National Nuclear Corporation (CNNC). The Zhangzhou nuclear power project is designed to consist of six nuclear power units, each with a 1-million-kilowatt power generation capacity. Hualong One reactors were designed by two nuclear power giants: China General Nuclear Power Group and the CNNC.

China begins construction on 2nd phase of Zhangzhou nuclear power project-Xinhua (news.cn)

China launches new communication technology experiment satellite

China Daily, February 23, 2024

China launched a Long March 5 carrier rocket to deploy an experimental satellite into space, according to the State-owned conglomerate China Aerospace Science and Technology Corp, the nation's dominant space contractor. The rocket was made by the China Academy of Launch Vehicle Technology, a subsidiary of the company, and was the 11th in the Long March 5 series. The satellite was built by the China Academy of Space Technology, another CASC subsidiary, and is tasked with verifying multi-band, high-speed space-based communication technologies, according to the release. The mission was China's ninth rocket launch this year and the 509th flight of the Long March rocket family, the nation's main launch vehicle fleet.

China launches new communication technology experiment satellite - Chinadaily.com.cn

China names new vehicles for manned lunar exploration mission

CGTN, February 24, 2024

China unveiled the names of its new manned lunar exploration mission vehicles. The lunar lander is called "Lanyue" and the manned spacecraft "Mengzhou," according to the China Manned Space Agency. The names were selected by a group of experts from nearly 2,000 public proposals, the agency said. "Lanyue," which means "Embracing the Moon" in English, first

appeared in a poem written by the late Chairman Mao Zedong in 1965, the agency added. The word symbolizes China's aspiration and confidence in its exploration of the universe and expedition to the moon, according to the agency.

CGTN | Breaking News, China News, World News and Video

Chinese aircraft carriers are getting 5G super stealth fighters. Watch out Taiwan

The Telegraph, February 25, 2024

The surprise appearance of China's newest stealth fighter on China's oldest aircraft carrier raised eyebrows this month. Is the Chinese People's Liberation Army Navy planning to deploy the Shenyang J-35 aboard the aging flattop Liaoning and her sister vessel Shandong, and not just on the newer – and much bigger – carrier Fujian? If so, it could complicate US Navy war plans as the Americans factor in the growing capability of the PLAN's growing carrier fleet. At present, the PLAN – which by some measures is the world's biggest navy – has just two operational carriers, compared to the US Navy's 11. The 61,000-ton Liaoning, a rebuilt ex-Soviet carrier that entered Chinese service in 2012, was the first. The slightly improved and newly-built sister ship Shandong joined the fleet in 2019.

Chinese aircraft carriers are getting 5G super stealth fighters. Watch out Taiwan (telegraph.co.uk)

Chinese researchers confirm origin of cosmic rays for the first time

Global Times, February 26, 2024

The Large High Altitude Air Shower Observatory (LHAASO) has discovered a giant ultra-highenergy gamma-ray bubble structure in the Cygnus star-formation region. This is the first time in human history that the origin of cosmic rays with energy higher than 10 Peta-Electronvolt (PeV) has been discovered, the Global Times learned from the Institute of High

Energy Physics of the Chinese Academy of Sciences (CAS). Cosmic rays are charged particles from outer space, mainly composed of protons. The origin of cosmic rays is one of the most important frontier issues in modern astrophysics. Measurements of cosmic rays in past decades have revealed a break around 1 PeV in the energy spectrum, which is called the “knee” of the cosmic ray energy spectrum due to its shape resembling a knee joint.

Chinese researchers confirm origin of cosmic rays for the first time - Global Times

China to make about 100 space launches in 2024

The State Council Information Office, the People's Republic of China, February 27, 2024

China is projected to make about 100 space launch missions this year, setting a new record for the country, according to information released at a press conference. The launches include the maiden flight from China's first commercial spacecraft launch site, in addition to more satellite lift-offs to form constellations, according to the press conference. China's first commercial spacecraft launch site is now under construction in the city of Wenchang, in south China's island province of Hainan. The China Aerospace Science and Technology Corporation (CASC), the country's rocket series developer and the leading force of the country's space industry, released the 2023 blue book of China aerospace science and technology at the same press conference.

China to make about 100 space launches in 2024 | english.scio.gov.cn

China's rapidly expanding nuclear weapon stockpile remains opaque

The Economic Times, February 27, 2024

Without providing the world with any word of explanation, in the past five years, the People's Liberation Army Rocket Force (PLARF) of China has expanded the types and quantity of its nuclear-tipped weapons more than at any point in its history. Indeed,

last month, the Bulletin of the Atomic Scientists published its annual in-depth Nuclear Notebook. The chapter entitled Chinese Nuclear Weapons, 2024, authored by Hans M Kristensen, Matt Korda, Eliana Johns and Mackenzie Knight, warned, “In all, China's nuclear expansion is among the largest and most rapid modernization campaigns of the nine nuclear-armed states” in the world. The chapter's authors stated that in the past year, “China has continued to develop its three new missile silo fields for solid-fuel intercontinental ballistic missiles [ICBM], expanded the construction of new silos for its liquid-fuel DF-5 ICBMs, has been developing new variants of ICBMs and advanced strategic delivery systems, and has likely produced excess warheads for eventual upload onto these systems once they are deployed. China has also further expanded its dual-capable DF-26 intermediate range ballistic missile [IRBM] force, which appears to have completely replaced the medium range DF-21 in the nuclear role.

ICBMs: China's rapidly expanding nuclear weapon stockpile remains opaque - The Economic Times (indiatimes.com)

Chinese manned submersible Jiaolong conducts first dives in Atlantic

CGTN, February 28, 2024

China's independently developed manned submersible Jiaolong has completed its first dives in the Atlantic Ocean during the country's 83rd ocean expedition, said China Ocean Mineral Resources R&D Association (COMRA). The submersible had made 23 successful dives in the southern Atlantic Ocean by February 23, and set a new record of nine dives in nine days. Jiaolong has carried out detailed and efficient operations in multiple hydrothermal areas with complex environments, obtaining about 300 geological and biological samples and some 4 terabytes of environmental data and visual materials, said the COMRA.

CGTN | Breaking News, China News, World News and Video

Chinese space, nuclear development is 'breathtakingly fast,' DOD officials warn Patrick Tucker

Defence One, February 29, 2024

China's advancements in space technology – and its nuclear triad – are proceeding with incredible speed, while Russia remains an unpredictable and dangerous threat, top officials from U.S. Strategic Command and Space Command told lawmakers. What "China and Russia are doing, particularly building with their counterspace weapons, they're moving breathtakingly fast," Gen. Stephen Whiting, the head of U.S. Space Command, told the Senate Armed Services Committee. China, on the other hand, is far more dependent on space assets and so has a strong disincentive to launch a space attack that would harm satellites indiscriminately, Whiting said. China is also rapidly advancing its own nuclear triad capability, including a stealth bomber.

Chinese space, nuclear development is 'breathtakingly fast,' DOD officials warn - Defense One

The Navy's Achilles Heel: China's DF-26B missile could sink aircraft carriers

The National Interest, February 29, 2024

China's strategic focus on annexing Taiwan and expanding military influence in the Pacific Ocean poses a significant challenge to US Navy power projection. Recognizing their inability to win a conventional war, China has developed an overwhelming missile arsenal, notably the DF 26B, capable of targeting US assets, including aircraft carriers. With a substantial increase in missile capabilities, China aims to keep US forces at bay, enabling them to achieve their objectives without direct confrontation. As tensions escalate, the US faces a critical reassessment of its Indo-Pacific strategy and its commitment to defending Taiwan against Chinese aggression.

The Navy's Achilles Heel: China's DF-26B Missile Could Sink Aircraft Carriers | The National Interest

Major products for manned lunar exploration enter preliminary development stage: Chinese space authority

Global Times, February 29, 2024

In 2024, China's manned space program will coordinate two major tasks of space station application and development, and manned lunar exploration, authorities revealed. Major products for flying to the moon such as launch vehicles, manned spacecraft, landers, and lunar suits have all entered the preliminary design and development stage. Taking solid steps toward the goal of building a strong aerospace nation, all works related to the application and development phase of the space station are progressing steadily according to the plan, and various tasks in the lunar exploration project are under smooth development and research, the China Manned Space Agency (CMSA) told the Global Times.

Major products for manned lunar exploration enter preliminary development stage: Chinese space authority - Global Times

Russia, China Considering Putting Nuclear Power Plant On Moon

Reuters, 5 March, 2024

Russia and China are considering putting a nuclear power plant on the moon from 2033-35, Yuri Borisov, the head of Russia's space agency Roscosmos said on Tuesday, something he said could one day allow lunar settlements to be built. Borisov, a former deput defence minister, said that Russia and China had been jointly working on a lunar programme and that Moscow was able to contribute with its expertise on "nuclear space energy".

Russia, China Considering Putting Nuclear Power Plant On Moon (ndtv.com)

Advisers call for nuclear to be included in green energy transition

China Daily Global, 11 March, 2024

Nuclear power has massive potential to boost green electricity development in

China and should be included in the country's green electricity system for low-carbon development, according to national legislators, political advisers and industry experts.

Nuclear-generated power should be certified as green electricity in China, as the country's expanding fleet of nuclear generators is capable of providing over 160 billion kilowatt-hours of electricity per year, said Yang Changli, chairman of China General Nuclear Power Group, China's largest nuclear power operator by installed capacity.

Advisers call for nuclear to be included in green energy transition - Chinadaily.com.cn

D. Sri Lanka

Sri Lanka, US sign Nuclear Security pact

Sunday Observer, 3 March, 2024

Sri Lanka and the United States have inked a nuclear security agreement aimed at detecting and intercepting illicit trafficking of special nuclear material and other radioactive substances.

This move comes as part of broader efforts to tackle escalating global security risks. The Sri Lankan Navy formalised an MoU with the US National Nuclear Security Administration at the Navy headquarters in Colombo.

The MoU was signed in the presence of the US Ambassador to Sri Lanka, Julie Chung, and the Commander of the Sri Lanka Navy, Vice Admiral Priyantha Perera. Ambassador Chung expressed on X that the partnership between the United States and Sri Lanka in tackling global security threats continues to strengthen over time.

This agreement underscores the growing partnership between the two countries in addressing global security threats. With technical and methodological cooperation outlined in the MoU, including the installation of advanced detection systems at Sri Lanka's border control points, the

initiative marks a significant step towards bolstering nuclear security measures.

Sri Lanka, US sign Nuclear Security pact - Sunday Observer

Country has received six proposal for first nuclear plant, including offshore reactors.

The Island, 8 March, 2024

Sri Lanka had received six proposals for the construction of nuclear plants here. Prof. S. R. D. Rosa, Chairman – Sri Lanka Atomic Energy Board (SLAEB) said during a recent seminar organised

by the Institution of Engineers Sri Lanka (IESL) on 'Potential of nuclear energy and its challenges in Sri Lanka. Russia's Rosatom, China's China National Nuclear Corporation (CNNC), France's Électricité de France (EDF), and Denmark's Seaborg have submitted proposals. Ultra Safe Nuclear Corporation of the US (USNC) and Canada's Atomic Energy of Canada Ltd (AECL) have expressed willingness, he said.

Six countries offer to build nuclear power plants here - The Island

E. Bangladesh

PM Hasina reveals location for second nuclear power plant

Somoy News, 10 March, 2024

Sheikh Hasina confirmed that while the construction of the first Rooppur nuclear power plant is progressing, the government had initially intended to establish the second plant in the country's southern region. "However, alternative plans are underway to construct it in Pabna due to the soft soil conditions in that region. This decision comes with a view to ensuring the smooth implementation of the project and to proceed in tandem with the first plant's development

PM Hasina reveals location for second nuclear pow... (somoynews.tv)

F. Russia

Russia to conduct over 40 space launches this year – Roscosmos chief

TASS, February 19, 2024

Russia's State Space Corporation Roscosmos is set to conduct over 40 space launches this year and is taking efforts to prevent their delays, Roscosmos Chief Yury Borisov told the Prokosmos web portal on Monday.

"Over 40 [space launches]. However, plans always remain just plans. Last year, we also planned a large number of launches. But, unfortunately, we could not implement the launch program in full due to some objective circumstances," the Roscosmos head said.

<https://tass.com/science/1748439>

Roscosmos to spend about \$545 mln on small satellites conveyor

TASS, February 19, 2024

Roscosmos will allocate about fifty billion rubles (\$545 mln) to organize conveyor production of satellites with the weight up to 500 kg, CEO of the Russian state space corporation Yury Borisov said in an interview with the Pro Kosmos news portal.

Young specialists of Reshetnev company organized conveyor assembly of satellites after an excursion to a Kamaz truck maker plant without serious capital expenses and almost from improvised resources, Borisov said.

<https://tass.com/science/1748509>

Rostec breathes new life into production of Tupolev-160 strategic bombers – CEO

TASS, February 21, 2024

Resuming the production of the Tupolev-160 strategic bombers (NATO reporting name Blackjack) armed with cruise missiles was a great challenge, Sergey Chemezov, the CEO of the state corporation Rostec, has said. The affiliated enterprises have coped with this task well enough, he told the media, adding that currently the Tu-160M was one of the

most powerful combat aircraft in the world.

"Restarting the production of Tu-160 was quite a task for all of Rostec's affiliates. Design documentation was fully digitized within the tightest deadlines. The technique of vacuum welding of titanium parts was restored, and the production of airframe units was resumed. Today we can say confidently that we have succeeded in all respects," he said.

The upgraded Tu-160M has inherited the look and shape of its predecessor, but boasts a completely new technological base and digital solutions.

<https://tass.com/defense/1749797>

Russian defense chief points to significant increase in drones, ammunition

TASS, February 21, 2024

The number of unmanned aerial vehicles in use by the Russian army has increased 17-fold, Defense Minister Sergey Shoigu said in an interview with TASS Editor-in-Chief Mikhail Petrov.

"We have increased the number of tanks almost six-fold; we are improving and upgrading them. The number of unmanned aerial vehicles has grown 17-fold and the number of both artillery and jet shells has risen 17.5-fold. It certainly allows us to face the future with confidence even though the job is challenging," Shoigu noted.

About 540,000 people entered military service under contract in Russia in 2023, making it possible to create a reserve army of six divisions, Defense Minister Sergey Shoigu said.

<https://tass.com/defense/1749447>

Russia has no plans to quit Outer Space Treaty, says senior diplomat

TASS, February 24, 2024

Moscow has no plans to quit the 1967 Outer Space Treaty that governs the

principles of peaceful space exploration, Russian Deputy Foreign Minister Sergey Ryabkov said on Saturday.

"No, we do not consider [such plans]," the senior Russian diplomat said, replying to a corresponding question.

"This is one of the key components remaining in force within the system of international treaties, legal accords and other instruments of regulating this sphere that has developed over decades," Ryabkov said.

<https://tass.com/politics/1751073>

Launch vehicle with Meteor-M satellite installed at Vostochny spaceport's launch pad

TASS, February 26, 2024

A Soyuz-2.1b launch vehicle with Meteor-M satellite No. 2-4 has been installed at launch pad 1C of the Vostochny spaceport, the government-run space corporation Roscosmos has said.

"A Soyuz-2.1b space rocket with Meteor-M hydrometeorological spacecraft No. 2-4 and 18 Russian and foreign small satellites was transported to the launch pad of site 1C of the Vostochny spaceport," the news release reads.

The Soyuz-2.1b is scheduled to blast off at 8:43 a.m. Moscow time (5:43 GMT) on February 29. The launch vehicle will put into orbit the Meteor-M satellite No. 2-4, designed to explore the Earth's natural resources, monitor the heliogeophysical situation in near-Earth space, as well as to receive information from automatic data collection measurement platforms. The spacecraft is also equipped with instruments of the search and rescue system COSPAS-SARSAT.

<https://tass.com/science/1751455>

Tech firm delivers thermal-imaging drones to Russian troops in special military op area

TASS, February 26, 2024

The first batches of Upyr first-person view (FPV) thermal-imaging drones have been

sent to Russian troops in the special military operation area in Ukraine, a spokesman for the drone manufacturer told TASS on Monday.

"From among technical innovations, we have sent the first batches of Upyrs with thermal imagers. We are constantly improving a quick change of frequencies that helps bypass electronic warfare dome protection, which is a top priority task. In the short term, [we are working on] computer vision so that a drone can take guidance and then reach the target on its own," the spokesman said.

<https://tass.com/defense/1751365>

'Skat' drone center presents control module with proprietary software – Defense Ministry

TASS, February 28, 2024

Specialists of the "Skat" unmanned systems center in the Tula Region developed a control system with its own proprietary software, the Russian Defense Ministry said, adding that Defense Minister Sergey Shoigu received a corresponding report during his inspection of the education process in the Tula State University's military educational center.

"The Russian Defense Minister received a report that the center developed a ground control system with own software and remote access points, which provides its operator with safe and universal control over a wide array of devices. Sergey Shoigu was also presented with the center's designs, which allow drone sorties at non-standard frequencies and allow using them in difficult weather conditions," the Ministry said.

<https://tass.com/defense/1753079>

Strela PA presents anti-shrapnel munition protection system for radar stations

TASS, February 29, 2024

A system for additional protection of radar stations against shrapnel munitions,

developed at the Strela Production Association JSC, was presented to Russian Defense Minister Sergey Shoigu, the Defense Ministry said.

"Strela PA CEO Vyacheslav Chapkin reported that this system is made from metal sheets and anti-shrapnel 'blankets' with a set of deflectors and imitators of heat and radar signature, which makes it possible to significantly increase the survivability of equipment and personnel in the special operation conditions," the ministry said.

<https://tass.com/defense/1753209>

India's Defense Ministry signs \$2.5-billion contract to acquire BrahMos missiles

TASS, March 1, 2024

India's Defense Ministry has signed a contract with the Russian-Indian company BrahMos Aerospace for the supply of supersonic cruise missiles nearly \$2.5 billion worth, the Defense Ministry has said in a news release.

A contract has been signed with BrahMos Aerospace for the supply of BrahMos missiles \$2.36 billion worth. These missiles will be used for combat equipment and exercises by the Indian Navy, the news release reads.

Another \$120-million contract with BrahMos Aerospace was signed for the supply of missile systems for the Navy. This brings the total value of the agreements to \$2.48 billion.

<https://tass.com/world/1754175>

Ukrainian Abrams tank hit by Russian Upr FPV drone in Avdeyevka area

TASS, March 3, 2024

Russian troops have hit one more Ukrainian US-made Abrams tank in the Avdeyevka area with the use of Upr FPV drones, a spokesman for the drone manufacturer told TASS.

It was the third Abrams tank to be struck near Avdeyevka. The first Abrams was completely destroyed with the use of an FPV drone Piranya on February 26. In slightly more than a day, the second Abrams was struck by a drone. Its crew managed to get out.

Russian troops employed Upr FPV (first-person view) drones for the first time in the special military operation in Ukraine in May 2023. The drones proved their worth in combat operations: it helped Russian troops wipe out enemy boats with the assault force on the Dnieper River, adversary fortifications, dugouts and strongholds.

<https://tass.com/defense/1754967>

Russian government approves draft agreement on military cooperation with DRC

TASS, March 5, 2024

Russia's government has approved a draft military cooperation agreement with the Democratic Republic of the Congo (DRC), according to a relevant government resolution that was posted on the official portal of legal information.

"In conformity with article 11 of the federal law on Russia's international agreements, to approve the draft agreement on military cooperation with the Democratic Republic of the Congo, which was submitted by the Russian defense ministry upon coordination with the Russian foreign ministry and other federal executive bodies concerned," the document says.

The agreement is also available on the portal. Thus, it provides for the organization of joint drills and exercises, participation in and monitoring drills at the invitation of relevant agencies, visits by warships and warplanes at an invitation or request, training of the military and other formats of cooperation.

<https://tass.com/defense/1755957>

Rosatom presents portable drone detector

TASS, March 12, 2024

Rosatom nuclear agency for the first time presented Druzhinnik portable drone detector at Robotics and Artificial Intelligence exhibition in Moscow.

It detects drones in all frequencies ranging from 600 to 6,000 MHz, as well as any non-standard frequency in the band. Druzhinnik can be used solo in field reconnaissance and together with other technical systems, including mobile search complexes, drone jammers and electronic warfare complexes. Druzhinnik is used as stationary protection of platoon strongholds, industrial objects and buildings.

<https://tass.com/defense/1758135>

G. Europe

Norway welcomes advanced C-130J-30 Super Hercules upgrade

Airforce Technology, February 21, 2024

Lockheed Martin has delivered the first of four upgraded C-130J-30 Super Hercules tactical airlifters to the Royal Norwegian Air Force (RNoAF).

Equipped with the Block 8.1 upgrade, these aircraft enhance capabilities and interoperability, advancing regional security and mission readiness.

The Norwegian Air Force is upgrading all four of its C-130J-30 transport aircraft, originally acquired between 2008 and 2012, as outlined by GlobalData's intelligence on the Norwegian defence market.

<https://www.airforce-technology.com/news/norway-welcomes-advanced-c-130j-30-super-hercules-upgrade/>

Trident missile test fails for second time in a row

BBC, February 21, 2024

The latest test of the UK's nuclear deterrent was from HMS Vanguard and was seen by Defence Secretary Grant Shapps.

The missile's booster rockets failed and it landed in the sea close to the launch site, according to the Sun, which first reported the malfunction.

Mr Shapps said he has "absolute confidence" in Trident's submarines, missiles and nuclear warheads.

This is highly embarrassing for both the UK and the US manufacturer of the Trident missile.

British tests of Trident missiles are rare, not least because of the cost. Each missile is worth around £17m and the last test in 2016 also ended in failure when the missile veered off course. Test-fired missiles are not armed with their nuclear warheads.

<https://www.bbc.com/news/uk-68355395>

European Space Agency's Satellite Concludes Its Three-Decade-Long Mission

NDTV World, February 22, 2024

The European Space Agency's ERS-2 satellite gracefully concluded its three-decade-long mission with a natural atmospheric reentry over the North Pacific Ocean on Wednesday, February 21, as per the ESA. Launched on April 21, 1995, ERS-2, alongside its sibling ERS-1, has been a game-changer in Earth observation, providing vital data on land surfaces, ocean temperatures, the ozone layer, and polar ice extent.

Despite being originally planned for only three years, the ERS satellites far exceeded expectations. However, concerns about orbital debris led ESA to decide on ERS-2's controlled deorbiting in 2011. Over the years, the satellite's altitude gradually decreased, reaching a critical point of about 80 km on February 21, 2024, triggering its natural reentry.

<https://www.ndtv.com/science/european-space-agencys-ers-2-satellite-concludes-its-three-decade-long-mission-5104973>

BELUX airforces receive final A400M

Airforce Technology, February 23, 2024

Belgium received delivery of a final A400M military transport vessel on 20 February, the last aircraft in a series of eight procured for the Belgian and Luxembourg Air Forces.

Minister's of Defence for Belgium and Luxembourg, Ludivine Dedonder and Yuriko Backes, highlighted the nations' close cooperation on the project that provided seven aircraft to Belgium and one for Luxembourg. At an event at Melsbroek Airbase to welcome the final delivery, the ministers went on to highlight the multirole capabilities of the A400M.

<https://www.airforce-technology.com/news/belux-airforces-receive-final-a400m/>

Honeywell formalises supply of T-55 engines for German Chinooks

Airforce Technology, February 27, 2024

S defence supplier Honeywell announced that it will supply 105 T55-GA-714A engines to support Germany's procurement of new CH-47F Chinook aircraft, with Berlin announcing in mid-2023 the selection of the US aircraft as the winner of its rotary heavy-lift programme.

Germany's announced in May last year it had opted to acquire 60 CH-47F Block II Chinook heavy-lift helicopters in a Foreign Military Sale deal worth around \$8.5bn. The package was to include T-55-GA-714A engines, AN/AAR-57 Common Missile Warning Systems, AN/ARC-231A Communications Security radios, and other equipment.

<https://www.airforce-technology.com/news/honeywell-formalises-supply-of-t-55a-engines-for-german-chinooks/>

Multinational Trojan Footprint 24 military exercise kicks off in Georgia

TASS, March 4, 2024

The Trojan Footprint 24 multinational military exercise with the support of the US Special Operations Command Europe has

started in Georgia, the press service of the Georgian Defense Ministry reported.

In addition to the Georgian and US military, the maneuvers will involve military from the UK, Spain, Poland and Romania. Reservists from the Georgian Defense Ministry's territorial defense and representatives of volunteer organizations will also join the wargame, the press service added.

<https://tass.com/defense/1755441>

Newly enlarged NATO starts drill in Finland, Norway, Sweden in defence of its Nordic turf

The Hindu, March 4, 2024

North Atlantic Treaty Organisation (NATO), on March 4, will kick off an exercise to defend its newly expanded Nordic territory when more than 20,000 soldiers from 13 nations take part in drills lasting for nearly two weeks in the northern regions of Finland, Norway and Sweden.

"With more than 4,000 Finnish soldiers taking part, the Norway-led Nordic Response 2024 represents the NATO newcomer's largest ever participation in a foreign exercise," according to Finland's military.

<https://www.thehindu.com/news/international/newly-enlarged-nato-starts-drill-in-finland-norway-sweden-in-defence-of-its-nordic-turf/article67912621.ece>

Greece joins two EDA-led tactical airlift programmes

Airforce Technology, March 5, 2024

Greece has opted to join two European Defence Agency (EDA) airlift programmes starting in March 2024: the C27J co-operation ecosystem and the Multilateral Air Transport Training and Exercises (MATTE) initiative.

Launched in 2020, the C-27J programme serves as a platform harmonisation ecosystem embodied by six nations that operate the transport aircraft – including

Bulgaria, Italy, Lithuania, Romania, Slovakia, and now Greece. These operators pool their equipment and training resources as part of an optimised logistics solution, with the aim of increasing the platform's availability.

The admission of the Hellenic Air Force was formalised through a 'Statement of Accession' signed by the Minister of National Defence, Nikos Dendias, marking the country's commitment to the co-operative endeavour. According to GlobalData intelligence, the Air Force operates 12 units.

Europe's Spartan Exercise 2024, which marks the first participation of a Hellenic Air Force aircraft, will take place in Romania from 30 September to 11 October 2024.

<https://www.airforce-technology.com/news/greece-joins-two-eda-led-tactical-airlift-programmes/>

UK government buys Wylfa and Oldbury nuclear sites from Hitachi

World Nuclear News, March 6, 2024

An agreement to buy the Hitachi-owned sites for new nuclear at Wylfa in north Wales and Oldbury-on-Severn in southwest England has been reached for GBP160 million (USD203 million), Chancellor Jeremy Hunt has announced.

The two sites are expected to be prioritised for new nuclear as the UK seeks to expand nuclear energy capacity. Hunt, delivering the annual Budget speech to Parliament, said the purchase had been made "given the importance of securing nuclear sites for the success of the nuclear programme".

<https://www.world-nuclear-news.org/Articles/UK-government-buys-Wylfa-and-Oldbury-nuclear-sites>

French defence companies to build military equipment on Ukrainian soil - minister

Reuters, March 8, 2024

France is planning to have some of its arms manufacturers produce much-needed military equipment directly on Ukrainian soil to help the country in its war against Russia,

Defence Minister Sebastien Lecornu said on Friday.

"Three French companies will be setting up partnerships with Ukrainian companies, in particular in the drone and land equipment sectors, to produce spare parts on Ukrainian soil, and perhaps ammunition in the future", he said.

<https://www.reuters.com/world/europe/french-defence-companies-build-military-equipment-ukrainian-soil-minister-2024-03-08/>

European arms imports nearly double, US and French exports rise, and Russian exports fall sharply

SIPRI, March 11, 2024

Arms imports by European states were 94 per cent higher in 2019–23 than in 2014–18. Ukraine emerged as the largest European arms importer in 2019–23 and the fourth largest in the world, after at least 30 states supplied major arms as military aid to Ukraine from February 2022.

The 55 per cent of arms imports by European states that were supplied by the USA in 2019–23 was a substantial increase from 35 per cent in 2014–18. The next largest suppliers to the region were Germany and France, which accounted for 6.4 per cent and 4.6 per cent of imports, respectively.

<https://www.sipri.org/media/press-release/2024/european-arms-imports-nearly-double-us-and-french-exports-rise-and-russian-exports-fall-sharply>

Navies of Finland, Sweden, France to practice countering submarine threats

TASS, March 11, 2024

The Navies of Finland, France and Sweden will practice countering submarine threats at the Swedish coast between March 13 and 20, the Finnish Navy said in its press release.

The Finnish Navy will engage a Hamina Pori-class missile boat in the Marex Spring

24 exercise. In addition, two Finnish officers will be present aboard Swedish corvettes for the duration of the exercise, the press release specifies.

<https://tass.com/defense/1757875>

Finland builds two NATO DIANA test centres

Airforce Technology, March 15, 2024

Nearly a year on since Finland's accession to Nato, the alliance's Defence Innovation Accelerator for the North Atlantic (DIANA) approved the Nordic nation's request, submitted in July 2023, to build two test centres to explore emerging military technologies.

Nato's accelerator programme is designed to equip businesses with the skills and knowledge to bridge deep tech, dual-use innovation between the commercial and defence markets.

<https://www.airforce-technology.com/news/finland-builds-two-nato-diana-test-centres/>

Poland replenishes aerial missiles with multi-billion-dollar acquisitions

Airforce Technology, March 13, 2024

Poland has secured multi-billion-dollar agreements with the United States for air-to-air and air-to-surface missile systems to fortify its defence arsenal, following a series of Foreign Military Sales (FMS) approvals by the US State Department.

The first agreement in the latest series of Poland-US deals involves the acquisition of AIM-9X Block II Sidewinder missiles, estimated to cost in excess of \$219m. This purchase, comprising missiles and related logistics support, is intended to further align Poland's military capabilities with NATO standards.

<https://www.airforce-technology.com/news/poland-replenishes-aerial-missiles-with-multi-billion-dollar-acquisitions/>

H. The United States of America

Italy strengthens military arsenal with US missiles and bombs

Airforce Technology, February 16, 2024

The US State Department's recent green light for the sale of AIM-120C-8 Advanced Medium-Range Air-to-Air Missiles (AMRAAM) and Small Diameter Bomb II (SDB-II) to Italy shows a step forward in the nation's military modernisation efforts.

These acquisitions, valued at \$69.3m (•64.4m) and \$150m, signify Italy's commitment to enhancing its defence capabilities while fostering closer ties with its NATO allies.

The AIM-120C-8 missiles, produced by RTX Corporation, Arlington, VA, will equip the Italian Air Force with air-to-air munitions, enhancing its ability to counter contemporary and future aerial threats.

<https://www.airforce-technology.com/news/italy-strengthens-military-arsenal-with-us-missiles-and-bombs/>

Prototype fusion reactor planned for TVA site

World Nuclear News, February 23, 2024

The construction of Infinity One could begin in 2025, following the completion of necessary environmental reviews, partnership agreements, required permits, and operating licenses, Type One Energy noted. It will allow the company to verify important design features of its high field stellarator fusion pilot plant, particularly those related to operating efficiency, reliability, maintainability, and affordability.

In partnership with TVA and ORNL, Type One Energy will explore subsequent opportunities to further advance commercial deployment of fusion energy in the East Tennessee region.

Type One Energy will establish its headquarters in East Tennessee, creating

over 300 high-paying jobs within the next five years. Project Infinity, which includes the deployment of Infinity One and Type One Energy's new headquarters, is expected to bolster economic growth and energy technological leadership in the region.

<https://www.world-nuclear-news.org/Articles/Prototype-fusion-reactor-planned-for-TVA-site>

US co-ops with Türkiye on ammunition shell production: Pentagon

Daily Sabah, February 22, 2024

The U.S. Department of Defense plans to produce metal parts for 155 mm shells with Turkish subcontractors at ammunition facilities in the U.S. state of Texas by the end of 2025, the Pentagon's spokesperson said Thursday.

"U.S. Army is building three 155 mm projectile metal parts lines in Texas," Pentagon spokesperson Jeff Jurgensen said at the news conference in response to a question passed by Anadolu Agency (AA), explaining the scope of cooperation between Türkiye and the U.S. in the facility.

<https://www.dailysabah.com/business/defense/us-co-ops-with-turkiye-on-ammunition-shell-production-pentagon>

Boeing secures contract for maintenance of Minuteman III weapons system

Airforce Technology, February 23, 2024

With a contract valued at over \$405m, Boeings' latest deal shows the ongoing commitment to maintain the readiness and effectiveness of the Minuteman III weapons system, a part of America's nuclear deterrent capability.

Boeing has clinched a contract modification worth \$405,366,978 for operations, maintenance, and testing supporting the Minuteman III weapons system to bolster the nation's defence capabilities. The contract modification, awarded by the Air Force Nuclear Weapons Center at Hill Air Force

Base, Utah, brings the cumulative face value of the contract to \$559,366,978.

This contract's significance lies in its role in ensuring the readiness and effectiveness of the Minuteman III weapons system. With tensions simmering on the global stage, maintaining a robust nuclear deterrent capability remains paramount for US national security.

<https://www.airforce-technology.com/news/boeing-secures-contract-for-maintenance-of-minuteman-iii-weapons-system/>

US approves \$75m military tech upgrade for Taiwan amidst rising tensions

Airforce Technology, February 23, 2024

Amidst growing geopolitical tensions in the region, the United States has approved a Foreign Military Sale to the Taipei Economic and Cultural Representative Office in the United States worth \$75m. The sale includes the Taiwan Advanced Tactical Data Link System Upgrade Planning and related equipment and support services.

The decision, announced by the Defense Security Cooperation Agency, shows Washington's commitment to Taiwan's defence and security but is likely to provoke reactions from Beijing, which considers Taiwan a renegade province. The move comes during heightened military manoeuvres by China in the Taiwan Strait and increased pressure on the self-governing island.

<https://www.airforce-technology.com/news/us-approves-75m-military-tech-upgrade-for-taiwan-amidst-rising-tensions/>

U.S. launches investigation of Chinese vehicles, citing security risks

The Washington Post, February 29, 2024

The Biden administration announced an investigation into possible security risks of Chinese manufactured autos, saying that

modern vehicles are full of sensors, cameras and software that China could use for espionage or other malign purposes. The investigation comes as Chinese automakers become more powerful on global markets, exporting a flood of high-tech vehicles and posing new challenges to Western manufacturers. Chinese-made vehicles aren't yet widespread on U.S. roads but are becoming more common in Europe, Asia and other markets.

U.S. investigates Chinese vehicles for security risks - The Washington Post

Boeing gets \$439 million contract for U.S. military communications satellite

Space News, March 1, 2024

Boeing was awarded a \$439.6 million contract by the U.S. Space Force to build a military communications satellite known as WGS-12.

The contract was announced March 1 by the Defense Department.

WGS-12 will be the 12th satellite of the Wideband Global Satcom geostationary constellation that provides communications services to the United States and allies.

Boeing builds military satellites in El Segundo, California. According to the contract announcement, WGS-12 would be delivered in January 2029.

<https://spacenews.com/boeing-gets-439-million-contract-for-u-s-military-communications-satellite/>

Iceye launches radar satellite service to monitor the high seas

Space News, March 7, 2024

Iceye, a company that builds and operates a constellation of microsatellites equipped with synthetic aperture radar (SAR) sensors, has launched a new maritime surveillance product called Ocean Vision.

The service, announced March 7, aims to provide comprehensive monitoring of the world's oceans.

Nearly 75% of international trade occurs over water, John Cartwright, Iceye's senior vice president said. Nations increasingly need better intelligence about activities at sea, he added. "However, the maritime environment presents a significant challenge, with vast expanses of ocean to search and monitor."

<https://spacenews.com/iceye-launches-radar-satellite-service-to-monitor-the-high-seas/>

GA providing hypersonic missile defence for T2 Tracking Layer satellites

Airforce Technology, March 12, 2024

General Atomics Electromagnetic Systems (GA-EMS) announced on 11 March 2024, that it has won a contract from Lockheed Martin to provide hypersonic missile defence through the Space Development Agency (SDA) Tranche 2 (T2) Tracking Layer Programme and its 18 satellites.

The new contract covers missile warning, tracking and defence payloads that will integrate into the Lockheed Martin satellites, scheduled for launch in 2027. The satellites will be placed into Low Earth Orbit (LEO) to provide a persistent real-time missile detection and tracking capability that tracks missiles in real time through on-orbit mission data processing, according to a release from General Atomics.

<https://www.airforce-technology.com/news/ga-providing-hypersonic-missile-defence-for-t2-tracking-layer-satellites/>

Pentagon sparks fresh AUKUS doubts on anniversary of Australia's nuclear-powered submarine plans

ABC News, March 13, 2024

Defence Minister Richard Marles insists AUKUS partners are working "at pace" to help Australia acquire nuclear-powered submarines after the United States revealed it would halve next year's planned procurement of Virginia-class boats.

Under the Biden administration's defence budget request released on Tuesday (Canberra time) the US Navy confirmed it would order just one of the fast-attack submarines in 2025, rather than two, pushing a projected saving of \$US4 billion into future years.

<https://www.abc.net.au/news/2024-03-13/us-defence-announcement-raises-questions-on-aukus-anniversary/103578408>

I. Azerbaijan

Azerbaijan unveils facilities for new Akinci drone programme

Airforce Technology, February 19, 2024

Azerbaijan inaugurated a training facility and maintenance hangar for its latest Akinci drone, marking an advancement in the country's defence infrastructure and capabilities.

In a strategic move to enhance its military effectiveness, Azerbaijan unveiled a training facility and hangar dedicated to its newly acquired Akinci drone programme. The ceremonial event on February 9th showcased Azerbaijan's commitment to leveraging technology to bolster its defence capabilities.

<https://www.airforce-technology.com/news/azerbaijan-unveils-facilities-for-new-akinci-drone-programme/>

J. Iran

Iran unveils new home-made defense systems

IRNA, February 17, 2024

The new systems were unveiled on Saturday in the presence of Defense Minister Brigadier General Mohammad Reza Gharaei Ashtiani.

The new anti-ballistic missile system is named "Arman" which means aspiration in English. The low-altitude air defense system is named "Azarakhsh" which means lightning. The newly unveiled systems will significantly boost Iran's air defense capabilities once they are added to the country's military fleet.

Arman has been developed in two versions, one with a passive radar, the other with an active radar.

<https://en.irna.ir/news/85389113/Iranunveils-new-home-made-defense-systems>

Azarakhsh, Arman air defense systems destroy targets in shortest time: Minister

IRNA, February 17, 2024

Iran's Defense Minister Brigadier General Mohammad Reza Gharaei Ashtiani has said that the newly unveiled Azarakhsh and Arman air defense systems can destroy their targets within the shortest time period and distance. The minister made the comment on Saturday as he attended the unveiling ceremony of the Arman antiballistic missile system and Azarakhsh lowaltitude air defense system, both developed by experts of the Iranian Defense Ministry.

Ashtiani described the new systems as a great achievement in Iran's defense industry, saying that his ministry has made all of its efforts to meet the requirements of the defense sector, and supply equipment and weapons required by the armed forces. The Arman anti-ballistic missile system has a medium range and high altitude, which can detect targets at a 180-kilometer distance and destroy them in 120 km, he explained, adding that the system gets prepared for its operation in less than 3 minutes and boosts the country's air defense.

<https://en.irna.ir/news/85389346/Azarakhsh-Arman-air-defense-systems-destroy-targets-in-shortest>

IRGC Navy adds new home-made combat vessels to its fleet

IRNA, February 19, 2024

The two vessels, named Martyr Bagheri and Martyr Shirazi, joined the IRGC Navy's fleet during a ceremony held on Monday in the port city of Bandar Abbas, the capital of Hormuzgan province in southern Iran.

IRGC Navy Commander Commodore Alireza Tangsiri, who was present at the ceremony, said that the two vessels belong to Martyr Soleimani class of domestically made advanced warships.

Martyr Bagheri and Martyr Shirazi vessels are each 67 meters in length and are equipped with home-made long and medium-range missiles, Tangsiri said, adding that they can navigate 5,500 nautical miles (9,500km).

<https://en.irna.ir/news/85391708/IRGCNavy-adds-new-home-made-combatvessels-to-its-fleet>

IRGC deploys Shahed-131 kamikaze and Ababil-5 combat UAVs

Tehran Times, February 20, 2024

The Islamic Revolution Guard Corps (IRGC) Ground Force has bolstered its capabilities with the integration of Shahed131 kamikaze drones and Ababil-5 combat UAVs.

The act aimed at enhancing surveillance capabilities and countering threats posed by adversaries and terrorist organizations.

During the Great Prophet 15 military exercise in January 2021, the IRGC Aerospace Force unveiled footage showcasing the successful engagement of various targets by the Shahed-131 drone. This marked the first public demonstration of the drone's effectiveness in combat scenarios. The Shahed-131 drone further demonstrated its operational prowess during the Great Prophet 17 exercise, where it executed precision strikes on a simulated facility representing the Dimona nuclear power plant of the Israeli regime.

<https://www.tehrantimes.com/news/495177/IRGC-deploys-Shahed-131-kamikaze-and-Ababil-5-combat-UAVs>

Iran uranium stock enriched to 60% shrinks: IAEA

Tehran Times, February 27, 2024

The UN nuclear watchdog issued a report on Monday alleging that Iran's stock of uranium has shrunk.

The report purportedly said that the stockpile has dwindled below the theoretical threshold at which it could produce three atom bombs.

According to two confidential quarterly reports to member states, the International Atomic Energy Agency (IAEA) said in the report that Tehran has diluted its enriched stockpile more than it produced over the last three months.

Surprisingly, the IAEA failed to cast light on the reasons for the so-called downblending of 31.8 kg of material enriched to up to 60%, after which the stock fell by an estimated 6.8 kg since the last such quarterly reports to 121.5 kg.

<https://www.tehrantimes.com/news/495470/Iran-uranium-stock-enriched-to-60-shrinks-IAEA>

IAEA Director urges Iran's full cooperation amidst alleged concerns

Tehran Times, March 4, 2024

Rafael Grossi, the Director General of the International Atomic Energy Agency (IAEA), has once again called on Iran to fully cooperate with the agency despite Iran's continued cooperation.

In his recent Introductory Statement to the Board of Governors, reported on the Agency's website, Grossi expressed concern about Iran's alleged increasing enriched uranium stockpile, stating, "Iran's stockpile of enriched uranium continues to increase, even though the level of uranium enriched up to 60% has fallen slightly."

He highlighted the lack of continuity in knowledge regarding the production and inventory of various nuclear components. Grossi noted, "The Agency has lost continuity of knowledge in relation to the production and inventory of centrifuges, rotors and bellows, heavy water and uranium ore concentrate. It is three years since Iran stopped provisionally applying its Additional Protocol and, therefore, it is

also three years since the Agency was able to conduct complementary access in Iran.”

<https://www.tehrantimes.com/news/495716/IAEA-Director-urges-Iran-s-full-cooperation-amidst-alleged-concerns>

Iran Navy unveils new equipment

IRNA, March 6, 2024

The Islamic Republic of Iran Navy has unveiled 42 pieces of new military equipment as part of efforts to modernize the fleet and to boost its defense capabilities. Among the equipment unveiled on Wednesday were the improved versions of the tethered drone 305, the 12- launcher Sanjar drone, and the Bavar 5 which were added to Sahand destroyer. The Sahand destroyer now features the first medium-range Sayyad 3 air defense system and Kamand precision missile defense system. The number of cruise missiles launchers for Alborz destroyer were also increased.

<https://en.irna.ir/news/85409945/IranNavy-unveils-new-equipment>

Former AEOI head urges prioritization of nuclear safety collaboration

Tehran Times, March 6, 2024

The former head of the Atomic Energy Organization of Iran (AEOI) urged the AEOI to collaborate with relevant organizations concerning Iran’s accession to international nuclear safety conventions, emphasizing the importance of ensuring Tehran’s interests.

Addressing a seminar on Tuesday, Ali Akbar Salehi referenced three significant nuclear incidents worldwide— Three Mile Island, Chernobyl, and Fukushima. He highlighted Japan’s efforts to anticipate events such as high-power earthquakes and tsunamis, noting Tokyo’s prediction of an eight-meter tsunami.

Salehi noted that despite the Fukushima accident in March 2011, the safety systems

at the power plants were robust enough to mitigate extensive radiation effects.

<https://www.tehrantimes.com/news/495836/Former-AEOI-head-urges-prioritization-of-nuclear-safety-collaboration>

JCPOA resumption depends on Western action: Iran

Tehran Times, February 8, 2024

During the quarterly meeting of the Council of Governors, Iran’s envoy to the International Atomic Energy Agency (IAEA) highlighted that the resumption of the Joint Comprehensive Plan of Action (JCPOA) implementation hinges on specific actions from the United States and the European Troika.

Mohsen Naziri Asal elaborated on the Vienna negotiations, emphasizing that Iran and other JCPOA members engaged in discussions after the United States expressed willingness to return to the nuclear deal and lift unlawful sanctions. The negotiations aimed to establish conditions for the U.S. to rejoin the JCPOA and fulfill its obligations.

<https://www.tehrantimes.com/news/495903/JCPOA-resumption-depends-on-Western-action-Iran>

Iran to preside over Conference on Disarmament

Tehran Times, March 11, 2024

The Islamic Republic of Iran will serve as chair of the UN Conference on Disarmament (also known as CD) on next Monday (March 18). The conference, which serves as the only platform for international negotiations on disarmament, will be divided into three sections in 2024: January 22–March 28, May 13–June 28, and July 29–September 13. Iran will chair the meeting twice, from March 18 to 29 and May 13 to May 24. The summit will also be presided over by the Israeli regime, Iraq, India, and Ireland. The UN Office in Geneva released a press

release stating that among other things, the conference's agenda this year includes topics such as ending the nuclear arms race and disarmament, preventing nuclear war, implementing a comprehensive disarmament program, and transparency in armaments.

<https://www.tehrantimes.com/news/496069/Iran-to-preside-over-Conference-on-Disarmament>

Russian, Chinese warships arrive in Iran's territorial waters for joint drills

IRNA, March 12, 2024

Russian and Chinese warships have arrived in Iran's territorial waters to participate in joint naval drills dubbed "Maritime Security Belt 2024". A Tuesday statement from the media headquarters of the joint drills said that Russia's Varyag missile cruiser and the Marshal Shaposhnikov frigate will participate in the joint drills along with two warships and a logistics ship of the Chinese navy and 10 warships from Iran. The Russian Defense Ministry announced on Monday that the Varyag missile cruiser of the Russian Pacific Fleet had arrived in the Iranian port of Chabahar to participate in the joint drills.

<https://en.irna.ir/news/85416320/RussianChinese-warships-arrive-in-Iran-steritorial-waters>

Iran to build two power plants by end of Raisi term, says AEOI chief

Tehran Times, March 13, 2024

Mohammad Eslami, head of the Atomic Energy Organization of Iran (AEOI), announced plans for significant advancements in Iran's nuclear program on Wednesday.

Eslami highlighted the upcoming irradiation of agricultural products, a first for Iran, expressing hope for positive impacts on people's lives.

This process uses controlled radiation to eliminate pests and extend shelf life, potentially benefiting both producers and consumers.

Eslami also addressed the construction of two new nuclear power plants. He acknowledged the multi-year timeframe involved, stating that each plant would take approximately seven years to complete.

He remained optimistic, aiming for the inauguration of power plants by the end of the current Raisi administration.

<https://www.tehrantimes.com/news/49617/First-Phase-of-Iran-Armenia-Gas-Pipeline-to-Be-Completed-Next>

Iran's arms exports grow by up to 5 times: Defense minister

IRNA, March 13, 2024

Iran has significantly increased its arms exports over the past years as the country has gained self-sufficiency in the defense industry, Defense Minister Brigadier General Mohammad Reza Ashtiani said. Exports of military equipment have seen an increase of between 4 to 5 times over the past two years, Gen. Ashtiani told reporters on Wednesday after a cabinet meeting in Tehran.

"Due to the innovations and the kind of weapons that are being manufactured, this amount will further increase in the future," he added.

The defense minister said that Iran is now self-sufficient in making drone engines and is working on the production of heavy engines.

<https://en.irna.ir/news/85417820/Iran-sarms-exports-grow-by-up-to-5-timesDefense-minister>

K. Iraq

Controls for the purchase of weapons are approved by Interior Minister

Iraqi News Agency, March 13, 2024

Abdul Amir Al-Shammari, the Interior Minister, gave his approval of the controls for the purchase of weapons on Wednesday. "Ministry spokesman

Brigadier General Mekdad Miri stated in a statement obtained by the Iraqi News Agency (INA) that Interior Minister Abdul Amir al-Shammari approved the controls on the purchase of weapons." "The beginning of this matter will be April 1, 2024, and these controls will be announced later," he continued.

<https://ina.iq/eng/31828-controls-for-the-purchase-of-weapons-are-approved-by-interior-minister.html>

L. Israel

Israel Shipyards Unveil New 24-Meter Landing Craft

Israel Defense, February 19, 2024

Israel Shipyards unveiled a new landing craft, 24 meters in length, which it tailored for an "undisclosed yet esteemed customer," according to the company. Israel Shipyards says that this craft, designed for a broad spectrum of missions, is ideal for nations aiming to enhance their operational capabilities on rivers and lakes. Foreign sources have already reported in the past that the Israeli Navy has several such landing craft that are used by the 13th flotilla to transport commando vehicles.

<https://www.israeldefense.co.il/en/node/61264>

Elbit to Supply \$300 Million Armored Vehicle Systems to a European Customer

Israel Defense, February 21, 2024

Israeli Elbit Systems announced that it was awarded a contract for approximately \$300 million to supply weapon, reconnaissance, driving, and situational awareness systems for approximately 230 armored vehicles, to an undisclosed European customer. The contract will be performed over six years and includes custom design, production, lifecycle maintenance, and complete incountry support.

In this context, it is worth paying attention to the purchase by the Austrian MoD of 225 Pandur 6x6 EVO armored vehicles made by GDELS worth 1.8 billion Euros, which are known to carry a UT-30 turret made by Elbit

Systems equipped with a 30 mm caliber automatic cannon.

<https://www.israeldefense.co.il/en/node/61291>

IDF's "Star" Drone Squadron: Eliminating Any Threat That Disrupts the Gaza Maneuver

Israel Defense, February 22, 2024

On Saturday morning, October 7th, the holiday of Simchat Torah, Lieutenant Colonel O was at his home. Very quickly, he arrived at the airbase in Palmachim for takeoffs and initial attacks. Lieutenant Colonel O calls this stage the suppression phase. "We helped regain control of our forces in the Israeli communities surrounding the Gaza Strip." Then, he moved on to planning the maneuvering phase.

Lt. Col. O commands the 166 Squadron, which comprises Hermes 900 UAVs (the "Star"), manufactured by Elbit Systems. The "Star" is the second largest unmanned aircraft in the Air Force after the "Eitan," roughly equivalent in size to the Heron-1 "Shoval". Both the latter UAVs are products of IAI (Israel Aerospace Industries). Another participant in the array is the "Zik" - the Hermes 450, also manufactured by Elbit Systems.

<https://www.israeldefense.co.il/en/node/61296>

Hermes™ 650 Spark Unveiled: Elbit Systems Launches a New State-of-the-Art UAS

Israel Defense, February 25, 2024

Elbit Systems unveiled its latest addition to its market-leading Hermes family. According to the company's announcement, this Next Generation Unmanned Aerial System (UAS) boasts outstanding endurance, versatility, and cost-effective performance across land, air, and sea operations.

The Spark's key benefits and features include autonomous operation; a unique wide-flight envelope; high payload capacity; minimum life cycle cost (LCC),

top safety, survivability, and immunity standards; increased range, flight speed, and efficiency; and NATO STANAG 4671 compliance.

<https://www.israeldefense.co.il/en/node/61326>

Indian Navy, Coast Guard to Equip with Israeli Elbit's Heavy Machine Gun Systems

Israel Defense, February 26, 2024

Indian media reported in Mid-February that the Indian Ministry of Defense has signed a contract with Advanced Weapon Equipment India for the manufacturing and supply of 463 indigenously manufactured 12.7 mm Stabilized Remote Control Guns (SRCG) for the Indian Navy and Indian Coast Guard. Ofer Shmueli, the founder of Defense Beacon, says that Israeli Elbit Systems won in December 2013 the Indian MoD 12.7mm Stabilized Remote Control Guns (SRCG) tender worth over \$211 million for the purchase of 621 x SRCG along with transfer of technology. The tender included 74 SRCGs in semi-knockdown (SKD) condition, and 74 SRCGs in complete knock-down (CKD) condition while the remaining 463 guns are indigenously produced in India.

<https://www.israeldefense.co.il/en/node/61336>

In First, IDF Appoints Female Officer to Command Air Force Base

Israel Defense, March 5, 2024

Lt. Col. "G" is about to make history, as the first female soldier ever appointed by the IDF to command an Israeli Air Force base. Nominated by Chief of Staff Herzi Halevi, once this appointment is confirmed she will be promoted to the rank of colonel and assume command of the Ovda Airbase in southern Israel. "G" enlisted in the IAF's prestigious pilot training course in 2003, and upon successful completion was assigned to be a transport pilot. During her career, "G" served in various operational and command positions, notably as commander of the 122nd Squadron and in IAF Operations.

<https://www.israeldefense.co.il/en/node/61414>

No Just Rafael: Major Anti-Tank Missile deal in Poland

Israel Defense, March 6, 2024

A major anti-tank missile deal is underway in Poland. Sweden's Saab will supply the Polish Ministry of Defense with thousands of Carl Gustav M4 anti-tank missile launchers and hundreds of thousands of missiles worth \$1.241 billion. The delivery of the launchers and missiles will be made between the years 2024-27. In this way, Poland becomes the largest customer of these systems after the US Army.

Saab's CEO and President, Michal Johansson, says that he is "Proud of our close relationship with the Polish armed forces and that Saab can continue to strengthen Poland's ground combat capability and national defense with our world-leading Carl-Gustaf System".

<https://www.israeldefense.co.il/en/node/61419>

Titan Innovations Launches \$50 Million Fund Focused on Israel and US Defense

Israel Defense, March 6, 2024

Titan Innovations, an unmanned systems integrator and accelerator, announced the launch of its second dedicated defense technology fund, the Israel Defense Fund. The Israel Defense Fund is an ecosystem-based venture capital fund that leverages decades of experience from its leadership in special forces ops, the Ministry of Defense, business development, and investment.

Israel Defense Fund was established in response to a surge in demand for combat proven defense technologies, initiated by the war in Ukraine and the Israel-Hamas war. Although Israel has one of the most advanced militaries in the world and is separated from Gaza by a highly sophisticated technological barrier, it was not enough to prevent the major terror attack that occurred on October 7, 2023.

<https://www.israeldefense.co.il/en/node/61421>

Elbit America Subsidiary Awarded \$19.4 Million by U.S. Army for Hostile Fire Detection Systems

Israel Defense, March 7, 2024

Logos Technologies LLC, a subsidiary of Elbit Systems of America, announced that the U.S. Army awarded the company a \$19.4 cost-plus-fixed-fee contract to supply, maintain, and operate Serenity hostile fire detection (HFD) systems in theater.

The five-year contract is the newest installment in a long-standing effort by United States Africa Command (AFRICOM) to employ dual-sensor Serenity HFD systems to safeguard U.S. expeditionary forces against radicalized actors.

<https://www.israeldefense.co.il/en/node/61435>

Israel Aerospace Industries and the Indian Institute of Technology Delhi Sign CSR Agreement

Israel Defense, March 12, 2024

Israel Aerospace Industries (IAI) signed its first-ever CSR agreement with the prestigious Indian Institute of Technology (IIT), Delhi to collaborate on applied research.

The IAI-IIT CSR agreement demonstrates IAI's commitment to its corporate social responsibility in India. The cooperation may include collaborative projects, training, and research consultancy. This alliance between IAI and IIT Delhi demonstrates a shared vision for leveraging cutting-edge research to drive progress and technological excellence, shaping together the future of technology in India.

The Indian Institute of Technology (IIT) Delhi is renowned for its academic excellence and research prowess, consistently ranking among the top engineering institutes globally. IIT Delhi, one of the premier institutions of India, fosters innovation and technological advancement, making it a preferred partner for industry collaborations.

<https://www.israeldefense.co.il/en/node/61468>

Orbit Implements AI Capabilities In Mission Critical Systems

Israel Defense, March 14, 2024

Israeli Orbit Communications Systems, a global provider of maritime and airborne SATCOM terminals, tracking ground station solutions, and mission-critical airborne audio management systems, announced the implementation of AI capabilities in its entire portfolio of SATCOM systems for land, air, and sea.

According to Orbit, the AI constantly monitors and analyzes the systems' performance, giving an alert for a malfunction that starts to form, even at a very early stage, so that the customer can arrive on time, even for a system located in a very remote area, perform preventive maintenance and repair, while connectivity continues without any interruption. Potential issues are detected long before they become critical, thus providing the utmost reliability, always ensuring peak performance and connectivity, without the need for major maintenance or significant downtime.

<https://www.israeldefense.co.il/en/node/61506>

M. Kuwait

Kuwait-Italy defense relations soar with Eurofighter program

Kuwait Times, March 6, 2024

Kuwait will receive 13 more Eurofighter jets from Italy over the next 18 months out of the 28 aircraft under the 'Eurofighter Kuwait' program, said Italian Defense Minister Guido Crosetto, who arrived in Kuwait on an official visit on Tuesday, leading a high-ranking delegation. In an exclusive interview with Kuwait Times, the visiting Italian minister spoke about a wide range of topics and elaborated on the growing bilateral cooperation between Kuwait and Italy, particularly in the field of defense. Crosetto said the close cooperation between Italy and Kuwait is an extraordinary example of how bilateral relations can evolve positively over time, embracing a wide range of sectors. "Our

cooperation, that has been ongoing for over 60 years, has seen significant developments in crucial areas such as defense. Strengthening bilateral cooperation, especially in the context of defense, is a fundamental pillar to guarantee peace and regional stability, while offering mutual investment opportunities and boosting our economies,” he pointed out.

<https://kuwaittimes.com/article/11802/kuwait-other-news/kuwait-italy-defense-relations-soar-with-eurofighter-program/>

N. Lebanon

Lebanon's Hezbollah launches drone attack on Israeli military barracks in Syria's Golan Heights

Anadolu Agency, March 11, 2024

Lebanese group Hezbollah said Monday that it had attacked with drones an Israeli military barracks in Syria's occupied Golan Heights. The group said that four drones had struck the Kilaa barracks, 15 kilometers from the Lebanese border. Hezbollah said its fighters also targeted the Jall Al-Alam site near the Lebanese border with “appropriate weapons,” resulting in direct hits. There was no comment from the Israeli military on the claim.

Separately, Hezbollah said one of its fighters was killed in cross-border clashes with Israeli forces. In another development, Lebanon's state-run National News Agency reported Israeli artillery shelling and airstrikes in the border towns of El-Hamames and Jibbain.

<https://www.aa.com.tr/en/middleeast/lebanon-s-hezbollah-launches-drone-attack-on-israeli-military-barracks-in-syria-s-golan-heights/3161579>

Israeli jets hit Lebanon's Bekaa Valley for a second day

Reuters, March 13, 2024

Israeli warplanes struck deep into Lebanon for a second consecutive day on Tuesday, hitting a facility belonging to Hezbollah in the Bekaa Valley, sources in Lebanon said. Two Hezbollah members from the Bekaa

Valley were killed, the Iran-backed group said in a statement late on Tuesday. The Israeli military said its fighter jets had “struck two Hezbollah military command centers” in the Baalbek area, in response to Hezbollah rocket launches towards northern Israel earlier in the day.

<https://www.reuters.com/world/middleeast/lebanons-hezbollah-fires-more-than100-katyusha-rockets-onto-israel-2024-03-12/>

O. Qatar

Qatar Safran provides M88 engines to Qatari Rafale fleet

Airforce Technology, March 8, 2024

During the Doha International Maritime Defence Exhibition and Conference, Safran Aircraft Engines signed a Services Agreement with the Qatari Armed Forces.

Building on their 40-year relationship, this new arrangement will see Safran support the M88 engines powering Qatar's current fleet of 36 Rafale fighter aircraft, which GlobalData intelligence says were procured between 2019-21. In addition, the supplier will provide Qatar's Armed Forces with a wide range of services, from spares, repairs and overhauls to detailed technical on-site support, optimizing maintenance operations with the customer. The M88 engine incorporates advanced technologies such as integrally bladed compressor disks (“blisks”), a low-pollution combustor with smoke-free emissions, single-crystal highpressure turbine blades, ceramic coatings, and composite materials.

<https://www.airforcetechnology.com/news/safran-provides-m88-engines-to-qatari-rafale-fleet/>

P. Saudi Arabia

Report: Saudi Arabia Interested in Acquiring Russian Rockets with Thermobaric Warheads

Israel Defense, February 19, 2024

From the Russian perspective, the use of thermobaric warheads integrated into

rocket ammunition such as the TOS-1A system (the Russian equivalent of the MLRS) manufactured by Omsktransmash, has been highly successful on the battlefield in Ukraine. The system can launch two projectiles simultaneously. Both projectiles are equipped with thermobaric warheads, which, although not precise, cause significant damage due to the thermobaric effect. The advanced ammunition, along with the thermobaric warheads, “set Ukraine on fire,” according to the Russian description.

<https://www.israeldefense.co.il/en/node/61265>

Saudi Arabia The United States, Britain, Saudi Arabia, and Bahrain Want to Operate USVs in the Persian Gulf

Israel Defense, March 4, 2024

Units from the navies of the United States, Britain, Saudi Arabia, and Bahrain, recently conducted two naval drills that examined the multinational operation of unmanned surface vehicles (USVs) in the Persian Gulf. These are small unmanned boats equipped with electronic equipment that sail using solar and wind energy. Larger vessels of this type are powered by diesel engines. According to the UK Defence Journal, seven warships of various types from four navies participated in the drills, which included the possibility of operating large groups of such robotic boats, serving as “eyes and ears” for large warships sailing in the Gulf waters, while the unmanned vessels gather intelligence and transmit the information directly to command ships and shore commands.

<https://www.israeldefense.co.il/en/node/61405>

Saudi Goals of Developing an Indigenous Arms Industry are Ambitious

Stimson, March 11, 2024

The World Defense Show is an international defense industry exhibition, organized for the second time by Saudi Arabia from Feb. 8-12, 2024. The event — intended to confirm the growing capabilities of the Saudi defense

industry — did not entirely achieve its goals. But Riyadh undoubtedly has the potential to at least partially fulfill one aim of its Vision 2030 strategy by reducing dependence on arms imports.

The brainchild of Crown Prince Mohammed bin Salman, the de facto ruler of the country, Vision 2030 seeks to reduce Saudi reliance on exporting fossil fuels by diversifying the economy. Saudi Arabia also aspires to rise from its current position as the 19th largest economy in the world to the top 15.

<https://www.stimson.org/2024/saudi-arabia-to-develop-ambitious-indigenous-arms-industry/>

Saudi Arabia, Qatar, Egypt among world's top arms importers: SIPRI

Al-Monitor, March 11, 2024

Gulf states and Egypt accounted for more than 25% of global arms sales in the past four years, according to a report released Monday. The Stockholm International Peace Research Institute's (SIPRI) quadrennial report on international arms transfers details the import and export of weapons around the world between 2019 and 2023. Saudi Arabia was the second largest arms importer in the world from 2019 to 2023, accounting for 8.4% of imports, while Qatar was third with 7.6%. India was the largest importer with a 9.8% global market share, according to SIPRI's data.

<https://www.almonitor.com/originals/2024/03/saudi-arabia-qatar-egypt-among-worlds-top-arms-importers-sipri#ixzz8Ukyf4ApC>

Q. Türkiye

Turkish engine maker says fighter jet power unit almost ready

Daily Sabah, February 20, 2024

Türkiye's top engine manufacturer on Tuesday said a unit that will power the nation's first domestically developed fighter jet is almost ready, in what will mark the industry's latest advancement in a homegrown drive to curb external dependency on critical equipment.

The fifth-generation combat aircraft, KAAN, seeks to upgrade Türkiye's air force and replace its aging F-16 fleet. Officials have said it is expected to perform an inaugural flight soon.

<https://www.dailysabah.com/business/defense/turkish-engine-maker-says-fighter-jet-power-unit-almost-ready>

Türkiye says ready to sell once-embargoed drone cameras to Canada

Daily Sabah, February 20, 2024

Türkiye's pioneering defense manufacturer, Aselsan, has said it is ready to sell Canada drone optical technology that has been developed domestically after Ottawa placed an embargo on arms exports years ago.

Canada suspended drone technology sales to Türkiye in 2020 after concluding its optical equipment attached to Turkishmade drones had been used by Azerbaijan while fighting illegally occupying Armenian forces in Karabakh, the Azerbaijani enclave Baku has since liberated.

<https://www.dailysabah.com/business/defense/turkiye-says-ready-to-sell-once-embargoed-drone-cameras-to-canada>

Türkiye's 5th-generation fighter jet completes first flight

Daily Sabah, February 21, 2024

The Turkish public on Wednesday witnessed another defense industry milestone as the nation's first indigenously developed fighter jet completed its first flight, part of the country's efforts to upgrade its air force and curb external dependency.

Named KAAN, the fifth-generation warplane took off in the early hours on Wednesday and stayed in the air briefly before returning to an air base in north Ankara, according to a video shared by its developer, the Turkish Aerospace Industries (TAI).

<https://www.dailysabah.com/business/defense/turkiyes-5th-generation-fighter-jet-completes-first-flight>

Türkiye's new, advanced drone camera undergoes 1st test

Daily Sabah, February 23, 2024

Türkiye on Thursday announced it had successfully tested a new domestically developed drone optical technology, the latest advancement in the critical system that had been for years imported from abroad.

The ASELFLIR-500 electro-optical reconnaissance, surveillance and targeting system, developed by Aselsan, was tested by the Bayraktar Akıncı unmanned combat aerial vehicle, which struck a moving target at sea, according to a video shared by the drone developer, Baykar.

<https://www.dailysabah.com/business/defense/turkiyes-new-advanced-drone-camera-undergoes-1st-test>

Baykar's most powerful Akıncı UCAV yet makes debut flight

Daily Sabah, February 25, 2024

The latest variant of the Turkish drone magnate Baykar's pioneering unmanned combat aerial vehicle has completed its debut flight with new and more robust engines, the company announced on Saturday. The Akıncı drone, powered by two engines with 850 horsepower each, took off from a flight training and test center in the northwestern Tekirdağ province for an hourlong stay in the air, Baykar said.

<https://www.dailysabah.com/business/defense/baykars-most-powerful-akinci-ucav-yet-makes-debut-flight>

Newest addition to wrap up Türkiye's end-to-end air defense chain

Daily Sabah, February 27, 2024

Türkiye is preparing to incorporate into the inventory this year a new homegrown system with long-range high-altitude air defense capabilities, an addition that senior industry officials say will mark the last link in the country's defense chain.

Momentum over the recent years has seen Türkiye developing and producing its own domestic missile-defense technology, from short-range to long-range systems, after Ankara repeatedly sought to secure the equipment from Western partners.

<https://www.dailysabah.com/business/defense/newest-addition-to-wrap-up-turkiyes-end-to-end-air-defense-chain>

Türkiye expects 'positive approach' from Germany to buy Eurofighters

Daily Sabah, February 29, 2024

Sources from the Defense Ministry said Thursday that Türkiye was pursuing a deal to obtain Eurofighter jets from a European consortium. They stated that technical talks were underway with the United Kingdom and representatives of the jet's manufacturer and awaited "a positive approach" from Germany, a member of the European consortium behind the production.

A prolonged process of Türkiye's request to buy F-16 jets, which tested ties between Ankara and Washington, led the nation to begin discussions to buy Eurofighters.

<https://www.dailysabah.com/politics/turkiye-expects-positive-approach-from-germany-to-buy-eurofighters/news>

Türkiye fires anti-ship missile in 1st homegrown turbojet engine test

Daily Sabah, March 11, 2024

Türkiye announced on Sunday that its first domestically manufactured maritime missile successfully hit its target in an inaugural test utilizing the nation's first indigenous turbojet engine.

The test aimed to verify the domestically developed subsystems and components within the framework of the Atmaca missile project, which Roketsan developed under the auspices of the Presidency of Defense Industries (SSB).

<https://www.dailysabah.com/business/defense/turkiye-fires-anti-ship-missile-in-1st-homegrown-turbojet-engine-test>

Maldives receives renowned Turkish drones amid India tensions

Daily Sabah, March 11, 2024

Türkiye has started supplying the Maldives with its famed combat drone, Bayraktar TB2, amid high tensions between the island nation and India. The agreement between the two countries foresees a supply of a command control station and six TB2 unmanned combat aerial vehicles (UCAVs) to meet the security requirements of Maldivian armed forces.

<https://www.dailysabah.com/business/defense/maldives-receives-renowned-turkish-drones-amid-india-tensions>

Türkiye's domestic vertical launch system fires missile off frigate

Daily Sabah, March 13, 2024

The homegrown vertical launch system (VLS) MIDLAS has fired its first missile from a naval frigate, according to an official statement on Tuesday, marking another significant milestone for the Turkish defense industry. This test, which involved the test-firing of a Turkish-made Hisar-D naval air defense missile from the TCG Istanbul, marked a crucial milestone and the completion of the National Vertical Launch System's naval acceptance trials, said the statement by Türkiye's Presidency of Defense Industries (SSB), which supervised the test.

<https://www.dailysabah.com/business/defense/turkiyes-domestic-vertical-launch-system-fires-missile-off-frigate>

Türkiye's Akıncı drone completes supersonic missile firing test

Daily Sabah, March 14, 2024

The Bayraktar Akıncı, Türkiye's pioneering combat drone, completed Wednesday the UAV-122 supersonic missile firing test, its maker Baykar announced through a social media post accompanied by video footage of the test. Developed by Roketsan, the UAV-122

missile is highly precise, has rapid firepower support, low/high altitude orbit options and is highly maneuverable.

<https://www.dailysabah.com/business/defense/turkiyes-akinci-drone-completes-supersonic-missile-firing-test>

Türkiye still pursuing F-35 refund as it eyes to buy Eurofighters

Daily Sabah, March 15, 2024

Türkiye continues its efforts to get the F-35 fighter jet funds reimbursed while working with allies to procure Eurofighter Typhoons, a senior defense official said on Thursday. At a press briefing, the Defense Ministry's Public Relations Adviser Adm. Zeki Aktürk stated that negotiations on F-35 fighter jets were ongoing with the U.S. but there was no change in the positions of both countries.

<https://www.dailysabah.com/business/defense/turkiye-still-pursuing-f-35-refund-as-it-eyes-to-buy-eurofighters>

R. South East Asia

Philippines joint air patrol with U.S. to 'protect territory'

Reuters, February 20, 2024

A joint air patrol by the Philippines with the United States was aimed at protecting territory and national interests in the South China Sea, a Philippine military official said Tuesday, after Beijing accused Manila of stirring up trouble. Philippine fighter jets and a U.S. bomber plane flew together over the South China Sea on Monday, more than a week after their navies held joint maritime exercises in the face of simmering tensions over territorial claims in the area.

Philippines joint air patrol with U.S. to 'protect territory' | Reuters

Mosti: Use of nuclear technology can be expanded to improve people's living standards

Malay Mail, February 27, 2024

The Ministry of Science, Technology and Innovation (Mosti) believes that the use of

nuclear technology can be applied in various areas to improve people's living standards.

The ministry's secretary-general, Datuk Aminuddin Hassim, said various research and development (R&D) works have been carried out to ensure the safe use of nuclear technology.

Mosti: Use of nuclear technology can be expanded to improve people's living standards | Malay Mail

Philippines prepares to boost defence spending to \$6.2bn by 2029

Army Technology, 11 March 2024

As tensions escalate in the South China Sea, the Philippines is gearing up for a boost in defence spending, with plans to allocate \$6.2bn (343bn pesos) by 2029, according to a forecast by GlobalData on the Philippines defence market.

While financial constraints pose challenges, the Philippines remains steadfast in its commitment to enhancing defence capabilities through strategic acquisitions. Focusing on maritime and air defence, the country aims to navigate regional complexities and safeguard its interests in the face of evolving geopolitical dynamics.

Philippines prepares to boost defence spending to \$6.2bn by 2029 - Army Technology (army-technology.com)

Singapore takes nuclear safety research to the next level

The Straight Times, 3 March, 2024

In a signal that Singapore could be serious about harnessing nuclear power as a clean energy source, more resources are being pumped into nuclear technology and safety research, and training the best minds in the field.

A new multimillion-dollar research building at the National University of Singapore will house about 100

researchers looking at everything from the latest in small modular reactors (SMRs), which can be scaled up like Lego bricks, to how radioactive materials can disperse if there is an accident.

Singapore takes nuclear safety research to the next level | The Straits Times

Japan signals interest in AUKUS defence tech partnership

Economic Times, 6 March 2024

Japan is interested in discussing cooperation with the United States, Australia and Britain on advanced military technology, an official said Wednesday, signalling Tokyo could become more involved in the trio's landmark security partnership AUKUS.

AUKUS: Japan signals interest in AUKUS defence tech partnership - The Economic Times (indiatimes.com)d

Japan's Reports on Conditions at TEPCO's Fukushima Daiichi Nuclear Power Station

IAEA, 5 March, 2024

Japan provided the IAEA with a copy of a report on the discharge record and the seawater monitoring results at the Fukushima Daiichi Nuclear Power Station during January, which the Ministry of Foreign Affairs has sent to all international Missions in Japan.

The report contains information on discharges from the subdrain and groundwater drain systems, as well as on groundwater bypassing conducted during the month of January. In both cases, in advance of the action, TEPCO analyzes the quality of the groundwater to be discharged and announces the results. These results confirm that the radiation level of sampled water are substantially below the operational targets set by TEPCO.

Japan's Reports on Conditions at TEPCO's Fukushima Daiichi Nuclear Power Station, 5 March 2024 | IAEA

India, South Korea to expand cooperation in new technologies, semiconductors

Hindustan Times, 6 March 2024

India and South Korea explored ways to expand cooperation to new areas such as emerging technologies, semiconductors, green hydrogen and mobility of professionals during a meeting of the bilateral joint commission in Seoul on Wednesday.

India, South Korea to expand cooperation in new technologies, semiconductors | Latest News India - Hindustan Times

BRIN and RCARO Korea Agree to Plan Research and Capacity Building Programme for Nuclear Human Resources

Badan Riset Dan Inovasi Nasional, 4 March 2024

National Research and Innovation Agency (BRIN) will begin to be activated. These facilities can be used to extend the life of food, sterilise medical devices, carbon dating to calculate the age of artefacts, manuscripts and so on. Meanwhile, the Kartini nuclear reactor in Yogyakarta will be used as a reactor centre for educational purposes. This was conveyed by the Head of BRIN, Laksana Tri Handoko, during a discussion with delegates of the Regional Cooperative Agreement Regional Office (RCARO) of the Korean Government, related to the human resource capacity building programme at KST. Soekarno, Cibinong, Friday (01/03).

During the discussion, Handoko wanted the initiation of cooperation with RCARO to strengthen and refine the various activities that would be discussed, including the possibility of developing human resource capacity based on nuclear science and technology between the Korean and Indonesian governments.

BRIN - BRIN and RCARO Korea Agree to Plan Research and Capacity Building Programme for Nuclear Human Resources

S. Africa

Morocco Signs its Country Programme Framework (CPF) for 2024–2029

IAEA, February 21, 2024

HE Dr Leila Benali, Minister of Energy Transition and Sustainable Development for the Kingdom of Morocco, and Hua Liu, IAEA Deputy Director General and Head of the Department of Technical Cooperation, signed Morocco's Country Programme Framework (CPF) for the period of 2024–2029 on 19 February 2024. A CPF is the frame of reference for the medium-term planning of technical cooperation between a Member State and the IAEA and identifies priority areas where the transfer of nuclear technology and technical cooperation resources will be directed to support national development goals.

Morocco has been an IAEA Member State since 1957. Its 2024–2029 CPF identifies six priority areas:

1. Nuclear and radiation safety
2. Food and agriculture
3. Human health and nutrition
4. Water resources management
5. Introduction of nuclear power
6. Industrial Application

Morocco Signs its Country Programme Framework (CPF) for 2024–2029 | IAEA

IAEA Boosts WiN Africa's Reach in Nuclear Field for Women

Mirage, February 22, 2024

By encouraging professional women to network and participate in lifelong learning, the IAEA is helping to address the lack of trained professionals in the nuclear field in Africa. Women in Nuclear (WiN), a non-profit organization that advocates for women in the nuclear field, is playing an important role in this endeavour. In 2023, the IAEA helped to advance the work of the

WiN chapter in Africa, providing support for its efforts to expand and reach new audiences.

IAEA Boosts WiN Africa's Reach in Nuclear Field for Women | Mirage News

Senegal Signs its Fourth Country Programme Framework (CPF) for 2024–2029

IAEA, February 22, 2024

H.E Prof. Moussa Balde, Minister of Higher Education, Scientific Research and Innovation, and Hua Liu, IAEA Deputy Director General and Head of the Department of Technical Cooperation, signed the fourth Senegal Country Programme Framework (CPF) for the period of 2024–2029 on 26 January 2024 and 09 February 2024, respectively. A CPF is the frame of reference for the medium-term planning of technical cooperation between a Member State and the IAEA and identifies priority areas where the transfer of nuclear technology and technical cooperation resources will be directed to support national development goals.

Senegal Signs its Fourth Country Programme Framework (CPF) for 2024–2029 | IAEA

Africa's emerging nuclear energy sector can help to build sustainable economic development

Nuclear Energy Agency, February 27, 2024

A growing number of countries in Africa are envisioning nuclear energy as an important part of their future. In this context, the Nuclear Energy Agency is engaging with African nations to help create opportunities for sustainable economic development through nuclear energy policy.

An NEA delegation last week travelled to Addis Ababa, Ethiopia to take part in the 37th African Union Summit. The Summit brought together high-level government officials, non-government organisations and private sector individuals to take part

in discussions centred around enhancing education and skills for Africa in the 21st Century.

Nuclear Energy Agency (NEA) - Africa's emerging nuclear energy sector can help to build sustainable economic development (oecd-nea.org)

MTN and Huawei Sign Memorandum of Understanding for Joint Innovation Tech Lab to Boost Digital Transformation in Africa

Huawei, February 28, 2024

MTN Group and Huawei signed a Memorandum of Understanding (MoU) for a Joint Innovation Technology Lab, aiming to deepen cooperation in technological innovation. The signing ceremony, which held at MWC Barcelona, Spain was attended by senior delegations from MTN and Huawei. This strategic partnership will see the creation of an Innovation Technology Lab at MTN Group's headquarters in South Africa. The lab will serve as a neutral platform for collaboration within the Africa's digital ecosystem, accelerating the development, deployment and adoption of innovative digital solutions driven across the continent. Together, the two companies will leverage this initiative to focus their research and development efforts on key areas such as 5G and beyond, Artificial Intelligence, Big Data analytics, cloud computing, and digital financial services. The partnership aims to accelerate the time-to-market of MTN's products and services while addressing the unique challenges faced in Africa, including improving network coverage in rural areas, enhancing energy efficiency, and affordability.

MTN and Huawei Sign Memorandum of Understanding for Joint Innovation Tech Lab to Boost Digital Transformation in Africa - Huawei

AFCONE and DeepGeo launch African nuclear initiative

World Nuclear News, 05 March 2024

The African Commission on Nuclear Energy and DeepGeo have signed a partnership agreement which could see multinational deep geological repositories hosted in Africa,

with a proportion of the income used to facilitate nuclear energy deployment. The African Nuclear Energy Funding Initiative agreement will see DeepGeo introduced to African financial institutions and gain enhanced access to African decision-makers, while the African Commission on Nuclear Energy (AFCONE) "will benefit from a portion of the future proceeds (from any deep geological repository) and will immediately start work on establishing a template for regional nuclear governance that will facilitate nuclear energy deployment and the use of shared fuel-cycle facilities across the continent". The partnership agreement aims to support the development of African financial institutions and their ability to invest in nuclear energy projects and "the goal is to eventually achieve nuclear autonomy for Africa, supporting regional nuclear fuel-cycle facilities, research and medical facilities and a domestic supply chain.

AFCONE and DeepGeo launch African nuclear initiative : Corporate - World Nuclear News (world nuclear-news.org)d

Government agencies and esteemed experts discussed the development of nuclear power projects at Africa Energy Indaba

Rosatom, 11 March 2024

On March 7, 2024 with renewed interest in the field of nuclear in the country, a number of government agencies, potential vendors, local companies, regulators and other organizations gathered to discuss the future of the nuclear industry in South Africa. Speakers discussed the value of nuclear power for Africa, the role of state companies and regulators in NPP construction programs, the creation of a local supply chain for the nuclear industry, as well as the financing of nuclear power projects. Rosatom was also active at the event, with its representatives delivering speeches in two key sessions.

Government agencies and esteemed experts discussed the development of nuclear power projects at Africa Energy Indaba (rosatomafrica.com)

T. East Asia

Asahi poll: 50% in favor of restarting idle nuclear plants

The Asahi Shimbun, February 19, 2024

Nearly 13 years after the accident at the Fukushima No. 1 nuclear power plant, a new poll shows the support rate for restarting idle nuclear power plants in Japan is widening.

The Asahi Shimbun poll found that 50 percent of respondents support resuming the plants, while 35 percent said they want them to remain offline.

This marks the second consecutive year that the majority were in favor.

The survey has been conducted annually since 2013, following the triple meltdowns at the Tokyo Electric Power Co.'s Fukushima No.1 nuclear plant, which was triggered by tsunami after the 2011 Great East Japan Earthquake.

In each of the polls, roughly 30 percent of respondents favored restarting nuclear plants while 50 to 60 percent remained opposed.

However, the previous survey in February 2023 marked the first time the majority opinion flipped, with 51 percent in favor and 42 percent opposed.

Asahi poll: 50% in favor of restarting idle nuclear plants | The Asahi Shimbun: Breaking News, Japan News and Analysis

Diehl and KAI reconfirm plan to integrate IRIS-T missile on KF-21, FA-50 fighters

Airforce Technology, February 20, 2024

Diehl Defence and Korea Aerospace Industries (KAI) have signed a Memorandum of Understanding (MoU) to "intensify" integration efforts of the IRIS-T missile onto the FA-50/T-50 and KF-21 Block II aircraft.

Detailing the MoU in a 19 February, 2024, release, Diehl Defence stated that the

agreement would help in integration efforts of the IRIS-T missile onto the aircraft, following on from a previously signed commitment in 2021. In addition, the MoU covers the collaboration of working groups on marketing efforts for KAI aircraft equipped with Diehl Defence missiles.

<https://www.airforce-technology.com/news/diehl-and-kai-reconfirm-plan-to-integrate-iris-t-missile-on-kf-21-fa-50-fighters/>

Experimental nuclear fusion in a doughnut-shaped vessel may hold key to safe, carbon-free power

The Straight times, February 22, 2024

With its tangle of pipes and pumps leading to a metal pot the size of a five-storey building, Japan's JT-60SA machine looks

to the untrained eye like a contraption from 1970s sci-fi.

But inside it is a doughnut-shaped vessel where experiments done at millions of degrees could help unlock a carbon-free, inexhaustible and safe power source for the future: nuclear fusion. Unlike fission, the technique currently used in nuclear power plants, fusion involves combining two atomic nuclei instead of splitting one, generating vast amounts of energy.

The process is safe and there are no nasty by-products like fissile material for a nuclear weapon or hazardous radioactive waste that takes thousands of years to degrade.

Experimental nuclear fusion in a doughnut-shaped vessel may hold key to safe, carbon-free power | The Straits Times

Japan and China held talks over Fukushima treated water release

The Japan Times, February 24, 2024

Japan and China held a meeting last month over the release of treated radioactive water from the crippled Fukushima nuclear plant into the sea and

China's subsequent import ban on Japanese marine products, sources close to the matter have said.

At the online meeting, there was no major progress in their discussions, as China keeps in place the import ban on all seafood products from Japan in response to the water release, while Japan continues to ask for the removal of the measures.

Japan and China held talks over Fukushima treated water release - The Japan Times

Japan to release 4th discharge of nuclear contaminated water on February 28

CGTN, February 26, 2024

Tokyo Electric Power Company will begin the fourth discharge of Fukushima contaminated water on February 28, the company announced on Monday.

Japan to release 4th discharge of nuclear contaminated water on February 28 - CGTN

South Korea, US to stage annual drills focusing on Korea nuclear threats

Reuters, February 28, 2024

Industrial applications (including research reactor) South Korea and the United States will begin their annual spring military drills next week with a focus on heading off North Korea's potential use of nuclear weapons, officials said on Wednesday.

The Freedom Shield exercises, set for March 4-14, come as North Korea continues to test missiles and other weapons systems and develop its nuclear capabilities, and will be first since Pyongyang scrapped a 2018 inter-Korean military pact in November.

South Korea, US to stage annual drills focusing on Korea nuclear threats | Reuters

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