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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

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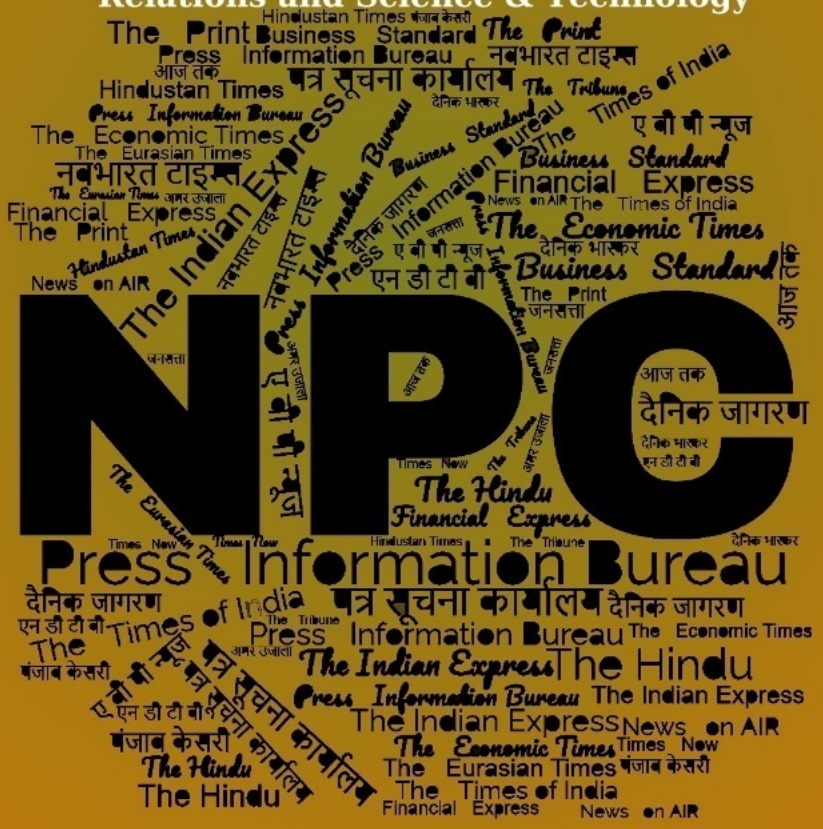

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Mon, 05 Mar 2024

DRDO Submits Report on Dual-Use Equipment Seized from Pak-Bound Ship

In the case of the seizure of suspicious items being shipped from China for possible use in Pakistan's nuclear weapons programme, a Defence Research and Development Organisation (DRDO) team on Monday submitted its official report to the competent authority, said government sources.

According to the report by the DRDO experts, the seized large-size Computer Numerical Control (CNC) machines are dual-use equipment and can be used for military applications, the sources added.

Notably, security agencies at Mumbai's Nhava Sheva port intercepted a Karachi-bound ship from China suspected of containing a consignment that could be used for Pakistan's nuclear and ballistic missile programmes, said a source.

The team from the Defence Research and Development Organisation (DRDO) had examined the consignment, which is primarily suspected of being used in Pakistan's nuclear initiatives, particularly in manufacturing critical components for missile development.

https://www.ndtv.com/india-news/drdo-submits-report-on-dual-use-equipment-seized-from-pak-bound-ship-5177932

Sat, 02 Mar 2024

जम्मू: सेना के लिए DRDO बनाएगा हथियार, बर्फबारी में देगा एवालॉन्च वार्निंग

जम्मू कश्मीर में फरवरी के महीने से लगातार बर्फबारी हो रही है और एक बार फिर मार्च में भी बर्फबारी का सिलसिला शुरू हो गया है. ऐसे में ज्यादातर पहाड़ी इलाकों में एवालॉन्च का खतरा बना रहता है. इस

एवालॉन्च के खतरे से निपटने के लिए डीआरडीओ का डिफेंस जिओ इनफॉर्मेटिक सेंटर लगातार सेना के लिए एवालॉन्च की जानकारी जुटाना और इंजीनियरिंग सॉल्यूशन देने का काम कर रहा है. इस समय जम्मू कश्मीर मैं लगातार हो रही बर्फबारी के बीच डीआरडीओ सेना के अलग-अलग सेक्टर में जहां पर एवा लॉन्च का खतरा सबसे ज्यादा होता है वहां की जानकारियां पहुंचाने का काम कर रहा है.

अलग-अलग सेक्टर में अपने इक्विपमेंट लगाए

इसके लिए डीआरडीओ ने जम्मू कश्मीर के अलग-अलग सेक्टर में अपने इक्विपमेंट लगाए हुए हैं. जहां से डाटा कलेक्शन करके सेना और सिविल एडमिनिस्ट्रेशन को मुहिया करवाया जाता है. ताकि किसी भी तरह के एवा लॉन्च से बचा जा सकेइसके साथ ही साथ डीआरडीओ लगातार सेना को अलग-अलग पोस्ट में इंजीनियरिंग सॉल्यूशंस भी दे रहा है जिससे अगर एवा लॉन्च उनकी पोस्ट पर आता भी है तो उससे पोस्ट को बचाया जा सके. जम्मू में प्रदर्शनी में डीआरडीओ ने एक मॉडल बनाकर अपने द्वारा एवा लॉन्च के एरिया में किया जा रहे काम को दर्शाया है.

अर्धसैनिक बलों के लिए एक मल्टी मोड हैंड ग्रेनेड भी तैयार

डीआरडीओ ने कुछ ही टाइम पहले सेना और अर्धसैनिक बलों के लिए एक मल्टी मोड हैंड ग्रेनेड भी तैयार किया है जिसका अब सेना इस्तेमाल करना शुरू हो गई है. डीआरडीओ अब तक 12 लाख से ज्यादा मल्टी हैंड ग्रेनेड सेना और अर्ध सैनिक बलों को मुहिया भी करवा चुका है. अगर ग इस ग्रेनेड की बात करें बात करें तो इसे दो मूड में तैयार किया गया है डिफेंसिव मोड और ऑफेंसिव मूड. डिफेंसिव मोड में हैंड ग्रेनेड में फ्रेगमेंट्स का इस्तेमाल नहीं होता है. इसका इस्तेमाल दुश्मन के खिलाफ तब किया जाता है जब को खुद को भी बचाना होता है.

5 मीटर के दायरे में बड़ा नुकसान किया जा सकता है

वहीं दूसरी तरफ ऑफेंसिव मूड का इस्तेमाल दुश्मन को ज्यादा से ज्यादा नुकसान पहुंचाने के लिए किया जाता है. इस ग्रेनेड को सेना की जरूरत के हिसाब से तैयार किया गया है . इस ग्रेनेड में 3 से 4 सेकंड्स का डिले रखा गया है. ऑफेंसिव मोड़ के ग्रेनेड को जिस जगह पर धागा जाता है उसके तीन से 5 मीटर के दायरे में बड़ा नुकसान किया जा सकता है. जबकि डिफेंसिव मूड में 8 से 10 मीटर पर जो भी इंसान मौजूद है उसे नुकसान पहुंचाया जा सकता है. इस ग्रेनेडपर बारिश ह्यूमिडिटी का कोई असर नहीं होता. इसे माइंस 20 डिग्री से लेकर प्लस 55 डिग्री तक के तापमान में रखा जा सकता है. इसके साथ ही डीआरडीओ ने 81 एमएम मोटर और मिसाइल के लिए भी इलेक्ट्रॉनिक फ्यूज तैयार किया है ताकि उसकी मदद से आसानी से टारगेट को निशाना बनाया जा सके.

फुल बॉडी प्रोटेक्शन सूट तैयार किया

देश में इस समय अर्ध सैनिक बल और पुलिस सभी जगह महिला जवान पुरुषों के साथ कंधे से कंधा मिलाकर काम कर रही हैं. ऐसे में डीआरडीओ ने महिलाओं की सुरक्षा के लिए भी एक फुल बॉडी प्रोटेक्शन सूट तैयार किया है. इसकी मदद से महिला जवानों को दंगों या फिर भी भीड़ जमा होने की स्थिति में पत्थर बाजी धक्का मुक्की या फिर हिंसक झड़पों से आसानी से बचाया जा सकता है . रैपिड एक्शन फोर्स की महिला जवान इस फुल बॉडी प्रोटेक्शन सूट का इस्तेमाल कर रही हैं. इसके साथ ही साथ देश की दूसरी जगह से भी लगातार पुलिस इस सूट के ऑर्डर दे रही है. इस सूट की खासियत यह है कि से अलग-अलग साइज में महिलाओं की कद काठी के हिसाब से तैयार किया गया है जिसके लिए जम्मू कश्मीर से लेकर

कन्याकुमारी तक महिलाओं के अलग-अलग साइज का डाटा तैयार किया गया है. महिला जवानों के लिए या अपने आप में अकेला बॉडी सूट है जो डीआरडीओ ने तैयार किया है.

https://www.newsnationtv.com/states/jammu-kashmir/jammu-drdo-will-make-weapons-for-the-army-will-give-avalanche-warning-during-snowfall-447701.html

THE HINDU

Sat, 02 Mar 2024

CUMI working closely with DRDO in supporting localisation initiatives

Carborundum Universal Ltd. (CUMI), announced that it has been closely working with Defence Research and Development Organisation (DRDO) in supporting their indigenisation initiatives to strengthen Defence capabilities. CUMI supplies ceramic plates for bulletproof vests and tiles for armoured vehicles. These products are manufactured in India, including the grains needed to make them, said the leading materials science company in a statement.

CUMI's lightweight ceramic ballistic protection materials (which include reaction-bonded silicon carbide, high purity alumina, and zirconia-toughened alumina), are designed to meet threat levels conforming to the National Institute of Justice 'Level IV' and STANAG Level 3 global standards. They are ergonomic and customisable into various sizes and shapes for use in bulletproof vests and armoured vehicles. Another area CUMI focuses on is to supply fine powders for making ceramic thermal spray coatings. These coatings are required in the manufacture and maintenance of aircraft engines and components to provide protection against heat and wear. CUMI is working with various research organisations under DRDO in the development of this product.

"As a leading company in advanced materials, CUMI is well-positioned to manufacture key cutting-edge components that support indigenous product development in strengthening India's defence capabilities," said CUMI Head of Marketing Subbu Venkatachalam. During the recent high-level meeting in New Delhi, DRDO Chairman Dr. Samir V. Kamat agreed to facilitate necessary technical and advisory support alongside product development to CUMI", he said.

During last March, CUMI said it partnered with DRDO's Research Centre Imarat (RCI) Lab to manufacture Ceramic Radomes. Ceramic Radomes are located at the tip of missiles and protect the missiles from high surface temperatures when they cruise through the atmosphere.

https://www.thehindu.com/business/cumi-in-pact-with-drdo-to-strengthen-its-support-to-defence-sector/article67907318.ece

Defence News

Defence Strategic: National/International

Press Information Bureau
Government of India

Ministry of Defence

Tue, 05 Mar 2024

Delivery of Ammunition cum Torpedo Cum Missile Barge, LSAM 19 (YARD 129), 5th Barge of 11 x Ammunition cum Torpedo cum Missile (ACTCM) Barge Project On 04 Mar 24 At Naval Dockyard, Mumbai For NAD(Karanja)

The delivery of 'Ammunition Cum Torpedo Cum Missile Barge, LSAM 19', 5th Barge of 11 x ACTCM Barge Project, built by MSME Shipyard, M/s Suryadipta Projects Pvt Ltd, Thane for Indian Navy, was undertaken on 04 Mar 24 at Naval Dockyard, Mumbai for NAD(Karanja). The Induction Ceremony was presided over by Capt Ashutosh HQWNC/ACRO.

The contract for building 11 X ACTCM Barge was signed between MoD and M/s Suryadipta Projects Pvt Ltd, Thane on 05 Mar 21.

Induction of these Barges would 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.

These Barges are indigenously designed and built under relevant Naval Rules and Regulation of Indian Register of Shipping.

The model testing of the Barge during the design stage was undertaken at Naval Science and Technological Laboratory, Visakhapatnam. These Barges are proud flag bearers of Make in India initiative of Government of India (GoI).

https://pib.gov.in/PressReleasePage.aspx?PRID=2011452

Press Information Bureau
Government of India

Ministry of Defence

Sun, 04 Mar 2024

MoD inks MoU with BEML Limited, BEL & MIDHANI for Indigenous Development of Advanced Fuelling & Control System for Engines for Heavy Duty Applications

Ministry of Defence has signed a tripartite Memorandum of Understanding (MoU) with BEML Limited, Bharat Electronics Limited (BEL) and Mishra Dhatu Nigam Limited (MIDHANI) for indigenous development of Advanced Fuelling and Control System for Engines for heavy duty applications.

The MoU was inked with Chairman & Managing Director, BEML Limited Shri Shantanu Roy; CMD, MIDHANI Dr SK Jha; and CMD, BEL Shri Bhanu Prakash Srivastava, in the presence of Defence Secretary Shri Giridhar Aramane in New Delhi on March 04, 2024.

This collaborative initiative will focus on leveraging indigenous capabilities to design, test, and manufacture an Advanced Fuelling and Control System that offers enhanced efficiency, performance, and reliability.

By harnessing the latest advancements in engine technology and control systems, the companies aim to extend their domain expertise for development of engine systems which will ensure self-reliance in the field of Combat vehicles.

The MoU corroborates the resolve of the Government to develop complex technologies within the country under the 'Aatmanirbhar Bharat' initiative.

https://pib.gov.in/PressReleasePage.aspx?PRID=2011274

Press Information Bureau
Government of India

Ministry of Defence

Sun, 04 Mar 2024

Hon'ble Raksha Mantri to Inaugurate the Infrastructure/ Facilities of Project Seabird

Raksha Mantri Shri Rajnath Singh will be inaugurating two major piers and seven residential towers comprising 320 houses for Naval Officers and Defence civilian personnel and 149 single officers' accommodation in Naval Base Karwar on 05 Mar 24.

Phase I of Project Seabird was designed to accommodate 10 ships and was successfully concluded in 2011. The infrastructure comprised a breakwater, a pier capable of berthing 10 ships, a 10,000-ton ship lift and dry berth, a Naval Ship Repair Yard, logistics and armament storage facilities, accommodation for 1000 personnel, a Headquarters/Depot Organisation, and a 141-bed Naval Hospital.

The CCS (Cabinet Committee on Security) approval for Phase IIA of the Project was accorded the berthing of 32 ships and submarines, along with 23 Yardcraft. The Phase IIA initiatives are also directed towards constructing buildings and structures that adhere to the current guidelines set by the Ministry of Environment, Forest & Climate Change (MOEF) and the Indian Green Building Council (IGBC). The Phase IIA marine works include piers designed to accommodate ships/ submarines, providing a berthing space of more than 6 kilometers, technical facilities, electrical substations, switch gears, and support utilities. The center-piece of Phase IIA Works is an iconic Covered Dry Berth, standing at a height of 75 meters, taller than the Qutub Minar in Delhi, and spread over 33000 m^2 land area. This dry berth is designed to facilitate simultaneous docking and comprehensive enclosed maintenance of up to four capital ships.

In Phase-IIA, four different townships encompassing residential accommodations, with about 10,000 dwelling units of all types for Officers, Senior and Junior Sailors and Defence Civilian staff, are being constructed. The setting up of a green field dual-use Naval Air Station with 2700 m runway and civil-enclave will provide air support to the aircraft embarked upon various IN ships and facilitate operations of commercial aviation flights.

The ongoing construction activities at Naval Base Karwar have directly generated employment opportunities for approximately 7,000 personnel and indirectly led to around 20,000 jobs across the nation. The infrastructure development has been aligned with the principles of *Aatmanirbhar Bharat* with more than 90% of the materials and equipment being sourced from within the country. The project's execution involves renowned Indian industry infrastructure leaders such as AECOM India Ltd., Larsen & Toubro, ITD Cementation India Ltd, Nagarjuna Construction Company, Navayuga Engineering Company Ltd., and Shapoorji Pallonji Group.

Once fully operational, with an estimated 50,000 individuals residing in the Naval Facilities spread over the 25-kilometer expanse, a substantial contribution to the local economy is foreseen. The establishment of the Naval Dockyard and the maintenance needs of ships will act as catalysts for the industrial growth of the region. This development is also expected to attract significant investments to the Uttara Kannada region, along with the necessary infrastructure, and create employment opportunities for the local community.

The Naval Air Station, along with the Civil Enclave, is poised to improve air connectivity to Uttar Karnataka region and boost the tourism industry in both North Karnataka and South Goa. Upon full operationalisation, the base is projected to provide government employment to around 8,000 personnel.

https://pib.gov.in/PressReleasePage.aspx?PRID=2011240

Press Information Bureau
Government of India

Ministry of Defence

Sun, 04 Mar 2024

DefConnect 2024: Raksha Mantri launches ADITI scheme to Promote Innovations in Critical & Strategic Defence Technologies

Raksha Mantri Shri Rajnath Singh launched Acing Development of Innovative Technologies with iDEX (ADITI) scheme to promote innovations in critical and strategic defence technologies, during DefConnect 2024 in New Delhi on March 04, 2024. Under the scheme, start-ups are eligible to receive grant-in-aid of up to Rs 25 crore for their research, development, and innovation endeavours in defence technology. "The scheme will nurture the innovation of youth, and help the country leap forward in the field of technology," the Raksha Mantri said as he addressed a gathering of industry leaders, entrepreneurs, innovators, and policymakers.

The ADITI scheme worth Rs 750 crore for the period 2023-24 to 2025-26 falls under the iDEX (Innovations for Defence Excellence) framework of Department of Defence Production (DDP), Ministry of Defence. It aims to develop about 30 deep-tech critical and strategic technologies in the proposed timeframe. It also envisages to create a 'Technology Watch Tool' to bridge the gap between the expectations and requirements of the modern Armed Forces and the capabilities of the defence innovation ecosystem. In the first edition of ADITI, 17 challenges – Indian Army (3), Indian Navy (5), Indian Air Force (5) and Defence Space Agency (4) - have been launched.

Shri Rajnath Singh voiced Prime Minister Shri Narendra Modi-led Government's unwavering commitment to encourage the youth to bring forth innovative ideas. He asserted that to motivate young innovators, iDEX was expanded to iDEX Prime, with the assistance increasing from Rs 1.5 crore to Rs 10 crore. Following the encouraging participation in providing solutions to the challenges given by the Services and DPSUs, ADITI scheme has now been launched, he said.

The Raksha Mantri stated that the idea behind the schemes/initiatives such as ADITI, iDEX, iDEX Prime is to also transform India into a knowledge society. "As times are changing, new technologies are coming into existence. To become a developed country, it is necessary for us to achieve a technological edge. We have to transform our country into a knowledge society," he said.

The event also witnessed the launch of the 11th edition of Defence India Start-up Challenge (DISC), heralding a new chapter in the collaboration between the defence establishment and the start-up ecosystem. The DISC 11 introduces 22 problem statements - Indian Army (4), Indian Navy (5), Indian Air Force (5), Armoured Vehicles Nigam Limited (7) and Hindustan Shipyard Limited (1) - aimed at addressing critical defence challenges, inviting innovators to propose innovative solutions that can enhance the country's defence capabilities and contribute to national security.

Shri Rajnath Singh described 'getting a hold on state-of-the-art defence technology' as the most crucial aspect to achieve self-reliance due to the increasing role of cutting-edge technology in warfare in today's time. He stated that technology can be mastered either by adopting the latest innovation from other countries or by developing our own. The Government is working on both methods, he stressed.

"Under offset, we are acquiring technology from various countries through Foreign Direct Investment (FDI). But, like this, we cannot obtain best technologies as countries never share their latest innovations. This is why there is a need to develop the required technologies on our own. For this, we need research and development (R&D). There are a number of conditions that need to be fulfilled to establish a productive R&D ecosystem. India has a large workforce of energetic and skilled youth who are committed to taking India forward in the field of technology. When we have such a skilled workforce, we should not shy away from setting ambitious goals. Our youth are fully empowered to make India self-reliant in the defence sector, and the government is providing them with the environment to touch greater heights," the Raksha Mantri said.

Highlighting the Government's vision of attaining self-reliance as soon as it came to power, Shri Rajnath Singh said the nation cannot remain dependent on import of weapons/platforms as it can be fatal for strategic autonomy. He stated that without self-reliance, India cannot take independent decisions on global issues in line with its national interests.

"Strategic autonomy can be maintained only when arms and equipment are made in India by our own people. We are working towards this, and the results are positive. While in 2014 our domestic defence production was around Rs 44,000 crore, today it has crossed the record figure of Rs one lakh crore, and growing continuously. This change took place due to our conistent efforts. Tough decisions had to be taken. Status-quo had to be disrupted," the Raksha Mantri said, while listing out a number of measures taken to promote domestic manufacturing, including earmarking 75% of defence capital procurement budget for Indian companies.

Shri Rajnath Singh emphasised that governance and commerce or business are codependent and the private sector needs a platform to flourish, which is being provided by the Government to achieve the goal of strengthening the economy. "Many aspects such as law & order, healthy & skilled workforce, rule of law and research & development ecosystem are needed to provide a platform for the private sector. Society and the government together provide these requirements so that the private sector moves forward and boosts the productivity & capacity of the economy," he added.

The Raksha Mantri highlighted the efforts being made by the Government to achieve 'Aatmanirbharta' in defence production, including notifying positive indigenisation lists of major platforms & equipment that are being/will be manufactured in India. He suggested to the DDP that "in the coming 4-5 years, we should come out with a short negative list containing items that will be imported and we should strive to eliminate that list to achieve complete self-reliance".

As part of DefConnect 2024, a technology showcase was also organised by iDEX-Defence Innovation Organisation (DIO) with a diverse range of technology start-ups at the forefront of innovation in the defence sector. These start-ups are revolutionising key areas such as Artificial Intelligence and Robotics, Undersea Detection and Communication, Unmanned Aerial Vehicles, Wearable

Technology, Blast & Ballistics Proof Structures and Equipment, smart textiles and cyber security. These start-ups represented cutting-edge technologies and innovations, offering solutions to enhance defence capabilities, strengthen national security, and safeguard national interests. The showcase underscored the immense potential of the Indian innovation ecosystem in contributing to defence technology.

As part of a broader discourse on diversity and inclusion in defence entrepreneurship, DefConnect 2024 hosted a thought-provoking panel discussion on 'Women as Drivers of Change'. The discussion explored the pivotal role of women in shaping the future of defence innovation and strategies to further promote gender diversity in the sector.

The panel witnessed various noted participants from the Department of Space, Indian Air Force, Financial institutions and start-ups. The discussion offered insights on the Indian Defence Landscape, Technology, Future Trends, Innovation, and opportunities for the Indian start-up ecosystem. In recognition of the invaluable contributions of women entrepreneurs to the defence innovation ecosystem, DefConnect 2024 featured a special felicitation ceremony for iDEX women entrepreneurs.

In addition, DefConnect 2024 witnessed the launch of a rolling iDEX internship program, aimed at nurturing young talent and providing them with hands-on experience and mentorship in defence innovation. This initiative seeks to groom the next generation of innovators and equip them with the skills and knowledge necessary to contribute effectively to the defence innovation ecosystem.

Furthermore, as part of its ongoing efforts to foster investment in defence start-ups, iDEX announced Memoranda of Understanding (MoUs) with new investors under the iDEX Investors Hub (IIH). These partnerships will facilitate increased investment in defence start-ups, providing them with the necessary capital and support to scale their ventures and drive innovation in the sector. These strategic partnerships have now taken the pledge to funds, from Rs 200 crore to more than Rs 500 crore.

Highlighting the success stories of iDEX start-ups, the ceremony also featured the announcement of investments in iDEX winners and the felicitation of iDEX winners, showcasing their innovative solutions and entrepreneurial spirit. Raksha Rajya Mantri Shri Ajay Bhatt, Chief of Defence Staff General Anil Chauhan, Chief of the Air Staff Air Chief Marshal VR Chaudhari, Defence Secretary Shri Giridhar Aramane and other senior officials of Ministry of Defence were present on the occasion.

The launch of the ADITI Scheme, DISC 11, and other initiatives during DefConnect 2024 underscores the Government's unwavering commitment to promote innovation, entrepreneurship, and self-reliance in defence production. These initiatives are poised to accelerate India's journey towards becoming a global leader in defence technology and innovation, ensuring the nation's security and sovereignty in the years to come.

https://pib.gov.in/PressReleasePage.aspx?PRID=2011171

Press Information Bureau
Government of India

Ministry of Defence

Sat, 03 Mar 2024

MH 60R 'Seahawks' to be Commissioned into the Indian Navy as the INAS 334 Squadron

The Indian Navy will commission the newly inducted MH 60R *Seahawk* (a maritime variant of the Blackhawk helicopter) multi-role helicopter on 06 Mar 2024 at INS Garuda, Kochi marking a pivotal moment in India's Defence modernisation journey. The Seahawks squadron will be commissioned in the Indian Navy as INAS 334. The helicopters are a part of the 24-aircraft FMS contract signed with the US government in Feb 2020.

The Indian Navy is set to witness a significant surge in its maritime prowess with the induction of the Seahawks. The helicopter is designed for anti-submarine warfare (ASW), anti-surface warfare (ASuW), search and rescue (SAR), medical evacuation (MEDEVAC) and vertical replenishment (VERTREP). The helicopter has been rigorously tested in Indian Reference Atmosphere (IRA) conditions and is fully integrated into the Fleet.

The advanced weapons, sensors and avionics suite make the Seahawks ideal for the Indian Navy's maritime security needs, offering enhanced capabilities for both conventional as well as asymmetric threats. The MH 60R helicopter would enhance India's blue-water capabilities, extending the operational reach of the Navy and supporting sustained naval operations across spectrums and over vast maritime domains. The Seahawk's deployment in the IOR would strengthen the Indian Navy's maritime presence, dissuading potential threats and ensuring a secure and safe environment in this strategically crucial region. The commissioning of the Seahawks underscores Indian Navy's steadfast dedication to fortifying maritime security, aligning seamlessly with the Government of India's visionary goal of ensuring Security And Growth for All in the Region.

https://pib.gov.in/PressReleasePage.aspx?PRID=2011073

Press Information Bureau
Government of India

Ministry of Defence

Sat, 03 Mar 2024

Department of Military Affairs to organise a two-day brainstorming on Aatmnirbhar Bharat & Make in India Initiative

Taking the spirit of Atmanirbhar Bharat and 'Make in India' initiative forward, the Department of Military Affairs under the Ministry of Defence, is conducting an intensive Brainstorming over the

next two days on March 4-5, 2024 between the Service Headquarters and important stakeholders from Department of Defence Production, Defence Industry representatives and other relevant partners.

The implementable way forward derived from consultative and participative processes through high-level deliberations to provide impetus to indigenisation and also devise ways and means to enhance participation of private industry in defence R&D and manufacturing ecosystem will be the key takeaways.

Chief of Defence Staff General Anil Chauhan will chair the sessions, while Defence Secretary Shri Giridhar Aramane will deliver the keynote address.

The event covers a wide canvas ranging from identification of challenges and evolving a way ahead to provide impetus to indigenisation efforts of Armed forces, address sustenance-related issues, invigorate private sector participation in defence R&D and manufacturing ecosystem and most importantly create and enhance Maintenance, Repair & Overhaul facilities for the Armed Forces.

The HQ IDS and SIDM are coordinating the event and it will see the participation of key representatives from MoD, Services, and Industry under one roof to further strengthen the indigenisation efforts. This will pave the way to formulate a time-bound action plan to give impetus for indigenisation in defence sector.

https://pib.gov.in/PressReleasePage.aspx?PRID=2011044

THE HINDU

Sun, 03 Mar 2024

Indian Navy to Open Strategic Base near Maldives

Indian Navy has said it is bolstering forces on "strategically important" islands close to the Maldives, with a new base set to open just days before Male starts sending home Indian forces. Relations between India and the Maldives have soured since pro-China President Mohamed Muizzu won elections last year after promising to expel Indian forces.

India is suspicious of China's growing presence in the archipelago nation, which straddles key east-west international shipping routes, and the new base will extend New Delhi's "operational surveillance" of the area, the Navy said in a statement late Saturday.

Mr. Muizzu has asked India to withdraw 89 security personnel based in the Maldives to operate reconnaissance aircraft, with the first batch due to leave by March 10 and all to depart within two months.

The new base, opening March 6 on India's Lakshadweep islands, will turn an existing small detachment into an "independent naval unit", according to the Navy's statement. India's Lakshadweep islands lie about 130 kilometres (80 miles) north of the Maldives, with the new naval base on the island of Minicoy situated at their closest point.

India's Navy already has a base on the Lakshadweep island of Kavaratti, but the new base will be about 258 kilometres (160 miles) closer to the Maldives. "Minicoy is the southernmost island of Lakshadweep which straddles the vital sea lines of communications," the Navy said. It said the base will boost anti-piracy and anti-narcotic operations, and was part of a policy to "incrementally augment security infrastructure at the strategically important" islands.

https://www.thehindu.com/news/national/indian-navy-to-open-strategic-base-near-maldives/article67909653.ece

THE HINDU

Sun, 03 Mar 2024

IAF finishes black-topping of Nyoma landing strip near LAC

The Indian Air Force's Advanced Landing Ground (ALG) in Nyoma, close to the Line of Actual Control (LAC) in eastern Ladakh, has now been black-topped, while work is ongoing to extend the runway so that it can eventually handle fighter jets, according to defence sources. "The work is about 15% complete and is now stopped due to winter. It will restart in April. It is on track to be completed in two years," the source stated.

Responding to apprehensions that the airfield could become an easy target for China as it is only 30 km away from the LAC, the source said that it was very well located and would prove to be a great advantage for India. The first landing of a fixed-wing aircraft at the Nyoma ALG took place on September 18, 2009, when an AN-32 transport aircraft landed there. The runway is now being extended to 9,000 or 10,000 feet to enable it to handle all fighter aircraft in the IAF's inventory.

Defence Minister Rajnath Singh had laid the foundation stone for the ALG last September, exuding confidence that this airfield, which will be one of the world's highest, would prove to be a "game-changer" for the armed forces. The ALG's cost of development is approximately ₹200 crore. Nyoma is about 180 km away from Leh at an altitude of about 13,700 feet, and lies close to the southern bank of the Pangong Tso. The IAF also has airfields at Leh, Thoise and Kargil, as well as ALGs at Daulet Beg-Oldie and Fukche.

However, the Leh and Thoise airfields are located in interior areas and officials with knowledge of the area said that the weather at Nyoma is much more stable in comparison to the other two airfields, enabling seamless operations. At the height of the standoff with Chinese forces in 2020, the IAF moved its Mi-17 medium-lift helicopters, CH-47F Chinook heavy-lift helicopters, and AH-64E Apache attack helicopters to Nyoma to support the forward deploymeny of troops, as well as for surveillance and intelligence gathering purposes. As reported by The Hindu earlier, to overcome the challenges that fighter jets face in starting at high-altitude airfields, the engines are being tweaked to enable them to start at extremely low temperatures, which can plummet to -40 degrees in winter.

Over the last three years, China has upgraded all its airfields in this area and built new ones as part of its overall build-up along the 3,488 km-long LAC, permanently altering the status quo. Its

infrastructure includes dual-use airfields, roads, accommodation for troops, and ammunition dumps, among others. India has also significantly scaled up its infrastructure and connectivity across the LAC, especially since the 2020 standoff, and hectic activity is now underway.

https://www.thehindu.com/news/national/just-30-km-from-the-lac-nyoma-landing-strip-black-topped-runway-extension-underway/article67907275.ece

Firstpost.

Sun, 03 Mar 2024

Amid row with India, Maldives to receive Free Military Assistance from China

Only a few weeks after President Mohamed Muizzu set a date for the departure of the first contingent of Indian military personnel from his island nation, China inked a defense cooperation agreement with the Maldives on Monday, offering free military aid to promote "stronger" bilateral ties.

Major General Zhang Baoqun, Deputy Director of China's Office for International Military Cooperation, met Mohamed Ghassan Maumoon, the Maldives' Minister of Defense, to talk about strengthening defense cooperation between the two nations.

The Maldivian defense ministry stated on its X account that Maumoon and Major General Baoqun "signed an agreement on China's provision of military assistance gratis to the Republic of Maldives, fostering stronger bilateral ties".

The details of the defence cooperation agreement were not made available. According to media reports, China has also given the Maldives twelve environmentally efficient ambulances. Wang Lixin, the Chinese ambassador to the Maldives, gave the letter donating the ambulances to the country's health ministry on Sunday at a ceremony held at the Ministry of Health.

Days had passed since Male had permitted the high-tech Chinese research ship Xiang Yang Hong 03 to dock for the "rotation of its personnel and replenishment." At that point, the Chinese military delegation paid a visit. On January 5, Sri Lanka announced that it had imposed a one-year ban on foreign research ships accessing its waters, despite the same ship being denied entry. This move was made in response to India's concerns about Chinese research vessels docking nearby and gathering data from the oceans, including the Indian Ocean Region, for military uses, particularly submarine operations.

China's Foreign Ministry spokesperson has previously defended the port call by the Chinese research ship to the Maldives saying, "China's scientific research activities in relevant waters are for peaceful purposes and aimed at contributing to humanity's scientific understanding of the ocean." The visit of the Chinese military delegation to the Maldives is taking place days after India confirmed that its first civilian team of technical experts has reached the island nation to replace the military personnel operating an advanced light helicopter in the country.

Widely regarded as a pro-China politician, President Muizzu has set a deadline of March 10th for the first wave of Indian military troops to leave his nation.

"The first team of technical personnel to operate the advanced light helicopter has reached the Maldives. It will replace the existing personnel who were operating this platform," Ministry of External Affairs spokesperson Randhir Jaiswal said in New Delhi at his weekly media briefing on February 29.

In the aftermath of the high-level core group meetings tasked with addressing the problem of Indian military personnel withdrawing, the Maldivian foreign ministry announced that India would replace all of its military personnel by May 10 in two phases. The Maldivian government reports that 88 Indian military troops are stationed there, mostly to staff two helicopters and an airplane that have conducted hundreds of humanitarian relief and medical missions.

Since Muizzu took office in November of last year, there has been considerable pressure in the relations between the two nations. Muizzu maintained after assuming charge as the president that he would keep his election promise of evicting Indian military personnel from his country.

In the September 2018 presidential runoff, Muizzu defeated incumbent Ibrahim Mohamed Solih, who was friendly with India. One of India's most important maritime neighbors in the Indian Ocean region is the Maldives, and during the previous administration in Male, bilateral relations generally saw an improvement, particularly in the fields of security and defense. According to statements made by the present administration, it is examining more than 100 bilateral agreements that past administrations had inked with India.

The Maldives is strategically vital because of its close proximity to India—it is just 300 nautical miles from the western coast of the continent and barely 70 nautical miles from the island of Minicoy in Lakshadweep—as well as because it is situated at the intersection of commercial sea lanes that traverse the Indian Ocean Region (IOR).

https://www.firstpost.com/world/amid-row-with-india-maldives-to-receive-free-military-assistance-from-china-13745185.html

दैनिक जागरण

Sat, 02 Mar 2024

Make In India: दुश्मनों की अब खैर नहीं... 39125 करोड़ के पांच रक्षा सौदों को मंजूरी, भारतीय सेना को मिलेगी मजबूती

रक्षा क्षेत्र में आत्मनिर्भरता के लिए 'मेक इन इंडिया' के तहत रक्षा मंत्रालय ने ब्रह्मोस सुपरसोनिक क्रूज मिसाइलों, रडारों और हथियार प्रणालियों समेत विभिन्न रक्षा उपकरणों के लिए 39,125.39 करोड़ रुपये के पांच करार किए हैं। इन बड़े स्वदेशी रक्षा सौदों से भारतीय सेना को मजबूती मिलेगी।

रक्षा मंत्रालय का कहना है कि इन सौदों से स्वदेशी क्षमताओं को और मजबूती मिलेगी। विदेशी मुद्रा बचेगी और भविष्य में विदेशी मूल के उपकरण निर्माताओं पर निर्भरता कम होगी। रक्षा मंत्री राजनाथ सिंह और रक्षा सचिव गिरधर अरमाने की उपस्थिति में रक्षा सौदों पर हस्ताक्षर किए गए। रक्षा मंत्रालय ने भारतीय सेना को मजबूत करने के लिए बड़ा सौदा किया है। मंत्रालय के अनुसार, पांच में से एक रक्षा सौदा मिग-29 विमानों के एयरो इंजन की खरीद के लिए हिंदुस्तान एयरोनाटिक्स लिमिटेड के साथ किया गया है।

वहीं, क्लोज-इन हथियार प्रणाली (सीआइडब्ल्यूएस) और उच्च-शक्ति रडार की खरीद के लिए लार्सन एंड टूब्रो लिमिटेड को दो कांट्रैक्ट मिले हैं। इसके अलावा, ब्रह्मोस मिसाइलों की खरीद के लिए ब्रह्मोस एयरोस्पेस प्राइवेट लिमिटेड (बीएपीएल) के साथ दो अन्य सौदों को अंतिम रूप दिया गया। ध्यान रहे ब्रह्मोस मिसाइलों को लद्दाख में भी तैनात करने की योजना है। मिग-29 विमान के आरडी-33 एयरो इंजनों के लिए एचएएल से 5,249.72 करोड़ रुपये का करार किया गया है। इन एयरोइंजनों का उत्पादन एचएएल की कोरापुट डिविजन में होगा।

युद्धक विमान मिग-29 के बाकी बचे जीवन में यह एयरोइंजन जान फूंक देंगे। इनका निर्माण रूस ओईएम की ट्रांसफर आफ टेक्नोलाजी (टीओटी) लाइसेंस के जरिये होगा। भविष्य में भी इसकी मरम्मत और विस्तार में कोई दिक्कत नहीं होगी।

क्लोज-इन हथियार प्रणाली (सीआइडब्ल्यूएस) का सौदा लार्सन एंड टूब्रो से 7,668.82 रुपये में किया गया है। क्लोज-इन हथियार प्रणाली कम दूरी की आने वाली मिसाइलों और दुश्मन के विमानों का पता लगाने और उन्हें नष्ट करने के लिए एक बिंदु-रक्षा युद्ध प्रणाली है, जो बाहरी सुरक्षा में प्रवेश करती है। पांच साल की इस परियोजना के दौरान हर साल 2400 लोग इस काम में लगेंगे। एचपीआर यानी उच्च शक्ति रडार के लिए लार्सन एंड टूब्रोस से 5700.13 करोड़ रुपये का करार किया गया है। यह वायुसेना के लंबी दूरी के मौजूदा रडारों की जगह लेगा।

इसकी जगह आधुनिक सक्रिय एचपीआर लेंगे जिसमें निगरानी के अत्याधुनिक फीचर हैं। यह वायुसेना की वायु रक्षा क्षमता को बढ़ाएगा। इसके आधुनिक सेंसर रडार के छोटे क्राससेक्शन लक्ष्यों को भी साध लेंगे। निजी क्षेत्र के हाथों बनने वाली भारत में यह पहली रडार प्रणाली होगी। इससे प्रति वर्ष पांच साल तक औसतन एक हजार लोगों को रोजगार मिलेगा।

ब्रह्मोस एयरोस्पेस प्राइवेट लिमिटेड के साथ ब्रह्मोस मिसाइलों को हासिल करने के लिए 19,518.65 करोड़ रुपये का करार किया गया है। भारतीय नौसेना के प्रशिक्षण और प्रयोग के लिए इन मिसाइलों का इस्तेमाल होगा। इस परियोजना से नौ लाख कार्यदिवस में रोजगार मिलेगा। ब्रह्मोस युक्त पोत हासिल करने के लिए ब्रह्मोस एयरोस्पेस प्राइवेट लिमिटेड से दूसरा करार किया गया है। 988.07 करोड़ रुपये का यह सौदा भारतीय नौसेना को हमले करने के लिए प्राथमिक हथियार हासिल होगा। इससे समुद्र या जमीन पर सुपरसोनिक गति से सटीक हमला किया जा सकता है। इस प्रोजेक्ट से 7-8 सालों तक 60 हजार कार्यदिवस का रोजगार मिलेगा।

https://www.jagran.com/news/national-central-government-has-approved-five-defense-deals-worth-rs-39125-crore-for-indian-army-23665077.html

the pioneer

Mon, 04 Mar 2024

MQ9-B Drone sales to India enters next step

The sale of 31 MQ9-B SkyGuardian Drones to India is expected to be fast-tracked now that the major hurdle of mandatory 30 days of Congressional notification is likely to pass without any objection from the lawmakers on Sunday, but for the routine procedural matters posed by the upcoming general elections. The Defence Security Cooperation Agency (DSCA) notified the US Congress in February about the determination of the State Department of a possible Foreign Military Sale to India of 31 MQ-9B Remotely Piloted Aircraft and related equipment for an estimated cost of USD 3.99 billion. The 31 MQ9-B SkyGuardian Drones itself cost USD 1.70 billion, while the rest of the services including technology and equipment are estimated to cost USD 2.29 billion. In addition to 31 MQ-9B SkyGuardian Aircraft, the proposed deal includes 161 Embedded Global Positioning & Inertial Navigation Systems (EGIs), 35 L3 Rio Grande Communications Intelligence Sensor Suite.

“This sale is necessary in furtherance of the US foreign policy and national security objectives,” the notification said. The next step is for the United States to send a letter of offer and acceptance to India, which under normal circumstances should be considered as a mere formality.

Announced by US President Joe Biden during Prime Minister Narendra Modi’s visit to Washington DC in June 2023, all major legal and bureaucratic procedures on the issue have already been cleared from the Indian side including that from the Union Cabinet.

After the letter goes out from the State Department, the next step is for India to give a formal acceptance letter on the matter to the United States, which is essential for the formal price negotiations between the two countries to begin. The announcement of the general election, which brings into force the Model Code of Conduct, is unlikely to pose any last legal hurdle.

“Model Code is not applicable to any matter pertaining directly to the defence forces, be it the recruitments/promotions for defence forces, any service matters pertaining to them, defence purchases of any kind, tenders relating to the matter of the defence forces and therefore no reference in such matters need to be sent to the Election Commission,” says the Model Code of Conduct issued by the Election Commission of India.

“These instructions shall be treated as standing instructions of the Commission and will be applicable for all elections in future. This may be brought to the notice of all concerned for future guidance,” said the Election Commission of India in a letter issued on the issue to the Ministry of Defence on March 27, 2014, in response to a query.

https://www.dailypioneer.com/2024/world/mq9-b-drone-sales-to-india-enters-next-step.html#:~:text=The%20Defence%20Security%20Cooperation%20Agency,cost%20of%20USD%203.99%20billion.

THE ECONOMIC TIMES

Tue, 05 Mar 2024

Saab commences construction of plant for production of new Carl-Gustaf weapon systems in India

Saab, the Swedish defence company, has announced its plans to manufacture the iconic Carl-Gustaf M4 weapon systems in Haryana, starting next year. This comes after receiving approval for 100% foreign direct investment (FDI) for the project, making Saab the first foreign defence producer in India to receive such clearance.

New Manufacturing Facility in Jhajjar The construction of the production facility in Jhajjar has already begun, with a groundbreaking ceremony recently held at the 3.6-acre complex. Saab's manufacturing facility in India will be the first outside Sweden for the CarlGustaf M4. The company has established a new entity, Saab FFVO India Pvt Ltd, to fully own and operate the manufacturing plant. Production of the weapons system is expected to commence next year, with around 100 people being employed at the unit.

Partnership with Indian Suppliers

The production facility is being built at MET City, a subsidiary of Reliance Industries Limited. Saab aims to partner with Indian suppliers and meet the requirements of the 'Make in India' initiative for the systems manufactured at the facility. The company will deploy advanced technologies, including the latest sighting technology and advanced carbon fibre winding, to manufacture the Carl-Gustaf M4 for the Indian armed forces. Components manufactured at the facility may also be included in systems used by other countries. "Empowered by its 22,000 talented people, Saab constantly pushes the boundaries of technology to create a safer and more sustainable world," the company said in its statement. "Saab designs, manufactures and maintains advanced systems in aeronautics, weapons, command and control, sensors and underwater systems," it said

Significance ofthe Manufacturing Facility

Gorgen Johansson, Senior Vice President and Head of Saab's business area dynamics, expressed pride in constructing Saab's first facility outside Sweden for the Carl-Gustaf M4. He stated in a PTI report, "We look forward to starting production of our excellent product, now engineered and made in India."

Bilateral Relationship Between Sweden and India

In a PTI report, Sweden's State Secretary for Foreign Trade, Hakan Jevrell, emphasized the significance of the manufacturing facility for the bilateral relationship between Sweden and India. Jevrell stated, "Saab's factory will be the first foreign fully-owned defence production facility in India. It is a testament to the strong bilateral relationship between our countries."

Support for Indian Armed Forces

The Carl-Gustaf system has been in service with the Indian Army since 1976 and has become a key shoulder-launched weapon in the country's armed forces. The facility in India will support the production of the weapon systems for the Indian armed forces, as well as components for users worldwide. However, exports will be subject to regulatory approvals from the Indian government.

Saab's Commitment to Technology Advancement

Saab's commitment to technology advancement and creating a safer world was highlighted in its statement. The company designs, manufactures, and maintains advanced systems in various sectors, including aeronautics, weapons, command and control, sensors, and underwater systems.

Boostto Business Destination at MET City

The construction of Saab's manufacturing plant at MET City is seen as a significant milestone for the business destination, attracting global companies from diverse sectors. With its plug-n-play infrastructure and IGBC Platinum-rated certification, MET City has already made a mark as a premier location for doing business.

The project has also provided employment opportunities to thousands of individuals. "We are thrilled to welcome Saabto Reliance MET City, marking a significant milestone in our journey of inviting key global companies to the MET city," said SV Goyal, CEO and Whole Time Director of MET City in PTI report. "Saab as India's first 100 per cent FDI approved defence manufacturer will not only strengthen our resolve for delivering best-in-class infrastructure but will also establish MET City as a preferred location for doing business for global companies," he said.

With its plug-n-play infrastructure, IGBC Platinum-rated certification and companies hailing from nine different countries, MET City has emerged as a premier business destination in India attracting companies from diverse sectors, he said.

"It is a pioneering project in sustainable development, with over Rs 8,000 crore investment already committed. Presently, MET city holds licenses for over 2200 acres, and the project has already provided employment to more than 40,000 individuals," Goyal said.

Saab's Confidence in India's Defence Sector

Saab's decision to invest in India and establish a manufacturing facility reflects the company's confidence in the country's defence sector and its commitment to the 'Make in India' initiative. With the production of the CarlGustaf M4 in India, Saab aims to strengthen the bilateral relationship between Sweden and India and contribute to the country's self-reliance in defence manufacturing.

https://economictimes.indiatimes.com/news/defence/swedish-defence-major-saab-starts-construction-of-new-carl-gustaf-factory-in-india/articleshow/108211041.cms

THE ECONOMIC TIMES

Tue, 05 Mar 2024

Exercise Dharma Guardian: Indian, Japanese troops Exhibit skills in Joint Training

Indian and Japanese troops showcasing their abilities on the obstacle course during Exercise Dharma Guardian 2024. The Indian Army's post on X on Monday highlighted the jointtraining effort between the two nations.

"Witness the seamless synergy between the troops of #IndianArmy & #JGSDF, training together for a mission! #IndiaJapanFriendship @ModJapan_en." Additionally, #DharmaGuardian_2024 emphasized the seamless cooperation between the Indian Army and the Japan Ground Self-Defense Force (JGSDF). The exercise aims to enhance interoperability and mutual understanding, reflecting the deepening defense ties between India and Japan.

Amid the ongoing 5th edition of the India-Japan joint exercise 'DHARMA GUARDIAN' being held in Rajasthan, the Commanding General, Eastern Army, Japan Ground Self Defence Force, Lieutenant General Togashi Yuichi paid a visit to the exercise site to take stock of the progress made on Sunday.

He also rendered words of encouragement to both Japanese and Indian contingents, strengthening the camaraderie between the Armies and enhancing the collaborative efforts between the two Nations.

On Sunday, marking the 8th day of the joint exercise, both armies participated together and demonstrated how they work together and bring down the target. Personnel also performed a mock drill to capture the militants hiding in a house and used specially trained animals (dogs and eagles) for the task.

The joint exercise signifies the deepening of military cooperation between India and Japan and underscores their commitment to enhancing interoperability and mutual understanding. The training activities aimed to strengthen the capabilities of both armies in counter-terrorism and disaster response scenarios.

Exercise Dharma Guardian serves as a platform for the exchange of best practices and the cultivation of trust and camaraderie between the Indian and Japanese armed forces. Through collaborative training initiatives, both nations aim to bolster regional stability and contribute to peace and security in the Indo-Pacific region.

https://economictimes.indiatimes.com/news/defence/exercise-dharma-guardian-indian-japanese-troops-exhibit-skills-in-joint-training/articleshow/108208233.cms

THE ECONOMIC TIMES

Mon, 04 Mar 2024

First edition of Naval Commanders' Conference to commence on March 5

The first edition of the Naval Commanders' Conference of 2024 is scheduled to commence on March 5. According to the Indian Navy, the first phase will be held in a hybrid format where the first phase will be held at sea with the Defence Minister embarking at sea to witness both aircraft carriers demonstrating the Indian Navy's ability to conduct 'twin carrier operations'. During the three-day event, the defence minister will address the Naval Commanders.

The Chief of Defence Staff, along with Chiefs of the Indian Army and Indian Air Force, will also engage with the Naval Commanders during the conference to discuss the convergence of the three Services in light of the common national security environment.

They will explore avenues to enhance tri-service synergy and readiness in defence of the nation and India's national interests. Meanwhile, The Indian Navy is all set to commission the naval detachment in Minicoy as INS Jatayu in the presence of Admiral R Hari Kumar, Chief of the Naval Staff, on March 6.

The event marks an important milestone in the Navy's resolve to incrementally augment security infrastructure at the strategically important Lakshadweep Islands. Naval Detachment Minicoy was set up in the early 1980s under the operational command of the Naval Officer-in-Charge (Lakshadweep). Minicoy is the southernmost island of Lakshadweep, which straddles the vital Sea Lines of Communication (SLOCs).

The establishment of an independent naval unit with the requisite infrastructure and resources will enhance the overall operational capability of the Indian Navy in the islands. The base will enhance operational reach and facilitate the Indian Navy's operational effort towards anti-piracy and anti-narcotics operations in the Western Arabian Sea.

It will also augment the Indian Navy's capability as the first responder in the region and augment connectivity with the mainland.

The establishment of a naval base is in line with the Government of India's focus on the comprehensive development of islands. INS Jatayu is the second naval base in Lakshadweep after INS Dweeprakshak in Kavaratti.

https://economictimes.indiatimes.com/news/defence/first-edition-of-naval-commanders-conference-to-commence-on-march-5/articleshow/108208011.cms

THE ECONOMIC TIMES

Tue, 05 Mar 2024

China Raises Defence Budget 7.2% as it Pushes for Global Heft and Regional Tensions Continue

Beijing: China on Tuesday announced a 7.2% increase in its defence budget, which is already the world's secondhighest behind the United States at 1.6 trillion yuan (USD 222 billion), roughly mirroring the rise of the last year.

Tensions with the U.S., Taiwan, Japan and neighbours who share claims to the crucial South China Sea are seen as furthering growth in increasingly high-tech military technologies from stealth fighters to aircraft carriers and a growing arsenal of nuclear weapons.

The official budget figure announced Tuesday at the opening session of the rubber-stamp legislature's annual meeting is considered by many foreign experts to be only a fraction of spending by the People's Liberation Army, the military wing of the ruling Communist Party, once spending on research and development and foreign weapons purchases are considered.

https://economictimes.indiatimes.com/news/defence/china-raises-defence-budget-7-2-as-it-pushes-for-global-heft-and-regional-tensions-continue/articleshow/108219840.cms

Science & Technology News

Press Information Bureau
Government of India

Ministry of Science & Technology

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Union Minister Dr. Jitendra Singh lays foundation stone of the first-ever "Science Experience Centre" and an exclusive "Biofuel Centre" in the premises of CSIR-Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad

The Union Minister of State (Independent Charge) Science & Technology, MoS PMO, Personnel, Public grievances, Atomic Energy and Space, Dr. Jitendra Singh today said that the first-ever "Sci-

ence Experience Centre" would contribute to realizing Prime Minister Narendra Modi's vision of Viksit Bharat and dedicated it to young minds and potential Startups.

He was addressing the gathering after laying foundation stone of the first-ever "Science Experience Centre" and an exclusive "Biofuel Centre" in the premises of CSIR-Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad, along with Shri G. Kishan Reddy, Union Minister of Tourism, Culture and Development of North Eastern Region (DoNER).

The Science Experience Centre has been set up by the Council of Scientific & Industrial Research (CSIR), India, a premier national R&D organisation that is among the world's largest publicly funded R&D organisation, and the National Council of Science Museums (NCSM), an autonomous society under the Ministry of Culture, Government of India.

The Science Experience Centre is primarily engaged in spreading the culture of science in the society, especially among students, with a motto of 'Communicating Science to Empower People' by developing Exhibits/Exhibition/Galleries etc. and also organizing Interactive Science Education programs.

Dr. Jitendra Singh said that the Science Experience Centre will definitely inspire the young minds of our nation and encourage them to come up with innovative ideas for Startups. He further said that our culture will not move forward without science and science will not be fully accomplished without culture.

CSIR and NSCM, with their proven expertise in their respective areas and having overlapping objectives to promote science as a culture, and joining hands to set up the Science Experience Center at CSIR-IICT's premises in Hyderabad, is an immense need of the country, he said.

The Minister, who is also the Vice President of CSIR, said that the CSIR, the largest scientific R&D organization with about 8,000 S&T staff, is an innovative engine of the country.

Dr Jitendra Singh said that the CSIR addresses national needs through its innovative research, strong fundamental science, industry partnerships, entrepreneurship, translation research, capacity building, and policy making.

He further said that some of the significant contributions of CSIR in the past decade include the development of an indigenous two-seater Hansa-NG aircraft for pilot training, Bio-jet fuel for sustainable aviation, developing India’s own footwear sizing system, earthquake resistant structures for seismic zone IV and V and India’s first fuel cell driven automotive.

Besides pioneering work in these areas, CSIR today has established many societal benefit programs that target marginalized communities including women, such as the Aroma Mission, sea weed cultivation, first ever demonstration of Heeng cultivation and the Purple Revolution in Jammu and Kashmir, he added.

Dr. Jitendra Singh said that the Government has been taking all the initiatives for the development of a scientific temperament and culture in the country. Events like the pandemic have only stressed the need to be equipped with science and technology and create awareness of society for science and scientific thinking, he said. In this regard CSIR played a crucial role in fighting against Covid, particularly CSIR-IICT's role in developing adjuvant for Covid vaccine is highly appreciated. India is promoting experience-based learning and CSIR is one of the forerunners, he added.

Stating that the Hyderabad Pharma City (HPC), under making, is the world's largest integrated cluster in Hyderabad, Dr. Jitendra Singh said that for pharmaceutical industries with thrust on R&D and manufacturing, this cluster has been recognized as National Investment and Manufacturing Zone (NIMZ) by Government of India, given its national and international importance. Developed at international standards, Hyderabad Pharma City will harness the true value of symbiotic co-existence across pharmaceutical value chain, he added.

Dr. Jitendra Singh said that the agrochemical industry widely acknowledges the fact that it is the technologies developed by CSIR-IICT that heralded development of the agrochemical industry in India. CSIR-IICT demonstrated that the Pheromone Application Technology (PAT) can be used as both monitoring and surveillance tool in Integrated Pest Management (IPM).

The Union S&T Minister said that the CSIR envisages a vision of CSIR@2030 as to "Enhance quality of life of the citizens of India through innovative Science and Technology, globally competitive R&D, by developing sustainable solutions and capacity building to fulfil the dream of "Atmanirbhar Bharat". This vision of CSIR is aligned with the Government of India's vision for the next 25 years 'Amrit Kal' by when Bharat celebrates its hundredth year of Independence in 2047, he said.

In this endeavour, said Dr Jitendra Singh, the creation of Science Centers and Science Cities in the country will also form the basis in nurturing future scientists of the country.

https://pib.gov.in/PressReleasePage.aspx?PRID=2011359

Hindustan Times

Tue, 05 Mar 2024

ISRO identifies 48 backup points for safe return of Gaganyaan astronauts

The Indian Space Research Organisation (Isro) has identified 48 backup points across the world where the Gaganyaan crew could splash down to ensure a safe recovery and rescue of the astronauts during the return mission, senior officials said.

In an ideal situation, the Gaganyaan module is marked to land in Arabian Sea where Indian agencies will be station to rescue the crew and the module, the officials said. However, in case of a deviation in the main plan, the space agency has identified 48 back up sites in international waters, they said.

"In any mission, there is an ideal scenario and there are back-up plans in case that is not achieved. For Gaganyaan mission, if everything goes by the book, we will be able to land the module in the Indian waters," a senior Isro official associated with the mission said.

"But since this is a human spaceflight, we cannot take any chance to ensure the safety of the crew and therefore we have marked possible points where the capsule could land. Even a minor variation

in the mission can lead to the capsule landing hundreds of kilometres away," the official said requesting anonymity.

The Gaganyaan mission, India's first human spaceflight project, aims to demonstrate Isro's human spaceflight capability by launching a crew of three members to an orbit of 400km for a three-day mission and bringing them back safely.

The official also said that the space agency had initially finalised two landing spots in Indian waters, one in the Arabian sea and the other in the Bay of Bengal. However, considering the rough waters and the unpredictability of the Bay of Bengal, the landing site in the Arabian Sea was finalised.

"The progress for Gaganyaan mission is moving at a satisfactory pace. We are confident that we will be able to conduct at least one uncrewed mission this year before the final mission is undertaken," the official added.

Leading up to the actual manned mission, the space agency will be conducting several rounds of tests to ensure the systems are safe to carry and bring back astronauts safely to Earth.

Last week, Prime Minister Narendra Modi introduced the four astronauts designated selected by the Indian Air Force for the mission.

Indian Airforce group captain Prashant Balakrishnan Nair, group captain Ajit Krishnan, group captain Angad Pratap and wing commander Subhanshu Shukla have been training for the Gaganyaan mission for the last five years in Russian and Indian facilities.

Out of the four astronaut designates, three will be selected to fly in the final mission, which is expected to take flight by 2025.

https://www.hindustantimes.com/india-news/isro-identifies-48-backup-points-forsafe-return-of-gaganyaan-astronauts-101709579928247.html

Hindustan Times

Mon, 04 Mar 2024

IIT-Mandi developing Indigenous Quantum Computer, will use Photons for Faster Calculations

The Indian Institute of Technology, Mandi, is developing a first-of-its-kind indigenous room-temperature quantum computer that will use photons for faster calculations, according to officials.

The computer, being developed as part of the National Quantum Mission, will be unique in its ability to analyse data and suggest solutions with 86 per cent accuracy without traditional algorithms, they said.

Quantum computing is a rapidly emerging technology that harnesses the laws of quantum mechanics to solve problems too complex for classical computers.

"We are constructing a room-temperature optical Quantum computer capable of solving feature learning and classification problems instantly. "With a sophisticated user interface, quantum simulator and quantum processing capabilities in place, our computer will operate as a graphics processor (GPU) instead of CPU, seamlessly processing inputs such as videos or photographs," said C S Yadav, the chairperson of the Center for Quantum Science and Technologies (CQST) at IIT-Mandi.

It will extract a model to explain inherent dynamics hidden in the input data and deliver output as quantum live feed, he said. "Composing a quantum algorithm is tedious. Yet our computer will mirror the inquisitive mind of a scientist, swiftly suggesting an approximate theoretical model for unknown big data with an 86 per cent accuracy, all without relying on algorithms," Yadav told PTI.

According to Yadav, there is a lot of buzz about quantum computing and companies like Google and IBM have made their own quantum computers.

"So let's say that those companies are making a quantum computer which is based on a superconducting Josephson junction qubit. To do that quantum computing you will require a very very low temperature. So, our objective is to make a photon-based quantum computer at room temperature," he said.

Josephson junction is a device that provides the non-linearity needed to turn a superconducting circuit into a qubit. Yadav explained that the room-temperature optical quantum computer will use light for doing fast calculations. Using quantum bits (qubits), the computer will exist in multiple states simultaneously, allowing incredibly fast processing. The system will be able to update itself and erase its memory using a special gel.

"We are focusing on scaling up the quantum computing system from handling 16 tasks to 1,024 tasks simultaneously. To achieve this, the team is developing three crucial components: a single photon source, a phase-sensitive single-photon avalanche diode and a multipurpose coincidence counter. These components are vital for building quantum computers and will be developed up to a high level of reliability and effectiveness," he said.

According to IIT-Mandi Director Laxmidhar Behera, CQST is making significant strides in quantum computing technology and is poised to revolutionise various sectors.

"Through the National Quantum Mission, we are advancing the field with groundbreaking innovations aimed at enhancing feature learning and classification capabilities across genetics, astrophysics, finance, and weather forecasting. Strategically selecting the three immediate products, we are poised to develop each component vital for building quantum computers," he said.

"Through collaboration with startups and by establishing a robust supply chain, we aim to commercialise these components locally, reducing import dependency and saving significant costs for the government. This approach not only fosters indigenous innovation but also facilitates broader participation in the Quantum revolution, aligning with the aspirations of the National Quantum Mission," Behera added.

https://www.hindustantimes.com/science/iitmandi-developing-indigenous-quantum-computer-will-use-photons-for-faster-calculations-101709548457375.html