फरवरी
Feb
2024

खंड/Vol. : 49 अंक/Issue : 26
06/02/2024

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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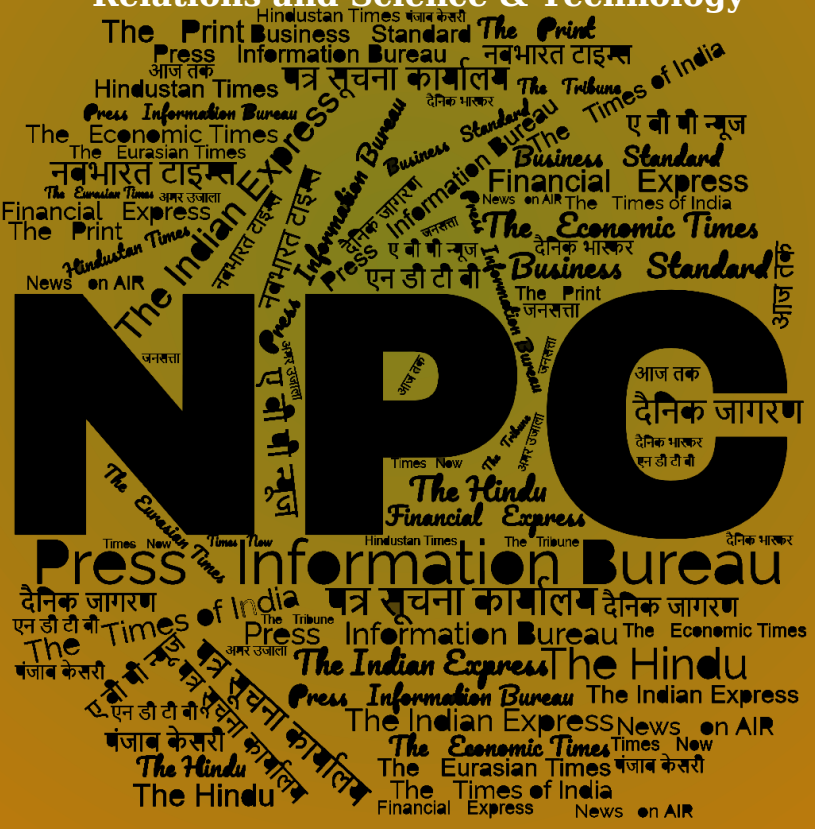

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Press Information Bureau
Government of India

Ministry of Defence

Mon, 05 Feb 2024

DRDO Carries out Successful Flight Trials of High-speed Expendable Aerial Target 'ABHYAS' from Integrated Test Range, Chandipur

Four flight trials of High-speed Expendable Aerial Target (HEAT) - ABHYAS were successfully carried out by Defence Research & Development Organisation (DRDO) from the Integrated Test Range, Chandipur in Odisha during January 30 to February 02, 2024. The trials were conducted with four different mission objectives in a revised robust configuration using a single booster designed by Advanced Systems Laboratory, Hyderabad to provide reduced launch acceleration.

The objectives like safe release of booster, launcher clearance and attaining the required end of launch velocity were achieved. During the flight trials, various parameters like required endurance, speed, manoeuvrability, altitude and range were successfully validated.

Designed by DRDO's Aeronautical Development Establishment (ADE), ABHYAS offers a realistic threat scenario for practice of weapon systems. It is designed for autonomous flying with the help of an auto pilot indigenously made by the ADE. It has Radar Cross Section, Visual and Infrared augmentation system required for weapon practice. It has a laptop-based Ground Control System with which the aircraft can be integrated and pre-flight checks, data recording during the flight, replay after the flight and post-flight analysis can be carried out. ABHYAS requires minimum logistics and is cost effective compared to imported equivalents.

The systems tested recently were realised through Production Agencies – Hindustan Aeronautics Limited (HAL) and Larsen & Toubro (L&T) Defence. With identified production agencies, ABHYAS is ready for production. The system has export potential and can be offered to friendly countries.

Raksha Mantri Shri Rajnath Singh has congratulated the DRDO, the Armed Forces and the Industry for the successful flight trial of ABHYAS. The development of this system will meet the requirements of aerial targets for the Armed Forces, he said.

Secretary, Department of Defence R&D and Chairman DRDO Dr Samir V Kamat appreciated the efforts of the teams associated in the design, development and testing of the system.

https://pib.gov.in/PressReleasePage.aspx?PRID=2002709

अमर उजाला

Mon, 05 Feb 2024

ABHYAS: 'अभ्यास' के चार उड़ान परीक्षण सफल, मिसाइल प्रणालियों के परीक्षण के लिए डीआरडीओ ने किया है विकसित

भारत ने ओडिशा तट के पास चांदीपुर स्थित एकीकृत परीक्षण स्थल (आईटीआर) से स्वदेश विकसित उच्च गति के साथ विस्तारित लक्ष्य वाले अभ्यास यान के चार उड़ान परीक्षण सफलतापूर्व पूरे किए। अभ्यास को रक्षा अनुसंधान और विकास संगठन (डीआरडीओ) ने मिसाइल प्रणालियों के परीक्षण के लक्ष्य के रूप में विकसित किया गया है।

> #WATCH | Four flight trials of High-Speed Expendable Aerial Target-ABHYAS with different mission objectives in a revised robust configuration using single booster was successfully conducted from ITR, Chandipur from 30th Jan to 2nd Feb 2024.
>
> (Video: DRDO) pic.twitter.com/XbyGDjAnVI
>
> — ANI (@ANI) February 5, 2024

रक्षा मंत्रालय के प्रवक्ता ने सोमवार को कहा कि डीआरडीओ ने 30 जनवरी से 2 फरवरी के दौरान आईटीआर से हाई-स्पीड एक्सपेंडेबल एरियल टारगेट (एचईएटी) यानी अभ्यास को विभिन्न कसौटियों पर परखा। मंत्रालय ने कहा कि परीक्षण को चार अलग-अलग मिशन उद्देश्यों के साथ संपन्न किया। इन उद्देश्यों में यान को सुरक्षित ढंग से छोड़ना, समग्रता के साथ लांच करना और इसके वेग को परखना शामिल है। उड़ान परीक्षणों के दौरान आवश्यक सहनशक्ति, गति, गतिशीलता, ऊंचाई और सीमा जैसे विभिन्न मापदंडों पर परखते हुए अभ्यास को मान्यता दी गई। डीआरडीओ के वैमानिकी विकास प्रतिष्ठान (एडीई) से डिजाइन अभ्यास हथियार प्रणालियों के परीक्षण के लिए एक वास्तविक खतरे का परिदृश्य तैयार करता है। यान को ऑटो पायलट की मदद से उड़ाने के लिए डिजाइन किया गया है।

उत्पादन-निर्यात के लिए तैयार

अभ्यास के लिए न्यूनतम साजोसामान की आवश्यकता पड़ती है। आयात किए गए अपने समकक्षों की तुलना में अभ्यास की लागत काफी कम है। अभ्यास उत्पादन के लिए तैयार है। रक्षा सूत्रों के मुताबिक, इस टारगेट यान में निर्यात की बड़ी संभावना है। इसे खासकर मित्र देशों को निर्यात किया जा सकता है। अभ्यास 180 मीटर प्रति सेकंड की गति उड़ान भरता है। मतलब एक सेकंड में इतनी दूरी तय कर लेता है। यह अधिकतम 5 किमी की ऊंचाई हासिल कर लेता है।

https://www.amarujala.com/india-news/four-flight-trials-of-abhyas-conducted-successfully-by-drdo-2024-02-05

INDIA TODAY

Mon, 05 Feb 2024

India Holds Successful Mock Drills of High-speed Expendable Aerial Target ABHYAS

Four flight trials of the High-speed Expendable Aerial Target (HEAT) 'ABHYAS' were successfully conducted by the Defence Research and Development Organisation (DRDO) from the Integrated Test Range in Odisha's Chandipur.

Throughout the flight trials, various parameters such as required endurance, speed, manoeuvrability, altitude, and range were successfully validated. The trials were conducted between January 30 and February 2.

'ABHYAS' requires minimal logistics and is cost-effective compared to imported equivalents.

The flights have been designed by DRDO's Aeronautical Development Establishment (ADE) which offers a realistic threat scenario for the practice of weapon systems. It is engineered for autonomous flying with the assistance of an autopilot developed indigenously by the ADE.

The trials were carried out with four different mission objectives, utilising a single booster designed by the Advanced Systems Laboratory, Hyderabad, to provide reduced launch acceleration.

The objectives, such as the safe release of the booster, launcher clearance, and attaining the required end-of-launch velocity, were achieved. Throughout the flight trials, various parameters such as required endurance, speed, manoeuvrability, altitude, and range were successfully validated.

Equipped with a radar cross-section and visual and Infrared augmentation system necessary for weapon practice, it also features a laptop-based Ground Control System that enables aircraft integration, pre-flight checks, data recording during the flight, replay after the flight, and post-flight analysis.

The systems recently tested were also realised through manufacturing units of Hindustan Aeronautics Limited (HAL) and Larsen & Toubro (L&T) Defence.

'ABHYAS' is ready for production and holds export potential for friendly countries.

https://www.indiatoday.in/india/story/india-drdo-holds-mock-drills-of-high-speed-expendable-aerial-target-abhyas-2497999-2024-02-05

Defence News

Defence Strategic: National/International

THE HINDU

Tue, 06 Feb 2024

Lt. Gen. Dwivedi to Take over as Vice-Chief of Army on February 15

Northern Army Commander Lieutenant General Upendra Dwivedi will take over as the Vice-Chief of Army Staff (VCOAS) on February 15. Current Army Chief General Manoj Pande is set to retire from service on May 31 when Lt. Gen. Dwivedi will be the senior most officer in service and in line to become the next Chief based on seniority.

The current VCAS Lt. Gen. M. V. Suchindra Kumar will replace him as the General Officer Commanding-in-Chief (GOC-in-C) in Udhampur, officials confirmed.

All three service Chiefs will retire this year which will see a change of guard at the top. The first to retire would be Navy Chief Admiral R. Hari Kumar on April 30, followed by the Army Chief on May 31 and the Air Chief later.

https://www.thehindu.com/news/national/lt-gen-dwivedi-to-take-over-as-vice-chief-of-army-on-february-15/article67814233.ece

United News of India
India's Multi Lingual News Agency

Mon, 05 Feb 2024

Lt Gen Suchindra Kumar to Take over as New Northern Command Army Commander

Jammu, Feb 5 (UNI) The Vice Chief of Army Staff Lieutenant General M V Suchindra Kumar has been appointed as the new Northern Army Commander. He is succeeding Lieutenant General Upendra Dwivedi, who is moving to Army Headquarters as VCOAS.

Prior to appointment of strategic command, the General Officer served as Vice Chief of the Army Staff, Kumar and Deputy Chief of Army Staff (Strategy) at Army Headquarters.

He has experience in intelligence, operations, force structuring, operational logistics and tech infusion in his recent appointments.

“An alumnus of Sainik School Bijapur and National Defence Academy, the General Officer was commissioned into 1 Assam Regiment in June 1985. He has commanded 59 Rashtriya Rifles Battalion (ASSAM), an Infantry Brigade and an Infantry Division on the Line of Control and the highly active White Knight Corps in Northern Command,” said officials sources.

http://www.uniindia.com/news/north/defence-jk-army-commander/3137990.html

DECCAN HERALD

Mon, 05 Feb 2024

India’s First High Hypersonic Test Facility at IIT Kanpur to Aid Space and Defence Research

In what may aid in developing futuristic cruise missiles or space probes like the Gaganyaan, the Indian Institute of Technology, Kanpur has come out with a testing platform for aerodynamic studies of space capsules and cruise missiles zipping through the Earth's atmosphere at hypersonic speeds of up to 10 km per second.

The existing facilities at the Indian Institute of Science, Bengaluru and Vikram Sarabhai Space Centre, Thiruvananthapuram have a limitation – they can test only up to 4 km per second.

“Our facility can evaluate systems flying at a speed of 3-10 km per second, for which currently there is no test platform in India,” team leader Mohammed Ibrahim Sugarno, associate professor at the department of aerospace engineering at IIT Kanpur told DH.

The three-year-long development to create India’s first hyper-velocity expansion tunnel test facility was funded by the Department of Science and Technology and Aeronautical Research and Development Board under the Defence Research and Development Organisation presumably keeping upcoming space and defence projects in mind.

For instance at its reentry in the earth’s atmosphere, the Gaganyaan will have a velocity of around 7 kmps. The Indian Space Research Organisation currently depends on other agencies to gather the aerodynamic data for such hypersonic velocities. This can now be done at IIT Kanpur.

The 24-m long tunnel will for the first time enable simulations of hypersonic conditions that India’s Gaganyaan space capsule and cruise missiles will encounter during flights. “We have a sub-scale model of Gaganyaan fitted with sensors to collect aerodynamic flight data in such conditions,” Sugarno said.

Other future projects that may be benefited include the ambitious reusable launch vehicle programme and the India-Russia collaboration on developing a long-range version of Brahmos cruise missile.

"The successful establishment of India's first hypervelocity expansion tunnel test facility, marks a historic milestone for IIT Kanpur and for India's scientific capabilities. It will empower India's space and defence organisations with domestic hypersonic testing capabilities for critical projects and missions," said S Ganesh, director of IIT Kanpur.

Other IIT scientists also described it as a major boost for India's space and defence sectors. "With sophisticated hypervelocity testing capabilities now available domestically, India is better positioned to develop advanced hypersonic technologies and systems," the institute said in a press statement.

https://www.deccanherald.com/science/indias-first-high-hypersonic-test-facility-at-iit-kanpur-to-aid-space-and-defence-research-2881015

THE TIMES OF INDIA

Mon, 05 Feb 2024

IIT-Kanpur Develops India's First Hypervelocity Facility: What is it and its Use Cases

The Indian Institute of Technology Kanpur (IIT-K) has established and tested India's first Hypervelocity Expansion Tunnel Test Facility, putting the country in the elite group of nations that have this advanced hypersonic testing capability.

The facility is named S2 and is said to be capable of generating flight speeds between 3-10 kms – essentially simulating the hypersonic conditions encountered during atmospheric entry of vehicles, asteroid entry, scramjet flights, and ballistic missiles.

Why this is important

This test facility, nicknamed 'Jigarthanda', will be a valuable asset for ongoing missions of the Indian Space Research Organisation (ISRO) and Defence Research & Development Organisation (DRDO) including Gaganyaan, RLV and hypersonic cruise missiles.

“The successful establishment of S2, India's first hypervelocity expansion tunnel test facility, marks a historic milestone for IIT-Kanpur and for India's scientific capabilities. S2 will empower India's

space and Defence organisations with domestic hypersonic testing capabilities for critical projects and missions," said Professor S Ganesh, Director, IIT-Kanpur.

The S2 is a 24-metre-long facility located at IIT-Kanpur's Hypersonic Experimental Aerodynamics Laboratory (HEAL) within the Department of Aerospace Engineering. The S2 was designed and developed over a period of three years and got funding from the Aeronautical Research and Development Board (ARDB), the Department of Science and Technology (DST), and IIT-Kanpur.

"Building S2 has been extremely challenging, requiring in-depth knowledge of physics and precision engineering. The most crucial and challenging aspect was perfecting the 'free piston driver' system, which requires firing a piston at high pressure between 20-35 atmospheres down a 6.5 m. compression tube at speeds of 150-200 m/s, and bringing it to a complete stop or 'soft landing' at the end," added Professor Mohammed Ibrahim Sugarno, associate professor, Department of Aerospace Engineering and Centre for Lasers & Photonics at IIT-Kanpur.

https://timesofindia.indiatimes.com/gadgets-news/iitkanpur-develops-indias-first-hypervelocity-facility-what-is-it-and-its-use-cases/articleshow/107433681.cms

Tue, 06 Feb 2024

आ रहा चीन-पाक का काल! अब 12 'आंख' आसमान से करेंगे सरहदों की निगहबानी, भारत ने उठाया यह बड़ा कदम

पाकिस्तान और चीनी सरहदों पर अपनी निगहबानी मजबूत करने के लिए भारत ने एक कदम और बढ़ा दिया है. जल्द ही भारत के 12 और 'आंख' आसमान में दुश्मनों के विमानों पर नजर रखेंगे. दरअसल, भारत अब उन्नत स्वदेशी एयरबोर्न अर्ली वार्निंग एंड कंट्रोल एयरक्राफ्ट (स्वदेशी हवाई पूर्व चेतावनी एवं नियंत्रण प्रणाली) को विकसित करने और भारतीय वायुसेना में शामिल करने के लिए अब तेजी से कदम उठा रहा है, जो चीन और पाकिस्तान सीमाओं पर सर्विलांस और डिटेक्शन की क्षमताओं को बढ़ावा देगा और साथ ही दुश्मन जेट के साथ हवाई युद्ध के दौरान सीधे लड़ाकू विमानों की मदद करेगा. 12 और टोही विमानों के लिए भारत तेजी से काम कर रहा है.

दरअसल, इंडियन एयरफोर्स और डीआरडीओ मिलकर सक्रिय रूप से नेत्र विमान के छह मार्क-1 ए के साथ-साथ छह मार्क-2 संस्करण विकसित करने के कार्यक्रम को आगे बढ़ा रहा है, जिनमें से तीन नेत्र विमान पहले बनाए गए थे और फरवरी 2017 से शामिल किए गए थे. बता दें कि डीआरडीओ नेत्रा एक भारतीय, हल्के वजन, निगरानी और टोही अभियानों के लिए स्वायत्त मानव रहित हवाई वाहन है. यह संयुक्त रूप से रक्षा अनुसंधान एवं विकास संगठन के अनुसंधान द्वारा विकसित किया गया है.

टीओआई ने सूत्रों के हवाले से कहा कि रक्षा मंत्रालय अगले सप्ताह 6 मार्क-1 ए विमानों के लिए आवश्यकता की स्वीकृति (एओएन यानी एक्सेप्टेंस ऑफ नेसेसिटी) लेगा, जिसमें ब्राजीलियाई एम्ब्रेयर जेट पर सक्रिय इलेक्ट्रॉनिक रूप से स्कैन किए गए ऐरे एंटीना-आधारित रडार, इलेक्ट्रॉनिक और सिग्नल इंटेलिजेंस सिस्टम को 9 हजार करोड़ रुपए लागत से स्थापित किया जाएगा. बताया जा रहा है कि ये 6 मार्क-1 ए एयरक्राफ्ट पहले तीन एम्ब्रेयर 145 जेट बेस्ड नेत्रा टोही विमान की तरह होंगे, जिनमें 240 डिग्री रडार कवरेज है. लेकिन इसमें रडार के लिए बेहतर सॉफ्टवेयर और नए गैलियम नाइट्राइड-आधारित TR (ट्रांसमिट/रिसीव) मॉड्यूल जैसी अधिक उन्नत ट्रेक्नोलॉजी होगी.

कब तक तैयार हो जाएंगे ये विमान

रिपोर्ट के मुताबिक, एयर इंडिया से खरीदे गए सेकेंड-हैंड एयरबस-321 विमानों पर लगाए जाने वाले AEW&C यानी एयरबॉर्न अर्ली वॉर्निंग एंड कंट्रोल रडार और सेंसर के बड़े और अधिक सक्षम संस्करणों के साथ 6 मार्क-2 विमानों

का विकास कार्य पहले से ही 10990 करोड़ रुपये की लागत से उन्नत चरण में है. माना जा रहा है कि पहले एयरबॉर्न अर्ली वॉर्निंग एंड कंट्रोल मार्क-2 विमान में 300 डिग्री तक रडार कवरेज होगा और उम्मीद की जा रही है कि 2026-27 तक इसकी डिलीवरी हो जाएगी. साथ ही मार्क-2 विमान की टेक्नोलॉजी का इस्तेमाल मार्क-1 ए वाले विमानों में भी होंगी. इस तरह से कुछ सालों में दुश्मनों पर नजर रखने के लिए भारत के पास 12 और आंखें हो जाएंगी.

कहां खड़ा है भारत?

दरअसल, ये दोनों परियोजनाएं भारत के लिए काफी महत्वपूर्ण हैं, क्योंकि AEW&C यानी एयरबॉर्न अर्ली वॉर्निंग एंड कंट्रोल और AWACS यानी एयरबॉर्न वॉर्निंग एंड कंट्रोल सिस्टम क्षेत्र में भारत पाकिस्तान और चीन से काफी पीछे है. तीन नेत्र टोही विमान के अलावा, भारतीय वायुसेना के पास केवल तीन इजरायली फाल्कन एयर वॉर्निंग एंड कंट्रोल सिस्टम हैं, जो रूसी आईएल-76 विमान पर लगे हुए हैं. यह 400 किमी रेंज के साथ 360 डिग्री रडार कवरेज देता है, जिसे साल 2009-11 में करीब 1.1 बिलियन डॉलर के सौदे के साथ शामिल किया गया था.

पाक-चीन के पास कितने विमान?

यहां गौर करने वाली बात है कि पाकिस्तान के पास इस तरह के 12 विमान हैं. रिपोर्ट के मुताबिक, पाकिस्तान के पास 11 स्वीडिश Saab-2000 Eriye AEW&C और चीनी काराकोरम ईगल ZDK-03 AWACS विमान हैं. जबकि चीन के पास लगभग 30 AEW&C विमान हैं, जिनमें कोंग जिंग-2000 'मेनरिंग', KJ-200 'मोथ' और KJ-500 विमान शामिल हैं.

कब हुई जरूरत महसूस

साल 2019 में जब भारतीय वायुसेना ने पाकिस्तान के बालाकोट में एयरस्ट्राइक की थी, तभी पाकिस्तानी वायुसेना के साथ लड़ाकू विमानों के साथ झड़प के दौरान एयरबॉर्न अर्ली वॉर्निंग एंड कंट्रोल विमानों की जरूरत महसूस हुई थी. पाकिस्तानी वायुसेना को उस वक्त Saab-2000 Eriye AEW&C से काफी मदद मिली थी. इसके बाद पूर्वी लद्दाख में चीन के साथ चल रहे टकराव ने इस तरह के टोही विमानों की आवश्यकता को और बढ़ा दिया.

क्या है नेत्रा और क्यों है यह खास

दरअसल, नेत्रा-1 विमान को आसमान में भारत का आंख भी कहा जाता है. नेत्रा एक तरह से टोही विमान है, जिसका काम आसमान में मौजूद दुश्मनों के विमानों और अन्य उड़ने वाली वस्तुओं का पता लगाना है. नेत्रा यह जानकारी अपने साथ उड़ रहे लड़ाकू विमानों को देता है, जिससे वे संभावित खतरे से निपट सकें. यह एक तरह से हवाई कमांड एंड कंट्रोल सेंटर के रूप में काम करता है. दरअसल, नेत्रा स्वदेशी एयरबॉर्न अर्ली वॉर्निंग एंड कंट्रोल यानी AEW&C विमान है, जिसे इसे DRDO ने विकसित किया है और यह ब्राजील से लिए गए एम्ब्रेयर एयरक्राफ्ट पर आधारित है.

https://hindi.news18.com/news/nation/india-guns-for-12-more-eyes-in-sky-awacs-netra-drdo-airborne-early-warning-and-control-aircraft-to-counter-china-pak-8045743.html

Hindustan Times

Tue, 06 Feb 2024

Indian Women Officers to Take Part in Saudi Defence Show

Projecting Nari Shakti (woman power) beyond the country's shores, India has sent a three-member delegation of women officers holding front line roles in the armed forces to take part in the World Defense Show 2024 being hosted by Saudi Arabia in Riyadh to showcase the future of defence through technological developments from around the globe, officials aware of the matter said on Monday.

The Indian women officers participating in the show, being held from February 4 to 8, represent the three services -- one is a fighter pilot, another a combat engineer and the third serving on board a warship, the officials said, asking not to be named.

They are Indian Air Force's Squadron Leader Bhawana Kanth, Indian Army's Colonel Ponung Doming and Indian Navy's Lieutenant Commander Annu Prakash, HT has learnt.

The show provides a unique platform for the world's defence industry to network, partner, share knowledge and discover new innovations and capabilities across all defence domains, the organisers say. It is being attended by top military leaders, government officials and defence industry captains.

Kanth, who currently flies a Sukhoi-30 fighter jet, was among the first three women to be commissioned into the IAF as a fighter pilot in 2016.

Doming's unit is constructing a high-altitude road in Ladakh's Demchok sector to provide connectivity to one of the military's farthest outposts in the sensitive sector, Fukche, which is just 3 km from the Line of Actual Control. Her unit is also spearheading a key project to upgrade an advanced landing ground near LAC in eastern Ladakh to a full-fledged base for fighter operations. Prakash, a naval air operations observer, is one for the first women officers in the navy to be serving on board a front line destroyer, INS Kochi.

Kanth will on February 7 take part in a panel discussion on 'Investing in an Inclusive Future' that will focus on gender diversity and representation of women at all levels across the defence domain. The other speakers in Kanth's panel include Major General Adel Al-Balawi, head of the armed forces, education and training authority at the Saudi ministry of defence and Air Marshal ME Sampson of the UK Royal Air Force. Reema Bandar Al Saud, Saudi Arabia's ambassador to the US, will spearhead the 'International Women in Defense' programme at the show.

The world is watching how India's women are projecting Nari Shakti and proving their mettle in every field, Prime Minister Narendra Modi said at the National Cadet Corps rally on January 27, a day after women stole the limelight at the 75th Republic Day parade.

An all-women tri-service contingent consisting of Agniveers (recruited for the short term in the personnel below officer rank cadre under the Agnipath scheme), led by women officers, took part in the parade for the first time. Also, 15 women pilots, including six fighter pilots, were a part of the spectacular fly past. They flew Rafales, Sukhoi-30s and helicopters.

Women in uniform are no longer on the fringes but are being assigned central roles on par with their male colleagues. They are flying fighter planes, serving on board warships, performing command roles, being inducted in PBOR cadre, eligible for permanent commission, and undergoing training at the National Defence Academy.

Women were in the driver's seat at the Republic Day parade and 80% of all activities involved them, including the heralding of the parade by 112 women artistes playing a variety of Indian musical instruments from across the country and the Vande Bharatam cultural extravaganza involving 1,500 women. The national flag was also unfurled on the arrival of President Droupadi Murmu by a woman officer, amid the roar of a 21-gun salute.

https://www.hindustantimes.com/india-news/indian-women-officers-to-take-part-in-saudi-defence-show-101707159815455.html

THE HINDU

Mon, 05 Feb 2024

India can Give a Befitting Reply to Aggression, Says Rajnath Singh as Adhir Ranjan Chowdhary Says Govt. 'Quiet' on Ladakh

Defence Minister Rajnath Singh on Monday said in the Lok Sabha that India was capable of giving a befitting reply if attacked by external forces. His remarks came in an exchange with the Congress Legislature Party leader in the Lok Sabha, Adhir Ranjan Chowdhary, who accused the government of being quiet on the situation in Ladakh vis-à-vis China.

Mr. Chowdhury was speaking on the debate on the Motion of Thanks to the President's address when he questioned Mr. Singh, who was present in the Lok Sabha, over the situation in Ladakh and claimed that vast areas of the Union Territory had been occupied.

He said China has been "emboldened today" and the Modi government had failed in its China's policy. "Not even a word on security concerns was mentioned in the President's Address. The situation in Ladakh is deteriorating day by day. I want to ask our Defence Minister to please tell us what is the situation in Ladakh. You said that the status will be restored. Day by day situation of Ladakh is worsening... 2,000-square kilometre area is being occupied. Today the shepherd is unable to go there. Please ask the people of Ladakh why this happening. Why are you sitting silent? From Arunachal to Ladakh the situation is worsening," he said.

"When the Galwan incident took place you gave the certificate that no one entered our place. From 2014 till now your government failed in China policy," he added.

Mr. Singh immediately intervened and expressed disagreement over the Congress leader's comments pertaining to Line of Actual Control (LAC). "As Adhir Ranjan Chowdhury took my name, I express my disagreement with whatever he said in connection with China and LAC. I condemn this," he said. "I would like to assure the House that India is not weak anymore. India has become strong. If someone dares to stare at India, India has the capability and strength to give a befitting reply... The country should not be unnecessarily defamed in the forum of the Parliament," he said.

https://www.thehindu.com/news/national/india-can-give-a-befitting-reply-to-aggression-says-rajnath-singh-as-adhir-ranjan-chowdhary-says-govt-quiet-on-ladakh/article67814676.ece

ANI
South Asia's Leading Multimedia News Agency

Mon, 05 Feb 2024

Indian Navy's Action on Houthis Illustrates its Capacity as Net Security Provider: US Assistant Secy of State for Energy Resources

US Assistant Secretary of State for Energy Resources Geoffrey R Pyatt on Monday lauded Indian Navy action against the Houthis and said it shows India's capacity as a net security provider in the wider region benefits the United States.

Responding to ANI's question on India-US relations in energy security amid the global crisis, Pyatt said, "We are living through a moment of unprecedented turmoil in the international system. What's happening to global container shipping as containerized shipping has been rerouted, and what impact has that had on inflation? The Indian Navy intervened to save a tanker ship that was on fire as a result of a Houthi missile strike. It was the Indian Navy that came to the rescue of that ship. It illustrates India's capacity as a net security provider in the wider region, which benefits the United States."

On Foreign Trade Agreements between the US and India, Pyatt said, "I think we are not currently involved in any kind of free trade agreement negotiation with India, but we have ongoing and important negotiations about how to facilitate a further deepening of our trade relationship."

He also said that US-India trade relations cannot be characterised flatly as a 'Chapati' but have now become big and puffed up like a 'Puri'.

On his recent visit to India, Pyatt said, "One of the key frameworks for our cooperation with India in high technology areas is the iCET framework. Our national security advisors have recently decided to add critical minerals and clean energy technology to the ISET as a new pillar. We seek to push the pace of deployment to empower collaboration between our laboratories in areas of innovation."

Talking about his meeting with Union Minister Hardeep Singh Puri, Pyatt mentioned, "Minister Puri and I had a broad discussion about our converging interests in energy security, stability in global energy markets, the destabilizing impact of Russia's actions, the invasion of Ukraine, but also concerns around the Red Sea, Iran's activities, Venezuela, and all of the disruptions in global oil markets, in particular, that the United States and India are navigating together. Our shared interest in the stability of those markets, delivering the energy our citizens need and doing so in a way that has the lowest possible carbon footprint."

US Assistant Secretary of State for Energy Resources, Geoffrey R Pyatt, will visit India on January 26 to speak on two panels at the India-US Forum, with a focus on shared energy priorities along with other challenges.

Pyatt was in India from January 26 to 31 and visited New Delhi and Hyderabad. He also spoke on two panels at the India-US Forum, with a focus on shared energy priorities along with other challenges.

In New Delhi, he spoke on two panels at the India-US Forum, "focusing on shared energy priorities and on opportunities and challenges around critical minerals for the global energy transition," the US Department of State said in a release.

During the meeting, India and the US noted the growing importance of bilateral energy cooperation and underscored the importance of bilateral clean energy engagement.

Both nations welcomed the growing energy trade between the two countries. The two nations underscored the importance of bilateral clean energy engagement and the achievements of the US-India Strategic Clean Energy Partnership (SCEP) in strengthening energy security, creating opportunities for clean energy innovation, addressing climate change and creating employment generation opportunities.

India and the United States enjoy a comprehensive global strategic partnership covering almost all areas of human endeavour, driven by shared democratic values, convergence of interests on a range of issues, and vibrant people-to-people contacts.

https://www.aninews.in/news/world/us/indian-navys-action-on-houthis-illustrates-its-capacity-as-net-security-provider-us-assistant-secy-of-state-for-energy-resources20240205231217/

Press Information Bureau
Government of India

Ministry of Science & Technology

Mon, 05 Feb 2024

Union Minister Dr Jitendra Singh Launches Multi-Disciplinary Post-doctoral Courses in Bio-Sciences to Address Global Health Challenges

The Minister says, 1000 Ph.D. students will be enrolled in next five years to drive innovation in critical healthcare sector

The Ph.D. programme is designed on the four pillars of ideation, immersion, innovation and collaboration: Dr Jitendra Singh

Dr Jitendra Singh also launched the DBT-Handbook on Bio-design for Med-Tech Innovations and licensed medical technologies to Start-ups

The technologies in Biomedical devices, diagnostics and therapeutics, developed by the DBT-Bio-design fellows will help us to provide Made-in India solutions for our unmet National Needs and will lead towards the Atmanirbhar Bharat: Dr Jitendra Singh

Union Minister of State (Independent Charge) Science & Technology; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh launches multi-disciplinary post-doctoral courses in Bio-Sciences to address global health challenges.

Delivering the key-note address at the launch of “i3c BRIC-RCB PhD Programme” in Biosciences in New Delhi, Dr Jitendra Singh announced that 1000 Ph.D. students will be enrolled in the next five years to drive innovation in the critical healthcare sector.

The Minister said, this Ph.D. programme is designed on the four pillars of ideation, immersion, innovation and collaboration. Addressing a gathering of esteemed scientists, researchers and students, Dr. Jitendra Singh said, “This program will enable Indian students to embark on world-class research in fascinating and diverse fields of biotechnology and is aligned with Prime Minister’s vision of enhancing & implementing transformative power of S&T for benefit of all”.

Dr Jitendra Singh informed that along with a unique course curriculum, hands-on training on high-end facilities would be provided to all the research scholars. He said, a special on-field ‘Immersion Fellowship’ supported by Grand Challenges India would be provided to first-hand experience challenges and problems and derive motivation to address them through collaborative research in the DBT institutions. Additionally, the program will also induct and provide opportunities for non-biologists to undertake this Ph.D. program through special fellowships, the Minister added.

Dr Jitendra Singh informed that the Department of Biotechnology (DBT) has created a new Autonomous Body, Biotechnology Research and Innovation Council (BRIC) by subsuming the 14 autonomous research institutions. He said, BRIC will integrate multi-disciplinary research and

innovation programs, capacity-building across the institutions synergistically and maximize biotech impact in the country.

The Minister also informed that the “Regional Centre for Biotechnology (RCB), an Institution of National Importance under the DBT, along with iBRIC (institutions of BRIC) has rolled out a globally competitive interdisciplinary Ph.D. program- “The i3c BRIC-RCB PhD Programme in Biosciences”. Speaking on the occasion Dr Rajesh S. Gokhale, Secretary, DBT remarked that, “All DBT institutions, i.e. iBRIC, RCB and ICGEB pioneers the cutting-edge, multi-disciplinary, immersive, collaborative research in biosciences and this programme will transform the Ph.D. research landscape in the country”.

Dr Jitendra Singh also launched the DBT-Handbook on Bio-design for Med-Tech Innovations and licensed medical technologies developed by DBT-Bio-design fellows to the startups incorporated by them in the ceremony.

The DBT-Biodesign Program promotes and nurtures Med-tech innovators in the country. At present, six Biodesign Centers across the Country twining over 20 leading medical schools and technical institutions are providing the biodesign capacity building and indigenous med-tech innovations.

The Biodesign process is a ‘3-i’ process i.e. - Identify, Invent, and Implement. The program provides on-site training on biodesign processes to aspiring medical technology innovators to identify unmet health-related needs and to invent health technologies. Overall aim is to address the unmet national needs and to prepare the innovators/entrepreneurs to translate the technologies into patient care through start-up incorporations.

Lauding the efforts of the DBT Bio-design Centers and their fellows, Dr Jitendra Singh said, “The technologies in Biomedical devices, diagnostics and therapeutics, developed by the DBT-Biodesign fellows will help us to provide Made-in India solutions for our unmet National Needs and will lead towards the Atmanirbhar Bharat”.

The Minister mentioned that India’s bioeconomy experienced robust growth in 2022, surging by 29% to reach a substantial value of around US$140 billion. It is projected to reach US$300 billion by 2030. India which ranked 81 in 2015, has risen to 40th rank out of 132 economies in the Global Innovation Index”. He added that the medical devices area in India has a great growth potential under the Make-In-India initiative.

https://pib.gov.in/PressReleasePage.aspx?PRID=2002631

Mon, 05 Feb 2024

Meet the NGLV, ISRO’s Environmentally Friendly, Partially Reusable Rocket

By Aditya Madanapalle

Following the incredible success of the Chandrayaan 3 mission in August 2023, M Sankaran, director of UR Rao Satellite Centre (URSC) commented, “We have set a bar now so high, nothing less spectacular than this is going to be inspiring for any of us in the future”. His words would prove prophetic. While reviewing the progress on the Gaganyaan programme in October last year,

Prime Minister Narendra Modi set new, ambitious goals for ISRO, including setting up the Antariksha Bharatiya Space Station by 2035, and landing an Indian on the Moon using domestic hardware by 2040. ISRO responded a month later with a detailed roadmap that went even further, and accommodated the construction of a Moon Base by 2047, in time for the centenary of Indian Independence.

The last time humans went to the Moon, they used the Saturn V, a 110 metre rocket with a thrust of 34,500 kN at sea level. The Artemis III mission, which is expected to see a return of American Boots on the Moon is expected to use the SpaceX Starship. Fully stacked with the Falcon Heavy booster, the Starship measures 121 metres in height, and provides 74,400 kN of thrust. ISRO has no intention of building rockets that are as big and powerful. Instead, ISRO plans to use a frugal engineering approach that they are famous for, assembling the hardware needed for lunar excursions in Earth orbit, using a series of launches.

Still, the current generation of launch vehicles simply cannot meet the requirements of ISRO's ambitious space goals. ISRO is improving the Launch Vehicle Mark 3 (LVM3) to the Human Rated LVM3 (HR-LVM3) for its ambitious Gaganyaan programme to ferry humans to Earth orbit using domestic hardware. It is also parallelly working on reusable launch vehicles. The Next Generation Launch Vehicle (NGLV) is being envisioned with a reusable first stage, and one that uses environmentally friendly fuel as well.

A domestic reusable launch vehicle will bring down costs

At a lecture delivered in IIA Bengaluru five months ago, Somanath said, "On the rockets, probably you may know about the GSLV Mk III, which we have developed and we are getting into converting it into a human rocket, the Human Spaceflight Enabled Rocket we call it. There is a plan to increase its capacity to almost six tons to Geosynchronous Transfer Orbit (GTO). But the one which we are trying to do in the future is more important. I think the emergence of rockets which are reusable is something that has disrupted the entire ecosystem of rocket building. Because the cost of access to space has come own from 20,000 USD per kilogram to Low Earth Orbit (LEO) to almost USD 1000-2,000 per kilogram, maybe lower also."

The Space Reforms has boosted the participation of the private sector in the space domain, with handholding and mentoring by ISRO. ISRO will be relying on private industries to produce its reusable rocket fleet. Explaining the benefits of reusable launch vehicles, Somanath said, "This is a big game changer, and every launch vehicle builder is grappling with this issue. And we also cannot keep silent, and we have to develop rockets which will be reusable. We are thinking we will develop (the next generation of rockets) through enabling technologies, and also with the private participation. I am very happy that there is a team that has started working, they have already configured the rocket, the way it should be done and (they are) discussing with industries on production, even before the design. I think this is the change that we are making now."

NGLV will use more environmentally friendly fuel

At IIT Bombay Techfest in December 2023, Somanath said, "We have to develop a new rocket. I was mentioning everywhere that unless you have a heavy lift rocket, we are not going to do the future missions. So we have named it as NGLV, Next Generation Launch Vehicle, possibly the name may change. But, it is going to be based on a LOx Methane engine, the engine currently is already designed by ISRO, we are currently in the process of prototyping now. We have started testing some of this on smaller levels. This is a cluster of engines which are reusable engines, throttleable engines, which will enable us to have vertical landing of this rocket. In the future, the first stage can land."

Somanath went on to explain exactly how the NGLV will play a role in future ISRO plans, "The entire rocket is based on a single engine concept, as done elsewhere, but with different capabilities,

so that the manufacturing will be easier, modularity exists and costs also can be controlled. So this is another development programme. Once we have these rockets, the space station and the Chandrayaan series of missions that we are planning to do, we hope that we will be in a position to lead it up to the commercialisation of the Bharatiya Antariksha Station by 2035, and landing a person on the Moon by 2040."

While ISRO provides low-cost, democratic, on-demand access to space, it can reduce costs further by reusing hardware. At a lecture in IIT Madras three months ago, ISRO Chairman S Somanath said, "We should develop future rockets. I think the rockets that we have are conventional, expendable rockets. We should bring down the cost of launch substantially, like what Elon Musk does. If we continue with the regular rockets, of course, we will be thrown out of the market. So, new rockets have to be developed. And maybe one day, we should also develop our space station, and it is not a faraway dream. Kalam said, 'The only thing that limits us is our imagination'."

https://www.news9live.com/science/meet-the-nglv-isros-environmentally-friendly-partially-reusable-rocket-2428996

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