

जुलाई
July
2023

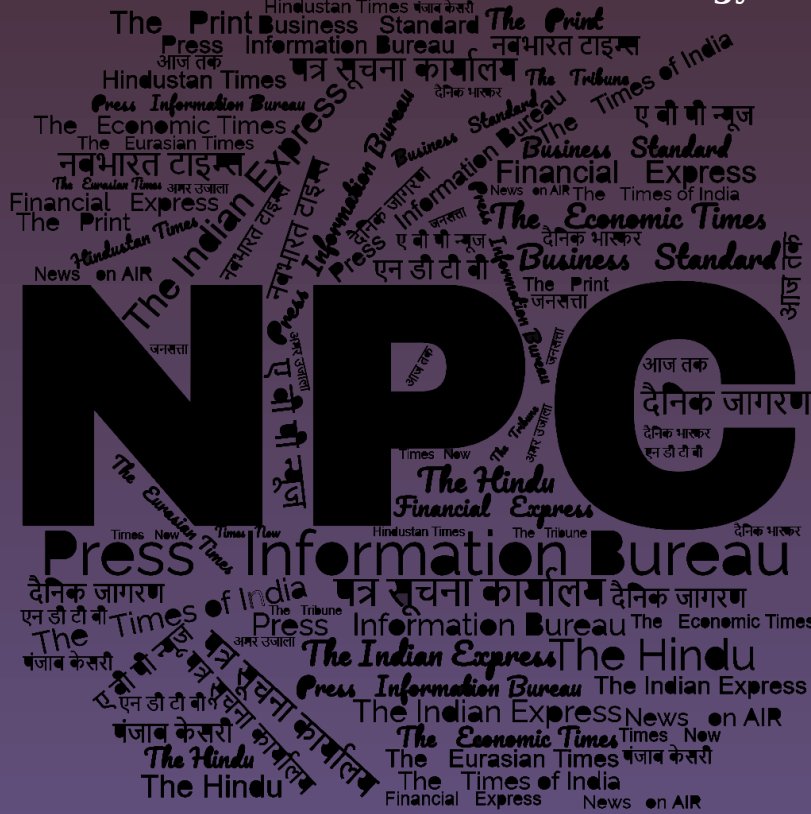
खंड/Vol. : 48 अंक/Issue : 136

20/07/2023

समाचार पत्रों से चयित अंश Newspapers Clippings

डीआरडीओ समुदाय को डीआरडीओ प्रौद्योगिकियों, रक्षा प्रौद्योगिकियों, रक्षा नीतियों, अंतर्राष्ट्रीय संबंधों और विज्ञान एवं प्रौद्योगिकी की नूतन जानकारी से अवगत कराने हेतु दैनिक सेवा

A Daily service to keep DRDO Fraternity abreast with DRDO Technologies, Defence Technologies, Defence Policies, International Relations and Science & Technology



रक्षा विज्ञान पुस्तकालय

Defence Science Library

रक्षा वैज्ञानिक सूचना एवं प्रलेखन केंद्र

Defence Scientific Information & Documentation Centre

मेटकॉफ हाउस, दिल्ली - 110 054

Metcalf House, Delhi - 110 054

CONTENTS

S. No.	TITLE	Page No.
Defence News		1-13
Defence Strategic: National/International		1-13
1.	DG Rakesh Pal Appointed as 25th Director General of Indian Coast Guard	<i>Press Information Bureau</i> 1
2.	3rd Working Group Meeting on Military Cooperation of Indian-Russian Intergovernmental Commission on Military & Military Technical Cooperation Held in New Delhi	<i>Press Information Bureau</i> 2
3.	Indian, Russian Officials Discuss New Initiatives to Expand Defence Cooperation	<i>The Economic Times</i> 2
4.	As Interest Grows in BrahMos Missile Systems, here's why it is the Future of Defence Capabilities	<i>The Economic Times</i> 3
5.	Airbus C-295 Aircraft Manufacturing Ecosystem Taking Shape in India	<i>The Hindu</i> 4
6.	Navy to Set up Team to Negotiate Deal for 26 Rafale Marines with France	<i>The Print</i> 6
7.	USS Stethem Conducts Cooperative Deployment with Indian Navy in Goa	<i>The Economic Times</i> 7
8.	Japan's State Minister of Cabinet Office Discusses Issues of Mutual Interest with Defence Official	<i>The Print</i> 8
9.	Pakistan Prepares Fresh Arms Supplies to Ukraine as Kuleba Makes 'Emergency Visit' to Islamabad	<i>The Economic Times</i> 9
10.	US Announces 1.3 Billion USD Military Aid Package for Ukraine to "Deter Russian Aggression"	<i>ANI</i> 10
11.	Britain's MI6 Chief Says his Spies are Using AI to Disrupt Flow of Weapons to Russia	<i>The Economic Times</i> 11
12.	Chasing the Sky: South Korea Advances Indigenous Missile Defence System	<i>Janes</i> 12
Science & Technology News		13-15
13.	Union Minister for Science and Technology Dr Jitendra Singh Calls for Affordable Clean Energy Solutions and Says, in Order to Achieve this Goal, Strong Public Private Partnership is the Need of the Hour	<i>Press Information Bureau</i> 13
14.	Workouts on Weekends also Benefit Heart Health, Suggests Study	<i>WION</i> 14



Press Information Bureau
Government of India

Ministry of Defence

Wed, 19 Jul 2023

DG Rakesh Pal Appointed as 25th Director General of Indian Coast Guard

DG Rakesh Pal has been appointed as the 25th Director General of the Indian Coast Guard (ICG). He is an alumnus of the Indian Naval Academy and joined Indian Coast Guard in January 1989. He has undergone professional specialisation in Gunnery & Weapons Systems at Indian Naval School Dronacharya, Kochi, and an Electro-Optics Fire Control Solution course from the United Kingdom. The Officer holds the recognition of being the First Gunner of ICG.

In his distinguished career spanning over 34 years, the flag officer has held several key appointments, prominent among them are Commander Coast Guard Region (North West), Gandhinagar, Deputy Director General (Policy & Plans), and Additional Director General Coast Guard at Coast Guard Headquarters, New Delhi. Besides, he has held various prestigious staff assignments viz. Director (Infra & Works) and Principal Director (Administration) at Coast Guard Headquarters, New Delhi. He has vast sea experience and commanded all classes of ICG ships namely; ICGS Samarth, ICGS Vijit, ICGS Sucheta Kriplani, ICGS Ahalyabai, and ICGS C-03. The Officer has also Commanded two Coast Guard bases of the forward area in Gujarat - Okha & Vadinar.

DG Rakesh Pal was elevated to the rank of Additional Director General in February 2022 and was posted at Coast Guard Headquarters, New Delhi. He was given the additional charge of Director General Coast Guard in February 2023. During the period, many significant operations and exercises were accomplished that includes the seizure of drugs/narcotic substances and gold worth crores of rupees, rescue of mariners during severe cyclonic storms, joint exercises with the Foreign Coast Guards, anti-poaching operations, humanitarian assistance during cyclones/ natural calamities and Coastal Security exercises.

DG Rakesh Pal was conferred with Tatrakshak Medal in 2013 and President Tatrakshak Medal in 2018 for his illustrious service.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1940824>



Press Information Bureau
Government of India

Ministry of Defence

Wed, 19 Jul 2023

3rd Working Group Meeting on Military Cooperation of Indian-Russian Intergovernmental Commission on Military & Military Technical Cooperation Held in New Delhi

The 3rd meeting of the Working Group on Military Cooperation of the Indian-Russian Intergovernmental Commission on Military and Military-Technical Cooperation was held from 18 – 19 July 2023 at Manekshaw Centre in New Delhi.

The meeting was co-chaired by Lt. Gen Johnson P Mathew, Chief of Integrated Defence Staff to Chairman Chiefs of Staff Committee (CISC), HQ - IDS, and Lt. Gen Dylevsky Igor Nikolaevich, Deputy Chief of the Main Operational Directorate of the General Staff of the Armed Forces of the Russian Federation. The meeting was conducted in a friendly warm and cordial atmosphere.

The discussions focused on extending the ongoing defence engagements between the two sides and mulled new initiatives under the ambit of the existing bilateral defence corporation mechanism.

The Working Group meeting is a forum established to progress defence cooperation between both countries through regular talks at the strategic and operational levels between Headquarters, Integrated Defence Staff, and the Main Directorate of International Military Cooperation of the Ministry of Defence, Russian Federation.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1940767>

THE ECONOMIC TIMES

Wed, 19 Jul 2023

Indian, Russian Officials Discuss New Initiatives to Expand Defence Cooperation

Indian and Russian officials discussed ways to expand overall defence cooperation at a two-day meeting that concluded on Wednesday, the defence ministry said. The deliberations took place at the third meeting of the working group on military cooperation of the Indian-Russian intergovernmental commission on military and military-technical cooperation.

"The discussions focused on extending the ongoing defence engagements between the two sides and mulled new initiatives under the ambit of the existing bilateral defence cooperation mechanism," the ministry said in a statement. The working group meeting is a forum established to progress defence cooperation between both countries through regular talks at the strategic and operational levels between India's integrated defence staff and the main directorate of international military cooperation of Russian defence ministry.

<https://economictimes.indiatimes.com/news/defence/indian-russian-officials-discuss-new-initiatives-to-expand-defence-cooperation/articleshow/101964088.cms>

As Interest Grows in BrahMos Missile Systems, here's why it is the Future of Defence Capabilities

Defence Minister Rajnath Singh held talks with Argentine Defence Minister Jorge Taiana on Tuesday and the talks covered topics of ongoing defence cooperation initiatives, including measures to enhance defence industrial partnership highlighting the growing cooperation between the two nations.

Earlier in the day, Jorge Taiana also visited the BrahMos Facility, sparking speculation that Argentina has expressed a keen interest in the BrahMos air-launched missile system, marking a significant step towards enhancing its defense capabilities.

BrahMos Missile system garners attention in South America

The BrahMos supersonic cruise missile, was a product of the Indo-Russian joint venture, and it has garnered attention from a number of South American countries, including Argentina, Brazil, and Chile.

Demonstrating their curiosity about this indigenously developed missile, multiple delegations from the region visited the BrahMos stand at the recent defense expo in Brazil, called 'LAAD,' as reported by the Financial Express.

Versatility and operational prowess of BrahMos Missile

The versatility of the BrahMos missile can hardly be understated as it can be launched from a wide array of platforms, including fighter jets, submarines, ships as well as from land based systems.

Already inducted into the Indian Armed Forces, the missile's operational prowess has been proven. Currently, tests are being conducted with the goal of extending its range to up to 450 kilometers from 250 kilometers, even going so far as 600 kilometers.

The successful test launch from the indigenous stealth missile destroyer, INS Visakhapatnam, stands as a testament to its effectiveness.

Strategic advantage for Argentina

Argentina's interest in cruise missiles stems from the need to bolster its defense capabilities in an ever-evolving security landscape. Possessing cutting-edge technology becomes crucial to safeguard national interests. The cruise missiles offer a strategic advantage by providing long-range precision strike capabilities, enhancing deterrence, and enabling a swift response in critical situations.

Acquiring the BrahMos system could significantly enhance Argentina's defense posture, ensuring the protection of its territorial integrity and national security, according to a senior officer who wished to remain anonymous.

BrahMos Aerospace exports and global demand

The BrahMos Aerospace Pvt Ltd has already made successful exports, with the recent contract worth USD 375 million with the Philippines highlighting the global demand for this remarkable weapon system.

The Philippines Navy has acquired three batteries of the missile, with ongoing discussions for a land-based variant to fortify its army. This success paves the way for potential exports to other nations after fulfilling necessary intergovernmental procedures.

Indo-Russian joint venture strengthens defense cooperation

Furthermore, the Indo-Russian joint venture behind BrahMos is regarded as a "precious gem" in the defense cooperation between India and Russia. This collaboration signifies the trust and expertise shared between the two nations, resulting in the development of advanced military technology. By leveraging this partnership, Argentina can tap into the accumulated knowledge and experience, further strengthening its defense capabilities.

Argentina's commitment to modernize defense infrastructure

Argentina's interest in acquiring cruise missiles, specifically the BrahMos system, reflects its commitment to modernizing its defense infrastructure. As Argentina engages in talks with Indian officials, the potential for collaboration in this domain is promising. The acquisition of the BrahMos missile system would not only bolster Argentina's defense capabilities but also foster closer ties between the two nations in the realm of defense and technology.

Strategic partnership

During the state visit of the Argentinian President in February 2019, India-Argentina relations were elevated to a strategic partnership level. Since 2019, a memorandum of understanding on defense cooperation has been in effect, and both countries are actively working towards enhancing their ties through further agreements. Notably, Prime Minister Narendra Modi and Argentina's President Fernandez had their first bilateral meeting during the G7 Summit in Munich, Germany, on June 24, 2022, further reinforcing their commitment to bilateral cooperation.

Tejas combat aircraft talks

Indian Defense Minister, Taiana, is set to visit Bengaluru to hold discussions with Hindustan Aeronautics Ltd (HAL) and engage with defense start-ups, according to a defense ministry statement. Earlier conversations between the Indian Ambassador to Argentina and the Argentine Air Force Chief explored collaboration in Tejas combat aircraft and HAL-manufactured helicopters. This follows a statement made by External Affairs Minister S. Jaishankar in August last year, acknowledging Argentina's interest in the Tejas LCA.

<https://economictimes.indiatimes.com/news/defence/amid-talks-argentina-expresses-keen-interest-in-brahmos-and-tejas-bolstering-defence-capabilities/articleshow/101915195.cms>



Wed, 19 Jul 2023

Airbus C-295 Aircraft Manufacturing Ecosystem Taking Shape in India

In about 45 days from now, in September, the Indian Air Force (IAF) will receive the first C-295 transport aircraft and ahead of it, six pilots have been trained in Seville by Airbus and training of a 20-member maintenance crew is currently under way. Ground breaking ceremony for a training centre at Air Force station, Agra, was done in March with a full motion simulator to be delivered by the end of 2024. Work is under way for setting up the Final Assembly Line (FAL) at Vadodara in partnership with Tata Advanced Systems Limited (TASL), according to Jorge Tamarit, head of C-295 India programme, Airbus. The first aircraft manufactured in India would be delivered in September 2026.

“The FAL in Vadodara will be ready by mid-2024 and start production by November 2024,” Mr. Tamarit said speaking to a small group of visiting journalists from India. “Next week the Main Constituent Assembly [MCA] in Hyderabad is set to start production where several major sub-

assemblies for the 40 aircraft to be assembled in India would be made, beginning with the rear-end fuselage.”

The second C-295 will be delivered in May 2024 followed by seven aircraft in 2024 at the rate of one per month, said Jorge Madrid, head of C-295 India-version development programme.

In September 2021, the Defence Ministry signed a ₹22,000-crore deal with Airbus and Space S.A., Spain, for procurement of 56 C-295MW transport aircraft to replace the Avro aircraft in service with the IAF. As per contract, 16 aircraft would come in fly away condition, manufactured at the Airbus facility in Seville, and 40 would be manufactured in India by Airbus jointly with TASL.

The C-295 has a capacity of 9 tonnes and can carry up to 71 troops or 50 paratroopers. Eventually, IAF will become the largest operator of the C-295.

Talking of the uniqueness of the deal, Mr. Tamarit said the contract involving ‘Make-in-India’ and offset obligations is unprecedented. Airbus has not done a full production system ever, he said stating the deal involves 30% offset obligations on top of ‘Make-in-India’ obligations. The contract includes service support programme: spares, ground support and test equipment, tech publications, training, training devices, performance-based logistics contract. In March, the contract for Performance Based Logistics (PBL) for five years was signed as per which a fleet availability rate of 85% rate would be ensured. Also the contract for supply of spares is for 10 years covering 10 operating bases.

The FAL spread over 36 acres will be ready by mid-2024 and operations will start by November 2024. All parts produced in Hyderabad will be shipped to Vadodara for the final assembly.

The MCA in Hyderabad is set to start production by next week beginning with the rear-end fuselage, followed by rear fuselage, centre fuselage and so on. We are doing fortnightly deliveries of tail parts to India, Mr. Tamarit said. These are for the 17th C-295 which will be the first aircraft to be manufactured in India. The first ‘Make-in-India’ aircraft is scheduled to be delivered in September 2026 and the contract would be completed by 2031.

Indigenous radar warning receiver and missile approach warning systems made by Bharat Electronics Limited (BEL) and counter-measure dispensing system made by Bharat Dynamics Limited (BDL) have been certified and installed on the first aircraft, Mr. Madrid stated.

In all, 14,000 detailed parts would be made in India and roughly around 3,500 parts will be industrialised every year, said Mr. Tamarit. Tata-produced parts would be sequentially incorporated from aircraft 17 to 32 and from the 30th aircraft onwards 100% of the tail parts and labour would be in India. The last eight aircraft from 32 to 40 would have the maximum indigenous content, he said, adding the scheduled delivery of the 32nd aircraft is in the first quarter of 2029. “We measure indigenisation by labour hours and by the 32nd aircraft it will reach 98%.”

Engines, avionics and some systems like landing gear are not done by Airbus and would be sourced directly. So Tata will not be doing them as well as a small number of detailed parts, Mr. Tamarit noted adding some technologies like Chemical Milling will be transferred by Airbus to Tata. “It is an Intellectual Property licence agreement.”

The project will create 15,000 direct jobs and 10,000 indirect jobs over the coming 10 years. Airbus currently employs over 2,750 full-time employees in India and its exports from supply chain is \$750 million per year in terms of components and services.

Under the offset obligations, to begin with it will be direct sourcing and Airbus is looking to diversify, officials added.

A deal for 15 more C-295s to be converted into a maritime role for the Navy and Coast Guard by the Defence Research and Development Organisation is in the pipeline and discussions are on for

it, company officials said. Approval from the Defence Acquisition Council (DAC) is awaited for this.

The IAF has 56 Avro transport aircraft procured in the 1960s and in urgent need of replacement. The Request For Proposal was issued to global firms in May 2013 and the sole bid by Airbus and Tata Group with the C-295 aircraft was approved by the DAC in May 2015.

<https://www.thehindu.com/news/national/c-295-manufacturing-ecosystem-takes-shape-in-india-as-first-aircraft-set-to-be-delivered-in-september/article67097785.ece>

ThePrint

Wed, 19 Jul 2023

Navy to Set up Team to Negotiate Deal for 26 Rafale Marines with France

With its mega project to acquire 26 Rafale Marine fighters getting the greenlight, the Indian Navy is setting up a team along with the defence ministry to negotiate the terms and conditions of the deal which is likely to cost over 5 billion Euros (Rs 45,000 crore), ThePrint has learnt.

Sources in the defence and security establishment said that the negotiating team will be led by a senior Naval officer while the French side will be led by its defence ministry.

The two sides will negotiate on the price and other terms of purchase after taking into account all relevant aspects, they added.

Incidentally, the French Navy only operates the Rafale Marine.

There are India-specific requirements that will also be discussed and firmed up between the two sides.

Furthermore, integration of Indian designed equipment and establishment of Maintenance, Repair & Operations (MRO) hub for various systems will be incorporated into the contract documents after due negotiations.

As reported earlier by ThePrint, a formal deal will only be signed after the new government is sworn in next year because the whole process will take that much time.

Ahead of Prime Minister Narendra Modi's visit to France last week, Defence Minister Rajnath Singh-led Defence Acquisition Council (DAC) had given the nod to the Naval project which will include the procurement of 22 Rafale Marine and 4 trainer aircraft for the indigenous aircraft carrier INS Vikrant.

The proposed Rafale Marine deal was not part of the joint statement issued by India and France after Modi's meeting with French President Emmanuel Macron. In his media interaction, Modi, however, did make a passing reference to cooperate with naval fighters.

France has emerged as a major defence partner for India with cooperation reaching from submarines to space. According to a report by the Sweden-based Stockholm International Peace Research Institute (SIPRI), France displaced the US to become the second-largest supplier of arms to India between 2018 and 2022 — an increase of 489 per cent compared to the 2013–17 period.

<https://theprint.in/defence/navy-to-set-up-team-to-negotiate-deal-for-26-rafale-marines-with-france/1676306/>

USS Stethem Conducts Cooperative Deployment with Indian Navy in Goa

The USA's Arleigh Burke-class guided-missile destroyer USS Stethem (DDG 63) has conducted a Cooperative Deployment (CODEP) with the Indian Navy following the ship's port visit to Goa, officials said on Wednesday.

The US Navy destroyer worked with the Indian Navy frigate INS Tarkash (F-50), and the operations focused on building interoperability and strengthening relationships through manoeuvring and communication exercises on Tuesday, a media statement released here said.

US Consul General in Mumbai Mike Hankey said the port visit reinforces President Joe Biden and Prime Minister Narendra Modi's commitment to an Indo-Pacific region built on shared values and principles "as we strengthen the relationship between our two countries."

He said the US recognises and values India's role and leadership in the Indo-Pacific region at large.

"Working in concert with India, we will advance the rules-based order and maintain peace and stability in the region," he added.

"Stethem Sailors greatly enjoyed the opportunity to work closely with our partners in the region, working together with the Indian Navy allowed us to gain a greater appreciation for creating stability off their coast following our successful port visit," said Commander James "Nate" Watts, the commanding officer of Stethem.

The operations on India's West Coast, sailing together, show our strong commitment to a free and open Indo-Pacific, he said.

The statement said the US-India bilateral operations included division tactics, a passing exercise and formation sailing, providing both navies the opportunity to work together to further common maritime goals.

Port calls are part of the US Navy's routine operations. Not only do they reflect the mutual interest between the US and its partner nations, they allow sailors an opportunity to decompress from the high demand of life at sea, contributing to the overall mission readiness of the ship, it said.

Stethem is operating as part of Commander, Task Force 71, US 7th Fleet's principal surface force, the statement said.

CTF 71 is responsible for the readiness, tactical and administrative responsibilities for forward-deployed Arleigh Burke-class guided-missile destroyers as well as any surface unit conducting independent operations in the region, the release said.

US 7th Fleet is the US Navy's largest forward-deployed numbered fleet, and routinely interacts and operates with allies and partners in preserving a free and open Indo-Pacific region, it added.

<https://economictimes.indiatimes.com/news/defence/uss-stethem-conducts-cooperative-deployment-with-indian-navy-in-goia/articleshow/101927049.cms>

Japan's State Minister of Cabinet Office Discusses Issues of Mutual Interest with Defence Official

Defence Secretary Giridhar Aramane on Wednesday discussed issues of mutual interest with Japan's State Minister of Cabinet Office Yoshiaki Wada in New Delhi.

"Yoshiaki Wada, State Minister of Cabinet Office, Japan called on Defence Secretary @giridhararamane in New Delhi today to discuss issues of mutual interest," Ministry of Defence Principal Spokesperson A. Bharat Bhushan Babu tweeted on Wednesday.

Meanwhile, on Wednesday, Union Railways Minister Ashwini Vaishnaw held a meeting with the CEO and President of Rapidus Corporation Atsuyoshi Koike and a team from Japan's Ministry of Economy, Trade and Industry. The two sides discussed furthering cooperation between India and Japan in semiconductor design and manufacturing.

Taking to his official Twitter handle, Ashwini Vaishnaw stated: "Met Atsuyoshi Koike, CEO and President of Rapidus Corporation and a team from the Ministry of Economy, Trade & Industry, Govt of Japan. Discussed on furthering Indo-Japan cooperation in semiconductor design and manufacturing."

Earlier on July 6, Prime Minister Narendra Modi met Japan's former Prime Minister and Chairman of the Japan-India Association (JIA) Yoshihide Suga. The two held discussions on deepening India-Japan Special Strategic and Global Partnership in different areas, including parliamentary exchanges, investment and economic ties.

"Glad to receive @sugawitter, Chairman JIA and former PM of Japan, along with the 'Ganesha group' of Japanese Parliamentarians and @keidanren CEOs. Had an engaging discussion on deepening our Special Strategic and Global Partnership in different areas, including parliamentary exchanges, investment and economic ties, P2P links, tourism and skill development," PM Modi tweeted.

The former Japan Prime Minister was on a visit to India with a delegation of over 100 members comprising government officials, Keidanren (Japan Business Federation), and members of the "Ganesha no Kai" group of Parliamentarians.

PM Modi had a fruitful interaction with accompanying members of the "Ganesha no Kai" Parliamentary group on strengthening Parliamentary linkages between the two countries, as per a release issued by the Prime Minister's office.

They welcomed the growing popularity of Yoga and Ayurveda in Japan and discussed ways to further strengthen cultural ties between India and Japan.

<https://theprint.in/world/japans-state-minister-of-cabinet-office-discusses-issues-of-mutual-interest-with-defence-official/1677281/>

Pakistan Prepares Fresh Arms Supplies to Ukraine as Kuleba Makes ‘Emergency Visit’ to Islamabad

Pakistan has decided to dispatch a fresh arms consignment to Kiev coinciding with Ukrainian foreign minister Dmytro Kuleba’s “emergency visit to Islamabad” this week amid depleting stockpiles slowing down the counteroffensive against Russia.

ET has learnt that a merchant vessel has been berthed at the Karachi Port since last week to load nearly 200 containers of defence stores by Pakistan Ordnance Factories. The consignment is expected to be delivered at Poland’s Gdansk Port for the Ukrainian ministry of defence.

The consignment consisting of rockets is expected to be delivered in the second week of August.

As Kiev runs short of ammunition amid its counteroffensive, Kuleba’s trip will be the first big visit from Ukraine to Pakistan since the war and the issue of defence procurement is expected to figure high on the agenda, ET had reported last week.

Kuleba will meet his Pakistani counterpart Bilawal Bhutto Zardari, and is likely to call on Prime Minister Shehbaz Sharif and military authorities (the most important institution of Pakistan).

Ukraine's arms and ammunition stockpiles are depleting fast despite supplies from the West. This has slowed down the “counter offensive”.

Pakistan has been at the forefront of arms, ammunition and artillery supplies to Ukraine since last August at the behest of the West and via third countries including Poland and Germany. The UK’s ministry of defence had entered into a deal with the Pakistan Ordnance Board to supply arms to Ukraine.

Ukraine-Pakistan defence partnership has been a phenomenon for the past three decades with Islamabad procuring key defence equipment from Kiev.

ET had reported last month that arms consignment from Pakistan Ordnance Factories via a US flagged ship was being shipped to Ukraine through Jordan and Poland. Aqaba Naval Base in Jordan will be used to send consignment to Polish port of Gdansk onwards to Ukrainian armed forces. Defence items that were shipped via Jordan and Poland include air defence vehicles, multiple barrel rocket launchers, recovery vehicles, cartridges and spare parts.

Pakistan defence trading firm Kestral Trading established a firm in Warsaw allegedly under the name ‘Balferrten Investments’ to smoothen supplies to Ukraine. Kestral Trading has allegedly entered into a partnership with a Chinese defence firm, Beijing Heweyongtai Science & Tech Co Ltd, to procure UAVs for supplies to Kiev, ET had reported in May.

Kiev has launched the process to supply Mi-17 helicopter engines and auxiliary spare parts to the Pakistan military in lieu of Islamabad’s regular supply of defence equipment to the Ukrainian army.

Last year, the UK used Pakistan as an air bridge to supply arms to Ukraine via Romania.

<https://economictimes.indiatimes.com/news/defence/pakistan-prepares-fresh-arms-supplies-for-ukraine/articleshow/101966693.cms>

Thu, 20 Jul 2023

US Announces 1.3 Billion USD Military Aid Package for Ukraine to "Deter Russian Aggression"

The US government on Wednesday announced a 1.3 billion USD military aid package for Ukraine — during its ongoing conflict with Russia — including air defence systems and attack drones.

According to the US Department of Defence, the package includes four more National Advanced Surface-to-Air Missile Systems (NASAMS), medium-range air defence batteries that have helped Ukraine withstand ongoing Russian barrages of missiles and drones.

Notably, it is the same system that is used to protect Washington DC and the area around the US capital.

“This USAI package highlights the continued US commitment to meeting Ukraine's pressing requirements by committing critical near-term capabilities while also building the enduring capacity of Ukraine's Armed Forces to defend its territory and deter Russian aggression over the mid and long term,” the US Department of Defence said in a statement.

The latest package will give Kyiv a total of 12 NASAMS from the US. Defence Secretary Lloyd Austin said last November that the NASAMS had a 100 per cent success rate in intercepting Russian attacks, CNN reported.

Earlier on Tuesday, Lloyd Austin had said following an international meeting of countries providing aid to Ukraine “Make no mistake: We are determined to support Ukraine's fight for freedom for as long as it takes.”

The latest package falls under the Ukraine Security Assistance Initiative (USAI), which is part of the long-term US commitment to provide aid to Ukraine. Unlike drawdown packages, which are pulled directly from Defence Department stocks and can be sent in relatively quickly, USAI packages are contracted with industry, a process which can take months or more, CNN reported.

The package also includes Phoenix Ghost and Switchblade attack drones, as well as counter-drone equipment.

The sizable Ukraine aid package comes during Ukraine’s ongoing counter-offensive, which has faced stiff Russian resistance and widespread minefields, which have slowed its progress.

“The United States will continue to work with its Allies and partners to provide Ukraine with capabilities to meet its immediate battlefield needs and longer-term security assistance requirements,” the US DoD added.

Meanwhile, the US is also expected to announce a separate aid package of about 400 million USD that will include more ammunition for the NASAMS, according to two US officials, as well as ammo for Patriot missile defense systems and HIMARS rocket launchers, CNN reported.

The package will also contain more artillery ammunition. However, the officials have warned that artillery ammunition is in short supply, especially with the possibility of a prolonged Ukrainian counteroffensive that will drain current stockpiles.

<https://www.aninews.in/news/world/us/us-announces-13-billion-usd-military-aid-package-for-ukraine-to-deter-russian-aggression20230720020117/>

Britain's MI6 Chief Says his Spies are Using AI to Disrupt Flow of Weapons to Russia

British spies are already using artificial intelligence to hamper the supply of weapons to Russia, the head of Britain's MI6 agency said Wednesday, predicting that Western spies will increasingly have to focus on tracking the malign use of AI by hostile states.

In a rare public speech, Richard Moore also urged Russians who oppose the invasion of Ukraine to spy for Britain, saying others had already done so since the war began.

"Our door is always open," he said.

In a speech that depicted artificial intelligence as both a huge potential asset and a major threat, Moore said his staff at Britain's foreign intelligence agency "are combining their skills with AI and bulk data to identify and disrupt the flow of weapons to Russia for use against Ukraine."

Calling China the "single most important strategic focus" for his agency, Moore said, "we will increasingly be tasked with obtaining intelligence on how hostile states are using AI in damaging, reckless and unethical ways."

Moore, who has previously warned that the West was falling behind rivals in the AI race, said his service "together with our allies, intends to win the race to master the ethical and safe use of AI."

But he said AI would not replace the need for human spies, arguing that the "human factor" will remain crucial in an era of rapidly evolving machine learning.

"As AI trawls the ocean of open source, there will be even greater value in landing, with a well-cast fly, the secrets that lie beyond the reach of its nets," he said.

He argued that "the unique characteristics of human agents in the right places will become still more significant," highlighting spies' ability to "influence decisions inside a government or terrorist group."

Moore also told an audience at the British ambassador's residence in Prague that Russia's military campaign in Ukraine had run out of steam and "there appears to be little prospect of the Russian forces regaining momentum."

He said Ukraine's counteroffensive was proving "a hard grind," but he was optimistic it would succeed.

Moore said the government of President Vladimir Putin was beset by "venality, infighting and callous incompetence" and the mutiny by Wagner Group mercenary leader Yevgeny Prigozhin had "exposed the inexorable decay of the unstable autocracy over which Putin presides."

He said Putin was "under pressure" after the brief rebellion and the "humiliating" deal he struck with the help of Belarus to end it. The Kremlin says Prigozhin attended a military meeting in Moscow with Putin after the mutiny.

"Prigozhin started off as a traitor at breakfast, he had been pardoned by supper, and then two days later he was invited for tea," Moore said "So there are some things that even the chief of MI6 finds a little bit difficult to interpret, in terms of who's in and who's out."

He accused Russia of using Wagner as a tool of imperialism in Africa, offering leaders in the Central African Republic, Mali and other countries a "Faustian pact" of protection in return for handing over mineral wealth to Russia.

Moore also called out Iran for fueling further conflict in Ukraine by supplying Russia with drones and other weapons - a policy he said "has provoked internal quarrels at the highest level of the regime in Tehran."

Speaking publicly about spycraft is still something of a novelty for Britain's intelligence services. The government refused even to confirm the existence of MI6 until 1992, and public speeches by its leaders are infrequent.

Moore chose to give Wednesday's address in the Czech capital, home of the 1968 "Prague Spring" freedom movement that was crushed by Soviet tanks.

Evoking that moment, he said many Russians now felt "the same tugs of conscience as their predecessors did in 1968." The crushing of the Prague Spring spurred a wave of defections from the USSR to the West.

"I invite them to do what others have already done this past 18 months and join hands with us," he said and reassured prospective defectors that "their secrets will always be safe with us."

Most intelligence defectors' names are never known - unless something goes wrong. Former Russian intelligence officer Sergei Skripal and his daughter were poisoned and seriously sickened with a Soviet-made nerve agent in 2018 in the English city of Salisbury, where he had been living quietly for years.

Moore recounted how an agent codenamed Ecclesiastic, who penetrated German intelligence for MI6 in 1944, was looked after by the service until her death, aged 100. He said MI6 agents then gathered to scatter her ashes in the English Channel.

"Our loyalty to our agents is lifelong, and our gratitude eternal," he said.

<https://economictimes.indiatimes.com/news/defence/britains-mi6-chief-says-his-spies-are-using-ai-to-disrupt-flow-of-weapons-to-russia/articleshow/101947632.cms>



Wed, 19 Jul 2023

Chasing the Sky: South Korea Advances Indigenous Missile Defence System

South Korea has started to develop and deploy capabilities that are part of its indigenous ballistic missile defence (BMD) architecture known as the Korea Air and Missile Defense (KAMD) system.

The KAMD is a multilayered BMD system that consists of several missiles with varying ranges and altitudes, radars, and an operations control centre (OCC). The system forms a core part of South Korea's 'three-axis' strategy to respond to North Korean attacks alongside the Kill Chain plan and the Korea Massive Punishment and Retaliation (KMPR) project.

South Korea has been working on the three-axis strategy, including development of the KAMD, since the early 2000s. The strategy became a point of contention between South Korea and North Korea in 2017 after which former South Korean President Moon Jae-in – who held the position

from 2017 to 2022 – discontinued the approach to ease tensions between the neighbouring countries.

However, South Korea's current president, Yoon Suk-yeol, who assumed office in May 2022, has promised to take a tougher stance on North Korea and, accordingly, has reintroduced the strategy.

The requirement for the three-axis strategy has also been highlighted by North Korea's accelerated missiles development programme. Since 2022 Pyongyang has launched more than 70 ballistic missiles, with the majority featuring to be KN-23 and KN-24 short-range ballistic missiles (SRBMs). Other tests in recent years have featured cruise missiles and Pyongyang's 'super-large' multiple rocket launcher.

<https://www.janes.com/defence-news/news-detail/chasing-the-sky-south-korea-advances-indigenous-missile-defence-system>

Science & Technology News



Press Information Bureau
Government of India

Ministry of Science & Technology

Wed, 19 Jul 2023

Union Minister for Science and Technology Dr Jitendra Singh Calls for Affordable Clean Energy Solutions and Says, in Order to Achieve this Goal, Strong Public Private Partnership is the Need of the Hour

The Minister addresses the Clean Energy Ministerial (CEM -14) 8th Mission Innovation (MI-8) in Goa in a virtual mode

Clean Energy International Incubation Centre set up in PPP mode in 2018 CEIIC has incubated 45 startups and they have already filed 35 patents: Dr Jitendra Singh

Successful PPP model can serve for tackling global challenges in the other fields to create environment friendly, affordable, scalable solutions for a sustainable future: Dr Jitendra Singh

Addressing the Clean Energy Ministerial (CEM -14) 8th Mission Innovation (MI-8) meeting, being attended by representatives of over 40 countries in Goa today, Union Minister of State (Independent Charge) Science & Technology; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space Dr Jitendra Singh called for affordable Clean Energy solutions and said, in order to achieve this goal, strong Public Private Partnership is the need of the hour. He also reiterated Prime Minister Narendra Modi's commitment to this cause.

The Minister representing India, the host country, said, Clean Energy International Incubation Centre known as CEIIC set up in 2018 CEIIC has incubated 45 StartUps and they have already filed 35 patents. He informed that 10 StartUps have commercialized their products and a few StartUps have raised more than Rs. 20 crore funds, while 20 of these startups are now commercially available in the market.

Dr Jitendra Singh recalled that the Clean Energy International Incubation Centre known as CEIIC is a first of its kind International Incubation Centre jointly established by DBT/BIRAC, Tata Trust & Tata Power in 2018 under Mission Innovation multilateral program. He said, this reflects strong Public Private Partnership commitment from Govt of India for promoting clean energy solutions.

The Minister said, the incubator supports a wide spectrum of clean energy innovations, focusing aligned with MI objectives. The Incubator provides access to advanced labs and equipment, pool of experts & mentors, and live Test beds with opportunity to conduct Pilots. It also offers opportunities to network with key ecosystem actors, access Seed fund support and Scale-up Investments, he added.

Dr Jitendra Singh also announced that CEIIC incubated StartUp ‘Takachar’ was named the GBP 1 million Earth shot prize winner for its technology innovation.

Dr Jitendra Singh said, the Clean Energy Incubator has launched 3 Tectonic calls for applications to identify and create a pipeline of entrepreneurs & Start-Ups. He said, it is evidence of the Government of India’s commitment and contribution to work together with Industry and International partners to encourage innovations in the area of clean energy.

The Minister concluded that this successful PPP model can serve for tackling global challenges in the other fields to create environment friendly, affordable, scalable solutions for a sustainable future. He said, India is looking forward to connecting with other partners for scaling up innovations by Start-Ups.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1940685>



Wed, 19 Jul 2023

Workouts on Weekends also Benefit Heart Health, Suggests Study

People who pack their recommended exercises into the weekends also have a low risk of heart disease, failure and stroke, similar to the ones who exercise throughout the week, according to a study.

The results obtained by researchers from a major study on “weekend warriors” against the ones who exercise regularly show that the timing of the exercise does not hold as much importance as the amount of activity when it comes to heart health, as per the report published on Tuesday in the journal JAMA.

“Our findings suggest that it is likely the total duration of moderate to vigorous activity, rather than the pattern, that matters most for cardiovascular risk,” says the lead study author, Shaan Khurshid, MD, MPH, an electrophysiologist at Massachusetts General Hospital and an instructor at Harvard Medical School in Boston.

“As a result, more concentrated activity appears to result in similar reductions in risk as more evenly distributed activity,” Dr Khurshid says.

The researchers analysed the data from the UK Biobank, a large biomedical database and research resource. As per the study, more than 100,000 people used accelerometers in order to track their movement over the course of a week. “We found that both the active regular pattern and the weekend warrior pattern were associated with very similar reductions in risk of heart attack, heart

failure, atrial fibrillation and stroke,” said lead study author Dr Shaan Khurshid, staff electrophysiologist at Massachusetts General Hospital and instructor of medicine at Harvard Medical School in Boston.

The researchers while looking at the heart failures, found that the risk was 38% and 36% lower for weekend warriors and more regular exercisers, respectively.

“Physical activity concentrated within one to two days was associated with similarly lower risk of cardiovascular outcomes to more regular activity,” the authors write in the *Jama* journal.

Now the researchers plan on probing whether exercise patterns and routines show similar results for other diseases. “Our results may also motivate future studies of physical activity interventions delivered in a concentrated fashion, which may be more practical and efficient,” said Ellinor.

<https://www.wionews.com/science/workouts-on-weekends-also-benefit-heart-health-suggests-study-617445>

© The news items are selected by Defence Science Library, DESIDOC from Print Newspapers and Authentic Online News Resources (mainly on DRDO, Defence and S&T)