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Sat, 19 Aug 2023

कार्गो प्लेन से इक्वीपमेंट्स को हवा में गिरा सकेगा IAF:स्वदेशी हेवी ड्रॉप सिस्टम की सफल टेस्टिंग, DRDO ने डेवलप किया

इंडियन एयरफोर्स (IAF) ने हाल ही में एक कार्गो प्लेन से हेवी ड्रॉप के देश में डेवलप किए गए सिस्टम की सफल टेस्टिंग की। इससे एयरफोर्स 7 टन वजनी वाहन और इक्वीपमेंट्स को भी पैरा ड्रॉप कर सकेगा। एयरफोर्स के अफसरों ने बताया कि हेवी ड्रॉप सिस्टम को रक्षा अनुसंधान और विकास संगठन (DRDO) की एक लैबोरेटरी ने डिजाइन और डेवलप किया है।

एयरफोर्स पहले भी इस सिस्टम का इस्तेमाल करता रहा है लेकिन यह स्वदेशी नहीं है। DRDO ने खास तौर से यह सिस्टम एयरफोर्स के लिए डेवलप किया है।

इस्तेमाल फॉरवर्ड लोकेशंस पर

IAF अफसरों ने कहा, "सैन्य क्षेत्र में आत्मनिर्भरता हासिल करने की दिशा में एरियल डिलीवरी रिसर्च एंड डेवलपमेंट एस्टेब्लिशमेंट के साथ साझेदारी में सिस्टम की टेस्टिंग पूरी हो गई है। हेवी ड्रॉप सिस्टम का इस्तेमाल फॉरवर्ड लोकेशंस पर ऑपरेशन के दौरान किया जाता है। इससे सैनिकों के साथ वाहन और टैंकों की पैरा-ड्रॉपिंग की जाती है। आगरा स्थित DRDO लैबोरेटरी को सेनाओं के लिए ऐसा सिस्टम डेवलप करने का काम सौंपा गया है।

क्या होता है हेवी ड्रॉप सिस्टम?

हेवी ड्रॉप सिस्टम का इस्तेमाल सात टन वजन वर्ग के सैनिक वाहन, गोला-बारूद, इक्वीपमेंट्स को पैराशूट से नीचे गिराने के लिए किया जाता है। आईएल-76 विमान के लिए हेवी ड्रॉप सिस्टम (पी-7 HDS) में एक प्लेटफॉर्म और विशेष पैराशूट सिस्टम शामिल होता है। पैराशूट सिस्टम एक मल्टी-स्टेज पैराशूट सिस्टम है, जिसमें पांच मुख्य कैनोपी, पांच ब्रेक शूट, दो सहायक शूट, एक एक्सट्रैक्टर पैराशूट शामिल हैं। इसका प्लेटफॉर्म एल्यूमीनियम और स्टील को मिक्स कर बनाया जाता है।

इस सिस्टम को 100 फीसदी स्वदेशी संसाधनों के साथ सफलतापूर्वक विकसित किया गया है। पी-7 HDS को सेना में शामिल कर लिया गया है। पी-7 हेवी ड्रॉप सिस्टम का निर्माण एलएंडटी कंपनी कर रही है। पैराशूट ऑर्डिनेंस फैक्टरी बना रही है।

पैराशूट पर तेल और पानी का असर नहीं होगा

पैराशूट पर तेल व पानी का कोई असर नहीं होता है और इन्हें लंबे समय तक इस्तेमाल भी किया जा सकता है। DRDO काफी लंबे समय से इस सिस्टम को बनाने की तैयारी कर रहा था। पिछले करीब पांच सालों से हेवी ड्रॉप सिस्टम की टेस्टिंग की जा रही है।

<https://www.bhaskar.com/national/news/iaf-will-be-able-to-para-drop-tanks-with-indigenous-system-131708342.html>

IAF Conducts Trials of Heavy Drop System for Defence Forces

The Indian Air Force recently conducted successful trials of the Heavy Drop System, from a cargo aircraft, IAF officials said on Saturday.

According to officials, the Heavy Drop system is designed and developed by a laboratory of the Defence Research and Development Organisation (DRDO).

"The trial of the system has been completed in partnership with Aerial Delivery Research and Development Establishment towards achieving self-reliance in the military sector," IAF officials said. Heavy drop systems are used by para-dropping vehicles or heavy loads during operations along with troops in forward areas.

The DRDO lab based out of Agra is tasked to develop such systems for the defence forces.

<https://economictimes.indiatimes.com/news/defence/iaf-conducts-trials-of-heavy-drop-system-for-defence-forces/articleshow/102856549.cms>

THE TIMES OF INDIA

Agra DRDO Develops Rescue Op Kit for Navy

In a fitting tribute to the nation on Independence Day, the Indian Navy was equipped with an indigenous kit for carrying out rescue missions in the deep sea.

Dubbed as the Search and Rescue Kit (SARK), this Made in India lifesaving and support equipment can be dropped from aircraft with the help of parachutes. It's a quick response equipment that can rescue people in emergency situations. Each SARK can accommodate eight people and contains food for 15 days.

The raft-like equipment also has a float marker at the other end to aid the survivors for easy access.

SARK has been developed by the Aerial Delivery Research and Development Establishment (ADRDE), Agra - a unit of DRDO.

Navy conducted maiden test drop of SARK in Goa

The Navy successfully undertook the maiden test drop of SARK from the Boeing P-8I long-range patrol aircraft in Goa on August 15. ADRDE scientists were present during the testing.

The footage of the successful trial was shared by the Western Naval Command on X (formerly Twitter). "The SARK kit gives the Indian Navy the capability to undertake search and rescue operations from long ranges off the coast and strengthens India's position as a Preferred Security Partner in the Indian Ocean Region," the Western Naval Command posted on X.

It added that Made in India SARK was “a fitting tribute on the auspicious occasion of nation’s 77th Independence Day”. SARK can be deployed in ‘sea state 3’ or for higher waves and can be released from multirole aircraft.

<https://timesofindia.indiatimes.com/city/lucknow/agra-drdo-develops-rescue-op-kit-for-navy/articleshow/102866398.cms>

THE ECONOMIC TIMES

Fri, 18 Aug 2023

Maiden Flight of LCA Navy Trainer Prototype Aircraft Successfully Conducted

The maiden flight of the Light Combat Aircraft (LCA) Naval Trainer Prototype 'NP5' was successfully conducted on Friday, Aeronautical Development Agency (ADA) said.

The maiden flight was conducted from HAL airport, and the aircraft was captained by Capt Amit Kawade (IN) with Wg Cdr Siddarth Singh (Retd) in the rear cockpit, ADA said in a release.

The aircraft took off at 14:20 hrs and was airborne for 57 minutes with all parameters normal, it said. LCA Navy is designed and developed jointly by ADA and Hindustan Aeronautics Limited (HAL).

Addition of NP5 aircraft to LCA Navy prototype fleet will help to accelerate flight testing activities which will provide designers vital inputs towards design and development of the Twin Engine Deck Based Fighter (TEDBF), the prestigious futuristic carrier aircraft programme of the country.

LCA Navy can also serve as an effective training platform for Indian Navy pilots for operations from the aircraft carriers.

The new prototype NP5 will soon undertake field and carrier operations from both INS Vikramaditya and INS Vikrant, ADA said, adding it will incorporate all improvements identified during exploitation of NP1 and NP2 is a production ready aircraft.

It will also incorporate the production standard airframe and rainwater compliance, maintainability improvements as well as futuristic system advancement.

During an interaction, Capt Amit Kawade expressed that the handling qualities were extremely satisfactory and all test points envisaged have been successfully completed.

The Director General-ADA, who witnessed the first flight while congratulating the team, said that today's flight of NP5 is a culmination of combined efforts of ADA, HAL, CEMILAC (Centre for Military Airworthiness and Certification), DGAQA (Directorate General of Aeronautical Quality Assurance) and several other Government and Private industries.

The first trainer prototype NP1 was flown on April 27, 2012 and the fighter prototype NP2 was flown on February 7, 2015.

According to ADA, both Naval Prototypes (NP1 and NP2) have achieved major landmark milestones like ski jump take off and arrested landing demonstrations on Shore Based Test Facility (SBTF) at Dabolim Airport, Goa and operations from indigenous aircraft carriers.

The aircraft demonstrated 18 arrested landings and Ski Jump take offs from INS Vikramaditya in Jan 2020, including hot refuelling capability, it said, recently, LCA Navy participated in the carrier trials from INS Vikrant and performed 10 Ski Jump take offs and arrested landings on 06 Feb 2023.

LCA Navy has completed the landmark achievement of being the first indigenous fighter aircraft landing on to the indigenous aircraft carrier INS Vikrant, it added.

Further, LCA Navy is equipped with state-of-the-art technologies such as fly-by-wire flight control system, glass cockpit and advanced mechanical systems. The aircraft can be operated seamlessly both during the day and night. It features advanced hands-free ski jump take-off and landing flight control modes. LCA Navy Prototypes are carrier compatible and can operate with Air-to-Air weapons for combat missions.

<https://economictimes.indiatimes.com/news/defence/maiden-flight-of-lca-navy-trainer-prototype-aircraft-successfully-conducted/articleshow/102838441.cms>

The Tribune

Sat, 19 Aug 2023

Kisan-Jawan-Vigyan Mela Spreads Awareness of Latest High Altitude Agro-Technology among Ladakhi Farmers

The two-day 30th Ladakhi Kisan-Jawan-Vigyan Mela, organised by the Defence Institute of High Altitude Research (DIHAR), was inaugurated at Leh by the Lieutenant Governor of Ladakh, Brig. (Dr) BD Mishra, on Saturday.

Mishra applauded the DIHAR for its contribution in the development of Ladakh and support providing to Army and paramilitary forces through development of agro-animal technologies and booting the availability of fresh food.

He urged DIHAR scientists to continue their efforts to make high altitude agro-technologies and practices available to the local populace which would help in their socio-economic upliftment. He also released a policy document on "Agriculture in Ladakh", prepared jointly by the DIHAR and the Ladakh Administration.

Located at an altitude of 13,500 feet, the DIHAR is working on agro-animal technologies to meet the fresh food requirement of soldiers deployed in this harsh terrain and extreme climate of Ladakh. Technologies developed by it have also benefited the local populace of the region.

Dr Samir V Kamat, Secretary, Department of Defence Research and Development and Chairman, Defence Research and Development Organisation (DRDO), appreciated the role of DIHAR scientists in the establishment of a high-altitude test range in Ladakh. He added that the dissemination of technology, information and support on agriculture and livestock produce has been of great help to people in far-flung areas of Ladakh.

DIHAR Director Dr OP Chaurasia highlighted agro-animal technologies developed by the laboratory. These includes vegetables cultivation in extreme winter, fresh vegetable storage, greenhouse technology, super food cultivation, fruit processing, cattle conservation and harnessing double-humped camel for army use. He also gave an overview of futuristic research and development works planned by the laboratory.

Senior officers from the Ladakh Administration, Army and para-military forces, government organisations as well as prominent local citizens were present on the occasion. About 2,800 farmers visited the mela, which provided them a platform to get a glimpse of the latest cultivation techniques suitable for that region.

<https://www.tribuneindia.com/news/j-k/kisan-jawan-vigyan-mela%C2%A0spreads-awareness-of-latest-high-altitude-agro-technology-among-ladakhi-farmers-536380>



Sat, 19 Aug 2023

G20 Digital Innovation Alliance is a Game-Changer for India, Says DRDO Top Official B K Das

G20 Digital Innovation Alliance is a game changer for India. It has created one platform for many countries to show their technological innovation. Here I saw startups playing a pivotal role and showing us a road map for scientific developments, said Defence Research and Development Organisation (DRDO) Director General (Electronics and Communication Systems) BK Das.

Speaking at the G20 Digital Innovation Alliance summit here, BK Das said that startups will be the soul of India in the future. "Next-generation technology startups are going to propel India. Hand holding and supply chain is what is required to be done. To that extent, the G20 Digital Innovation Alliance is really been successful. Most of the stalls are filled with great game-changing ideas. And I am happy to share that DRDO is also not far behind, with an array of products," the DRDO official added. "Our products are having a lot of export potential. All series of our fighter Aircraft LCA, EW systems, active electronics scan radar for fighter Aircraft, Electrooptic Systems communication, Biomedical engineering tools, oxygen systems, and Tapas Unmanned Aerial Vehicle - all been developed by DRDO taking along the industries and academic institutions. So I am proud that our esteemed defence organisation is working on next-generation technologies along with industry hand-holding," the senior official remarked.

"If we focus on new technologies, one of the major areas we are working on is radars. Radar is a potential technology driver for us. Through it, we are covering many scientific and defence requirements," added B K Das. Effective radar is weapon locating radar, it is ground best in among its counterparts. The rockets, which are high-ballistic, and high-speed are being tracked with ease, with good range and high accuracy. It has been proven as a quality product and has been well-accepted worldwide. With the help of partners, it is in mass-scale production and has been already used by the Indian Army, the DRDO top official stressed. BK Das further opined that the export potential of these radars was great. "There are already certain countries, who have taken these radars in many numbers. Many other countries have already taken the detailing of the systems because of their cost-effectiveness, accuracy and deplorability to the defence and area tracking. So, the DRDO is running a parallel continuous development programme," he signed off.

<https://www.etvbharat.com/english/state/karnataka/g-20-digital-innovation-alliance-is-a-game-changer-for-india-says-drdo-top-scientist-b-k-das/na20230819175853755755910>

THE TIMES OF INDIA

Sun, 20 Aug 2023

DRDO Drone Crashes During Trial in Karnataka's Chitradurga

A Tapas unmanned aerial vehicle (UAV) of the Defence Research and Development Organisation (DRDO) crashed in agriculture fields near a village in Karnataka's Chitradurga on Sunday morning, officials said.

According to officials, the UAV-TAPAS- crashed while it was on a trial flight.

"A Tapas drone being developed by the DRDO crashed during a trial flight in a village of Chitradurga district, Karnataka," Defence officials said.

"DRDO is briefing the Defence Ministry about the mishap and an inquiry is being carried out into the specific reasons behind the crash," they said.

As the word spread, local villagers rushed to the crash site to catch a glimpse of the UAV.

Visuals show that the damaged UAV and its equipment inside lay scattered on the field.

Tactical Airborne Platform for Aerial Surveillance-Beyond Horizon-201 or Tapas BH-201 is a long-endurance unmanned aerial vehicle that used to be previously referred to as Rustom-II.

<https://timesofindia.indiatimes.com/india/drdo-drone-crashes-during-trial-in-karnatakas-chitradurga/articleshow/102874993.cms>



Sat, 19 Aug 2023

Lessons from the Legacy of a Scientific Stalwart

By *Rahul Tongia*

This week, India lost one of its greatest technologists, with the passing of VS Arunachalam. His scientific accomplishments and institution-building efforts are well known — Defence Research and Development Organisation (DRDO), Carnegie Mellon University's India programmes, and the think tank Centre for Study of Science, Technology, and Policy (CSTEP) — but his range, temperament, and focus on human development and betterment are also part of his legacy.

I was his first PhD student at Carnegie Mellon University in 1995, and saw, first-hand, over decades of collaboration, how he was a Renaissance man. Modern skilling talks of the need for people to become T-people — to have depth and breadth such as the shape of the letter T — but Arun, as he was called, had more of a π -shaped or even multi-pronged personality. He had breadth for sure, but many areas of depth. He wrote some of the earliest computer code for Fourier Transforms used in India (and even exported). Early on, he recognised policy as important, and was instrumental in many areas outside strategic studies, including telecom — from getting optical fibres laid throughout India to opening up the telecom sector.

Arun was a lifelong scholar, including in the social sciences. Domains or labels didn't matter — as he would observe, we need it all. He also embodied a deep respect for all work; no task was too small or unimportant. He treated everyone with not just formal respect but genuine interest and supportiveness. He empowered his juniors to think big, take risks, but, like Robert Oppenheimer, he also was there, hands on, in all the work. A skilful manager, he was always accessible for helping with everything — from the big picture to minute details. Even when I was in my early twenties, as a fresh PhD student, he would take me along to the highest-level meetings and have me present on our joint work.

There are myriad stories of his simplicity and humility, such as how he tried for long to decline Z-level security or special facilities (cycling around Delhi in the 80s when he was a Union secretary). He embodied a warmth and openness towards new ideas and new people that is still spoken of fondly by people decades later. He would always have visitors (often luminaries) from around the country and around the world, and his wife, Meena's, hospitality and cuisine are still legendary.

There is a philosophy of keeping one's work and personal life separate. In contrast, Arun blended the two artfully, and made us remember we aren't two or more separate people — we are the same person even when we are in different environments.

He was also unafraid to try something again, or state what he didn't know. And he would keep his sense of humour at all times. When his PhD adviser, Prof. Robert Cahn, was out walking with him, and he asked "What is that flower?", Arun promptly replied "Red".

For the last few decades, Arun worked on big problems with no known solutions or easy direction, such as sustainable energy and the climate crisis. This required an openness and curiosity that I don't often find in people, even those starting their education or careers. We need to encourage that in our students and the next generation. Arun did that by example.

After a distinguished career in government service and research – he served five prime ministers — Arun spent over a decade at Carnegie Mellon University before returning to India to then set up a leading technology and policy think tank, CSTEP. How did he achieve this? Other than his brilliance and focus, he also embodied a useful philosophy that we should spread our retirement out throughout our lives. Have hobbies, other passions, and time for family. This way, work remains fun and you don't have to stop working to have fun. Arun worked extensively behind the scenes, not seeking the limelight or bothering about getting credit. There are a wide range of topics he was instrumental in that aren't as recognised as his DRDO achievements or efforts towards an Atmanirbhar Bharat (self-reliant India) such as opening up India's nuclear power sector to global collaboration. What I take away most from his skills and vision is the need to blend a scientific temperament (which even non-scientists should have) with a deep focus that never loses sight of the end objective, especially sustainable human development. India and the whole world needs sustainable development. Done right, technology remains one of the most powerful tools for achieving it. Arun believed in it, and worked tirelessly towards it.

Rest in power, Arun. Om Shanti.

Rahul Tongia was a student of Dr VS Arunachalam at Carnegie Mellon University and long-time collaborator on a range of projects. He is presently a Senior Fellow at the Centre for Social and Economic Progress (CSEP). The views expressed are personal

<https://www.hindustantimes.com/opinion/lessons-from-the-legacy-of-a-scientific-stalwart-101692453577819.html>



Press Information Bureau
Government of India

Ministry of Defence

Sat, 19 Aug 2023

Giant Strides Made in Last Nine Years towards Making our Defence Sector ‘Aatmanirbhar’; Most of the Weapons with Armed Forces are Made in India: Raksha Mantri Shri Rajnath Singh

“New India believes in issue-based multi-alignment; takes decisions sans any pressure”

“Govt’s aim is to make India a developed & empowered nation by 2047”

The defence sector, in the last nine years, has made giant strides towards achieving self-reliance and due to the efforts of the Government, led by Prime Minister Shri Narendra Modi, most of the weapons being used by the Armed Forces are made in India. This was stated by Raksha Mantri Shri Rajnath Singh at a G-20 Summit organised by a private TV news channel in New Delhi on August 19, 2023.

Describing the significance of ‘Aatmanirbharta’, Shri Rajnath Singh said, “Without self-reliance, we cannot take independent decisions on global issues in line with our national interests. The dependence on import of defence equipment is a hindrance to India’s strategic autonomy. Imports adversely affect the Balance of Trade that is detrimental to our economy. Self reliance not only strengthens the economy, but greatly enhances employment opportunities too.”

The Raksha Mantri listed out various steps taken by the Ministry of Defence towards achieving ‘Aatmanirbharta’. These include issuance of eight positive indigenisation lists – four by Department of Military Affairs comprising 410 weapons and platforms for the Armed Forces and four others of 4,666 items by Department of Defence Production for the Defence Public Sector Undertakings (DPSUs). Besides banning the import of these items, the Government has insisted on their manufacturing in India itself. Shri Rajnath Singh emphasised that ‘New India’ is indigenously making Aircraft Carriers like INS Vikrant, Light Combat Aircraft Tejas and the country is now moving towards self-reliance in every field.

On India’s G-20 presidency, Shri Rajnath Singh stated that it demonstrates the growing stature of India in the international community. He talked about the shift in India’s approach in the foreign policy from non-alignment to multi-alignment. “We do not believe in non-alignment. We believe in issue-based multi-alignment. Today, our thinking is not escapist, but pro-active and pragmatic. While taking decisions, now we are guided by the national interest. We are taking decisions without any pressure.” The Raksha Mantri pointed out that due to the Government’s efforts, India is now among the top five economies and in the coming years it will become a US\$ five trillion economy,

among the top three. “India was once ridiculed for its low economic growth rate in the 60s and 70s. Today, we are the fastest growing major economy in the world,” he said.

Shri Rajnath Singh stressed that the government has addressed the issue of poverty resolutely, due to which 13.5 crore people have risen above the poverty line in the last five years, as per NITI Aayog. He added that the world bodies, including the World Bank and International Monetary Fund, have appreciated the Government’s efforts towards eliminating poverty. From the category of Fragile Five, investment firm Morgan Stanley has now kept India in the group of Fabulous Five, he said. On education and health, the Raksha Mantri asserted that the government has paid adequate attention to the two most important pillars of the country. “We have established seven new IITs and seven new IIMs, besides setting up about 400 new universities across the country. We have brought a radical change in the education system by introducing the new National Education Policy. While the number of AIIMS in the country has tripled as compared to 2014, the Ayushman Bharat Yojana has provided free health insurance of up to Rs 5 lakh annually to 10 crore families of the country,” he said.

Highlighting the digital transformation in India in the last nine years, Shri Rajnath Singh said, “the maximum number of digital transactions across the world are taking place in our country.” In 2013-14, there were about 127 crore digital transactions, which has gone up almost 100 times to 12,735 crore in 2022-23. The Raksha Mantri underlined that the Government has zero tolerance against corruption and strictest action is being taken against those engaged in money laundering and plundering the resources of common masses.

Elaborating on the Government’s vision, Shri Rajnath Singh stated that ‘New India’ is aspirational, which sets big goals for itself. “It is no longer ready to accept that it is a country of the weak. New India does not bear the mentality of slavery, or accepts false narrative of slavery and cowardice. It believes in the true narrative of bravery and patriotism. New India, which we are building, does not have any inferiority complex at the cultural level. It is proud of its roots,” he added.

Shri Rajnath Singh summed up his address by saying that the structure of ‘New India’ has been prepared and the Government is striving to convert this into a strong & robust building. “The next 25 years will be very crucial as it will determine how beautiful and grand this building will be. By 2047, we not only wish to make India a developed nation, but also complete the journey by making it empowered,” he said.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1950497>



Press Information Bureau
Government of India

Ministry of Defence

Sat, 19 Aug 2023

INS VAGIR on an Extended Range Deployment to Fremantle, Australia

INS Vagir, an Indian Navy (IN) submarine, is on an extended-range deployment. The deployment commenced in Jun 2023 and Vagir will reach Fremantle, Australia on 20 Aug 23. The submarine, which is the Indian Navy’s fifth Kalvari class submarine, was commissioned into the Indian Navy in Jan 2023 and is based in Mumbai. During her stay in Australia, INS Vagir will participate in various exercises with Royal Australian Navy (RAN) units on the West Coast of Australia.

Concurrently, on the East coast of Australia, Indian Naval ships and aircraft are involved in Exercise MALABAR 23 from 11-21 Aug 23 and AUSINDEX 23 from 22-24 Aug 23.

During the ongoing deployment, basic, intermediate and advanced-level Anti-Submarine exercises are scheduled. In addition, the RAN submarine and Indian Naval P8i aircraft are scheduled to exercise with INS Vagir. This deployment will further augment the cooperation and synergy between IN and RAN.

The ongoing deployment is a testament to the reach and sustenance of IN submarines. The extended range deployment is the maiden deployment by an IN submarine to Australia and showcases the capability and professional acumen of IN to undertake sustained operations at extended ranges from the base port for prolonged durations. Earlier during the deployment, INS Vagir had visited Colombo as part of the International Day of Yoga on 21 Jun 23.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1950460>

THE TIMES OF INDIA

Sat, 19 Aug 2023

Make in India Boost: Indian Navy Gets Second Missile Cum Ammunition Barge

Second Missile Cum Ammunition (MCA) Barge, Yard 76 (LSAM 8) was launched by Cmde G Ravi, Warship Production Superintendent (Visakhapatnam) on Friday, ministry of defence said.

The Ammunition Barge was launched at Guttenadeevi, East Godavari, Andhra Pradesh.

"With all major and auxiliary equipment/systems sourced from indigenous manufacturers, this Barge is proud flag bearer of Make in India initiative of ministry of defence," the government said in a statement.

— indiannavy (@indiannavy)

"Contract for construction of 08 x MCA Barge was concluded with M/s SECON Engineering Projects Pvt Ltd, Visakhapatnam, a MSME, in consonance with "Aatmanirbhar Bharat" initiatives of the Government of India," it added.

It said that this Barge is being built with a service life of 30 years.

The availability of MCA Barges will provide impetus to Operational commitments of IN by facilitating Transportation, Embarkation and Disembarkation of articles / ammunition to IN Ships both alongside jetties and at outer harbours.

<https://timesofindia.indiatimes.com/india/make-in-india-boost-indian-navy-gets-second-missile-cum-ammunition-barge/articleshow/102858916.cms>

R. REPUBLICWORLD.COM

Sun, 20 Aug 2023

CRPF Outperforms Army, Inducts Better Variant DRDO's WhAP Armoured Vehicle

Inspector General of the Central Reserve Police Force (CRPF) Gyanendra Kumar Verma, in Jammu and Kashmir, reviewed troop deployment at the 110th Battalion in Pulwama on Aug 19. His visit

also included assessment of the newly introduced Wheeled Armoured Amphibious Platform's (WHAP) capabilities.

The Kashmir Ops sector CRPF tweeted, "Gyanendra Kumar Verma, IG KO SCRPF, visited 110 Bn Pulwama today to review the deployment. His visit included a close inspection of the newly inducted Wheeled Armoured Amphibious Platform (WHAP) vehicle. Strengthening our capabilities to ensure safety & security."

The CRPF's WhAP variant, unlike the army's Infantry Protected Mobility Vehicle (IPMV), has actual amphibious capabilities as it incorporates water jets. This addition equips the CRPF to navigate aquatic obstacles adeptly, providing a tactical advantage. The specific amphibious capability would help the CRPF to prevent infiltration from swamps, lakes, and lagoons in the region, which are hotbeds of infiltration. The Paramilitary Variant of WHAP was designed and developed by the Vehicle Research and Development Establishment (VRDE) in Ahmednagar. The Central Reserve Police Force's order for the development and supply of six Paramilitary Variant of Wheeled Armoured Platform was entrusted to VRDE. Another factor that distinguishes the army's variant from the one in CRPF's use is its camouflage. The CRPF variant displays woodland camouflage, while most of the IPMVs inducted by the army feature desert camouflage, as those are deployed along the LAC in Ladakh.

Vehicle's specialised design

The platform has been developed to meet the needs of the paramilitary forces, with a focus on ballistic armoured protection and augmented blast resistance. This vehicle operates on an 8x8 wheeled configuration, fortified by a 600-horsepower engine and automatic transmission. A feature of this Paramilitary Variant is the integration of a "specially developed cost-effective" 7.62 mm Remote Controlled Weapon Station (RCWS) for precision targeting and engagement. The vehicle, after final assessment, was formally handed over to the CRPF on March 21, 2023.

Secretary Department of Defense R&D and Chairman Defence Research and Development Organization (DRDO), Dr Samir V Kamat, presided over the event virtually. Dr SV Gade, OS & DG (ACE), took charge of the proceedings at VRDE. IG (Provision) Rajesh Kumar was also in attendance along with his team. Chairman DRDO virtually flagged off the Paramilitary variant of WHAP from DRDO HQ and the platform was handed over to the forces.

When Army inducted its version of WHAP, IPMV

General MM Naravane, the former Chief of Army Staff (COAS), was accompanied by Lt Gen Manoj Pande, who was then the Vice Chief of the Army Staff and is now the current COAS, on a two-day visit to Pune on April 12, 2022. During the visit, they inducted several indigenous systems. Among these were the Quick Reaction Fighting Vehicle Medium (QRFV), the Infantry Protected Mobility Vehicle (IPMV), the Ultra Long Range Observation System by Tata Advanced System Limited (TASL), and the Monocoque Hull Multi-Role Mine Protected Armoured Vehicle by Bharat Forge. As per Indian Army officials, the IPMV, crafted by Tata Advanced Systems Limited enhances mobility and provides protection for infantry soldiers stationed along the Northern Borders. DRDO unveiled the indigenously-developed WhAP back in 2020. This modular wheeled combat platform, transportable on a 70-ton trailer, offers applications including Wheeled Infantry Combat Vehicle, CBRN Vehicle, ATGM Carrier, and Light Tank. The Armoured Personnel Carrier (APC) variant also features a 30mm turret, composite armour, and new blast protection. Demonstrating amphibious capabilities during Ladakh trials and boasting a top speed of 100 km/h on roads, the WhAP is one of the most versatile infantry fighting vehicles in service with the Indian Army.

<https://www.republicworld.com/india-news/general-news/crpf-outperforms-army-inducts-better-variant-drdo-whap-armoured-vehicle-articleshow.html>

With SOPs in Place and Vehicles in Good Shape: Defence Expert Flags Accident Deaths in Army in Wake of Leh Accident

After an army truck on Saturday fell into a deep gorge, leaving 9 soldiers, including a Junior Commissioned Officer (JCO) dead, Lt Gen Sanjay Kulkarni (retd), a defence expert, on Sunday such incidents are avoidable.

Speaking to on Sunday, Kulkarni said, "It is an extremely sad incident. However, I feel such incidents are avoidable. I am sure that an inquiry will be conducted to find out how the incident took place. The probe will reveal if the driver was at fault."

He said with Standard Operating Procedures (SOPs) in place and the trucks and other army vehicles in fine fettle, such incidents were avoidable.

"With SOPs in place and the vehicles in good shape, such incidents ought to be avoided. The drivers also receive regular briefings on the SOPs," he added.

Also pointing to road accidents being a perennial concern in the country, the defence expert said, "I think a lot of lives are lost cheaply due to road accidents. In fact, the majority of deaths in India are from or because of road accidents. In the Army, too, many lives are lost to road accidents. Casualties in such mishaps are twelve times more than lives lost in combat. This is definitely a cause for concern."

"My heart goes out to the families of the soldiers we lost on Saturday. We should look at ways to avoid such incidents in future," he added.

Earlier, on Saturday, nine soldiers were killed and one critically injured after their vehicle fell into a gorge in Ladakh.

According to officials, the accident occurred around 6.30 pm. "The troops were moving from Karu garrison to Kyari near Leh," an official informed.

Defence Minister Rajnath Singh condoled the loss of lives in the accident, saying, "Saddened by the loss of Indian Army personnel due to an accident near Leh in Ladakh. We will never forget their exemplary service to our nation. My thoughts are with the bereaved families. The injured personnel have been rushed to the Field Hospital. Praying for their speedy recovery."

Home Minister Amit Shah also took to his official handle on, X, formerly Twitter, to post, "Deeply saddened by the tragic road accident in Ladakh in which we lost our valiant soldiers, as their vehicle fell into a gorge. The entire nation stands shoulder to shoulder with the bereaved families in this hour of grief. My sincerest condolences to them. May the injured recover at the earliest."

<https://economictimes.indiatimes.com/news/defence/with-sops-in-place-and-vehicles-in-good-shape-defence-expert-flags-accident-deaths-in-army-in-wake-of-leh-accident/articleshow/102872708.cms>

Two India-China Military Meets in Day to Break Border Deadlock

Four days after seniormost military commanders of India and China met, the two sides today conducted separate border meetings at two locations in eastern Ladakh to discuss the modalities of border management.

The meetings, held at the level of Major General, were conducted at two locations — Chushul and Depsang — both designated border personnel meeting points in eastern Ladakh.

On August 13 and 14, Leh-based 14 Corps Commander Lt Gen Rashim Bali had met with his counterpart. At today's meeting, the officers were one rank below Lieutenant General.

Sources confirmed the meetings, saying the Major Generals have been asked to come up with a workable solution that can be implemented on the ground along the un-demarcated Line of Actual Control (LAC). The two sides are locked in a stand-off since April 2020.

The two meetings come ahead of next week's expected bilateral talks between Prime Minister Narendra Modi and Chinese President Xi Jinping on the sidelines of the BRICS summit, slated from August 22 to 24 in South Africa. Sources say the Major Generals of the two sides have been tasked with sorting out differences over pullback of troops from Depsang Plains areas and Charding Nullah near Demchok.

The talks have been deadlocked over the resolution of disputes at Depsang, a 972-sq km plateau where the two sides have disagreement over troops' positions, especially at the 'bottleneck' on the eastern edge of Depsang.

India has been objecting to the PLA's deliberately blocking Indian patrols on this patrolling route in Depsang. Prior to April 2020, Indian troops had been using the patrol route, but the PLA has been craftily using a clause in a 30-year-old border agreement to block these.

A joint statement issued on Tuesday after the 19th round of India-China Corps Commander-Level Meeting held at Chushul-Moldo border meeting point on the Indian side on August 13-14 had said "the two sides had a positive, constructive and in-depth discussion on the resolution of the remaining issues along the LAC in the Western Sector (nomenclature for the LAC in eastern Ladakh)".

They agreed to resolve the remaining issues in an expeditious manner and maintain the momentum of dialogue and negotiations through military and diplomatic channels, the statement said.

India has already suggested to China that a graded three-step process is needed to ease the stand-off. The first is disengagement of troops within close proximity to each other in grey zones along the LAC and getting back to positions as on April 2020. The next two steps — de-escalation and de-induction — would entail pulling back troops and equipment to the pre-April 2020 levels.

<https://www.tribuneindia.com/news/nation/two-india-china-military-meets-in-day-to-break-border-deadlock-536068>

INS Trikand Docks in Iran as Part of Indian Navy's Operational Deployment

Indian Naval Ship INS Trikand received a warm welcome upon its arrival at Bandar Abbas, the port city of Iran on Sunday.

The Indian Naval Ship is on a visit to Iran as part of the Indian Navy's operational deployment towards cooperative maritime engagement with regional countries, said the Indian Navy spokesperson.

"#INSTrikand is on a visit to #BandarAbbas, Iran as part of #IndianNavy's operational deployment towards cooperative maritime engagement with regional countries. The ship was accorded a warm welcome by Commander 1st District, IRIN. India-Iran #BridgesofFriendship," posted spokesperson of the Indian Navy on X, formerly Twitter.

India-Iran relations span millennia marked by meaningful interactions. India and Iran established diplomatic links on March 15, 1950. In addition to the Embassy in Tehran, India has two Consulates in Iran, one in Bandar Abbas and other in Zahedan, according to the Ministry of External Affairs.

Prime Minister Narendra Modi on Saturday said that he spoke with Iranian President Seyyed Ebrahim Raisi and discussed the realisation of the full potential of the Chabahar port.

"Pleased to speak to Iranian President H.E. Dr. Seyyed Ebrahim Raisi yesterday. We discussed strengthening of bilateral and regional cooperation, including realising the full potential of Chabahar Port. Look forward to meeting President Raisi in South Africa on the sidelines of the BRICS Summit," PM Modi wrote on X on Saturday.

Prime Minister Narendra Modi on Friday held telephonic conversation with Iranian President Seyyed Ebrahim Raisi and discussed matters of bilateral and regional importance.

The two leaders reiterated their commitment to further strengthen bilateral cooperation, including to realise the full potential of Chabahar Port as a connectivity hub.

"The two leaders reiterated their commitment to further strengthen bilateral cooperation including to realize the full potential of Chabahar Port as a connectivity hub," the Prime Minister's Office said in a press release.

PM Modi and Iranian President Raisi discussed cooperation at multilateral forums, including the expansion of BRICS. The two leaders looked forward to their meeting on the margins of the upcoming BRICS Summit set to be held in South Africa from August 22-24.

During the telephone conversation, PM Modi stated that the relationship between Iran and India is underpinned by close historic and civilizational ties.

"Prime Minister highlighted that India- Iran relationship is underpinned by close historic and civilizational connections, including strong people-to-people contacts," Prime Minister's Office said in a press release.

<https://economictimes.indiatimes.com/news/defence/ins-trikand-docks-in-iran-as-part-of-indian-navys-operational-deployment/articleshow/102872822.cms>

Payment Crisis Leads to Uncertainty over India-Russia Defence Deals

Major defence deals with Russia, especially the S-400 deal, which have already seen delays due to the war in Ukraine continue to face uncertainty with no clarity on the revised schedule as efforts to resolve the payment crisis haven't fructified so far. Currently payments of around \$3 billion are held up and the central banks are working to resolve this, two official sources independently said.

Three of the five S-400 regiments contracted under a \$5.43 billion deal in 2018 have been delivered but the other two are delayed and there is no clarity on the revised schedule, multiple sources confirmed. While the two sides have been trying to settle payments through a Rupee-Rouble arrangement, it has failed to solve the crisis due to the huge trade imbalance and Rupees accumulating on the Russian side. The revised delivery schedule can be worked out once there is clarity on the payment schedule, one of them said.

As reported by The Hindu last week, delivery of the two Krivak or Talwar-class stealth frigates under construction for the Indian Navy in Russia are further delayed and now expected to be delivered by May and October 2024, according to Alexey Rakhmanov, Director-General of United Shipbuilding Corporation of Russia. Acknowledging that payment has been an issue, on two other frigates under construction at Goa Shipyard Limited (GSL) under the same deal, he said the delivery schedule will be fixed according to the payment schedule. As per the original schedule, GSL was scheduled to deliver the first ship in 2026 and the second one six months later.

With Russia being shut out of the global SWIFT system for money transfers after February 2022, India and Russia chose the Rupee-Rouble route to settle payments which was extensively discussed between the central banks of the two countries. While small payments have been resumed, larger payments are still stuck, with several big-ticket deals in the pipeline.

Some deliveries have been done despite payments being held up, and now there has to be a way out before further deliveries can be done, one of the sources cited above stated. In addition, there is unnecessary apprehension among companies and traders on sanctions, which is preventing trade from expanding, the sources said adding that the Reserve Bank of India needs to step in to clear the apprehensions so bilateral trade can increase. Officials conceded that there needs to be a multi-pronged approach to resolve this and no single measure would be sufficient.

On similar lines, in February, Russian envoy in India Denis Alipov said that the vostro accounts have been opened and the mechanism of Rupee-Rouble trade has been established and it is now a matter for the banks to use it while terming that many Indian banks are "over cautious" for fear of any secondary sanctions from the U.S.

In a related move, early August, one of Russia's largest banks, VTB, started opening accounts in Rupees, and Anatoly Penchatnikov, deputy chairman of the board of VTB said that the bank has expanded the list of currencies available to retail customers and now they can open an account and make exchange in Rupees.

Officials also dismissed speculations of possible use of Yuan, noting that even in the oil purchase by one of the public sector companies reported recently, the Chinese currency was used only for one transaction.

S-400 deal

India had contracted five S-400 regiments under a \$5.43 billion deal, or ₹40,291 crore as per conversation rate of ₹74.2 against the Dollar when it was signed in October 2018. Even then, its operationalisation got delayed as the sides sought to avoid payments in dollars as possible threat of U.S. sanctions under CAATSA (Countering America's Adversaries Through Sanctions Act) loomed large. The Ukraine war has further compounded the problem. The 'milestone payments' which are periodic payments made against deliveries have been delayed, as reported earlier.

In July 2019, the government said in a written reply in the Parliament that S-400 deliveries are "likely to be made by April 2023". At the beginning of this year, officials said that deliveries are expected to be completed by year-end or early 2024, and would not be further delayed.

As per a report of the Parliamentary Standing Committee on Defence tabled in March this year, the Indian Air Force (IAF) informed the committee that there is a "major project" where the "deliveries have been stopped because of the war going on." "We had a major delivery in this year, which is not going to take place. They have given us in writing that they are not able to deliver it. That is why the major part of projection has been reduced," an IAF representative informed the committee while appraising them regarding the sharp decline in Budget Estimates this year as compared to the last year's projection. Official sources had confirmed that the IAF was referring to the S-400 deal.

As per the revised Budget Estimates of 2022-23 too, the IAF had returned close to ₹2,370 crore which is part of committed liabilities but could not be completed.

For instance, from 2018 to 2021 the defence trade between India and Russia was worth around \$15 billion as several big-ticket deals were concluded including S-400, stealth frigates, AK-203 assault rifles and emergency procurements in the backdrop of the Balakot air strike in 2019 and the 2020 stand-off with China in Eastern Ladakh.

<https://www.thehindu.com/news/national/payment-crisis-further-delays-defence-deals-with-russia-around-3-billion-held-up/article67216698.ece>

ARMY TECHNOLOGY

Fri, 18 Aug 2023

Pakistan Elevates Defence Posture to Counter Regional Challenges

As geopolitical uncertainties escalate, Pakistan strategically bolsters its defence capabilities across land, air, and sea.

Drawing insights from GlobalData's "Pakistan Defense Market 2023-2028" report, Pakistan's defence landscape transformed with a renewed focus on naval, air force, and army modernisation.

The nation's commitment to fortifying its position is underscored by a growing defence budget and strategic partnerships as it grapples with regional challenges and navigates a complex global environment.

The commitment to enhancing its defence capabilities comes to the forefront as the nation undertakes a comprehensive modernisation drive across its naval, air force, and army domains. Fuelled by escalating geopolitical tensions, Pakistan's multi-domain approach reflects its resolve to safeguard sovereignty and security while addressing internal and external challenges.

Defensive transformation amidst geopolitical uncertainties

GlobalData's "Pakistan Defense Market 2023-2028" report highlights the South-Asian countries resolute efforts to modernise its armed forces in response to mounting regional challenges. With its defence budget projected to reach \$10bn by 2028, Pakistan's increased investment underscores its determination to counter evolving threats.

This strategic realignment encompasses advanced naval vessels, combat aircraft, missile systems, and submarines, aligning with the country's vision for a robust defence infrastructure.

Regional complexities shape defence strategy

The enduring Indo-Pak tensions and territorial disputes catalyse Pakistan's defensive measures. The intricacies surrounding Kashmir and Siachen Glacier disputes continue influencing the security priorities. As the nation navigates through these complexities, the defence strategy underscores the importance of a robust and technologically advanced defence posture.

Balancing defence and economic realities in Pakistan

Despite economic challenges and the impact of the Covid-19 pandemic, Pakistan allocates resources to defence and economic growth. The delicate equilibrium between security imperatives and socioeconomic needs underscores their determination to uphold regional stability while fostering domestic development.

Pakistan's Naval, Air Force, and Army modernisation

Pakistan's ambitious modernisation spans its naval, air force, and army domains, reflecting a holistic approach to national security. Collaborations with foreign partners, technological advancements, and indigenous development projects reinforce the South Asian countries drive to build a formidable and self-reliant defence apparatus.

Strategic partnerships and international dynamics

China's role as a key defence partner enhances Pakistan's capacity-building initiatives. Collaborative projects, joint ventures, and technology sharing are pivotal components of Pakistan's strategy to strengthen its indigenous capabilities and maintain a credible deterrent against regional threats.

Navigating a complex geopolitical landscape

As Pakistan charts its course in a dynamic geopolitical landscape, its commitment to modernisation underscores its determination to secure its interests and maintain regional stability. The convergence of naval, air force, and army modernisation initiatives showcases the multifaceted approach to security, reflecting its evolving stance in the global arena.

Amid geopolitical challenges, Pakistan's defence efforts transcend mere numbers, encompassing a robust strategy to bolster naval, air force, and army capabilities.

The nation's pursuit of comprehensive modernisation underscores its commitment to maintaining regional equilibrium while addressing internal and external complexities. As Pakistan forges ahead, its multi-domain approach highlights its position as a steadfast player in the ever-changing global security theatre.

<https://www.army-technology.com/news/pakistan-elevates-defence-posture-to-counter-regional-challenges/>

US, Japan and Australia Plan Joint Navy Drills in Disputed South China Sea

The United States, Japan and Australia are planning a joint navy drill in the South China Sea off the western Philippines this week to underscore their commitment to the rule of law in the region after a recent show of Chinese aggression in the disputed waters, Filipino security officials said Sunday.

On Aug. 5, Chinese coast guard ships used water cannons against Philippine vessels in the contested waterway where disputes have long been regarded as a potential flashpoint and have become a fault line in the rivalry between the U.S. and China in the region.

The drill will include three aircraft and helicopter carriers sailing together in a show of force and undertaking joint drills. Their commanders are set to meet with Filipino counterparts in Manila after the offshore drills, two Philippine security officials told The Associated Press.

The U.S. plans to deploy an aircraft carrier, the USS America, while Japan would send one of its biggest warships, the helicopter carrier JS Izumo. The Royal Australian Navy would send its HMAS Canberra, which also carries helicopters, one of the two officials said, adding that the joint drill was planned a few months ago.

The Philippines would not be part of this week's drills due to military logistical limitations but is open to becoming a participant in the future, the official said.

The United States, Japan and Australia were among several countries that immediately expressed support for the Philippines and concern over the Chinese action following the tense stand-off earlier this month. Philippine officials said six Chinese coast guard ships and two militia vessels blocked two Philippine navy-chartered civilian boats taking supplies to the Philippine forces stationed at the Second Thomas Shoal. One supply boat was hit with a powerful water cannon by the Chinese coast guard while the other managed to deliver food, water, fuel and other supplies to the Filipino forces guarding the shoal, the Philippine military said.

The Chinese coast guard acknowledged its ships used water cannons against the Philippine vessels, which it said strayed without permission into the shoal, which Beijing calls Ren'ai Jiao.

"In order to avoid direct blocking and collisions when repeated warnings were ineffective, water cannons were used as a warning. The on-site operation was professional and restrained, which is beyond reproach," the Chinese coast guard said. "China will continue to take necessary measures to firmly safeguard its territorial sovereignty."

The Philippine military said on Saturday that it would again attempt to deliver basic supplies to its forces in the Second Thomas Shoal, but didn't provide further details.

The mission "to the shoal is a clear demonstration of our resolve to stand up against threats and coercion and our commitment in upholding the rule of law," the Armed Forces of the Philippines said in a statement. Following the incident, Washington renewed a warning that it is obliged to defend its longtime treaty ally if Philippine public vessels and forces come under armed attack, including in the South China Sea.

<https://www.indiatoday.in/world/story/us-japan-australia-plan-joint-drills-in-south-china-sea-2424007-2023-08-20>

Fri, 18 Aug 2023

Russia, China Conduct Joint Maritime Patrols in Pacific Ocean

Russian and Chinese navy ships have been jointly conducting maritime patrols in the Pacific Ocean involving naval exercises in order to counter air strikes, Russia's defence ministry said on Friday (August 18).

"A detachment of ships of the Russian Navy and the Chinese People's Liberation Army Navy is currently operating in the waters of the East China Sea and has travelled more than 6,400 nautical miles since the start of patrolling," the ministry said in a statement on the Telegram messaging app.

Russian state news agency TASS released a video that showed nine large vessels sailing in a diamond formation as crew members stood to attention on deck.

The defence ministry further said that the drills also included practicing the "replenishment of fuel reserves by ships and the transfer of cargo on the go", adding that the joint detachment of ships had covered more than 6,400 nautical miles since the start of the exercises.

"During this period, the sailors of the two countries conducted anti-submarine exercises, repulsed an air strike by a mock enemy, conducted rescue training at sea, and perfected the skills of taking off and landing helicopters on the decks of warships," the ministry statement read.

Moscow-Beijing ties

In recent years, the ties between Russia and China have strengthened, as the war with Ukraine has ravaged Russia's relationship with Western governments.

On Monday (August 14), a Chinese defence ministry spokesperson said that naval fleets were conducting maritime patrols in the western and northern regions of the Pacific Ocean.

"These actions are not aimed at a third party and are not related to the current international and regional situation," the spokesperson added.

Earlier this week, Chinese Defence Minister Li Shangfu visited Russia where he attended the 11th Moscow Conference on International Security and called for closer military cooperation.

Recently, Moscow and Beijing have increased their bilateral defence collaboration as they carried out a joint air patrol over the Sea of Japan and the East China Sea in the month of July.

<https://www.wionews.com/world/russia-china-conduct-joint-maritime-patrols-in-pacific-ocean-626672>

THE ECONOMIC TIMES

Sat, 19 Aug 2023

Taiwan Says 42 Warplane Incursions After Launch of China Military Drills

Taiwan said Saturday it had detected 42 warplane incursions into its air defence zone since China announced the launch of military drills. "Since 0900 (UTC+8) today (Aug. 19), the R.O.C. Armed Forces detected 42 PLA aircraft," the island's ministry of defence said in a statement.

Twenty-six of the warplanes involved crossed the median line of the Taiwan Strait, the ministry said. Eight vessels also participated in the drills, which Chinese state media said were intended to simulate "real combat conditions".

"The National Army is... monitoring and using reconnaissance methods to strictly control (the situation)," Taiwan's defence ministry said, adding that it had dispatched aircraft and ships.

China announced earlier Saturday that it had "launched joint air and sea patrols and military exercises of the navy and air force around the island of Taiwan", according to state media outlet Xinhua. The drills were conducted after Taiwan's Vice President William Lai made stopovers in the United States -- in New York en route to Paraguay and in San Francisco when returning to Taipei.

China has ramped up pressure against Taiwan in the past year, sending near-daily warplanes incursions and vessels around the island.

It often lashes out at any diplomatic action that appears to treat Taiwan as a sovereign nation.

In April, Beijing conducted three days of military exercises simulating a blockade of the island in response to Republican House Speaker Kevin McCarthy and Taiwan's leader Tsai Ing-wen meeting in California.

<https://economictimes.indiatimes.com/news/defence/taiwan-says-42-warplane-incursions-after-launch-of-china-military-drills/articleshow/102851435.cms>



Sat, 19 Aug 2023

Ukraine's Long F16s Training Process has Begun -Defence Minister

Training had begun for Ukrainians to operate U.S. F16 fighter jets but it would take at least six months and possibly longer, Defence Minister Oleksiy Reznikov said on Saturday, two days after a U.S. official said F-16s would be transferred to Ukraine once its pilots were trained.

Reznikov said in a TV interview that six months of training was considered the minimum for pilots, but it was not yet known how long it would take to train engineers and mechanics. Ukraine wants the sophisticated U.S.-made warplanes so it can counter the air superiority of Russia, whose forces invaded the country in February 2022.

"Therefore, to build reasonable expectations, set a minimum of six months in your mind, but do not be disappointed if it is longer," he told Kanal 24 anchor Andriana Kucher, who shared the interview on her YouTube channel.

A U.S. official said on Thursday that Washington had approved sending F-16s to Ukraine from Denmark and the Netherlands to defend against Russia as soon as pilot training was completed.

Reznikov said he would not give details on where and when the training was taking place.

The training included technical language training, as the usual basic English level was insufficient, he said.

<https://www.reuters.com/world/europe/ukraines-long-f16s-training-process-has-begun-defence-minister-2023-08-19/>



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Government of India

Ministry of Science & Technology

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Anusandhan National Research Foundation (ANRF), Passed by the Parliament Last Week, Aims at Equitable Funding and Democratisation of Resources in Research and Academics, Says Union Minister Dr Jitendra Singh

Dr Jitendra Singh calls for assimilation of more and more Private Research Foundations with Government Scientific Departments for technology-led development of India

The Minister says, Anusandhan National Research Foundation is aimed at equitable funding of scientific research and for bringing in greater private participation

Speaking at a workshop on Capacity Building for Science and Technology in New Delhi, Dr Jitendra Singh stressed on meaning exchange of ideas between public and private labs for building a tech-led prosperous India

"Anusandhan National Research Foundation" (ANRF), passed by the Parliament last week, aims at equitable funding and democratisation of resources in research and academics.

This was stated by the Union Minister of State (Independent Charge) Science & Technology; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh, while delivering the keynote address at a workshop on Capacity Building for Science and Technology, in New Delhi.

Dr Jitendra Singh called for more and more Private Research Foundations to be assimilated with Government Scientific Departments for technology-led development of India. He called for equitable funding of scientific research and bringing in greater private participation.

The Minister emphasised that the ANRF, envisaged by the Prime Minister Shri Narendra Modi will catapult India to the league of developed nations pioneering new research in new frontiers. Dr Jitendra Singh said, ANRF will have to nudge companies to invest in R&D. He added that the Government is planning a unique Public Private Partnership (PPP) entity for which ₹36,000 Cr of the research funding is to come from the private sector, mostly industry whereas Government will put ₹14,000 Cr for the same, to ensure greater participation of industry.

Dr Jitendra Singh said, the pace of change is so rapid that India can't afford to wait any longer and the time has come to end the demarcation of Public and Private entities. He called for meaningful exchange of ideas between public and private labs for building a tech-led prosperous India.

Dr Jitendra Singh said, scientists should adopt team driven approach for problem solving and product development rather than individual approach towards research.

Dr Jitendra Singh expressed happiness that all the heads of the Scientific Department attended the Capacity Building meeting along with a large number of scientists joining online. The Minister

exhorted the scientific community to pick up good things and best practices of the Corporate Sector. He also underlined that a threshold of absorption of capacity building must be defined.

Dr Jitendra Singh informed that India is now launching cutting-edge technological breakthroughs in tandem with the Developed countries of the world and gave the example of the National Quantum Mission (NQM) and international laurels in the Space sector.

The Minister said, investments in AI and quantum technology would lead to transformative advances in our everyday lives and greatly benefit our social well-being by impacting healthcare, agriculture, climate change and more. He welcomed the transformative potential of the Endowment fund.

Shri Adil Zainulbhai, Chairman, Capacity Building Commission, Prof, Ajay Sood, Principal Scientific Advisor to Government of India, Dr Rajesh Gokhale, Secretary, DST & Secretary, DBT Shri Praveen Pardeshi, Member (Admin), CBC and many senior scientists and officials took part in the workshop.

About CBC

The Capacity Building Commission (CBC) has been set up to provide a strategic framework for capacity building of the ministries and departments. This strategic framework came out to be as Annual Capacity Building Plan (ACBP), which brings out the identified competencies in a calendarized format. The government has put in place a number of initiatives to support the mission, including:

- A competency-based framework for capacity building
- An online learning platform
- A performance management system
- A culture of continuous learning

Scientific capacity building is essential for the advancement of knowledge across various fields. By investing in research infrastructure, training, and education, India can contribute significantly to global scientific progress. A strong scientific workforce can drive the creation of new technologies, products and solutions that address local and global challenges. The country's, whose economy is developing rapidly, building scientific capacity can fuel economic growth ever further, and a thriving scientific ecosystem fosters economic growth and job creation. Research and innovation lead to the development of new industries, startups, and businesses, which in turn generate employment opportunities.

Capacity Building for S&T can create a pipeline of skilled researchers, scientists, and professionals who can enable India to engage more effectively in international collaborations as Collaborative research efforts can lead to shared knowledge, cultural exchange, and collective solutions to global problems. Addressing environmental challenges, such as climate change, pollution, and resource depletion, requires scientific expertise. A skilled workforce can contribute to the development of sustainable practices and clean technologies. Focusing on functional competencies policies for S&T, Scientists can provide policymakers with accurate and reliable information to guide decisions on issues ranging from public health to technology regulation. Scientific capacity building contributes to national resilience and preparedness, as we all experienced with Covid-19. Capacity Building for R&D is essential in dealing with natural disasters, pandemics, and other unforeseen challenges. Building scientific capacity encourages interdisciplinary research, where experts from different fields collaborate to solve complex problems. This approach leads to holistic and comprehensive solutions, this also calls for interdisciplinary knowledge sharing between our own S&T departments as well.

Developing a skilled scientific workforce is crucial for achieving technological sovereignty, reducing dependency on foreign technologies, and ensuring self-reliance in critical sectors. A strong scientific workforce is not only necessary for India's progress and development but is also a driving force behind innovation, economic growth, sustainable practices, and global leadership. Investing in scientific education, research, and capacity building is an investment in the future of the nation. We are in the midst of a technology revolution and we as a nation must make best use of this transformation to deliver good governance for our citizens. A sound structure encapsulating scientific research and development is needed to stay abreast with the fast-paced science ecosystem.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1950145>



Sun, 20 Aug 2023

Chandrayaan-3's Vikram Lander Completes Final De-boosting. Next Step Moon

The Indian Space Research Organisation (ISRO) on Sunday announced that the second and final de-boosting operation of Lunar mission Chandrayaan-3's Vikram Lander has successfully completed, further bringing it nearer to the moon.

The lander has placed itself in an orbit where the closest point to the moon is 25 km and the farthest is 134 km. It is from this point that the lunar module will attempt to touch down on the lunar surface's unexplored south polar region on August 23 evening, ISRO said.

The development comes a day after the Lander Module comprising the lander (Vikram) and the rover (Pragyan) successfully underwent a deboosting operation that reduced its orbit to 113 km x 157 km. Taking to X (formerly Twitter), ISRO said, "The second and final deboosting operation has successfully reduced the LM orbit to 25 km x 134 km. The module would undergo internal checks and await the sun-rise at the designated landing site. The powered descent is expected to commence on August 23, 2023, around 1745 Hrs. IST."

On Thursday, the lander module separated from the propulsion module that had carried it all the way from Earth. The propulsion module will now continue orbiting Earth for months or even years, and study its atmosphere and measure the polarisation of light from clouds.

Deboosting is the process of slowing down to position itself in an orbit where the orbit's closest point to the Moon (Perilune) is 30 km and the farthest point (the Apolune) is 100 km.

Post its launch on July 14, Chandrayaan-3 entered into the lunar orbit on August 5, following which orbit reduction manoeuvres were carried out on the satellite on August 6, 9, 14 and 16, ahead of the separation of both its modules on August 17, in the runup to the landing on August 23.

Chandrayaan-3 is a follow-on mission to Chandrayaan-2 to demonstrate end-to-end capability in safe landing and roving on the lunar surface.

The mission objectives of Chandrayaan-3 are to demonstrate a safe and soft landing on the lunar surface, to demonstrate rover roving on the Moon, and to conduct in-situ scientific experiments.

<https://www.hindustantimes.com/india-news/chandrayaan3s-vikram-lander-completes-final-de-boosting-next-step-moon-101692477661252-amp.html>

Study Suggests Simple Saliva Test can Spot Early Heart Disease Risk

A simple saliva test could help identify the earliest warning signs of cardiovascular disease, according to a study. Scientists have identified a link between high white blood cells in the saliva of healthy young adults and an early cardiovascular disease warning sign.

They used a simple oral rinse to see if levels of white blood cells - an indicator of gum inflammation - in the saliva of healthy adults could be linked to warning signs for cardiovascular disease.

The study, published recently in the journal *Frontiers in Oral Health*, found that high levels of white blood cells correlated with compromised flow-mediated dilation, an early indicator of poor arterial health.

"Even in young healthy adults, low levels of oral inflammatory load may have an impact on cardiovascular health - one of the leading causes of death in North America," said the corresponding author of the study, Trevor King from the Mount Royal University in Canada.

Periodontitis is a common infection of the gums which has previously been linked to the development of cardiovascular disease. Scientists suspect that inflammatory factors may enter the bloodstream through the gums and damage the vascular system.

The researchers studied currently healthy young people without diagnosed periodontal issues to determine whether lower levels of oral inflammation can be clinically relevant to cardiovascular health.

"We are starting to see more relationships between oral health and risk of cardiovascular disease," said the first author of the study, Ker-Yung Hong, who now studies dentistry at the University of Western Ontario, Canada.

"If we are seeing that oral health may have an impact on the risk of developing cardiovascular disease even in young healthy individuals, this holistic approach can be implemented earlier on," Hong said.

The team chose pulse-wave velocity, which can measure the stiffness of arteries, and flow-mediated dilation, a measure of how well arteries can dilate to allow for higher blood flow, as key indicators of cardiovascular risk.

These measure arterial health directly: stiff and poorly functioning arteries raise patients' risk of cardiovascular disease.

The scientists recruited 28 non-smokers between 18 and 30, with no comorbidities or medications that could affect cardiovascular risk and no reported history of periodontal disease. They were asked to fast for six hours, except for drinking water, prior to visiting the lab.

At the lab, participants rinsed their mouths with water before rinsing their mouths with saline which was collected for analysis.

Participants then laid down for 10 minutes for an electrocardiogram, and stayed lying down for another 10 minutes so that the scientists could take their blood pressure, flow-mediated dilation, and pulse-wave velocity.

"The mouth rinse test could be used at your annual checkup at the family doctors or the dentist," said co-author of the study, Michael Glogauer of the University of Toronto, Canada.

"It is easy to implement as an oral inflammation measuring tool in any clinic," Glogauer said.

The scientists found that high white blood cells in saliva had a significant relationship to poor flow-mediated dilation, suggesting these people may be at elevated risk of cardiovascular disease.

However, there was no relationship between white blood cells and pulse wave velocity, so longer-term impacts on the health of the arteries had not yet taken place.

The scientists hypothesised that inflammation from the mouth, leaking into the vascular system, impacts the ability of arteries to produce the nitric oxide that allows them to respond to changes in blood flow.

Higher levels of white blood cells could have a greater impact on vascular dysfunction; the levels found in the participants are usually not considered clinically significant.

"Optimal oral hygiene is always recommended in addition to regular visits to the dentist, especially in light of this evidence. But this study was a pilot study," said King.

"We are hoping to increase the study population and explore those results. We are also hoping to include more individuals with gingivitis and more advanced periodontitis to more deeply understand the impact of different levels of gingival inflammation on cardiovascular measures," he added.

<https://economictimes.indiatimes.com/magazines/panache/study-suggests-simple-saliva-test-can-spot-early-heart-disease-risk/articleshow/102838808.cms>

