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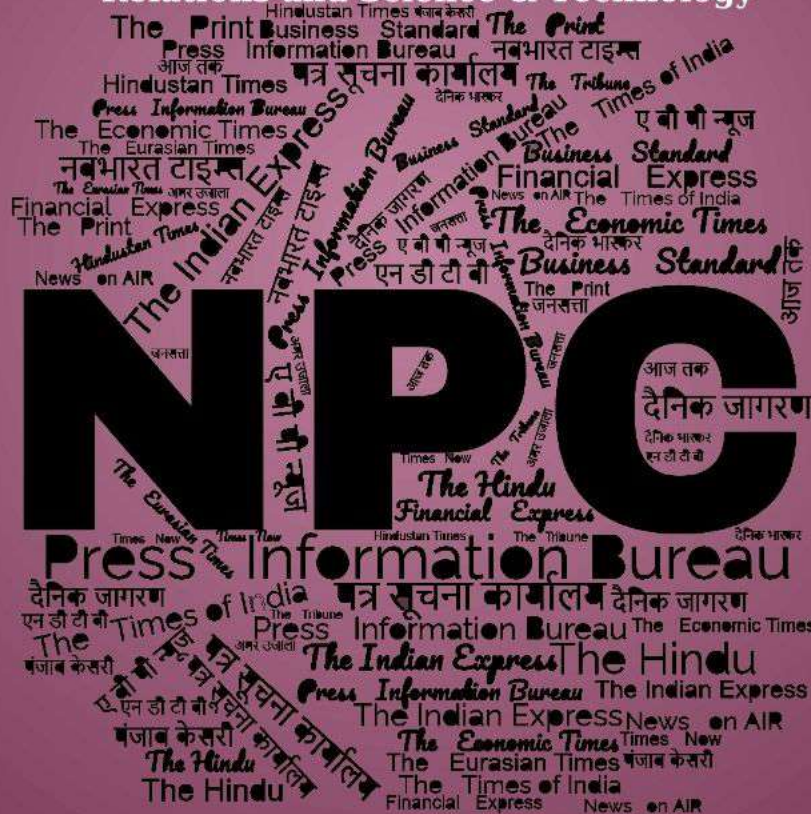
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# समाचार पत्रों से चयनित अंश Newspapers Clippings

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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## DRDO News

### DRDO conducts high-altitude trials of Indigenous Integrated Life Support System for LCA Tejas

Source: Press Information Bureau, Dt. 05 March 2025,

URL: <https://pib.gov.in/PressReleasePage.aspx?PRID=2108147>

The Defence Bio-Engineering & Electro Medical Laboratory (DEBEL), a Bengaluru-based lab under the Defence Research and Development Organisation (DRDO), successfully conducted high-altitude trials of the Indigenous On-Board Oxygen Generating System (OBOGS)-based Integrated Life Support System (ILSS) for the LCA Tejas aircraft, on March 04, 2025.

The OBOGS-based ILSS is a cutting-edge system designed to generate and regulate breathable oxygen for pilots during flight, eliminating dependence on traditional liquid oxygen cylinder-based systems. The ILSS underwent rigorous testing on the LCA-Prototype Vehicle-3 aircraft of Hindustan Aeronautics Limited (HAL)/ Aeronautical Development Agency (ADA), meeting stringent aeromedical standards in varied flight conditions, including altitudes of up to 50,000 feet Above Mean Sea Level and high-G maneuvers.

Performance evaluations covered critical aspects such as oxygen concentration, demand breathing, availability of 100% oxygen, aerobic maneuvers at required altitudes for full functional testing of Anti – G Valve, Breathing Oxygen System (BOS) ON during taxiing, Take off, Cruise, G turns and rejoin approach & landing. Following flight clearance from Centre for Military Airworthiness & Certification (CEMILAC), the system successfully met all specified parameters. Beyond OBOGS, the ILSS integrates 10 Line Replaceable Units, including the Low-Pressure Breathing Regulator, BOS, Emergency Oxygen System, Oxygen Sensor, Anti-G valve, and other advanced components. This would ensure real-time oxygen generation, enhancing pilot endurance and operational effectiveness.

The system has been manufactured by L&T as a Development cum Production Partner, reflecting a significant collaboration between DRDO and Indian defence industries. Notably, the ILSS has 90% indigenous content, furthering India's self-reliance in aerospace technology. With appropriate modifications, the system can also be adapted for use in MiG-29K and other aircraft. This milestone has been achieved through the collaborative efforts of DEBEL, ADA, HAL, CEMILAC, National Flight Test Center, Directorate General of Aeronautical Quality Assurance, and the Indian Air Force (IAF).

Raksha Mantri Shri Rajnath Singh congratulated DRDO, IAF, Public Sector Undertakings, and industry partners on this remarkable achievement, emphasising that this development reinforces India's commitment to cutting-edge defence technologies and aligns with the vision of 'Viksit Bharat 2047.'

Secretary, Department of Defence R&D and Chairman DRDO Dr Samir V Kamat also lauded the DRDO team, the IAF, and industry partners for their contributions towards the successful high-altitude trial of the Indigenous ILSS for LCA Tejas.

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## India's DRDO unveils BM-04 SRBM

Source: *Jane's*, Dt. 05 March 2025,

URL: <https://swarajyamag.com/news-brief/bangladesh-deploys-turkish-bayraktar-tb-2-drones-for-surveillance-near-indian-border-amid-concerns-over-pakistan-ties>

India's state-owned Defence Research & Development Organisation (DRDO) has unveiled a full-scale model of a new short-range ballistic missile (SRBM) named BM-04 at the Vigyan Vaibhav 2025 defence exhibition in the South Indian city of Hyderabad.

According to a DRDO information board displayed at the exhibition, which concluded on 2 March, the BM-04 is canister launched and features a two-stage solid-fuel propulsion system.

DRDO said the BM-04 has a range of 400–1,500 km and features a conventional warhead of 500 kg. It uses satellite (GPS and Indian Regional Navigation Satellite System)-aided inertial navigation for guidance and has a claimed circular error probability (CEP) of less than 30 m.

DRDO said the missile weighs 11,500 kg, has a length of 10.2 m, and has a diameter of 1.2 m. On the information board, the BM-04 is depicted in a vertical launch position at the rear of a six-axle Tatra land-based launcher vehicle.

*Janes* analysis of BM-04 images suggests that the SRBM is designed to a boost-glide vehicle concept, consisting of a two-stage propulsion, with a re-entry vehicle (RV) mounted on top of a large boost stage.

The RV appears to have a conical-shaped body, with a base diameter slightly less than the diameter of the booster. The BM-04 appears visually similar to DRDO's Agni I-class SRBM but with two-stage propulsion and smaller conventional payload.

According to *Janes Weapons: Strategic*, Agni I is a road-/rail-launched SRBM, which is in operation with the Indian military. The missile has a range of 1,200 km. Agni I is also being integrated with new technology developments, for example, hypersonic systems. It has a payload of 2,000 kg and features a single-stage solid-fuel propulsion system.

The BM-04's RV features four fixed wings at mid-body and cropped delta control tailfins. The RV, which has a length of about 2.9 m and a base diameter of 0.8 m, separates after boost burnout. The first-stage booster is about 5.5 m in length, and the missile's second-stage booster is around 2 m.

The BM-04 SRBM project is likely overseen by DRDO's Advanced Systems Laboratory (ASL), whose primary function consists of the design and development of missile systems.

DRDO had not responded to *Janes* questions at the time of publication.

### Analysis

The design and configuration of the BM-04 appear similar to the US Long-Range Hypersonic Weapon (LRHW), known as Dark Eagle. However, the canister and launch configuration of the BM-04 is different and has reduced performance compared with the LRHW.

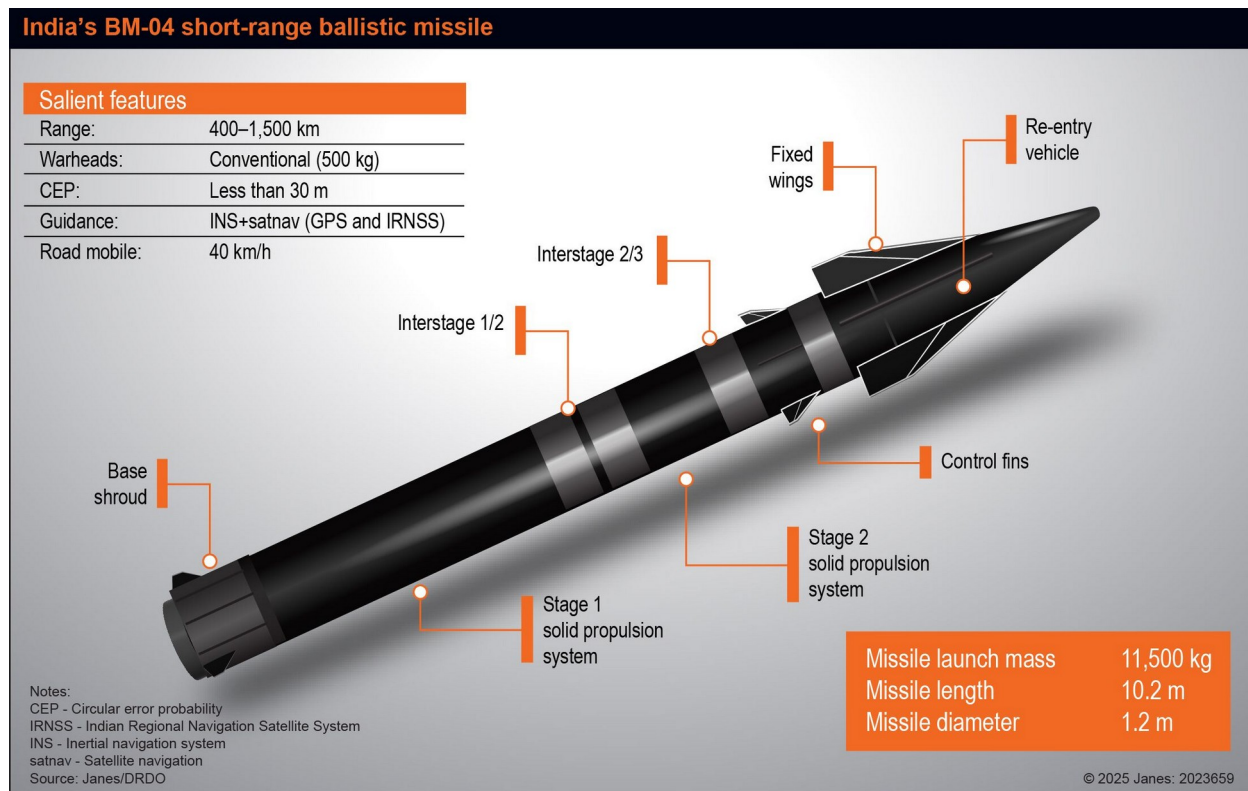
The BM-04 is potentially leveraging India's evolving experience in hypersonic technology demonstrators. The exhibited model appears to be a prototype and would require further DRDO development prior to trials.

The missile was one of several new missiles displayed by DRDO at the Vigyan Vaibhav 2025 exhibition.

DRDO also exhibited at the show a model of a transporter erector launcher (TEL)-launched hypersonic glide vehicle (HGV), the design of which appears to be a wedge shape similar to China's Dong Feng-17 (DF-17) HGV.

An HGV is an unpowered vehicle that is launched by a rocket booster into the upper atmosphere. After separation from its booster, the HGV steers towards its target at hypersonic speed using high kinetic energy to produce lift and aerodynamic forces to maintain its trajectory. The DF-17 is a medium-range ballistic missile (MRBM) operated by the People's Liberation Army (PLA).

DRDO conducted a flight trial of India's first long-range hypersonic missile from Dr APJ Abdul Kalam Island off the coast of the eastern Indian state of Odisha in late November 2024. It said at the time that the missile has a range greater than 1,500 km and can carry various payloads, without elaborating.



The BM-04, [India's](#) newest short-range ballistic missile, was displayed by the Defence Research & Development Organisation at a defence exhibition in Hyderabad. (Janes/DRDO) 2023659

To boost India's hypersonic capability, DRDO also tested its Hypersonic Technology Demonstration Vehicle (HSTDV) in 2023. The HSTDV features a scramjet demonstration vehicle that burns hydrocarbon fuel and operates at Mach 6 during the cruise phase of its trajectory.

DRDO's BrahMos Aerospace joint venture with Russia is also developing a hypersonic variant of the BrahMos missile. This weapon – called BrahMos II – will reportedly have similar specifications to Russia's 3M-22 Zircon hypersonic anti-ship missile.

## Defence News

### Defence Strategic: National/International

#### **China continues military modernisation push with 7.2% defence budget hike for third straight year**

Source: The Print, Dt. 05 March 2025,

URL: <https://theprint.in/defence/china-continues-military-modernisation-push-with-7-2-defence-budget-hike-for-third-straight-year/2534586/>

China has hiked its national defence budget for 2025 by 7.2 percent in line with its push for military modernisation. The budget, totalling 1.78 trillion yuan (\$245 billion), was revealed at the third session of the 14th National People's Congress Wednesday. Despite an economic growth target of approximately 5 percent for the year, China's military spending continues to outpace economic expansion. This marks the third consecutive year of a hike of 7.2 percent, following a 7.1 percent rise in 2022 and 6.8 percent in 2021, according to *CNBC*.

Under President Xi Jinping's leadership, the defence budget has more than doubled from 720 billion yuan in 2013 as China has been investing heavily in advanced military capabilities, including missiles, ships, submarines and surveillance technology. China also has the world's largest navy, a key advantage in regional power projection. Xi's goal is to achieve full military modernisation by 2035.

The defence report emphasises combat readiness and scientific advancements, while addressing political integrity within the People's Liberation Army (PLA), following corruption scandals that led to the expulsion of two former defence ministers and a Central Military Commission member from the Chinese Communist Party.

China's military strategy focuses on asserting its territorial claims, particularly in the Taiwan Strait and the South China Sea. The PLA has increased its military drills, including an unprecedented live-fire naval exercise in the Tasman Sea in February, prompting commercial flight diversions. Taiwan has also reported increased Chinese military incursions, with Beijing maintaining pressure with frequent aircraft missions.

Meanwhile, Taiwan has announced plans to boost its own military budget in response to the growing threats, strengthening its defence capabilities with advanced US F-16s, missiles and domestically produced armaments.

Taiwanese security analysts note that China's military build-up is aimed at countering US influence in Asia, according to *Taipei Times*. The US, which remains the world's top defence

spender with a proposed 2025 military budget of \$850 billion, has bolstered Taiwan's defences with upgraded F-16s, missiles and tanks.

"Beijing is trying to make acceptance of China as the relatively more predictable superpower easy as possible for others," Sung Wen-ti, a non-resident fellow at the Atlantic Council, told *Taipei Times*.

In response, Chinese Premier Li Qiang reiterated Beijing's stance against Taiwan's independence while advocating for peaceful reunification.

According to the Pentagon, the headquarters of the US Department of Defense, and military analysts, China's actual defence spending could be 40 percent higher than the reported figures due to hidden expenditures spread across other budgets. China has defended its military spending as necessary for maintaining stability, with officials stating that "peace needs to be safeguarded with strength".

While Beijing has asserted that its defence budget remains below 1.5 percent of its GDP, significantly lower than the global average, its continued investment in high-tech weaponry signals its ambition to reshape regional power dynamics.

India has increased its defence budget by 9.5 percent for FY 2025-26, raising the total allocation to Rs 6.81 trillion (\$78.7 billion). The focus remains on military modernisation, including advanced aircraft, drones and next-generation weaponry.

Border tensions with China in Ladakh and Arunachal Pradesh continue to shape India's strategic outlook. It is enhancing indigenous defence production and strengthening alliances with global partners, including the US, Japan and Australia, to bolster its security posture in the region.

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## **Gautam Adani visits defence manufacturing unit in Kanpur, witnesses innovation**

**Source: The Tribune      Dt. 05 March 2025,**

**URL: <https://www.tribuneindia.com/news/business/gautam-adani-visits-defence-manufacturing-unit-in-kanpur-witnesses-innovation/>**

Adani Group Chairman Gautam Adani visited the Adani Defence and Aerospace site in Kanpur. Taking to X, the Adani Group chief said he was Inspired to witness the Adani team's incredible innovation and "rock solid commitment" to India's self-reliance in defence.

"Best of Atmanirbhar Bharat in action! Our aim is to keep pushing boundaries to help build a stronger, self-reliant India!" he further wrote.

India aspires to be among the top five nations in defence and aerospace by reducing its current dependence on military imports, bolstering defence manufacturing through indigenous private defence firms, and ensuring an advanced infrastructure that works in line with the real heroes of the nation and those who devote their lives in the line of defence.

Adani Defence and Aerospace has forayed into defence and aerospace manufacturing to play an instrumental role in helping transform India into a destination for world-class defence and aerospace manufacturing aligned with the Make in India initiative.

The government has introduced multiple policy measures and reforms to foster indigenous design, development, and production of defence equipment, thereby advancing self-reliance in defence manufacturing.

Significant investments are being made in defence and aerospace manufacturing, with the establishment of several defence hubs. Moreover, many global companies have already shared or shown a willingness to share critical defence and aerospace expertise with India.

India's defence exports reached a record Rs 21,083 crore (approximately USD 2.63 billion) in the financial year 2023-24, a 32.5 percent increase from Rs 15,920 crore in the previous fiscal year.

Notably, defence exports have grown 31-fold over the past decade compared to 2013-14. The total value of defence production in India also increased by 17 per cent to Rs 126,887 crore in the last fiscal year. (ANI)

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## **Air Force's demand for new multirole fighters gets defence panel's nod: Sources**

**Source: India Today      Dt. 05 March 2025,**

**URL: <https://www.indiatoday.in/india/story/indian-air-force-new-multirole-fighters-accepted-defence-ministry-committee-sources-2689578-2025-03-06>**

As part of its efforts to enhance the Indian Air Force's capabilities, the Defence Ministry Committee has accepted the need for new multirole fighters for the force, defence sources told India Today TV.

The committee submitted its report on the capability enhancement of the force on March 2 to Defence Minister Rajnath Singh.

The panel, headed by Defence Secretary Rajesh Kumar, accepted the need for new multirole fighter aircraft for the force, which has been a longstanding demand of the service, defence sources said.

The Air Force needs 114 new multirole fighter aircraft that would be required to meet its capabilities on both fronts.



The committee has identified key thrust areas and made recommendations for implementation in the short, medium and long-term to achieve the desired capability enhancement goals of the Air Force in an optimal manner.

The report also underscored the need for impetus to enhance 'Aatmanirbharta' (self-reliance) in the aerospace domain, with the private sector complementing the efforts of the Defence Public Sector Undertakings (DPSUs) and the Defence Research and Development Organisation (DRDO).

Rajnath Singh appreciated the work of the committee and directed that the recommendations be followed up in a time-bound manner.

## **Australia's Chief of Defence Force hosts CDS General Chauhan, expresses commitment to working with India on enhancing interoperability**

Source: The Tribune, Dt. 06 March 2025,

URL: <https://www.tribuneindia.com/news/world/australias-chief-of-defence-force-hosts-cds-general-chauhan-expresses-commitment-to-working-with-india-on-enhancing-interoperability/>

Australia's Chief of the Defence Force, Admiral David Johnston AC RAN hosted Chief of Defence Staff General Anil Chauhan in Canberra on Wednesday. Admiral David Johnston AC Ran welcomed General Chauhan to Australia and expressed Australia's commitment to working closely with India on enhancing interoperability, strengthening people-to-people ties and further cooperation with key partners to promote regional stability and security.

General Chauhan's visit included meetings with senior Defence leaders, according to the Australian government's statement. During General Chauhan's visit, discussions focused on practical ideas to realise both nations' long-term vision of a defence and security collaboration that enhances

collective strength and contributes to the security of two nations. This was the first visit of India's Chief of Defence Staff to Australia. The Australian government called India a "top-tier security partner" for Australia.



He said, "It was a pleasure to welcome General Chauhan on his first official visit to Canberra. General Chauhan's visit underlines the value of our defence partnership with India."

"We are committed to working closely with our Indian partners to enhance our interoperability, strengthen people-to-people links, and further cooperation with key partners to promote regional stability and security," he added.

CDS General Anil Chauhan is on a four-day official visit to Australia from March 4-7, reflecting the deepening ties between two nations in the realm of defence cooperation.

In the statement, the Australian government said, "India is a top-tier security partner for Australia, with both countries committed to working together to promote a peaceful, stable and prosperous Indo-Pacific region."

India and Australia have established a strong tempo of exercises and activities across maritime, land and air domains working through the bilateral Comprehensive Strategic Partnership and as trilateral and quadrilateral partners.

During the visit, General Anil Chauhan and Admiral David Johnston AC RAN laid a wreath at the Last Post Ceremony at the Australian War Memorial in Canberra.

In a statement, the Australian government stated, "The visit advanced cooperation on shared priorities and interoperability, including in maritime domain awareness, reciprocal information sharing, and deployments from each other's territories."

In a press release, the Ministry of Defence noted that the visit underscores the growing engagement between India and Australia.

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## Defence Ministry to expand competitive bidding for weapons procurement; move to level playing field for private firms

Source: Money Control Dt. 05 March 2025

URL: [https://www.moneycontrol.com/news/business/defence-ministry-to-expand-competitive-bidding-for-weapons-procurement-move-to-level-playing-field-for-private-firms-12957752.html#:~:text=The%20defence%20ministry%20is%20planning,public%20sector%20undertakings%20\(DPSUs\).](https://www.moneycontrol.com/news/business/defence-ministry-to-expand-competitive-bidding-for-weapons-procurement-move-to-level-playing-field-for-private-firms-12957752.html#:~:text=The%20defence%20ministry%20is%20planning,public%20sector%20undertakings%20(DPSUs).)

The defence ministry is planning to expand competitive bidding for weapons procurement for the armed forces which could level the playing field for the private sector.

The current process leads to majority of production being secured by the defence public sector undertakings (DPSUs). According to a report on Business Standard, the move is part of the government's ongoing shift from directly awarding procurement contracts to public-sector entities without a tendering process.

"The MoD is focusing on a more expeditious industrial licensing process in defence and taking additional steps to enhance ease of doing business. This is an ongoing effort involving multiple branches of the ministry, particularly the Department of Defence Production, along with the Department for Promotion of Industry and Internal Trade and the Petroleum and Explosives Safety Organisation," Defence Secretary Rajesh Kumar Singh told Business Standard.

As part of this ongoing process, the concerns of the private industry—nomination in military acquisitions, and the 'no-cost, no-commitment' approach to product trials for capital procurements, where the government neither funds evaluations nor guarantees purchase after trials—would be discussed with all stakeholders.

Recently, the Empowered Committee for Capability Enhancement of the Indian Air Force, headed by Defence Secretary Rajesh Kumar Singh, identified key thrust areas and made recommendations for medium- and long-term measures in its report presented to Defence Minister Rajnath Singh.

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## करगिल एयरस्ट्रिप पर पहली बार उतरा सी-17 ग्लोबमास्टर, इंडियन एयरफोर्स की ताकत बढ़ेगी चार गुना

Source: Navbharat times Dt. 05 March 2025

URL: <https://navbharattimes.indiatimes.com/india/indian-air-force-c17-globemaster-landed-for-the-first-time-at-kargil-airstrip/articleshow/118739487.cms>

करगिल एयरस्ट्रिप पर पहली बार इंडियन एयरफोर्स का सी-17 ग्लोब मास्टर एयरक्राफ्ट उतरा। सूत्रों के मुताबिक बुधवार को इसकी पहली ट्रायल लैंडिंग की गई जो सफल रही। यह एक बड़ी उपलब्धि इसलिए है क्योंकि इससे एयरफोर्स की लोड कैरिंग कैपेसिटी (वजन ले जाने की क्षमता) चार गुना से भी ज्यादा बढ़ जाएगी। लाइन ऑफ एक्चुअल कंट्रोल के पास सेना की कई पोस्ट तक सैनिक और सामान पहुंचाने के लिए अब ज्यादा आसानी होगी। जब बर्फबारी होती है तो कई महीनों तक सड़क मार्ग बंद होने से एयरफोर्स के एयरक्राफ्ट ही सामान, सैन्य सामान और सैनिक पहुंचाने का एकमात्र जरिया होते हैं।

अब तक करगिल एयरस्ट्रीप पर एन-32 और सी-130 एयरक्राफ्ट के जरिए ही लोड पहुंचाया जाता रहा है। एन-32 करीब 4-5 टन वजन ले जा सकता है और सी-130 करीब 6-7 टन वजन ले जा सकता है। लेकिन सी-17 ग्लोब मास्टर की लोड कैरिंग कैपेसिटी 25 टन से ज्यादा है और सर्दियों में यह कैपेसिटी 35 टन तक होती है। जो सामान पहुंचाने के लिए सी-130 को जहां चार चक्कर लगाने पड़ते वहीं सी-17 से वह एक चक्कर में ही हो जाएगा। सूत्रों के मुताबिक अभी दिन के वक्त ही सी-17 की लैंडिंग का ट्रायल हुआ है, इसलिए शुरू में इसे दिन को वक्त ही इस्तेमाल किया जा सकेगा।

### रात के वक्त भी उतरा था एयरक्राफ्ट

पिछले साल जनवरी में इंडियन एयरफोर्स ने अपने ट्रांसपोर्ट एयरक्राफ्ट सी-130J को पहली बार रात के वक्त कारगिल एयरस्ट्रीप पर उतारा था। तब पहली बार करगिल में कोई फिक्स्ड विंग एयरक्राफ्ट रात के वक्त उतरा था और तब इस एक्सरसाइज के दौरान टेरेन मास्किंग का काम करते हुए गरुड़ कमांडो को भी तैनात किया गया था। टेरेन मास्किंग का मतलब है कि टेरेन यानी पहाड़, जंगल जैसी प्राकृतिक चीजों का इस्तेमाल दुश्मन के रडार से बचने के लिए करना। इससे दुश्मन की रडार के पकड़ में आए बिना सैनिकों की तैनाती की जा सकती है और वे अपने ऑपरेशन को अंजाम दे सकते हैं।

## Bofors scam: CBI sends judicial request to US, seeks information from investigator

Source: Indian Express

Dt. 06 March 2025,

URL:<https://indianexpress.com/article/india/bofors-scam-cbi-judicial-request-us-9869564/>

The Central Bureau of Investigation (CBI) has made a judicial request to the United States after sending a Letter Rogatory (LR), requesting information from private investigator Michael Hershman, who had expressed willingness to share with Indian agencies crucial details about the Rs 64 crore Bofors bribery scandal of the 1980s.

An LR is a written request sent by the court of one country to the court of another country to obtain assistance in the investigation or prosecution of a criminal matter.

A source said the process to send the LR was initiated on October 14 last year, and it was sent in February after approval from the court concerned. The CBI has also informed the special court hearing the agency's plea for further probe into the alleged bribery case about the recent developments.

On March 18, 1986, India signed a Rs 1,437 crore deal with Swedish arms manufacturer AB Bofors for the supply of 400 155 mm Howitzer guns for the Army. A year later, on April 16, 1987, a Swedish radio channel alleged that the company had bribed top Indian politicians and defence personnel to secure the contract.

The scandal rocked the Rajiv Gandhi-led government in the late 1980s. On January 22, 1990, the CBI lodged an FIR against the then Bofors president Martin Ardbo, alleged middleman Win Chadda, and the Hinduja brothers for criminal conspiracy, cheating and forgery.

It was alleged that certain public servants and private people in India and abroad had entered into a criminal conspiracy between 1982 and 1987 in pursuance of which the offences of bribery, corruption, cheating and forgery were committed.

The first chargesheet in the case was filed on October 22, 1999, against Chadda, Ottavio Quattrocchi, the then defence secretary S K Bhatnagar, Ardbo and the Bofors company. A supplementary chargesheet was filed against the Hinduja brothers on October 9, 2000.

On May 31, 2005, Justice (retired) R S Sodhi of the [Delhi](#) High Court had quashed the CBI case in the Bofors pay-off scam. Before that, Justice (retired) J D Kapoor, had on February 4, 2004, exonerated Gandhi in the case and directed the framing of charge of forgery under Section 465 of the Indian Penal Code against Bofors company.

On March 4, 2011, a special CBI court in Delhi had discharged Quattrocchi from the case saying the country could not afford to spend hard-earned money on his extradition which had already cost Rs 250 crore. Quattrocchi, who had fled India on July 29-30, 1993, never appeared before any court in India to face prosecution. He passed away on July 13, 2013. Bhatnagar, Chadda and Ardbo were the other accused who died.

The CBI appealed against the 2005 decision in the Supreme Court in 2018 but the plea was dismissed on the grounds of delay. The Supreme Court, however, allowed it to raise all the points in an appeal filed by advocate Ajay Aggarwal in 2005.

Hershman, head of the Fairfax Group, visited India in 2017 to attend a conference of private detectives. During his stay, he appeared on various platforms, alleging that the investigation into the scam was derailed by the Congress government and stated he was willing to share details with the CBI. The agency took note of his claims in several interviews and announced in 2017 that the matter would be investigated according to due process.

Earlier, the CBI had informed the special court that following Hershman's revelations, it plans to reopen the investigation. The agency had previously also sent letters and reminders to US authorities on November 8, 2023, December 21, 2023, May 13, 2024, and August 14, 2024, but received no information, with the US authorities requesting additional time.

## Science & Technology News

### **Dr. Jitendra Singh Highlights ₹20,000 Cr Boost for Research & Innovation, Says India Emerging as Global R&D Leader**

**India achieved Global Rank 3 in StartUps in last one decade**

**India Ranks 3rd in Scientific Research, Global Innovation Index Rises from Rank 81 to 39, Patent Grants Surge 17-Fold: Dr. Jitendra Singh**

**Govt's Innovation Drive to Propel Deep-Tech, Sunrise Sectors, and Triple PM Research Fellowships**

**Dr. Jitendra Singh in Post Budget Webinar: India to Strengthen Crop Security with National Enlarged Gene bank Replica**

**Source: Press Information Bureau, Dt. 05 March 2025,**

**URL: <https://pib.gov.in/PressReleasePage.aspx?PRID=2108546>**

Union Minister of State (Independent Charge) for Science and Technology; Earth Sciences and Minister of State for PMO, Department of Atomic Energy, Department of Space, Personnel, Public Grievances and Pensions, Dr. Jitendra Singh said that India achieved global Rank 3 in StartUps in last one decade and reaffirmed the Union Government's commitment to making India a global innovation hub, highlighting the ₹20,000 crore allocation in Budget 2025-26 for the Research, Development, and Innovation initiative.

He explained that the initiative aims to boost research and innovation in the private sector, with a strong focus on expanding efforts in sunrise industries. Speaking at the concluding session of the Post Budget Webinar 2025 on "Investing in Innovation," he emphasized that this funding would drive cutting-edge research and technological advancements, particularly in deep-tech sectors.

The announcement builds on the ₹1 lakh crore corpus introduced in Budget 2024-25 to accelerate research and development (R&D) in the private sector, with a strong focus on sunrise technologies. Dr. Jitendra Singh underscored that these initiatives would strengthen India's innovation ecosystem and encourage private sector investments in critical domains like semiconductor manufacturing, artificial intelligence, 5G, and quantum computing.

"India has made significant strides in innovation, with patent grants increasing 17 times since 2014 and our position in the Global Innovation Index rising from 81th to 39th among 133 economies. Today, we rank third globally as a leading contributor to scientific research," Dr. Jitendra Singh stated.

Recognizing the need to nurture world-class research talent, the government has tripled the intake under the Prime Minister's Research Fellowship (PMRF) Scheme. Originally launched in 2018, the scheme has so far supported 3,688 scholars. The latest Budget expands its reach to 10,000 fellowships over the next five years, offering more opportunities for young scientists to pursue groundbreaking research at India's premier institutions.

"The PMRF is not just about financial assistance; it is about fostering an ecosystem where academic excellence and intellectual curiosity thrive," the Minister remarked.

Underscoring the significance of geospatial technology for economic growth and infrastructure planning, Dr. Jitendra Singh highlighted the National Geospatial Mission, an initiative launched under the 2022 National Geospatial Policy. "This mission is critical for India's transition to a developed nation by 2047," he said, citing its applications in urban planning, disaster management, and precision agriculture.

India's agricultural security is also receiving a boost with the establishment of a National Enlarged Gene bank Replica. "India's National Gene bank is the second largest globally, preserving over 4.7 lakh accessions of 2,147 species, including traditional crops. The new initiative will further safeguard our crop diversity and ensure long-term food security," Dr. Jitendra Singh explained.

In an ambitious effort to protect India's vast manuscript heritage, the Gyan Bharatam Mission has been launched to digitize over one crore ancient manuscripts and create a National Digital Repository. "India has an unparalleled intellectual and cultural wealth, much of which is fragile and inaccessible. This initiative will ensure its preservation and accessibility for scholars and researchers worldwide," the Minister emphasized.

Concluding the session, Dr. Jitendra Singh reiterated that these initiatives align with the government's broader vision of 'Viksit Bharat 2047', a roadmap for India's transformation into a developed nation. "Investment in innovation is not just about economic growth—it is about empowering young minds, strengthening our technological sovereignty, and securing India's future on the global stage," he said.

With bold investments in research fellowships, deep-tech, and digital infrastructure, the government is making a decisive push to position India as a global leader in science and technology.

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## **'Open University Culture' to Get Boost from National Education Policy (NEP) 2020, Says Union Minister Dr. Jitendra Singh at the 38th Convocation of IGNOU Regional Centre Jammu**

**NEP 2020 allows students to change subjects or combine subjects to diversify learning as per their choice and changing employment needs- a practice followed by IGNOU**

## **Hails Mudra Yojana and PM Vishwakarma Yojana which foster youth with self-employment and livelihood opportunities, rather than waiting for formal jobs**

### **Dr. Jitendra Singh credits Prime Minister Modi's leadership for the new state of the art IGNOU campus in Jammu**

**Source: Press Information Bureau, Dt. 05 March 2025,**

**URL: <https://pib.gov.in/PressReleasePage.aspx?PRID=2108515>**

Union Minister of State for Science & Technology, Personnel, Public Grievances and Pensions, Dr. Jitendra Singh, affirmed that the 'Open University Culture' will receive a significant boost from the National Education Policy (NEP) 2020 at the 38th Convocation of the IGNOU Regional Centre Jammu today.

Addressing the convocation in online mode, Union Minister of State (Independent Charge) for Science and Technology, Minister of State (Independent Charge) for Earth Sciences, MoS PMO, Department of Atomic Energy and Department of Space, MoS Personnel, Public Grievances and Pensions Dr. Jitendra Singh highlighted the role of IGNOU (Indira Gandhi National Open University) in transforming the education landscape, particularly for those unable to access formal educational setups due to socio-economic constraints. He emphasized that NEP 2020's progressive features, such as flexible entry and exit, choice-based credit systems, and diverse learning opportunities, align with the objectives of Open Universities like IGNOU.

Dr. Jitendra Singh elaborated on the importance of NEP 2020 in enabling students to diversify their learning paths by changing subjects or combining them based on personal choice and changing employment needs—an approach already practiced by IGNOU.

The Minister expressed his admiration for IGNOU's remarkable growth since its inception in 1985. He underscored that it is now the largest university in the world by student enrollment and has earned an A++ accreditation.

Highlighting key features of IGNOU's programs, such as flexible entry and exit, modular program design, and multimedia-based learning, Dr. Singh noted that these innovations cater to students' diverse needs, enabling them to learn at their own pace and convenience.

“Many of these features, including flexible degrees, choice-based credits, and the ability to change or combine subjects, are incorporated into NEP 2020, making IGNOU a true pioneer in the educational landscape,” said Dr. Singh.

The Science and technology Minister praised IGNOU for its global outreach, citing its 25 overseas study centers in 15 countries, with a robust international presence. Additionally, IGNOU's collaboration with the Indian Council for Cultural Relations (ICCR) and the Central Hindi Directorate (CHD) to offer a three-month online Basic Hindi Awareness program to foreign nationals in nine countries was also acknowledged.

Furthermore, he noted that through the e-VidyaBharati and e-Aarogya Bharati (e-VBAB) Network Project, 45 online programs are being offered in 19 African countries.

Dr. Singh also credited Prime Minister Modi's leadership for securing a strategic alliance between IGNOU and the Open University of Kenya (OUK), enhancing the global education ecosystem.

During his address, Dr. Jitendra Singh hailed government initiatives such as the Mudra Yojana and PM Vishwakarma Yojana, which empower youth by providing self-employment and livelihood opportunities. He explained that the Mudra Yojana offers skilled youth collateral-free loans of up to Rs. 20 lakhs to start their ventures, while the PM Vishwakarma Yojana supports traditional artisans by providing advanced toolkits and stipends during training, easing the financial burden on their families. Dr. Singh also emphasized the importance of skill development and recognized the special skill-based bachelor's degree programs designed to enhance the skills required for serving in the defense forces.

Acknowledging the importance of Information and Communication Technology (ICT) in modern education, Dr. Singh lauded IGNOU's efforts in integrating technology into learning. He specifically mentioned the six SWAYAM PRABHA channels operated by IGNOU, which provide students with access to quality educational content and resources online.

Union Minister Dr. Jitendra Singh expressed his delight and satisfaction with the new state-of-the-art IGNOU campus in Jammu, inaugurated on February 7, 2024 calling it a significant milestone for the region. Recalling that the establishment of the campus was a long-awaited dream since the center's inception in 1998, he described the new campus as a gift from Prime Minister Modi to the youth and aspiring learners of Jammu. He further highlighted the cumulative enrollment of nearly 6 lakh students at the Jammu Regional Centre, with over 2 lakh learners enrolled since 2020.

In his closing remarks, Dr. Singh urged the youth to contribute actively to the vision of a "Viksit Bharat" (Developed India) as envisioned by Prime Minister Modi for the year 2047, marking the centenary of India's independence. "Today's graduates are the fortunate ones who are witnessing India's transformative growth, and I urge them to be a part of this monumental journey toward a brighter future for the nation," Dr. Singh concluded.

38th Convocation - A Historic Moment for 11,293 Graduates

A total of 11,293 students from the IGNOU Regional Centre Jammu successfully completed their respective programs, marking a significant achievement. The program-wise breakdown of the successful graduates is as follows:- *Bachelors*: 5,852, *Masters*: 4,988, *Diplomas*: 316, *Certificates*: 137.

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## **Larsen & Toubro bets on space exploration as India expands private rocket and satellite industry**

Source: Deccan Herald      Dt. 06 March 2025,

URL : <https://www.deccanherald.com/business/companies/larsen-toubro-bets-on-space-exploration-as-india-expands-private-rocket-and-satellite-industry-3433008>

Indian industrial conglomerate Larsen & Toubro said it is betting on aerospace as a potential growth engine, including launch vehicle and satellite manufacturing, as the country cuts reliance on imports and boosts private participation.

L&T, considered a bellwether for India's infrastructure spending because of how many industries its work touches, is the country's largest private-sector defense manufacturer by revenue; its

Precision Engineering and Systems unit posted revenue of .10 billion rupees (\$548.3 million) in the 2024 fiscal year, up 41% from the previous year. At its factory in Coimbatore, in the southern Indian state of Tamil Nadu, L&T is assembling the country's first privately built Polar Satellite Launch Vehicle (PSLV), a mainstay of ISRO's launch programme, through a consortium with Hindustan Aeronautics Limited. It is also building equipment for ISRO's other deep space exploration programs.

The company hopes to scale up its space business amid India's privatization push, which has eased foreign investment limits and allocated a larger share of procurement budgets away from state-run enterprises. "We have decades of experience in high-tech manufacturing, critical systems, and scaling up production. The same expertise applies to aerospace," AT Ramchandani, senior vice president and head of L&T's Precision Engineering and Systems, told Reuters in an interview at the factory.

Walking through the facility, amid workers building heat shields and other rocket components, he said the global launch vehicle market was expected to hit about \$160 billion over the next decade. The Indian government has set a target of reaching \$44 billion for the country's commercial space sector in that time. India's space sector is valued at \$13 billion, according to a February report by research firm DAM Capital.

L&T's plans intersect with India's strategy to position the country as a leading space power, with Prime Minister Modi's government pushing for the industry to become a force for further economic growth.

The country hopes liberalized regulations allowing private firms to design, build and operate launch services will attract global players, mirroring the commercial space boom seen in the United States and Europe.

The first launch of a privately built PSLV booster, delayed from early 2025, is expected to occur by mid-year, though an exact date had not yet been decided, Ramchandani said. Each booster, several of which were in various stages of assembly in the factory, costs about \$30 million.

"Clearly when we are getting into a business like this, it is with an eye to the global market," Ramchandani said. "There's demand for timely and cost-effective launches, especially as satellite constellations grow. If we can provide availability, reliability, and cost advantages, India can be competitive."

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