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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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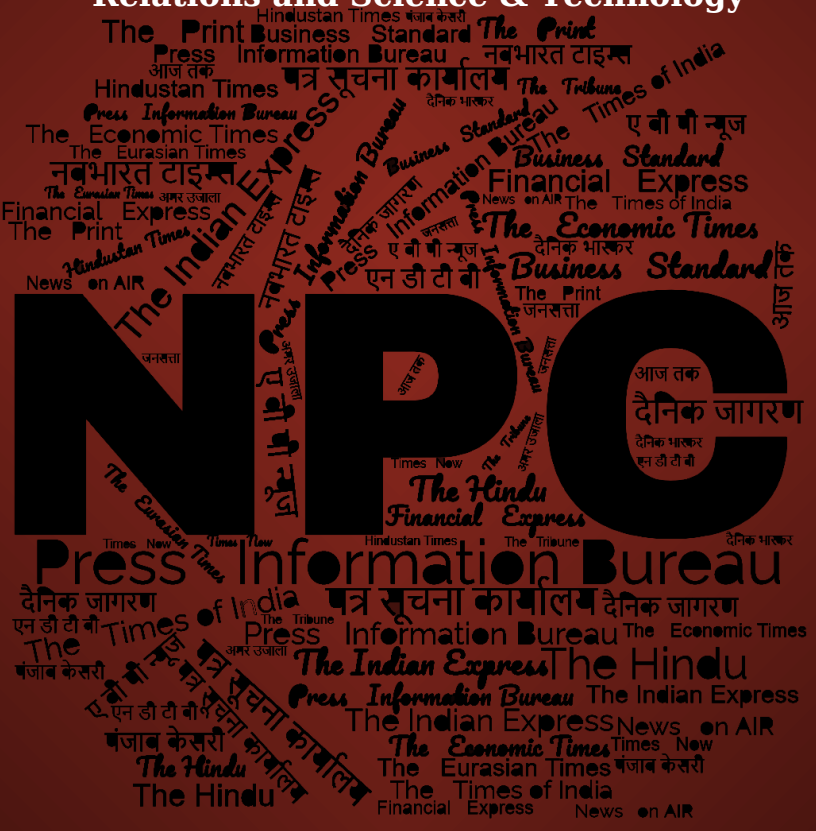

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CONTENTS

DRDO News

DRDO Technology News

Press Information Bureau
Government of India

Ministry of Defence

Wed, 23 Aug 2023

LCA Tejas Successfully Test-Fires Indigenous ASTRA Beyond Visual Range Air-to-Air Missile off Goa Coast

Tejas, Light Combat Aircraft (LCA) LSP-7 successfully fired the ASTRA indigenous Beyond Visual Range (BVR) air-to-air missile off the coast of Goa on August 23, 2023. The missile release was successfully carried out from the aircraft at an altitude of about 20,000 ft. All the objectives of the test were met and it was a perfect text book launch.

The test launch was monitored by the Test Director and scientists of Aeronautical Development Agency (ADA), Defence Research and Development Organisation (DRDO), Hindustan Aeronautics Limited (HAL) along with officials from Centre for Military Airworthiness and Certification (CEMILAC) and Directorate General of Aeronautical Quality Assurance (DG-AQA). The aircraft was also monitored by a Chase Tejas twin seater aircraft.

ASTRA, a state-of-the-art BVR air-to-air missile to engage and destroy highly maneuvering supersonic aerial targets, is designed and developed by Defence Research and Development Laboratory (DRDL), Research Centre Imarat (RCI) and other laboratories of DRDO. The indigenous Astra BVR firing from home grown Tejas fighter is a major step towards 'Aatmanirbhar Bharat'. Raksha Mantri Shri Rajnath Singh has complimented ADA, DRDO, CEMILAC, DG-AQA and the industry for the successful firing of the missile from Tejas-LCA. He said the launch would significantly enhance the combat prowess of Tejas and reduce the dependency on imported weapons.

Secretary, Department of Defence (R&D) and Chairman DRDO has also congratulated the teams involved in the successful launch.

https://pib.gov.in/PressReleasePage.aspx?PRID=1951428

जागरण

Thu, 24 Aug 2023

LCA Tejas: तेजस ने किया हवा से हवा में मार करने वाली मिसाइल का सफल परीक्षण

भारत के हल्के लड़ाकू विमान तेजस ने बुधवार को गोवा के तट पर हवा से हवा में मार करने वाली दिखाई नहीं पड़ने वाले लक्ष्य को भेदने की क्षमता वाली (बीवीआर) मिसाइल अस्त्र का सफल परीक्षण किया। अधिकारियों ने बताया कि करीब 20,000 फुट की ऊंचाई पर विमान से मिसाइल दागी गई।

रक्षा मंत्रालय ने कहा कि हल्के लड़ाकू विमान (एलसीए) तेजस एलएसपी-7 ने 23 अगस्त को गोवा के तट पर हवा से हवा में मार करने वाली बियांड विजुअल रेंज मिसाइल अस्त्र का परीक्षण किया। मंत्रालय ने कहा कि परीक्षण के सभी उद्देश्य पूरे हो गए हैं।

प्रक्षेपण की निगरानी वैमानिकी विकास एजेंसी (एडीए), रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ), हिंदुस्तान एअरोनाटिक्स लिमिटेड (एचएएल) के परीक्षण निदेशक और वैज्ञानिकों, सेंटर फार मिलिट्री एअरवर्थनेस एंड सर्टिफिकेशन (सीईएमआइएलएसी) और एअरोनाटिकल क्वालिटी एश्योरेंस महानिदेशालय (डीजी एक्यूए) के अधिकारियों ने की।

राक्षा मंत्री राजनाथ सिंह ने दी बधाई

रक्षा मंत्री राजनाथ सिंह ने तेजस एलसीए से मिसाइल के सफल परीक्षण के लिए एडीए, डीआरडीओ, सीईएमआइएलएसी, डीजी एक्यूए को बधाई दी। उन्होंने कहा कि इस प्रक्षेपण से तेजस की युद्धक क्षमता में उल्लेखनीय वृद्धि होगी और आयातित हथियारों पर निर्भरता कम होगी। तेजस एक एकल इंजन वाला बहुउद्देश्यीय लड़ाकू विमान है जो उच्च खतरे वाले वायु क्षेत्र में काम करने में सक्षम है। इसे वायु रक्षा, समुद्री टोही और हमले की भूमिका निभाने के लिए डिजाइन किया गया है।

अग्रिम मोर्चे पर एलसीए की तैनाती बढ़ने की संभावना

वायु सेनाभारतीय वायु सेना (आइएएफ) ने बुधवार को कहा कि अधिक सक्षम संस्करण की समय पर डिलीवरी के साथ, लाइट कांबैट एयरक्राफ्ट (एलसीए) एमके 1 ए की आने वाले दिनों में अंतरराष्ट्रीय अभ्यासों में भागीदारी के अलावा अग्रिम मोर्चे पर तैनाती में वृद्धि देखने की संभावना है। वायुसेना प्रमुख एयर चीफ मार्शल वीआर चौधरी ने हल्के लड़ाकू विमान (एलसीए) कार्यक्रम की स्थिति की समीक्षा की है। वह एलसीए की स्थिति की जांच करने के लिए वायु सेना मुख्यालय गए थे।

https://www.jagran.com/news/national-lca-tejas-successfully-tested-air-to-air-missile-23510474.html

Hindustan Times

Wed, 23 Aug 2023

‘Perfect Text Book Launch’: Tejas LCA Test-Fires ASTRA Air-to-Air Missile

The DRDO-developed ASTRA air-to-air missile (AAM) was test-fired successfully on Wednesday, the Ministry of Defence (MoD) said, adding that the exercise, conducted off the coast of Goa, resulted in a launch that was ‘text book perfect.’

The Beyond Visual Range (BVR) weapon was fired by the Tejas, an indigenous Light Combat Aircraft (LCA), the MoD noted in a press release.

“Tejas, LCA LSP-7 successfully fired the ASTRA missile at an altitude of about 20,000 feet. All the objectives of the test were met,” the ministry stated in its release.

The test launch, the MoD said, was monitored by officials from the Aeronautical Development Agency (ADA), Defence Research and Development Organisation (DRDO), Hindustan Aeronautics Limited (HAL), and others.

Defence minister Rajnath Singh, as well as Secretary of Defence, and Chairman, DRDO, have congratulated the teams for the successful launch, the released said.

ASTRA

According to DRDO, the missile system is designed to be mounted on a fighter aircraft, and engages and destroys 'highly manoeuvring supersonic' aircraft. Built to function across weather conditions, and during both day and night, the system is being developed to meet 'specific requirements,' as per the agency.

https://www.hindustantimes.com/india-news/perfect-text-book-launch-tejas-lca-test-fires-astra-air-to-air-missile-101692792794926.html

Hindustan Times

Wed, 23 Aug 2023

Modi Government Sets up High Power Committee to Review DRDO

Under directions of Prime Minister Narendra Modi and with a view to overhaul the Defence Research and Development Organization (DRDO), Defence Minister Rajnath Singh has set up a nine-member committee of experts under Prof K VijayRaghavan to review and redefine the role of the department and submit a report within three months. Prof VijayRaghavan is former Principal Scientific Advisor to the Government of India and one of the key architects of the National Research Foundation (NRF).

The other members of the DRDO review committee are: Lt Gen (Retd) Subrata Saha, former Deputy Chief of Army Staff, Vice Admiral S N Ghormade, former Vice Chief of Navy Staff, Air Marshal B R Krishna, former Chief of Integrated Staff, Sujan R Chinoy, DG of MP-IDSA, Prof Manindra Agarwal of IIT Kanpur, S.P. Shukla, President SIDM, J D Patil of Larsen and Toubro, Defence, Dr S Unnikrishnan Nair, Distinguished Scientist, ISRO, and Ms Rasika Chaube, Financial Advisor, Ministry of Defence.

While conveying the decision of Minister Rajnath Singh, DRDO Chief Samir V Kamat informed the committee members that the terms reference of the committee were :

- Restructuring and redefining the role of Department of Defence (R &D) and DRDO, as well as their relationship with each other and with academia and industry.
- Maximise academia, MSME, and start-up participation in the development of cutting edge technologies.
- Attract and retain high-quality manpower, including a system of project based manpower by a proper system of incentives and disincentives, with strict performance accountability, and weed out the non-performers.
- Utilize the expertise of NRIs/foreign consultants, inter-country collaborations for development of cutting edge and disruptive defence technologies.
- Modernize administrative, personnel and financial systems to achieve speedier implementation of projects.
- Rationalisation of laboratory structures and their performance evaluation process.

The Modi government's decision to review the functioning of the DRDO and the entire defence research and production eco-system was a much-awaited development as the Prime Minister himself was concerned about the lack of accountability and delayed research in the organization

that functions typically as a government PSU and considers the entire defence processes from research to development to production as its very own fiefdom. Rather than be supportive of the private sector and help in the best procurement of hardware platforms for the Indian Armed Forces, the DRDO has often acted as a hurdle in defence acquisitions in the name that it was developing the very product that was being imported and in the name of indigenization. Classic examples are anti-tank guided missiles and unmanned aerial vehicles apart from many others. Yet at the same time, the DRDO has done some path-breaking work in guided missile systems.

https://www.hindustantimes.com/india-news/modi-government-sets-up-a-high-power-committee-to-review-drdo-101692769705562-amp.html

Defence News

Defence Strategic: National/International

Press Information Bureau
Government of India

Ministry of Defence

Wed, 23 Aug 2023

CAS Review of LCA Programme

The Chief of Air Staff (CAS) Air Chief Marshal VR Chaudhari reviewed the status of the Light Combat Aircraft (LCA) programme in Air Headquarters yesterday. Also in attendance were senior functionaries from the Ministry of Defence, DRDO, HAL and ADA. Opening the proceedings, the CAS brought out that the LCA has been the flag bearer of the Indian Air Force's (IAF) efforts towards indigenisation of its aircraft fleet. He said that given the nature of this project of national importance, it is required that all stakeholders adopt a collaborative approach towards its success. The programme has been the harbinger of Atmanirbhar Bharat and Make in India initiatives of the nation. More importantly, it is a flag bearer of India's self-reliance in the aerospace sector.

During the review, it was brought out that all contracted fighter variants of the LCA Mk 1 had been delivered to the IAF. Representatives of HAL assured the CAS of the timely delivery of the contracted twin-seaters in the coming months, as well. Further to the LCA Mk 1, 83 LCA Mk-1A aircraft have also been contracted by the IAF in 2021. The Chairman & Managing Director of HAL assured those present that the deliveries of this advanced variant of the LCA would commence by Feb 2024. While complimenting HAL, the CAS indicated that based on these assurances, the LCA Mk 1A could be inducted in a newly raised squadron in one of the IAF's operational bases, early next year. Notwithstanding the project delays that were brought out during the course of the review, the CAS lauded the efforts of all stakeholders and emphasized on the need to incorporate the lessons learnt from the LCA programme into future indigenous Design & Developmental projects. With timely deliveries of the more capable variant, the LCA Mk 1A is likely to see increased deployments at forward bases, besides participation in International exercises in the days to come.

https://pib.gov.in/PressReleasePage.aspx?PRID=1951408

The Tribune

Thu, 24 Aug 2023

Tejas Mark 1A Likely to be in New Squadron at Indian Air Force Op Base

Light combat aircraft (LCA) Mark 1A, an improved version of LCA Tejas of the Indian Air Force, could be inducted by early 2024 in a newly raised squadron at one of the operational bases of the IAF.

This has been indicated by IAF Chief Air Chief Marshal VR Chaudhari after the Managing Director of the plane maker Hindustan Aeronautics Limited (HAL) assured deliveries of LCA Mark 1A would commence by February 2024.

The decision was announced after the LCA programme was reviewed here yesterday. At the review were senior functionaries from the Ministry of Defence, DRDO, Aeronautical Development Agency and HAL.

The Ministry of Defence said: "With timely deliveries of the more capable variant, the LCA Mark 1A is likely to see increased deployments at forward bases." Over the next two years, all three squadrons of the Soviet-era MiG-21 fighter jets will retire. The Jaguar, MiG-29 and Mirage 2000 jet fleets — all inducted during the 1980s — are slated to retire in batches beyond 2029-30.

As per plan, from February next year, for the next 14-15 years (till 2038-39), India needs to produce some 390 fighter jets for the IAF on its own.

Production of 83 Tejas Mark 1-A jets is scheduled to be followed by 130 Tejas Mark-2 jets; 126 jets of the advanced medium combat aircraft (AMCA) and another order of 50 jets of Tejas Mark 1A is expected.

LCA test-fires indigenous missile

The light combat aircraft (LCA) on Wednesday successfully fired the ASTRA indigenous BVR air-to-air missile off the coast of Goa. "All the objectives of the test were met and it was a perfect text book launch," the Ministry of Defence said.

https://www.tribuneindia.com/news/nation/tejas-mark-1a-likely-to-be-in-new-squadron-at-iaf-op-base-537781

Press Information Bureau
Government of India

Ministry of Defence

Wed, 23 Aug 2023

Signing of SOP on White Shipping Information Exchange Between Indian Navy and Philippine Coast Guard

Admiral R Hari Kumar, Chief of the Naval Staff and CG Admiral Artemio M Abu, Commandant of Philippine Coast Guard signed the Standard Operating Procedure (SOP) for exchange of White Shipping Information on 23 August 2023. The SOP was signed in New Delhi during ongoing visit of the Commandant, Philippine Coast Guard to India.

The signing of the SOP between Philippine Coast Guard and Indian Navy would facilitate operationalization of information exchange on merchant shipping traffic, which will contribute to enhanced maritime safety and security in the region.

https://pib.gov.in/PressReleasePage.aspx?PRID=1951398

THE ECONOMIC TIMES

Wed, 23 Aug 2023

Navy Chief Admiral Hari Kumar, Philippine Coast Guard Sign Standard Operating Procedure to Enhance Maritime Security

Chief of the Naval Staff Admiral R Hari Kumar and Commandant of the Philippine Coast Guard CG Admiral Artemio M Abu signed the Standard Operating Procedure (SOP) to enhance maritime security in New Delhi on Wednesday.

Taking to the social media handle 'X', formerly known as Twitter, the Indian Navy stated,

> "Enhancing #MaritimeSecurity - operationalising information exchange. Adm R Hari Kumar, #CNS & CG Adm Artemio M Abu, Commandant, Philippine Coast Guard signed the SOP for White Shipping Information Exchange #WSIE b/n #IndianNavy & @coastguardph at South Block, New Delhi."
>
> https://twitter.com/indiannavy/status/1694312496977662106

Admiral R Hari Kumar and CG Admiral Artemio M Abu signed the SOP for the exchange of White Shipping Information on August 23, 2023, the Ministry of Defence said in a statement.

"The SOP was signed in New Delhi during the ongoing visit of the Commandant, Philippine Coast Guard to India," the statement added.

Moreover, the signing of the SOP between the Philippine Coast Guard and the Indian Navy would facilitate the operationalization of information exchange on merchant shipping traffic which will further contribute to enhanced maritime safety and security in the region.

Earlier today, the Indian Coastal Guard (ICG) and the Philippine Coast Guard (PCG) signed a Memorandum of Understanding (MoU) on enhanced maritime cooperation.

According to the statement released by the Defence Ministry, the MoU was signed by DG Rakesh Pal, Director General Indian Coast Guard and CG Admiral Artemio M Abu, Commandant, PCG at the Coast Guard Headquarters, New Delhi on Tuesday.

Both sides held their first bilateral meeting on a range of maritime issues.

The MoU inked today seeks to enhance the professional linkage between the two Coast Guards in the domain of Maritime Law Enforcement (MLE), Maritime Search and Rescue (M-SAR) and Marine Pollution Response (MPR).

The implementation of this MoU will enhance bilateral maritime cooperation between the two nations to ensure safe, secure and clean seas in the region.

A five-member delegation of PCG is on an official tour of India from 20-24 August 2023. Earlier, the delegation visited Goa on August 21, where they witnessed the operational capabilities of the Indian Coast Guard ships and aircraft under 'Atmanirbhar Bharat'.

During the visit, the delegation was also provided with a customer demonstration flight on the Indian Coast Guard Advance Light Helicopter MK-III. The delegates also visited Indian Coast Guard Ship Sujeet built by Goa Shipyard Limited, as per the release.

https://economictimes.indiatimes.com/news/defence/navy-chief-admiral-hari-kumar-philippine-coast-guard-sign-standard-operating-procedure-to-enhance-maritime-security/articleshow/102990999.cms

THE HINDU BusinessLine

Wed, 23 Aug 2023

Defence Ministry to Build Operational Logistic Infra Close to LAC with China in Arunachal Pradesh

The Ministry of Defence (MoD) is set to acquire more than 26 acres of strategic land in Upper Siang district of Arunachal Pradesh for "operational logistics infrastructure" close to the Line of Actual Control (LAC) with China, eight months after the face off with the People's Liberation Army (PLA) in Tawang sector of the State.

The private land spread across 26.50 acres lies in Migging area of the Upper Siang district and is hardly 30 km away from the LAC.

The Union Rural Development Ministry issued a notification on Tuesday, making Ministry of Defence as the authority for its acquisition ahead of making land pool available for development of military installation to meet strategic demand to match up border infrastructure China has built on its side of the LAC at Arunachal Pradesh. The Army will be developing the operational logistics infrastructure, said sources.

"In exercise of the powers conferred by sub-clause (v) of clause(e) of Section 3 of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (30 of 2013), the Central government hereby notifies that the Ministry of Defence shall, subject to the control of President and until further orders, exercise the powers and discharge the functions of the "Appropriate Government" under the said Act and the rules made thereunder, for acquisition of private land at Migging, Upper Siang District, Arunachal Pradesh, for establishment of operational logistics infrastructure," read the notification.

Increasing capacity

The government has been pushing for a comprehensive border infrastructure development in Arunachal Pradesh, including construction of bridges, road network advance landing facilities and communication lines, for increasing capability and quicker movement of heavily mechanised infantry in difficult terrain to counter any misadventure from Chinese PLA.

In January, Defence Minister Rajnath Singh inaugurated the Siyom bridge on the Along-Yinkiong road that would facilitate movement of even howitzers and mechanised vehicles along with 27 other projects, all developed by the Border Roads Organisation (BRO).

On December 9, 2022, the troops of India and China clashed near Yangste in Tawang sector leading to minor injuries to personnel from both the sides. Since then the infrastructure push has acquired pace along the LAC from eastern Ladakh to Arunachal Pradesh, with the latest nod from Parliament to The Forest Conservation (Amendment) Bill helping to expedite development of road network and other construction required for capacity enhancement of armed forces stuck for long.

Rajeev Chaudhry, Director General, Border Roads told businessline that the Bill has come as a “boon” as no sanction would be required for infrastructure development within 100 km of LAC, Line of Control and International Border with China and Pakistan respectively. It would also pave way for 39 road projects spread across 1,545 km which were stuck for want of environment clearance, the BRO Director-General had stated. Earlier, it would take anywhere from one year to four year just to take environment clearance before executing the projects.

https://www.thehindubusinessline.com/news/defence-ministry-to-build-operational-logistic-infra-close-to-lac-with-china-in-arunachal-pradesh/article67227340.ece

REPUBLICWORLD.COM

Wed, 23 Aug 2023

Deputy NSA Misri Meets South Korean NSA, Holds Talks on Defence and Economic Security

Deputy NSA Vikram Misri has met South Korea's National Security Advisor Cho Tae-young in Seoul and discussed defence cooperation, economic security, supply chain resilience and critical and emerging technologies.

Misri is on a visit to the Republic of Korea (RoK) on August 22-23 for the 4th India-RoK Deputy NSA-level Strategic Dialogue. The third edition of the Strategic Dialogue was held in India in December 2021.

Misri met Kim Tae-hyo, First Deputy Director of National Security and they discussed enhancing cooperation in a wide range of bilateral areas including defence industry and technology, economic security and supply chain resilience, enhancing Korean investments in India, and science and technology issues, an official statement said.

They highlighted the importance of closer cooperation on critical and emerging technologies and agreed to step up engagements in these areas.

Views on regional and global security environment were also exchanged, the statement said.

During the visit, Deputy NSA Misri called on Foreign Minister Park Jin and National Security Adviser Cho, and met Minister Eom Dong-hwan of Defence Acquisition Programme Administration (DAPA), the statement said.

Misri on Tuesday called on South Korean Foreign Minister Park Jin in Seoul as they agreed that critical and emerging technologies is an area where both countries can enhance collaborations.

The Deputy NSA also met South Korea's Minister of DAPA Eom Donghwan. Both reiterated defence cooperation as an important pillar of bilateral ties and highlighted the importance of enhancing defence technology, equipment and industry cooperation.

https://www.republicworld.com/world-news/rest-of-the-world-news/deputy-nsa-misri-meets-south-korean-nsa-holds-talks-on-defence-and-economic-security-articleshow.html

Naval
Technology

Wed, 23 Aug 2023

China’s Naval Plans Propel $1.4Trn PLA Modernisation over 2024-2028

GlobalData’s latest report unveils China’s strategic plan to allocate $1.4trn for modernising the People’s Liberation Army (PLA) over 2024-2028, with a robust 6.6% CAGR.

The escalating concerns over growing US assistance to Taiwan, territorial disputes in the South China Sea, and regional security alliances have prompted China to focus on bolstering its military capabilities. The planned expenditure reflects the calculated investment in innovation and readiness, aimed at aligning its rising influence on the global stage.

China’s strategic emphasis on naval modernisation

China’s strategic emphasis on building a formidable blue water navy and establishing a credible nuclear deterrent is evident through its ongoing procurement programmes.

These programmes include the acquisition of a fourth aircraft carrier, the Tang-class nuclear-powered ballistic missile submarine (SSBN), Type 054A frigates, and Renhai-class (Type 055) Destroyers. Once completed, these significant initiatives are expected to reshape regional and global security dynamics.

Debbarma highlights the nations naval evolution as indicative of its strategic foresight, transforming its Navy from a coastal defence force into a potent blue water fighting unit. “China’s naval evolution stands as a testament to its strategic foresight and determination to enforce its interests in key regions like the East China Sea, the South China Sea and the Yellow Sea.

A noteworthy transformation is underway as the Chinese Navy shifts from its traditional coastal defence role to a formidable blue-water fighting force. This metamorphosis, driven by a vision of comprehensive maritime prowess, underscores China’s intent to reinforce itself as a major stakeholder in calling shots and determining global orders.”

The modernisation strategy takes centre stage

In a recent report titled “China’s Defense Market Size and Trends, Budget Allocation, Regulations, Key Acquisitions, Competitive Landscape and Forecast, 2023-28,” GlobalData, a leading data and analytics company, reveals that the defence budget is set to experience substantial growth.

The forecast indicates a robust compound annual growth rate (CAGR) of 6.6%, culminating in a cumulative expenditure of $1.4trn from 2024-2028.

China’s defence budget has surged from $172.2bn in 2019 to $230.3bn in 2023, driven by a series of ongoing and planned procurement programmes designed to modernise its defence capabilities.

Akash Pratim Debbarma, aerospace & defence Analyst at GlobalData, underscores the significance of the South East Asian country’s financial commitment, stating: “The estimated significant financial commitment of $1.4trn is a clear indication of China’s strategic vision. This modernisation initiative isn’t just about numbers. It is about a calculated investment in innovation, readiness, and a global role that aligns with China’s rising influence.”

A self-reliant defence manufacturing industry

In response to restrictions and embargoes imposed by the US and EU on the transfer of foreign defence technology, China has adeptly turned constraints into opportunities. The country has

bridged the gap between civil and military industries by nurturing a self-reliant defence equipment manufacturing industry.

Debbarma emphasises the success of China's innovation-driven approach. "The strategic pivot was propelled by China's leverage of non-defence technology for defence applications, bridging the divide between civil and military industries.

This innovation-driven approach not only revived a once struggling defence sector but also elevated China's capabilities to engineer a wide spectrum of cutting-edge defence systems, from fighters and missiles to aircraft carriers and submarines."

As China's defence expenditure intensifies, its calculated investments in modernisation, innovation, and self-reliance suggest its determination to fortify its role in an increasingly complex global landscape.

The evolving dynamics in response to rising tensions, territorial disputes, and strategic alliances emphasise China's ambition to assert its influence and position on the world stage.

https://www.naval-technology.com/news/chinas-naval-plans-propel-1-4trn-pla-modernisation-over-2024-2028/

Science & Technology News

Press Information Bureau
Government of India

Department of Space

Wed, 23 Aug 2023

Minister Dr Jitendra Singh Hails 'India on Moon', Narrates further Sequence of Activities

"Hail India on Moon! Hail ISRO!".

This was the opening sentence of Union Minister of State (Independent Charge) Science & Technology; MoS PMO, Personnel, Public grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh, who is also MoS Incharge Space, soon after the successful soft landing of Chandrayaan3 on the surface of Moon in the South Pole area, this evening.

Simultaneously, in a tweet which exactly coincided with the precise moment of the landing of Chandrayaan-3, Dr Jitendra Singh said, "While others fantasize Moon, we have felt the Moon. While others stuck in flight of dreams, Chandrayaan3 has actualised the dream. Tricolour flies high in lunar skies affirming India's resolve, as articulated by PM Modi, 'Sky is not the limit'".

In a brief statement to the media, Dr Jitendra Singh complimented ISRO Chairman, Shri S. Somanath, Mission Director, Shri Mohan Kumar and the entire Team ISRO for having placed India's national pride on the Moon in the virgin terrain of South Polar area, not accessed by any other space mission so far. He said, it is difficult for common citizens to understand how much consistent labour, hard work, commitment and passion have been put in while working day and night for months and years together to ensure meticulous planning and minutest details for the success of the mission.

After today's successful feat, Dr Jitendra Singh said, India has reaffirmed its position as a world's frontline leading nation in the Space sector. He gave full credit to Prime Minister Shri Narendra Modi for enabling India's Space scientists to vindicate the dream of their founding father Vikram Sarabhai by "unlocking" India's Space sector and providing a milieu in which India's huge potential and talent could find an outlet and prove itself to the rest of the world.

Dr Jitendra Singh further informed that the Vikram has landed in a hazard-free location with the help of its algorithm and instruments and the tilt to the Lander is very small as measured by the inclinometers onboard. While the cameras onboard the Vikram have beamed the pictures of the moon and confirmed the touchdown, the confirmation is available from other sensors as well, he added.

Narrating the further sequence of activities from this moment onwards, Dr Jitendra Singh said, the experiments onboard Vikram and Pragyan will be happening on all days and as much data will be collected from all instruments until the Moon's Day lasts for the next 14 days.

On the Lander, the Minister informed that the instruments in operation include CHASTE (Chandra's Surface Thermo-Physical Experiment) to carry out the measurements of thermal properties of the lunar surface near the polar region, LRA (Laser Retroreflector Array), RAMBHA-LP- a Langmuir Probe to measure surface plasma density, a laser reflector mounted on the corner of the Vikram for accurate positioning measurement of Lander on the Lunar surface by future orbiters, ILSA - Instrument for Lunar Seismic Activity to measure seismicity around the landing site and to understand the structure of the lunar crust and mantle, LIBS- Laser Induced Breakdown Spectroscopy to determine the elemental composition (Mg, Al, Si, K, Ca,Ti, Fe) of Lunar soil and rocks around the lunar landing site, APXS - Alpha Particle X-Ray Spectrometer to measure the chemical composition and mineralogical composition to further enhance our understanding of Lunar-surface and SHAPE - Spectro-polarimetry of HAbitable Planet Earth to study the spectro-polarimetric signatures of the habitable planet Earth in the near-infrared (NIR) wavelength range (1 – 1.7 μm).

Dr Jitendra Singh said, at the end of next 14 days followed by night and extreme cold conditions when the day breaks again, solar power generation for Vikram and Pragayaan is expected to start again. Meanwhile, the orbiter is designed to withstand long periods of life, he said.

https://pib.gov.in/PressReleasePage.aspx?PRID=1951499

Thu, 24 Aug 2023

'विक्रम' ने कर दिखाया, अब 'प्रज्ञान' करेगा कमाल! 14 दिन तक जानेगा चांद का रहस्य, जानें और क्या-क्या करेगा

चंद्रयान-3 की चंद्रमा की सतह पर सफलतापूर्वक सॉफ्ट लैंडिंग के बाद अब रोवर मॉड्यूल इसरो के वैज्ञानिकों द्वारा दिए गए 14 दिवसीय कार्य शुरू करेगा. उसके विभिन्न कार्यों में चंद्रमा की सतह के बारे में और जानकारी हासिल करने के लिए वहां प्रयोग करना भी शामिल है. टाइम्स ऑफ इंडिया की रिपोर्ट के मुताबिक वैज्ञानिकों का प्रयास होगा कि वो रोवर के माध्यम से चांद से भारी संख्या में भेजे जा रहे डेटा को देखें. रोवर 'प्रज्ञान' 6 पहियों वाला रोबोटिक व्हीकल है, जो चंद्रमा पर चलेगा और तस्वीरें खींचेगा. प्रज्ञान में इसरो का लोगो और तिरंगा बना हुआ है.

चांद की सतह पर उतरने के चार घंटे प्रज्ञान विक्रम लैंडर से बाहर निकला. प्रज्ञान एक सेंटिमीटर प्रति सेकेंड की स्पीड से चलेगा. इस दौरान कैमरों की सहायता से रोवर चांद पर मौजूद चीजों की स्कैनिंग करेगा. प्रज्ञान चांद के मौसम का हाल पता करेगा. इसमें ऐसे पेलोड लगाए गए हैं, जो चांद की सतह के बारे में बेहतर जानकारी दे सकेंगे. रोवर चांद की सतह पर मौजबद इयॉन्स और इलेक्ट्रॉन्स की मात्रा को भी पता लगाएगा.

बता दें कि जैसे-जैसे रोवर 'प्रज्ञान' चांद की सतह पर आगे बढ़ेगा, चांद की सतह पर भारतीय तिरंगा और इसरो का लोगो बनता चला जाएगा. टाइम्स ऑफ इंडिया से बातचीत करते हुए इसरो चीफ एस सोमनाथ ने कहा कि धरती के 14 दिनों में प्रज्ञान कितनी दूरी तय करेगा. इस बारे में अभी अंदाजा नहीं लगाया जा सकता है. क्योंकि ये कई चीजों के आधार पर किया जाएगा. 'विक्रम' लैंडर के चंद्रमा के दक्षिणी ध्रुव पर सॉफ्ट लैंडिंग कर अपना काम पूरा करने के बाद अब रोवर 'प्रज्ञान' के चंद्रमा की सतह पर कई प्रयोग करने के लिए लैंडर मॉड्यूल से बाहर निकलने की संभावना है.

भारतीय अंतरिक्ष अनुसंधान संगठन (इसरो) के अनुसार, लैंडर और रोवर में पांच वैज्ञानिक उपक्रम (पेलोड) हैं जिन्हें लैंडर मॉड्यूल के भीतर रखा गया है. इसरो ने कहा कि चंद्रमा की सतह पर वैज्ञानिक प्रयोग करने के लिए रोवर की तैनाती चंद्र अभियानों में नयी ऊंचाइयां हासिल करेगी. लैंडर और रोवर दोनों का जीवन काल एक-एक चंद्र दिवस है जो पृथ्वी के 14 दिन के समान है.

https://hindi.news18.com/news/nation/chandrayaan-3-pragyan-rover-will-send-detail-of-moon-land-vikram-lander-isro-mission-7333925.html

THE HINDU

Wed, 23 Aug 2023

Chandrayaan-3 Lander on the Moon

With the successful landing, India also became the first country to land near Moon's south pole

With the successful landing of the Lander Module of ISRO's third lunar mission Chandrayaan-3, India has reached the Moon! It has also became the first country to land near the Moon's south pole.

The Lander Module (LM) of the Indian Space Research Organisation's (ISRO) third lunar mission Chandrayaan-3, launched on July 14, made a successfully landing on the Moon's surface on August 23, making India only the fourth country after the erstwhile USSR, the U.S. and China to make a soft landing on the lunar surface. Congratulating the team of scientists at ISRO, PM Modi said, "India's successful moon mission is not India's alone...Our approach of one earth, one family one future is resonating across the globe...Moon mission is based on the same human centric approach. So, this success belongs to all of humanity."

Precisely at 6.03 p.m. the lander touched the lunar surface and there was euphoric celebrations at the Mission Operations Complex (MOX) at ISRO Telemetry, Tracking, and Command Network (ISTRAC), Bengaluru. Following this, the Lander successfully deployed the Rover which will carry out in-situ chemical analysis of the lunar surface during the course of its mobility. The Lander and the Rover with a mission life of one Lunar day (14 Earth days) have scientific payloads to carry out experiments on the lunar surface.

https://www.thehindu.com/sci-tech/science/isro-chandrayaan-3-vikram-lander-touch-down-live-updates/article67219323.ece

bt | Business Today

Thu, 24 Aug 2023

Chandrayaan-3: Rover Pragyan Rolls out of Vikram Lander; ISRO Says 'India Took a Walk on the Moon'

Chandrayaan-3's Pragyan rover has rolled out from the Vikram lander and is onto the lunar surface, the Indian Space Research Organisation (ISRO) informed today on X, formerly known as Twitter.

"Chandrayaan-3 ROVER: Made in India, Made for the MOON! The Ch-3 Rover ramped down from the Lander and India took a walk on the moon! More updates soon," the space agency said.Chandrayaan-3 Mission:

Chandrayaan-3 ROVER:

Made in India

Made for the MOON !

The Ch-3 Rover ramped down from the Lander and

India took a walk on the moon !

More updates soon.#Chandrayaan_3#Ch3

— ISRO (@isro) August 24, 2023

The development comes hours after Chandrayaan-3's Vikram lander made a successful soft landing on the south pole of the Moon.

In a giant leap for its space programme, India's Moon mission Chandrayaan-3 touched down on the lunar south pole at 6.04 pm on Wednesday, propelling the country to an exclusive club of four and making it the first country to land on the uncharted surface.

Shortly after the landing, ISRO said the communication line had been established between the lander Vikram and its command centre in Bengaluru. The space agency also shared the first image of the lunar surface after landing.

The space agency also shared images of the lunar surface taken by the Lander Horizontal Velocity Camera taken during the descent, which began at 5:45 pm this evening.

Meanwhile, Prime Minister Narendra Modi said India is now on the Moon and the success belongs to all humanity.

Modi, who virtually joined from South Africa to witness the culmination of the space odyssey, lauded scientists for their efforts and said the success of the lunar mission has sounded the bugle for India to emerge as a developed nation.

ISRO Chief S Somanath said the success of Chandrayaan-3 gives Indian space scientists the confidence to undertake more challenging future missions.

"We have achieved soft landing on Moon. India is on the Moon," he said minutes after ISRO achieved the feat.

https://www.businesstoday.in/latest/in-focus/story/chandrayaan-3-rover-pragyan-rolls-out-of-vikram-lander-isro-says-india-took-a-walk-on-the-moon-395324-2023-08-24