

जून
June
2025

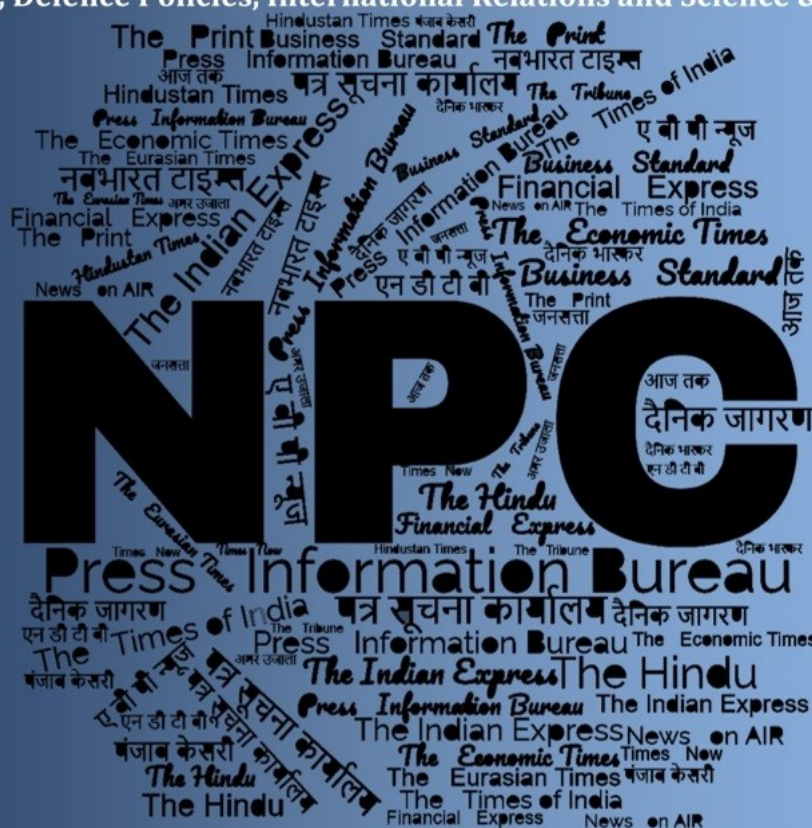
खंड/Vol. : 50 अंक/Issue : 99

31/05-02/06/2025

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

A Daily service to keep DRDO Fraternity abreast with DRDO Technologies, Defence Technologies, Defence Policies, International Relations and Science & Technology



रक्षा विज्ञान पुस्तकालय

Defence Science Library

रक्षा वैज्ञानिक सूचना एवं प्रलेखन केंद्र

Defence Scientific Information & Documentation Centre

मेटकॉफ हाउस, दिल्ली - 110 054

Metcalfe House, Delhi - 110 054

CONTENTS

S. No.	Title	Source	Page No.
	DRDO News		1-5
1	DRDO signs licensing agreement with NIBE Ltd for Pinaka MBRL and Battery Command Post	<i>The Economic Times</i>	1
2	DRDO to soon issue EOI for AMCA, HAL getting ready to bid through a consortium	<i>The Hindu BusinessLine</i>	2
3	44 सेकेंड में 72 रॉकेट फायर, बंकर को चुटकियों में कर देता है ध्वस्त, भारत इस अचूक अस्त्र को बना रहा और घातक	<i>News18 Hindi</i>	4
	Defence News		5-37
	Defence Strategic: National/International		
4	“Aatmanirbharta in Defence is critical not only for preserving the strategic autonomy of the country, but also for achieving the broader goal of Viksit Bharat”: Defence Secretary	<i>Press Information Bureau</i>	5
5	First Centre Fuselage for LCA Tejas Mk 1A Handed Over to HAL	<i>Press Information Bureau</i>	7
6	Keel Laying Of Last Ship (BY 530) Of ASW SWC (CSL) Project	<i>Press Information Bureau</i>	9
7	Operation Sindoor is India’s frontal assault against terrorism; If Pakistan resorts to anything evil, it will face Indian Navy’s firepower: Raksha Mantri onboard INS Vikrant	<i>Press Information Bureau</i>	10
8	Transformative milestone in NDA’s nation-building legacy: First-ever batch of 17 Female Cadets pass out from NDA after completing 148th Course – Spring Term 2025	<i>Press Information Bureau</i>	13
9	Indian Army Conducts Trials Of Next-Gen Defence Technologies Under Simulated Operational Conditions	<i>Press Information Bureau</i>	14
10	Maiden Visit Of EUNAVFOR Ships To India	<i>Press Information Bureau</i>	15
11	Army conducts Inter-Services Security Exercise; Force One, Mumbai cops take part	<i>The Economic Times</i>	17
12	Operation Sindoor: Three weeks later, CDS sheds new light on operations during hostilities	<i>The Indian Express</i>	18
13	‘Penetrated 300 km deep inside Pakistan’: What CDS revealed about Operation Sindoor	<i>Hindustan Times</i>	19
14	Modern warfare is no longer linear, but India’s wars are now networked, deceptive and home-grown: CDS Gen	<i>The Economic Times</i>	20
15	‘We can’t move north due to China’: CDS Chauhan says India must embrace Indian Ocean as its strategic future	<i>The Economic Times</i>	23

16	CDS Gen Anil Chauhan holds bilateral talks with Netherland counterpart on defence cooperation	<i>The Economic Times</i>	24
17	CDS General Anil Chauhan holds bilateral talks with Singapore counterpart, underscores defence cooperation	<i>ANI News</i>	25
18	"Fruitful engagement on strengthening military cooperation": CDS General Chauhan holds talks with German counterpart	<i>ANI News</i>	27
19	CDS General Anil Chauhan interacts with British counterpart, reinforces defence ties	<i>The Economic Times</i>	28
20	Weapon Training Camp 'HOSHIYAR-25' conducted by Coast Guard-West Bengal	<i>The Economic Times</i>	29
21	Operation Shield: India prepares for future threats with massive civil defence drills across border states	<i>The Economic Times</i>	30
22	Indian Army confirms induction of Tata RCWS	<i>Janes</i>	31
23	India-Mongolia joint military exercise 'Nomadic Elephant 2025' commences in Ulaanbaatar	<i>ANI News</i>	32
24	US expanding military ties with India, says US defence secretary Pete Hegseth, backs deeper QUAD role	<i>The Times of India</i>	34
25	India strengthens defence integration, technology and recruitment	<i>The Sunday Guardian</i>	35
	Science & Technology News		37-42
26	"TDB-DST supports Breakthrough in Stroke Care: Backs India's First Indigenous Thrombectomy Device by S3V Vascular Technologies"	<i>Press Information Bureau</i>	37
27	Eyes beyond the skies: How IIIT-Delhi and ISRO are training AI to watch over space debris, rogue satellite	<i>The Economic Times</i>	39
28	ISRO's Gaganyatri to carry out microgravity research experiments during upcoming Axiom-4 mission	<i>The Economic Times</i>	41

DRDO News

DRDO signs licensing agreement with NIBE Ltd for Pinaka MBRL and Battery Command Post

Source: The Economic Times, Dt. 30 May 2025

The Defence Research and Development Organisation (DRDO) on Friday signed a Licensing Agreement for Transfer of Technology (LAToT) with NIBE Limited for the Pinaka Multi Barrel Rocket Launcher (MBRL) and the Battery Command Post (BCP).



The agreement aims to strengthen the industrial base for the development and manufacturing of indigenous defence equipment. In a post on X, DRDO stated, "In an effort to enhance the industrial base in development and manufacturing of indigenous defence equipment, Armament Research & Development Establishment (ARDE), DRDO signed Licensing Agreement for Transfer of Technology (LAToT) of Pinaka Multi Barrel Rocket Launcher (MBRL) and Battery Command Post (BCP) with M/s NIBE Limited, Pune."

According to a release, the Pinaka MBRL is a state-of-the-art indirect fire weapon system engineered to neutralise area targets with high precision and rapid response.

Designed to launch 12 rockets from a stationary, inclined position, the system offers swift deployment and exceptional accuracy, making it highly effective against time-sensitive and critical enemy threats. Robust and ruggedized, the launcher is built to withstand cross-country mobility and diverse environmental conditions, ensuring reliability in demanding operational scenarios, the release said.

The signing of this agreement comes a day after DRDO Chairman Samir V Kamat urged the Indian industry to significantly increase investments in research and development to strengthen India's indigenous defence capabilities.

"We need to invest more in research and development. Today, we spend 5 per cent of our Defence budget on R&D. The Raksha Mantri has promised us that in the next five years, this will increase gradually to 10% of the Defence budget," Samir V Kamat said at the CII Annual Business Summit 2025 on Thursday.

"You can't afford to fight future wars with past technologies. If you have to win future battles, you have to invest in R&D within the country," he added. He congratulated the armed forces for the success of Operation Sindoor.

"Let me place on record the DRDO appreciation of the armed forces' efforts in conducting operations very successfully. I would also like to congratulate the Indian industry for helping us and producing the equipment they (Armed Forces) could use successfully during this operation," he said.

"I would like to congratulate the Indian industry for contributing significantly to making India the fourth largest economy in the world," he added. He highlighted the importance of working towards advanced technologies for cutting-edge systems.

"Technological changes are galloping. Although manufacturing is required, without the ability to design and develop your systems, you will always have systems that are not cutting-edge systems. We are not the leading R&D nation in the world at the moment. So we will have to catch up, which can be done by using the new emerging technologies," Kamat noted.

He said India's progress in Research and Development will not only strengthen its defence ecosystem but also expand defence exports. "We will work with you closely to make India a leading R&D country where people look to us for new innovations in defence technologies. If that happens, our exports will also increase."

"We will be at a position where our enemies would not want to deal with us in any form of war, and we can then grow economically at a much faster rate with our focus on lifting the country to become a developed country, which is the vision of our Prime Minister by 2047," he said.

<https://economictimes.indiatimes.com/news/defence/drdo-signs-licensing-agreement-with-nibe-ltd-for-pinaka-mbri-and-battery-command-post/articleshow/121517265.cms?from=mdr>

*

DRDO to soon issue EOI for AMCA, HAL getting ready to bid through a consortium

Source: The Hindu BusinessLine, Dt. 01 June 2025

Defence Research and Development Organisation's (DRDO's) Aeronautical Development Agency (ADA) is likely to issue an expression of interest in a few weeks to invite bids for selecting a production partner for 5.5 generation Advanced Medium Combat Aircraft (AMCA) as the first prototype is scheduled for sometime between 2026 to 2027.

Sources said the expression of interest to be issued by the ADA is expected to tap into the emerging indigenous aerospace sector and offer them opportunities to get into the manufacturing and supply chain of 5.5 generation stealth AMCA.

Some of the similar Indian companies -- like Tata Advanced Systems Ltd (TASL), L&T, Mahindra Aerospace, Dynamatic Technologies, Bharat Forge, Sansera Engineering, Azad Engineering, Aequs, and Godrej Aerospace -- are already offering world class body parts, systems, sub-systems and components to leading aircraft manufacturers like Boeing and Airbus.

Other global aerospace companies Pratt & Whitney, Rolls-Royce and Collins Aerospace, too, are expanding supply sourcing from India. Defence Minister Rajnath Singh on May 26 cleared the programme to begin production of the AMCA, through maiden private participation, to overcome the long awaited capacity deficiency of the Indian Air Force.

The announcement made it clear that only an indigenous firm, including a non-government firm, can pitch for the AMCA tender though they will be free to form either a joint venture with other entities or get into a consortium.

The ADA, which had conceived the project, will select the production partner and lead the programme for initial manufacturing of five prototypes of the next general stealth aircraft. Depending on the outcome, orders will follow.

To gear itself for public-private partnership, sources said, Hindustan Aeronautics Limited (HAL), which will be for the first time facing a competition to get a licence to manufacture fighter aircraft for the IAF, had already sought proposals from indigenous companies last year to put together a model for future speedier manufacturing of aerospace platforms.

Currently, the HAL has to evaluate 24 responses it has got from the indigenous companies to form a consortium to bid for the AMCA programme. While HAL will be the lead partner, other players shortlisted on the basis of their experience and financial strength will get equity depending on the money invested by them, said sources.

They had also informed the Ministry of Defence about it before Empowered Committee for Capability Enhancement of the Indian Air Force (IAF), headed by Defence Secretary Rajesh Kumar Singh, gave its report on March 3, suggesting short, medium and long-term measures to achieve desired capability enhancement goals of IAF in an "optimal manner."

The state-owned company also suggested its willingness to open up for private participation in the manufacturing of fighter jets to expedite the whole process and augment the domestic aerospace ecosystem.

In fact, HAL is already experimenting with the public-private partnership. A Tejas LCA Mk-1A aircraft, being built for the first time with private participation, will be ready in some time. For that, while the first centre fuselage assembly for the LCA Mk-1A was handed over by Vem Technologies to HAL in Hyderabad on May 30, the rear fuselage is being done by Alpha Tocol.

Vertical fins and radars have been outsourced to the TASL, and wings to the L&T. Besides, there are others too who are contributing to the development of the Tejas jets.

<https://www.thehindubusinessline.com/economy/logistics/drdo-to-soon-issue-eoi-for-amca-hal-getting-ready-to-bid-through-a-consortium/article69645706.ece>

*

44 सेकेंड में 72 रॉकेट फायर, बंकर को चुटकियों में कर देता है ध्वस्त, भारत इस अचूक अस्त्र को बना रहा और घातक

Source: News18 Hindi, Dt. 01 June 2025

पहलगाम टेरर अटैक के बाद भारत ने ऑपरेशन सिंदूर लॉन्च कर पाकिस्तान, चीन, तुर्की समेत पूरी दुनिया को अपनी सैन्य ताकत से अवगत करा दिया. भारत ने प्रीसीजन अटैक के जरिये एक तरफ जहां अपने युद्ध कौशल का परिचय दिया तो दूसरी तरफ पाकिस्तान के वार को विफल कर अपने एयर डिफेंस सिस्टम की पावर भी दिखा दी. ब्रह्मोस के प्रचंड प्रहार से पूरी दुनिया हैरत में पड़ गई.

इंडियन एयरफोर्स ने जब पाकिस्तान पर ब्रह्मोस से अटैक किया तो आतंकवादियों को पनाह देने वाला देश तुरंत घुटनों पर आ गया और सीजफायर की गुहार लगाने लगा. इसके बाद नई दिल्ली अपनी शर्तों पर शांति बहाल करने पर सहमत हुआ. ग्लोबल पावर को हैरत में डालने वाली ब्रह्मोस क्रूज मिसाइल की रेंज भी बढ़ाई जा रही है. इस बीच, भारत का रक्षा अनुसंधान एवं विकास संगठन यानी DRDO दुश्मनों के लिए काल एक और वेपन को अपग्रेड करने में जुटा है. इस अस्त्र का नाम है – पिनाका मल्टी बैरल रॉकेट लॉन्चर. यह महज 44 सेकेंड में 72 रॉकेट दागने में सक्षम है.

पिनाका रॉकेट सिस्टम की ताकत को इस बात से ही समझी जा सकती है कि इस लॉन्चर के जरिये सिर्फ 44 सेकेंड में ताबड़तोड़ 72 रॉकेट फायर किए जा सकते हैं. इसका मतलब यह हुआ कि दुश्मन जब तक यह समझ सकेगा कि उसके साथ क्या हो रहा है, तब तक उसे तबाह कर दिया जाएगा. DRDO इसी पिनाका रॉकेट लॉन्चर सिस्टम को अपग्रेड करने में जुटा है.

DRDO का मिशन पूरा होते ही पिनाका पहले के मुकाबले और भी घातक हो जाएगा. देश के पश्चिमी (पाकिस्तान) और पूर्वी सीमा (चीन) पर इसकी तैनाती से दुश्मन देशों में खलबली मचाना स्वाभाविक है. पिनाका एमबीआरएल एक दुर्जेय मिलिट्री एसेट है. यह केवल 44 सेकेंड में 72 रॉकेट दागने में सक्षम है, जो 60 किलोमीटर तक की दूरी पर लगभग 7 टन विस्फोटक के साथ अटैक कर सकता है. मौजूदा समय में पिनाका एमके-11 ER 90 किलोमीटर तक मार करने में सक्षम है. मान लें कि यदि पिनाका को अटारी के सीमावर्ती इलाकों में तैनात किया जाता है तो इसके जरिये लाहौर में घर बैठे तबाही लाया जा सकता है.

DRDO बढ़ा रहा पिनाका की रेंज

DRDO अब इसी पिनाका मल्टी बैरल रॉकेट लॉन्चर सिस्टम को अपग्रेड करने में जुटा है. अपग्रेड होने के बाद पिनाका रॉकेट से 120 किलोमीटर तक के टारगेट को ध्वस्त करना संभव हो सकेगा. बता दें कि MKI 40 किलोमीटर तक के लक्ष्य को भेदने में सक्षम था. इसके बाद इसका MKII वर्जन सामने आया, जिसकी रेंज 60 से 90 किलोमीटर तक है. अब DRDO इसका एक और लॉन्गर वर्जन लाने पर काम कर रहा है

पिनाका के इस संस्करण को MKIII का नाम दिया गया है. इसकी मारक क्षमता अधिकतम 120 किलोमीटर है. साथ ही यह 250 किलोग्राम वॉरहेड के साथ दुश्मनों को तबाह करने में कैपेबल होगा. बता दें कि पिनाका के पहले वाले वर्जन में 214 mm कैलिबर का इस्तेमाल किया गया है. रिपोर्ट की मानें तो पिनाका के अपग्रेडेड वर्जन में 300 mm कैलिबर वाले गन का इस्तेमाल किया जाएगा. ऐसे में यह और घातक हो जाएगा और दुश्मनों पर कहर बनकर टूटेगा.

रूस और चीन की बराबरी

भारत पिनाका को अपग्रेड करते ही मल्टी बैरल रॉकेट लॉन्चर सिस्टम के क्षेत्र में रूस और चीन की बराबरी कर लेगा. रूस का स्मर्च MBRL की रेंज 90 किलोमीटर है. वहीं, चीन का PHL-03 रॉकेट लॉन्चर की रेंज 70 से 130 किलोमीटर तक की है. बता दें कि डायमिटर (व्यास) बढ़ाने से रॉकेट लॉन्चर की क्षमता काफी बढ़ जाती है.

बता दें कि पिनाका एक्यूरेसी के साथ दुश्मनों और आतंकवादियों के बंकर को तबाह करने में सक्षम है। इसके साथ ही कमांड सेंटर और विरोधी सेना के अन्य एसेट को भी टारगेट कर उन्हें बर्बाद करने में कैपेबल है। पिनाका को इस तरह से डिजाइन और डेवलप किया गया है कि यह कठिन पर्वतीय इलाकों जैसे कारगिल, लेह आदि में भी पूरी क्षमता के साथ दुश्मनों को तबाह करने में सक्षम है।

<https://hindi.news18.com/news/nation/pinaka-rocket-longer-version-mk-3-120-kilometer-range-250-kilogram-warhead-capable-to-destroy-bunker-drdo-mission-9278490.html>

*

Defence News

Defence Strategic: National/International

**“Aatmanirbharta in Defence is critical not only for preserving the strategic autonomy of the country, but also for achieving the broader goal of Viksit Bharat”:
Defence Secretary**

Source: Press Information Bureau, Dt. 30 May 2025

Deliberating upon India's Defence Vision, Defence Secretary Shri Rajesh Kumar Singh said that it centres around Aatmanirbharta for preserving strategic autonomy of the country. It is also critical in achieving the broader goal of Viksit Bharat, such as expanding our GDP from the current 4 Trillion Dollars to 32 Trillion Dollars by 2047, growing our manufacturing sector, enhancing India's start up culture and widening our industrial base, generating employment and also its spin-off benefits that come from dual use of technology. He was speaking in a defence conclave held in New Delhi on May 29-30, 2025.

Underlining that the entire process of indiginisation, of enhancing local industry, has had a significant impact over the last decade, the Defence Secretary stated that India has transitioned from being the top importer in 2015 to become one of the top 25 exporters today.

Over 100 Indian companies are now exporting to 100 plus countries today. The list of products includes missiles such as Brahmos, rocket launchers like Pinaka, simulators, armoured vehicles, the Dornier aircraft, different types of ships, offshore patrol vessels etc.

The upsurge in exports can be gauged from the fact that our exports have grown 30 times in the last ten years to Rs 23,622 crores in the last financial year. Our defence industry today includes 16 Defence PSUs, 430 licensed companies and approximately 16000 MSMEs. Domestic defence sales also increased from Rs 43746 crores in 2014 to Rs 127000 crores in 2023-24, he said.

Shri Rajesh Kumar Singh recalled that during the financial year 2024-25, Ministry of Defence has completely utilised the defence modernisation budget for the first time in the past five years. More importantly, the Ministry has signed contracts worth a record of Rs 2 lakh crores during the last financial year, which is the highest ever achieved and double that of the figures for 2023-24. This will ensure that the process of modernisation of armed forces keep pace. It would also help the Ministry in demanding higher share in the union budget, leading upto a minimum defence to GDP ratio of 2.5% in five years as a first step and thereafter upto 3% in the medium term.

Regarding the procurement timelines, MoD has already, in the year of reforms, slashed the timelines for some of the processes in the procurement cycle, he said. This would save about 69 weeks overall, in the process timeline. The Defence Acquisition Procedure 2020, the voluminous document laying out the procurement process in detail, is being revisited to reflect the current realities.

There is a need to shift away from the traditional nomination based cost-plus procurement focused mostly on public sector to a more competitive pricing model where both the public and private sector can compete for orders. This approach is already being implemented for ship-building and recently for the AMCA project, he added.

Measures such as the concept of deemed licensing beyond a certain time frame to put accountability on concerned government departments, shifting from cost based pricing to competitive bidding, removing legacy aspects such as product reservation for public sector units, slashing procurement timelines by weeding out rigid and redundant procedures, would lead to genuine broadening and diversification of the defence industrial base, he said.

While assuring private sector about improved Ease of Doing Business and level playing field, the Defence Secretary exhorted them to focus on Research and Development and capital formation through investments in capital equipment, machinery and engineering strength. In the longer run, companies which do not have the engineering manpower or the capital equipment or the willingness to invest in R&D, should not think of entering into the defence domain, as their contribution to India's strategic autonomy would not be significant until they make such investments in creating localised manufacturing eco-system within the country, he said.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=2132946>

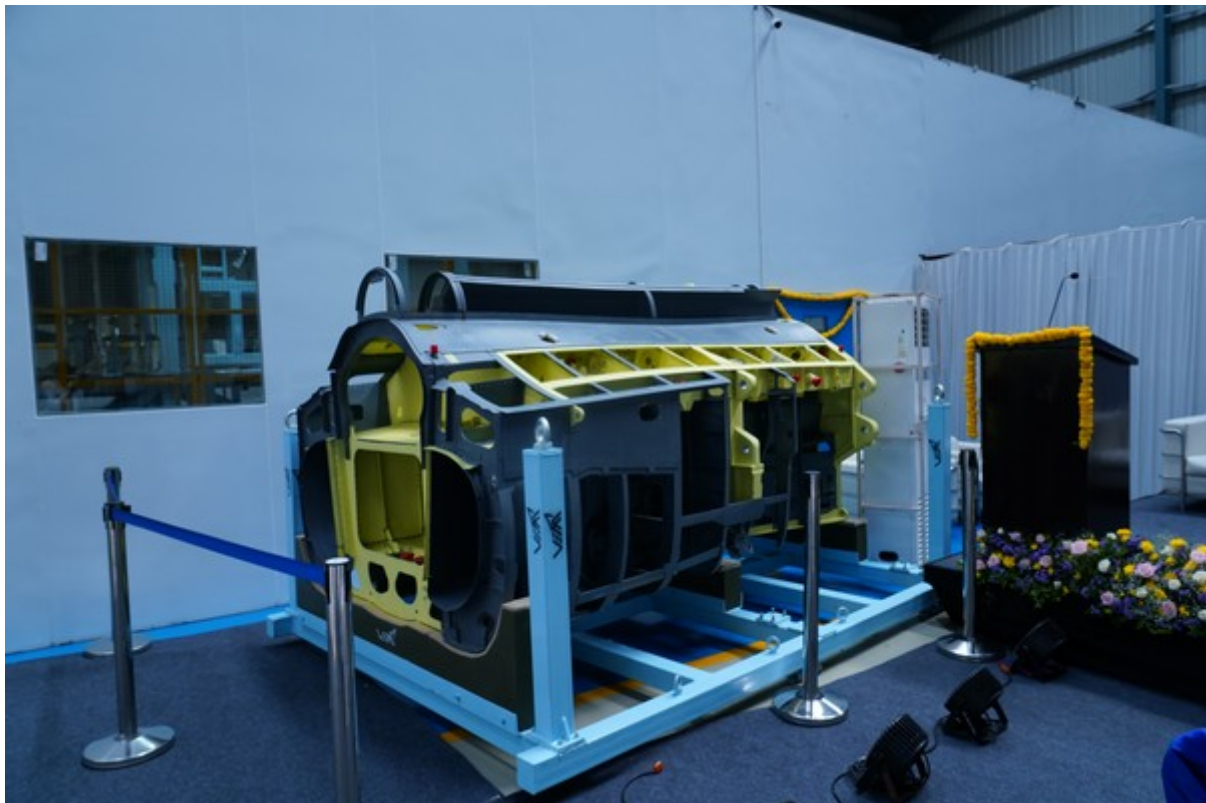
*

First Centre Fuselage for LCA Tejas Mk 1A Handed Over to HAL

Source: Press Information Bureau, Dt. 30 May 2025

In a significant boost to India's indigenous defence manufacturing capabilities, the first centre fuselage assembly for the Light Combat Aircraft (LCA) Tejas Mk1A was handed over to Hindustan Aeronautics Limited (HAL) by M/s VEM Technologies in Hyderabad on May 30, 2025.

The handover took place in the presence of Secretary (Defence Production) Shri Sanjeev Kumar and Chairman & Managing Director (CMD) of HAL, Dr. D. K. Sunil. This event marks for the first time a major sub-assembly for the LCA Tejas being manufactured by a private Indian company.



Speaking on the occasion, Secretary (Defence Production), Shri Sanjeev Kumar hailed the partnership between HAL and VEM Technologies in accelerating the production of LCA Mk 1A. He said that there is a significant growth in defence production at a rate of about 10% annually as well as in our defence exports.

This would not have been possible without the support of industries and Public Sector Units like HAL. Security and sovereignty of the country are paramount and cannot be achieved without own manufacturing and supply of spare parts which could meet the requirements of the Armed Forces, he added.

CMD, HAL, acknowledged the rapid growth of Tier 1 and MSME suppliers in the production of the LCA Tejas. The handover marked a significant milestone in establishing a fourth production line for the LCA Mk1A, in addition to the two existing lines in HAL-Bengaluru and one in HAL-Nashik. He assured that with major sub-assemblies underway, HAL will increase the production of the LCA aircraft and ensure timely deliveries to the Indian Air Force.



HAL has built a national aerospace ecosystem by closely supporting private partners and providing critical inputs such as jigs, fixtures, tools, and technical know-how. This has enabled companies like L&T, Alpha Tocol, Tata Advanced Systems Ltd (TASL), VEM Technologies, and Lakshmi Machine Works (LMW) to produce complex sub-assemblies such as centre fuselages, fuel drop tanks, pylons, rear fuselages, wings, fins, rudders, and air intakes. The LCA Tejas Division has already received structural modules of air intake assemblies, rear fuselage assemblies, loom assemblies, and fin and rudder assemblies in the Mk1A configuration. HAL plans to extend this outsourcing model to future projects, reinforcing its in-house capacity with the expertise of Indian industry.

In line with the vision of Aatmanirbhar Bharat, HAL continues to drive indigenisation efforts in the aerospace and defence sector. HAL has partnered with over 6,300 Indian vendors, including 2,448 MSMEs, supporting thousands of skilled jobs and contributing to a robust domestic supply chain. In the last three years, HAL has placed orders worth Rs 13,763 crore with Indian vendors and is actively pursuing the indigenisation of complex aircraft systems and critical components across platforms.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=2132890>

*

Keel Laying Of Last Ship (BY 530) Of ASW SWC (CSL) Project

Source: Press Information Bureau, Dt. 30 May 2025

Keel Laying of the eighth and last ship (BY 530), Anti-Submarine Warfare Shallow Water Craft (ASW SWC), which is being built at Cochin Shipyard Limited, Kochi, was undertaken on 29 May 2025 in the presence of VAdm Rajaram Swaminathan, CWP&A. Senior officials of the Indian Navy and CSL also attended the ceremony. This milestone of 'Keel Laying' of the last ship, signifies steady progress in the vital shipbuilding project, with all platforms at advanced stages of production. With over 80% indigenous content, these ships exemplify the Government of India's initiative of Aatmanirbhar Bharat and Make in India.



The contract for building eight ASW SWC ships was awarded to CSL, Kochi by the Ministry of Defence on 30 Apr 2019. These ships, known as the 'Mahe' class, are being equipped with indigenously developed state of the art Underwater Sensors, and are envisaged to undertake Anti-Submarine operations as well as Low Intensity Maritime Operations (LIMO) and Mine Laying Operations. The eight ships in this class are scheduled to be delivered to the Indian Navy between Aug 2025 and Jun 2028, and will further enhance the Indian Navy's Anti-Submarine Warfare capabilities.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=2132735>

*

Operation Sindoor is India's frontal assault against terrorism; If Pakistan resorts to anything evil, it will face Indian Navy's firepower: Raksha Mantri onboard INS Vikrant

Source: Press Information Bureau, Dt. 30 May 2025

"Operation Sindoor is not just a military action, but India's frontal assault against terrorism, and if Pakistan resorts to anything evil or unethical, it will, this time, face the firepower and ire of the Indian Navy," said Raksha Mantri Shri Rajnath Singh while addressing officers & sailors onboard India's first indigenous aircraft carrier INS Vikrant off the Goa coast on May 30, 2025. Commending the Indian Navy's "silent service" during Operation Sindoor, Raksha Mantri stated that the mighty Carrier Battle Group ensured that the Pakistani Navy did not venture out, or else it would have faced the consequences. He sent a clear message to Pakistan that if it tries to cast an evil eye, the opening of New Delhi's response will be at the hands of the Indian Navy.



Shri Rajnath Singh asserted that Pakistan needs to understand that the time is up for the dangerous game of terrorism it has been playing since Independence. "Now, if Pakistan instigates any terrorist act against India, it will have to bear the consequences and face defeat. India will not hesitate. It will use every method to root out the menace of terrorism," he said.

Raksha Mantri added that anti-India activities are being carried out openly from Pakistani soil and India is completely free to carry out every kind of operation against terrorists on both sides of the border and the sea. Today, the whole world is acknowledging India's

right to protect its citizens against terrorism, he said, emphasising that Pakistan must uproot the nursery of terrorism operating on its soil with its own hands.

Shri Rajnath Singh called for the handing over of terrorists like Hafiz Saeed and Masood Azhar to India. "Both of them are not only in India's list of 'Most Wanted Terrorists', they are also UN Designated Terrorists. Tahawwur Rana, an accused in the Mumbai attacks, has been brought to India recently. Hafiz Saeed is also guilty of the Mumbai attacks, and justice must be done for his crime," he said.

On Pakistan's repeated offer of talks, Raksha Mantri again clarified: "If there are talks, it will only be on terrorism and PoK. If Pakistan is serious about talks, it should hand over terrorists like Hafiz Saeed and Masood Azhar to India so that justice is served."

Describing the Indian Navy's role in the integrated operation as praiseworthy, Shri Rajnath Singh stated that when the Indian Air Force destroyed the terror bases on Pakistani soil, the Navy's aggressive deployment in the Arabian Sea, its unmatched maritime domain awareness and supremacy confined the Pakistani Navy to its own shores. "Our Western Fleet ships deployed at sea, within 96 hours of the Pahalgam terrorist attack, carried out successful firings of surface-to-surface & surface-to-air missiles and torpedoes on the western & eastern coast. It demonstrated the combat readiness of our platforms, systems & crew and our intent & readiness, forcing the enemy to come into a defensive posture," he said.



Raksha Mantri added that the force projection of the Carrier Battle Group effectively indicated India's intent and capability. The tremendous power of the Indian Navy, its military acumen and destructive capabilities have broken the enemy's morale, he said. He urged the Navy to continue leaving no stone unturned in its preparations, reiterating Prime Minister Shri Narendra Modi's clear message that if any terrorist attack takes place on the Indian soil, it will be considered as an 'Act of War' and responded in the same way.

Shri Rajnath Singh reasserted that Operation Sindoor is not yet over; it is just a pause, a warning. He added that if Pakistan makes the same mistake again, India's answer will be harsher.

Lauding the speed, depth and clarity of the Armed Forces during Operation Sindoor, Raksha Mantri stated that the precision strikes displayed seamless synergy among the three Services as well as coordination among Ministries and Government agencies. He added that the operation sent a clear message to the terrorists & its patrons that India will no longer tolerate and give a befitting reply. "Within a very short span of time, we destroyed Pakistan's terrorist base and its intentions. Our response was so strong that Pakistan pleaded to stop. We stopped our military actions on our own terms. Our forces had not even started showing their might," he said.

On his interactions with the Army and Air Force personnel and now the Naval warriors post-Operation Sindoor, Shri Rajnath Singh expressed satisfaction that whether land, sky or sea, India is fully prepared to deal with any situation anywhere. He recalled the contribution of the older version of INS Vikrant during the Liberation of Goa, stating that the aircraft carrier had led the Indian Navy's fleet during the operation in 1961, and now, in its new indigenous avatar, it is spearheading India's resolve against terrorism.

Raksha Mantri concluded his address by saying: "Today, we are in an era where wars are not fought only with bullets and bombs, but also through cyber space, data dominance and strategic deterrence. It is a matter of pride that the Navy is moving ahead in these areas." He described the Indian Navy as not just the sentinel of the Indian Ocean, but a strategic force that strengthens India's presence in the region. It warns the enemy that India is no longer just a regional power, but is moving towards becoming a global power, he said.

Onboard INS Vikrant, Shri Rajnath Singh was accompanied by the Chief of the Naval Staff Admiral Dinesh K Tripathi; Flag Officer Commanding-in-Chief Western Naval Command Vice Admiral Sanjay J Singh and other senior officials of the Indian Navy.

Raksha Mantri reached Goa on May 29, 2025, and interacted with the Indian Navy personnel who participated in the initial phase of Operation Sindoor. Apart from INS Vikrant, he embarked on other key frontline warships, which were part of the Carrier Battle Group and played a pivotal role in compelling Pakistani Navy units to operate close to Makran Coast.

Upon his arrival at INS Hansa, Shri Rajnath Singh was presented a Guard of Honour. He was, thereafter, given an insight on the progress of operations on the maritime front and overall preparedness of the units at sea.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=2132623>

*

Transformative milestone in NDA's nation-building legacy: First-ever batch of 17 Female Cadets pass out from NDA after completing 148th Course – Spring Term 2025

Source: Press Information Bureau, Dt. 30 May 2025

National Defence Academy (NDA) witnessed a momentous occasion on May 30, 2025 as the first-ever batch of 17 Female Cadets was among the 336 cadets who passed out of the academy, marking the culmination of 148th Course – Spring Term 2025. A total of 1,341 Cadets, including 336 from the passing out course, participated in the Passing Out Parade (POP) at the iconic Khetarpal Parade Ground in Khadakwasla, Maharashtra on May 30, 2025. Gracing the occasion as the Reviewing Officer was the Governor of Mizoram General (Dr) VK Singh (Retd).

The parade marked the successful completion of rigorous military and academic training by the cadets, culminating in a splendid display of precision, discipline and military bearing. It was impeccably conducted by Adjutant Lt Col Praveen Kumar Tiwari, astride his charger 'Reliant Robin'. Academy Cadet Captain Udayveer Singh Negi of 'G' Squadron commanded the parade with exceptional composure and military precision.

In recognition of the exemplary performance, the Reviewing Officer presented President's Gold Medal to Battalion Cadet Adjutant Prince Raj, President's Silver Medal to Academy Cadet Captain Udayveer Singh Negi, and the President's Bronze Medal to Battalion Cadet Captain Tejas Bhatt. The prestigious Chiefs of Staff Banner was awarded to Golf Squadron for overall excellence.

The event concluded with a grand flypast featuring flag-trooping Chetak helicopters, Super Dimona motorised gliders, and the majestic Sukhoi-30 fighter aircraft, symbolising the culmination of training and the cadets' readiness to embark on the next phase of their military journey.

The event was attended by a diverse gathering which included proud families, distinguished dignitaries, school children, civilians and serving as well as retired Armed Forces personnel.

The Spring Term 2025 POP stands as a proud testament to the Academy's enduring commitment to grooming future military leaders, now enriched with the inclusion of women cadets destined to serve the nation with honour and valour. The event held historical significance as it marked the passing out of the first-ever batch of 17 Female Cadets from the Academy — a transformative milestone in NDA's legacy of nation-building.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=2132691>

*

Indian Army Conducts Trials Of Next-Gen Defence Technologies Under Simulated Operational Conditions

Source: Press Information Bureau, Dt. 30 May 2025

The Indian Army is currently undertaking extensive Capacity Development Demonstrations at key locations across the country, including the Pokhran Field Firing Ranges, Babina Field Firing Ranges, and Joshimath, with dedicated Air Defence equipment demonstrations also scheduled at Agra and Gopalpur. These field trials are being conducted under near-combat conditions, integrating electronic warfare simulations to assess the performance of cutting-edge defence systems rigorously. On 27 May 2025, General Upendra Dwivedi, Chief of the Army Staff, visited Babina Field Firing Ranges and reviewed the ongoing demonstrations and interacted with all stakeholders.

The demonstrations feature a wide array of advanced technologies developed under the Aatmanirbhar Bharat initiative, aimed at accelerating indigenous capability development. The trials mark a significant step in the Indian Army's roadmap for a "Decade of Transformation" and are designed to ensure rapid absorption of emerging technologies to meet evolving battlefield requirements. A large number of defence industry partners are taking part in the demonstration, reflecting the increasing synergy between the Indian Army and domestic manufacturers.

Key platforms undergoing evaluation include:

- Unmanned Aerial Systems (UAS)
- UAV Launched Precision Guided Munition (ULPGM)
- Runway Independent (RWI) Remotely Piloted Aerial Systems (RPAS)
- Counter-UAS Solutions
- Loitering Munitions
- Specialised Vertical Launch (SVL) Drones
- Precision Multi Munition Delivery Systems
- Integrated Drone Detection and Interdiction System (IDDIS)
- Low Level Light Weight Radars
- VSHORADS (Next Generation) IR Systems
- Electronic Warfare (EW) Platforms

Through these evaluations, the Indian Army aims to strengthen its technological edge, enhance operational readiness, and reaffirm its commitment to indigenous innovation and self-reliance in defence capability development.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=2132979>

*

Maiden Visit Of EUNAVFOR Ships To India

Source: Press Information Bureau, Dt. 01 Jun 2025

ESPS Reina Sofia, commanded by Cdr Salvador Moreno Regil, Spanish Navy and ITS Antonio Marceglia, commanded by Cdr Alberto Bartolomeo, Italian Navy, are in Mumbai from 26 May to 01 Jun 2025 for an operational turn around. Both ships presently operate under European Union Naval Force (EUNAVFOR).

The visit is significant being the first such visit to India conducted under the aegis of the European Union. It is a follow-up to the discussions between Shri Narendra Modi, Honourable Prime Minister of India and Ms Ursula von der Leyen, President of the European Union, highlighting their shared commitment towards international peace and security.



The EUNAVFOR side, led by Rear Admiral Davide Da Pozzo, Force Commander, Op Atalanta, interacted with Rear Admiral Vidyadhar Harke VSM, Chief Staff Officer (Operations), Western Naval Command of the Indian Navy at the Headquarters, Western Naval Command and discussed matters related to furthering maritime cooperation between the two sides. Both sides agreed on the need for extended cooperation in the military domain and the meeting was a stepping stone for expanding avenues of cooperation between the Indian Navy and EUNAVFOR.

During the ships' stay in harbour, activities such as Subject Matter Expert Exchanges (SMEEs) and a Table Top Exercise (TTX) were conducted between the two sides, aimed

at refining key issues necessary for tactical-level cooperation at sea. Both sides benefitted immensely from the exchanges on experiences gained during Anti-Piracy and Anti-Smuggling operations. The harbour engagements laid the foundation for the Joint Exercise between the Indian Navy and EUNAVFOR which is planned post-departure of the ships from Mumbai on 01 Jun 2025.



The exercise at sea will see participation by ESPS Reina Sofia and ITS Antonio Marceglia from EUNAVFOR and ships and aircraft from the Indian Navy. The complex tactical exercises are aimed at enhancing the interoperability between the two sides and will enable seamless operations when deployed for combating non-traditional threats in the Indian Ocean Region.

Both India and EU share a strong commitment towards rules-based maritime order, allowing for free and open use of international waters while respecting the territorial integrity of littoral states.

The current visit embodies the shared interest of safeguarding legitimate trade and countering non-traditional threats such as piracy, smuggling, and Illegal, Unreported and Unregulated (IUU) fishing, which also reflects the discussions undertaken during the 4th India-EU Maritime Security Dialogue, held in New Delhi in March 2025. These maritime engagements would further strengthen the increasing multi-domain cooperation between India and EU, with a common aim of progressing shared interests.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=2133148>

*

Army conducts Inter-Services Security Exercise; Force One, Mumbai cops take part

Source: The Economic Times, Dt. 01 Jun 2025

A high-level Joint Inter-Services Security Exercise was conducted here by the Indian Army in response to the evolving nature of non-conventional threats and the current heightened security environment, the Defence Ministry said on Sunday.

The two-day exercise was conducted on May 30 and 31 at the Army Training Area, Colaba and Force One training area Mumbai, and culminated at the Bombay Stock Exchange (BSE), it said in a statement.

"In response to the evolving nature of non-conventional threats and the current heightened security environment, a high-level Joint Inter-Services Security Exercise was organised by the Indian Army," the statement said.

The two-day comprehensive exercise witnessed the coordinated participation of the Indian Army, Indian Navy, Indian Air Force, Indian Coast Guard, Force One (Maharashtra) and Mumbai Police.

"The primary objective was to strengthen inter-agency collaboration, assess operational readiness, and validate integrated response mechanisms to multi-dimensional security scenarios," the statement said.

The exercise simulated a series of complex contingencies, including coordinated tactical response drills, rapid deployment operations, area sanitisation and threat neutralisation procedures, casualty evacuation (Cas Evac) drills and joint command and control simulations.

These scenarios were executed under time-sensitive conditions to ensure realism and pressure-based decision-making.

The exercise served as an invaluable platform to refine interoperability protocols, streamline communication flows, and reinforce a unified approach among the participating agencies, it said.

Senior officials from all involved services supervised the drills, ensuring that standard operating procedures (SOPs) were rigorously tested.

"The collective professionalism and synergy demonstrated during the exercise highlighted India's robust multi-agency security architecture and its ability to mount a swift, integrated response to any emerging threat," the statement said.

<https://economictimes.indiatimes.com/news/defence/army-conducts-inter-services-security-exercise-force-one-mumbai-cops-take-part/articleshow/121548516.cms>

*

Operation Sindoor: Three weeks later, CDS sheds new light on operations during hostilities

Source: The Indian Express, Dt. 01 June 2025

Chief of Defence Staff General Anil Chauhan's interviews to news agencies Reuters and Bloomberg on the sidelines of the Shangri-La Dialogue security forum in Singapore shed new light on combat operations during Operation Sindoor, going beyond the media briefings by the Indian Armed Forces during the hostilities.

First, General Chauhan's remark about initial losses in the air, without going into details or giving a count of aircraft lost, is the first official admission of fighter jets being downed in combat operations.

Asked by Bloomberg if the Pakistani claim of downing six Indian jets was correct, the CDS said: "Absolutely incorrect."

The remarks came exactly three weeks after India and Pakistan agreed on cessation of military strikes against each other. To be clear, at no point, during and after the hostilities, did the IAF ever deny losing any aircraft.

On May 11, a day after the two militaries reached a truce, Air Marshal A K Bharti, Director of Air Operations, responding to a question at a media briefing, said he would not like to comment on whether India lost any aircraft and cited the prevailing combat situation. He said losses were part of any combat, and the Indian military had achieved all its selected objectives and all IAF pilots were back home.

Air Marshal Bharti said the Pakistan Air Force lost "a few" aircraft, apart from suffering massive damage to assets and air bases during retaliatory high-precision strikes by Indian Armed Forces during the operation.

General Chauhan, while acknowledging Indian losses in the air, underlined that what was more important was why these losses (of aircraft) occurred, and what India did after that.

He spoke of how "we rectified tactics and then went back... in large numbers" to "hit air bases deep inside Pakistan, penetrated all their air defences with impunity, carried out precision strikes".

He told Reuters that the IAF "flew all types of aircraft with all types of ordnances on the 10th" of May, the day India struck air bases deep inside Pakistan, including the Nur Khan air base in Rawalpindi.

He spoke on similar lines to Bloomberg: "What is important is not the jet being down, but why they were being (downed)," General Chauhan said.

"The good part is that we were able to understand the tactical mistake which we made, remedy it, rectify it and then implement it again after two days... flew all our jets again, targeting at long range," he said.

Significantly, the CDS also told Reuters that although Pakistan is closely allied with China, there was no sign of any actual help from Beijing during the conflict.

“While this was unfolding from (April) 22nd onwards, we didn’t find any unusual activity in the operational or tactical depth of our northern borders, and things were generally all right,” he said.

<https://indianexpress.com/article/explained/3-weeks-later-cds-sheds-new-light-on-combat-ops-10040729/>

*

‘Penetrated 300 km deep inside Pakistan’: What CDS revealed about Operation Sindoor

Source: Hindustan Times, Dt. 01 Jun 2025

Chief of Defence Staff (CDS) General Anil Chauhan on Saturday gave a detailed account of India’s military operations during the high-stakes confrontation with Pakistan, launched under Operation Sindoor on May 7, saying Indian armed forces penetrated 300 kilometres inside the nation.

'No nuclear escalation in sight'

CDS Anil Chauhan dismissed suggestions that India and Pakistan came close to a nuclear confrontation. The General was speaking to Bloomberg TV on the sidelines of the Shangri-La Dialogue in Singapore when he said, “I personally feel that there is a lot of space between conduct of conventional operations and the nuclear threshold.”

He further detailed that communication channels between India and Pakistan “were always open” during the hostilities and said that both sides have more options below the nuclear level to resolve disputes.

When asked about US President Donald Trump’s past claim that he helped prevent a nuclear war, Gen Chauhan responded that it was “far-fetched” to believe either India or Pakistan was close to using nuclear weapons.

'Fighter jets downed'

CDS Anil Chauhan confirmed that Indian Air Force (IAF) jets were shot down during the early phase of the confrontation that started on May 7. He also responded to Pakistan’s claim of having downed six Indian jets, calling it “absolutely incorrect.”

“What is important is not the jet being down, but why they were being downed. What mistakes were made — those are important. Numbers are not important,” he said.

He explained that India quickly learned from its mistakes. “The good part is that we were able to understand the tactical mistake which we made, remedy it.”

"We rectified tactics and then went back on the 7th, 8th and 10th in large numbers to hit air bases deep inside Pakistan, penetrated all their air defences with impunity, and carried out precision strikes."

'Penetrated 300 km deep inside Pakistan territory'

On military operations during the conflict, Chauhan said India relied on both indigenous weapons and foreign platforms. He highlighted the ability of Indian forces to strike targets deep inside Pakistani territory.

"We were able to penetrate air defence as long as 300 km with pinpoint accuracy and targets, airfields and infrastructure, deep inside Pakistan. That indicates the functionality of the equipment," he said, according to PTI. According to him, the current ceasefire is holding, but its future depends on Pakistan's actions. "We have laid clear red lines," he stated.

India's Operation Sindoor

Operation Sindoor was launched by India in the early hours of May 7 as a response to the April 22 terror attack in Pahalgam, which killed 26 civilians.

The operation targeted nine terror infrastructure sites across Pakistan and Pakistan-occupied Kashmir. According to reports, the strikes resulted in the death of over 100 terrorists, with the most significant damage occurring in Bahawalpur, a known terror hub in Pakistan.

<https://www.hindustantimes.com/india-news/nukes-rafale-what-cds-said-on-recent-india-pakistan-conflict-101748755599185.html>

*

Modern warfare is no longer linear, but India's wars are now networked, deceptive and home-grown: CDS Gen

Source: *The Economic Times*, Dt. 31 May 2025

India operated without foreign assistance during Operation Sindoor while Pakistan likely leaned on Chinese sources, said Chief of Defence Staff (CDS) General Anil Chauhan. Speaking to an international group of defence thinkers at the Shangri-La Dialogue in Singapore on Friday, General Chauhan outlined the shifting nature of war and India's approach to narrative, technology, and autonomy in conflict.

"While Pakistan likely leveraged Chinese sources, there's no definitive proof of real-time targeting support. India, however, relied on its indigenous systems like Akash, which had notable success in system networking, integrating multiple platforms, including foreign radars, into a cohesive defence system," said General Chauhan.

He added, "On our end, we've not only used indigenous platforms like the Akash missile system effectively, but we've also built our own networking infrastructure for air defence without relying on foreign vendors."

Complexity of modern conflicts

Modern warfare is no longer linear, General Chauhan warned. It now spans not only land, sea and air, but also cyber, space and even time. "Modern warfare is undergoing a complex convergence of tactical, operational and strategic layers; old and new domains (land, air, sea, cyber and space); and even of time and space," he said.

According to him, this demands a new military mindset: battlefields must be demassified, forces distributed, and operations non-linear. "We're no longer fighting linear wars; we're operating across distributed networks, applying force in non-linear ways, where deception is becoming more important than surprise," he explained. He said these new dynamics require serious adaptation. "Understanding this convergence is key to preparing for future conflicts."

Tackling disinformation and shaping the narrative

The CDS devoted significant attention to the role of information in today's battles. During Operation Sindoor, controlling the narrative was a deliberate task, he said. "Combating fake news was a constant effort. Our communication strategy was deliberate; we chose to be measured, not reactive, because misinformation can quickly distort public perception during high-stakes operations," said General Chauhan.

He cited an example from the early days of Operation Sindoor: "India has always built its narratives on solid ground, even if we've sometimes been slow to present them. For instance, in the first three days, two women officers were our primary spokespeople because the actual military leadership were directly engaged in fast-moving operations. It was only after the 10th that the DGMOs came forward to brief the media." He also called for a formalised vertical in the armed forces to counter disinformation and narrative warfare. "Fifteen per cent of armed forces time during operations was spent countering fake narratives," he said.

Indigenous capabilities and integration

General Chauhan stressed that India's push for self-reliance has made concrete progress. Indigenous systems like Akash have been networked with various domestic and foreign sensors to create a seamless national air defence structure. "What matters most in modern warfare is the networking of systems and real-time integration across air, land, sea and cyber domains," he stated. "If you have great tech but it's not connected, you can't fully leverage it."

The shift is visible in institutional reforms as well. "Regarding structural reforms, earlier we didn't have true jointness or integration in the military. Now, after initiatives and operational experiences, we are moving toward integrated commands and leaner, more

flexible structures,” he noted. He said India would also need dedicated organisations for drones, electronic warfare and unmanned teaming aerial platforms (UTAPs).

Rethinking military education and operations

General Chauhan said doctrinal change is as important as technological advancement. “Doctrinally, we must update our understanding of multi-domain operations, cyber, space, ISR, and joint targeting; all of this needs work.”

Highlighting a change in military education, he said: “For the first time, we have a truly joint staff course where 40 officers from all three services train together for a full year. That's a major shift.”

Cyber attacks had limited impact

On the cyber front, he said India's operational systems were secure and largely unaffected by digital threats.

“As someone directly involved in these operations, I can say that cyber did play a role in the conflict, but its impact was limited. While both sides did experience attacks, including some denial-of-service efforts, our military systems are air-gapped, meaning they're not connected to the internet and are therefore largely secure,” he said.

“Attacks on public-facing platforms like school websites may have occurred, but they did not affect operational systems,” he added.

Defence modernisation and strategic independence

Speaking on India's broader defence posture, General Chauhan underlined that national security is now closely tied to economic planning and self-reliant innovation.

“On defence modernisation, we're moving toward self-reliance. While initially difficult, the process has started through programmes like Atmanirbhar Bharat. We can't rely 100 per cent on foreign elements, especially for networked warfare,” he said.

He pointed to the rise of defence startups and India's edge in education. “We produce the largest number of STEM graduates in the world, more than 20 IITs. Give them a defence problem and you'll have hundreds working on it. That's an untapped advantage we must channel with focus,” he said.

When asked about losses during Operation Sindoor, General Chauhan was candid. “No war is flawless, but it's not the number of losses that matters; what matters is how we respond. And we did respond, effectively and without further losses, within three days.”

He also cautioned against the financial toll of long-term military mobilisation. “India has remained mobilised for months without engaging in combat, and that imposes a huge financial burden. That's why we disengage swiftly once an operation concludes.”

He concluded with a reflection on the future: “We do not seek prolonged wars because they slow down our national development, a goal that some adversaries might want to

hinder. On the automation front, I believe the reduced human cost of war due to machine-based systems might increase the temptation to use force, which is a dangerous trend.”

<https://economictimes.indiatimes.com/news/defence/modern-warfare-is-no-longer-linear-but-indias-wars-are-now-networked-deceptive-and-home-grown-cds-gen-anil-chauhan/articleshow/121528777.cms?from=mdr>

*

‘We can’t move north due to China’: CDS Chauhan says India must embrace Indian Ocean as its strategic future

Source: The Economic Times, Dt. 31 May 2025

Chief of Defence Staff (CDS) General Anil Chauhan has said the Indian Ocean is not just important but “our destiny,” pointing to India’s limited strategic movement on land due to tensions with China and instability in Myanmar.

“Now, shifting attention to the Indian Ocean Region, especially the northern Bay of Bengal, our geopolitical reality means we cannot move north due to tensions with China, nor can we move east because of the instability in Myanmar,” Chauhan said, according to ANI.

“We’re politically connected to Central and West Asia, but geographically cut off. Therefore, the sea is our only viable pathway. That’s why the ocean is not just important, it’s our destiny,” he said.

‘We function like an island nation’

General Chauhan said India’s maritime posture is increasingly shaped by its geography and strategic compulsions, likening the country’s position to that of an island nation.

“In a sense, though we are part of the continental landmass, we function like an island nation. Our island territories give us interior depth in the Indian Ocean, which is a strategic advantage that we must exploit wisely,” he said.

He added that while traditional areas of concern in the northern Indian Ocean remain, India must widen its scope.

“Some areas in the Indian Ocean, particularly in the north, have always been of concern, and new ones have emerged recently. But we must not limit our view to just the northern IOR. We are now looking far south, recognising the wider scope of our maritime interests,” he said.

General Chauhan also spoke on the importance of self-reliance in defence, highlighting progress in indigenous platforms and digital infrastructure.

“On our end, we’ve not only used indigenous platforms like the Akash missile system effectively, but we’ve also built our own networking infrastructure for air defence without relying on foreign vendors,” he said.

“We’ve integrated radars from multiple sources into a cohesive network across India and that was crucial.”

Modernisation through Atmanirbhar Bharat

Referring to the broader drive for defence modernisation, Chauhan said India’s shift towards self-reliance is now well underway.

“On defence modernisation, we’re moving toward self-reliance. While initially difficult, the process has started through programs like Atmanirbhar Bharat,” he said.

“We can’t rely 100% on foreign elements, especially for networked warfare. We’re now seeing the rise of startups, MSMEs and larger industries investing in defence.”

<https://economictimes.indiatimes.com/news/defence/we-cant-move-north-due-to-china-cds-chauhan-says-india-must-embrace-indian-ocean-as-its-strategic-future/articleshow/121529488.cms?from=mdr>

*

CDS Gen Anil Chauhan holds bilateral talks with Netherland counterpart on defence cooperation

Source: *The Economic Times*, Dt. 31 May 2025

Chief of Defence Staff (CDS) General Anil Chauhan held bilateral discussions with General Onno Eichelsheim, Chief of Defence of the Netherlands, to strengthen defence cooperation between the two nations. According to the Headquarters Integrated Defence Staff (HQ IDS), the discussions focused on exploring avenues to enhance military engagement through exchange programs and bilateral training exercises.

"Deliberations were held on avenues to enhance #DefenceCooperation between both nations through military exchange programs and bilateral training events. Discussions also focused on #OperationSindoor, underscoring India's growing strategic partnerships to ensure peace and stability in the region," HQ IDS said in a tweet.

Earlier, CDS General Anil Chauhan also interacted with Admiral Samuel J Paparo, Commander of US INDOPACOM, USA, reinforcing defence ties.

Their discussions centred on Operation Sindoor, strengthening military-to-military cooperation and opportunities to foster collaboration in the Indo-Pacific, in the backdrop of the dynamic regional security landscape.

Both leaders reaffirmed their commitment to address emerging security challenges and deepen strategic ties. Meanwhile, India and Brazil strengthened their bilateral ties at the sidelines of the Shangri-La Dialogue 2025, reaffirming their commitment to a free, open

and inclusive Indo-Pacific. Both nations emphasised cooperation on regional security, maritime freedom and sustainable development.

General Anil Chauhan and Admiral Aguiar Freire, Chief of Staff of the Armed Forces, Brazil, discussed shared values and interests, underscoring the importance of a rules-based international order and a growing convergence of views between India and Brazil on regional and global issues.

At the Shangri-La Dialogue in Singapore, CDS Chauhan noted that both countries gained independence at the same time, and Pakistan was ahead of India in various metrics, including social, economic, and GDP per capita, but today, New Delhi is ahead of them.

"Now, on the India-Pakistan relationship, we are not operating without a strategy. When we gained independence, Pakistan was ahead of us on every metric: social, economic, and GDP per capita. Today, India is ahead on all fronts: economic performance, human development, and social harmony, despite our greater diversity. That didn't happen by accident; it's a result of long-term strategy," he said.

"Diplomatically, we've reached out like in 2014 when the PM invited Nawaz Sharif. But it takes two hands to clap. If all we get in return is hostility, then disengagement may itself be a sound strategy for now," CDS Chauhan added.

<https://economictimes.indiatimes.com/news/defence/cds-gen-anil-chauhan-holds-bilateral-talks-with-netherland-counterpart-on-defence-cooperation/articleshow/121533286.cms>

*

CDS General Anil Chauhan holds bilateral talks with Singapore counterpart, underscores defence cooperation

Source: ANI News, Dt. 01 Jun 2025

Chief of Defence Staff (CDS) General Anil Chauhan held bilateral talks with Vice Admiral Aaron Beng, Chief of Defence Force of Singapore, reinforcing the strong and growing defence ties between the two nations. The discussions focused on enhancing military collaboration and interoperability to address evolving security challenges in the region, particularly in the backdrop of Operation Sindoor.

In a post on X, the Headquarters of the Integrated Defence Staff wrote, "General Anil Chauhan, Chief of Defence Staff #India holds bilateral talks with Vice Admiral Aaron Beng, Chief of Defence Force #Singapore, reinforcing defence ties between both nations. Discussions held on enhancing #MilitaryCollaboration and interoperability to address evolving security challenges in the region, in the backdrop of #OperationSindoor." Both leaders reaffirmed their commitment to a stable, secure, and rules-based Indo-Pacific, further consolidating strategic cooperation between India and Singapore.



"Both leaders reaffirmed their commitment to a stable, secure and rules-based #IndoPacific, reinforcing strong defence ties between the two nations. A crucial step in deepening India-Singapore strategic cooperation!" the post added.

Earlier in the day, General Chauhan participated in the Chiefs of Defence Round Table at the IISS Shangri-La Dialogue in Singapore. At this event, global defence leaders from countries including Australia, the European Union, France, Germany, Indonesia, Japan, the Netherlands, New Zealand, the Philippines, Singapore, the UK, and the US discussed critical security challenges, emerging trends, and innovative solutions.

The talks focused on strategic decision-making, sharing best practices, and fostering cooperation to promote stability and address evolving security concerns in the defence sector.

While addressing the dialogue on 'Defence Innovation Solutions for Future Challenges', General Anil Chauhan, Chief of Defence Staff, highlighted the evolving geopolitical dynamics and rapid technological shifts that were redefining the nature of warfare, underscoring that the democratisation of technology has empowered non-state actors, fueling proxy wars and instability.

CDS emphasised that Future Warfare will be shaped by four trends: the proliferation of sensors across all domains, long-range hypersonic and precision weapons, manned-unmanned teaming with autonomous systems, and the intelligentisation of the battlefield driven by AI, ML, LLMs, and quantum tech.

General Anil Chauhan affirmed India's commitment to global peace & responsible innovation and commended the Shangri-La Dialogue as a critical forum for fostering dialogue and cooperation in the collective pursuit of global stability.

<https://www.aninews.in/news/national/general-news/cds-general-anil-chauhan-holds-bilateral-talks-with-singapore-counterpart-underscores-defence-cooperation20250601210547/>

*

"Fruitful engagement on strengthening military cooperation": CDS General Chauhan holds talks with German counterpart

Source: ANI News, Dt. 01 Jun 2025

Chief of Defence Staff (CDS) General Anil Chauhan on Sunday held bilateral talks with General Carsten Breuer, Chief of Defence, Germany, aimed at reinforcing defence ties and enhancing military cooperation between the two nations. The engagement saw focused discussions centred on Operation Sindoor.



In a post on X, the Headquarters of the Integrated Defence Staff stated, "General Anil Chauhan, Chief of Defence Staff #India interacts with General Carsten Breuer, Chief of

Defence, #Germany reinforcing defence ties. Fruitful engagement on strengthening bilateral #MilitaryCooperation between both nations held, with focussed discussions centred on # OperationSindoor." The post further underlined the broader implications of the meeting: "This significant engagement highlights India's commitment to expanding its strategic defence partnerships."

Earlier, General Chauhan also held bilateral talks with Vice Admiral Aaron Beng, Chief of Defence Force, Singapore, to reinforce India-Singapore defence ties. The discussions focused on enhancing military collaboration and interoperability to address evolving security challenges in the region, particularly in the backdrop of Operation Sindoor.

In a post on X, the Headquarters of the Integrated Defence Staff wrote, "General Anil Chauhan, Chief of Defence Staff #India holds bilateral talks with Vice Admiral Aaron Beng, Chief of Defence Force #Singapore, reinforcing defence ties between both nations. Discussions held on enhancing #MilitaryCollaboration and interoperability to address evolving security challenges in the region, in the backdrop of #OperationSindoor." "Both leaders reaffirmed their commitment to a stable, secure and rules-based #IndoPacific, reinforcing strong defence ties between the two nations. A crucial step in deepening India-Singapore strategic cooperation!" the post added.

Earlier in the day, General Chauhan participated in the Chiefs of Defence Round Table at the IISS Shangri-La Dialogue in Singapore. At this event, global defence leaders from countries including Australia, the European Union, France, Germany, Indonesia, Japan, the Netherlands, New Zealand, the Philippines, Singapore, the UK, and the US discussed critical security challenges, emerging trends, and innovative solutions. The talks focused on strategic decision-making, sharing best practices, and fostering cooperation to promote stability and address evolving security concerns in the defence sector.

<https://www.aninews.in/news/national/general-news/fruitful-engagement-on-strengthening-military-cooperation-cds-general-chauhan-holds-talks-with-german-counterpart20250601221122/>

*

CDS General Anil Chauhan interacts with British counterpart, reinforces defence ties

Source: *The Economic Times*, Dt. 30 May 2025

Chief of Defence Staff (CDS) General Anil Chauhan interacted with his UK counterpart, Admiral Sir Tony Radakin, Chief of Defence Staff of the United Kingdom, reinforcing defence ties in the backdrop of Operation Sindoor. The two officials held discussions on enhancing bilateral military cooperation and capacity building during their meeting at the Headquarters Integrated Defence Staff in New Delhi.

The engagement highlights India's commitment to expanding its strategic defence partnerships and maritime collaboration in the Indian Ocean Region. CDS Anil Chauhan

will visit Singapore from May 30 to June 1 to attend the 22nd edition of the Shangri-La Dialogue, hosted annually by the International Institute for Strategic Studies, according to an official statement from the Ministry of Defence.

During the visit, General Anil Chauhan will hold bilateral meetings with Chiefs of Defence Forces and senior military leadership from several foreign countries, including those from Australia, European Union, France, Germany, Indonesia, Japan, Netherlands, New Zealand, Philippines, Singapore, UK and USA.

The Chief of Defence Staff will address the Academia, Think Tanks and Researchers and speak on the topic 'Future Wars and Warfare'. He will also participate in the simultaneous special sessions as part of the event and address the topic 'Defence Innovation Solutions for Future Challenges.'

As per the release, Shangri-La Dialogue is Asia's premier defence and security summit that brings together defence ministers, military chiefs, policy makers and strategic experts across the globe. The event will witness leaders from 40 nations addressing Indo-Pacific Security challenges. The engagements will provide a platform to strengthen defence cooperation, discuss mutual security interests and enhance India's strategic partnerships in the Indo-Pacific region.

On May 25, CDS General Chauhan visited the Indian Army's Northern Command at Udhampur, Jammu and Kashmir and Western Command at Chandimandir Military Station, Haryana. He interacted with the Army Commanders, Lieutenant General Pratik Sharma and Lieutenant General Manoj Kumar Katiyar, and senior Staff Officers who were actively involved in the planning and execution of Operation Sindoor.

During the visit, he conducted a strategic review and operational assessment in the Northern and Western theatres. At Udhampur, the CDS was briefed on the Northern Army's success in neutralising the terror network, the adversary's assets that supported terror, and countermeasures to protect their military assets and civil population during Operation Sindoor.

<https://economictimes.indiatimes.com/news/defence/cds-general-anil-chauhan-interacts-with-british-counterpart-reinforces-defence-ties/articleshow/121521440.cms>

*

Weapon Training Camp 'HOSHIYAR-25' conducted by Coast Guard-West Bengal

Source: The Economic Times, Dt. 31 May 2025

Annual Weapon Training Camp named 'HOSHIYAR-25' was organized by Coast Guard District Headquarters -West Bengal at Haldia from May 26 to 30. Indian Coast Guard units at Kolkata, Haldia and Frazerganj participated in the camp in West Bengal.

The camp named 'HOSIYAR-25' in West Bengal culminated with a number of events , including demonstration of continuity drill followed by a cultural event in presence of CISF dignitaries. The camp also focused on certain features like team building, self-management, command and control orders for ICG to maintain its ready and responsive posture, with the motto "WE PROTECT", ICG said.

"All participants were trained with due impetus on hostile boarding norms, buddy operations, weapon handling etc. Key highlights included the first-ever jointmanship with CISF focusing on tactical integration and safe practice sharing. Live firing at Barrackpore range, musketeer competition and seamanship activities were integral part of the camp. The camp is aimed to boost crew competency and steer ICG in safeguarding maritime, environment and national interests of our nation within EEZ," ICG said in a statement.

<https://economictimes.indiatimes.com/news/defence/weapon-training-camp-hoshiyar-25-conducted-by-coast-guard-west-bengal/articleshow/121524643.cms>

*

Operation Shield: India prepares for future threats with massive civil defence drills across border states

Source: The Economic Times, Dt. 30 May 2025

In a move to boost preparedness amid rising regional hostilities, India is launching an expansive civil defence exercise titled Operation Shield across states and Union Territories bordering Pakistan. While the mock drill was originally slated for May 30, it has been postponed in several states due to administrative and logistical reasons. However, new dates have now been set in Rajasthan and Punjab, with Gujarat, Jammu & Kashmir, and Chandigarh expected to announce theirs shortly.

The exercise is a direct response to the escalating security situation following the April 22 terrorist attack in Jammu and Kashmir's Pahalgam, which killed 26 civilians. The tragedy triggered Operation Sindoor—a series of Indian military strikes on terror camps across Pakistan and Pakistan-occupied Kashmir on May 7, followed by a four-day exchange of fire and drone activity between the two sides.

Simulated warzone: What the drills will look like

The Ministry of Home Affairs has tasked the Directorate General of Fire Services and Home Guards with overseeing the drill, aiming to close critical gaps in civil defence revealed during a preliminary exercise on May 7. The upcoming round, dubbed Operation Shield, will simulate large-scale emergency responses in border districts across Jammu & Kashmir, Punjab, Rajasthan, Gujarat, Haryana, and Chandigarh.

The drills will test coordination and response time across agencies through blackout protocols, air raid siren activations, and mock evacuations. Scenarios will simulate drone or missile strikes, with deployment of emergency medical teams, blood transport units,

and hotlines between local administrations and the Indian Air Force. Civil defence volunteers from the NCC, NSS, and Bharat Scouts and Guides will also be mobilised.

According to PTI sources, the exercise will mirror real-time war-like conditions, with centrally controlled air sirens blaring, families being evacuated from military zones, and urban areas plunged into simulated blackouts—all designed to train civilians and authorities in high-alert scenarios.

Rajasthan and Punjab lead in rescheduling drills

In Rajasthan, the drill will now take place on the evening of May 31. The civil defence department has instructed all 41 district administrations to conduct a coordinated blackout and simulation simultaneously. Jagjeet Singh Monga, director of the state's civil defence, said the drill follows a central government directive mandating full-scale civil defence preparedness in western border regions. Punjab has chosen June 3 for the exercise, aligning the date with the completion of ongoing training by the National Disaster Response Force (NDRF). The Centre has approved the state's request for rescheduling, and all deputy commissioners have been asked to conduct the simulation in their respective districts.

Gujarat, J&K, and Chandigarh yet to declare new dates

In Gujarat, the civil defence department postponed the May 29 drill and has yet to finalise a new date. The state's information department confirmed the postponement and said, "Next dates for the exercise shall be issued subsequently."

Chief Secretary of Gujarat's Revenue Department, Jayanti Ravi, reviewed preparations via a virtual meeting with district officials and issued fresh instructions. She emphasised readiness checks, active youth volunteer participation, and establishing hotlines between civil authorities and defence agencies. With Pakistan ramping up its psychological and military tactics, Operation Shield marks India's most comprehensive civil preparedness push in recent memory—ensuring that both civilians and institutions are battle-ready for any eventuality.

<https://economictimes.indiatimes.com/news/defence/operation-shield-india-prepares-for-future-threats-with-massive-civil-defence-drills-across-border-states/articleshow/121512917.cms>

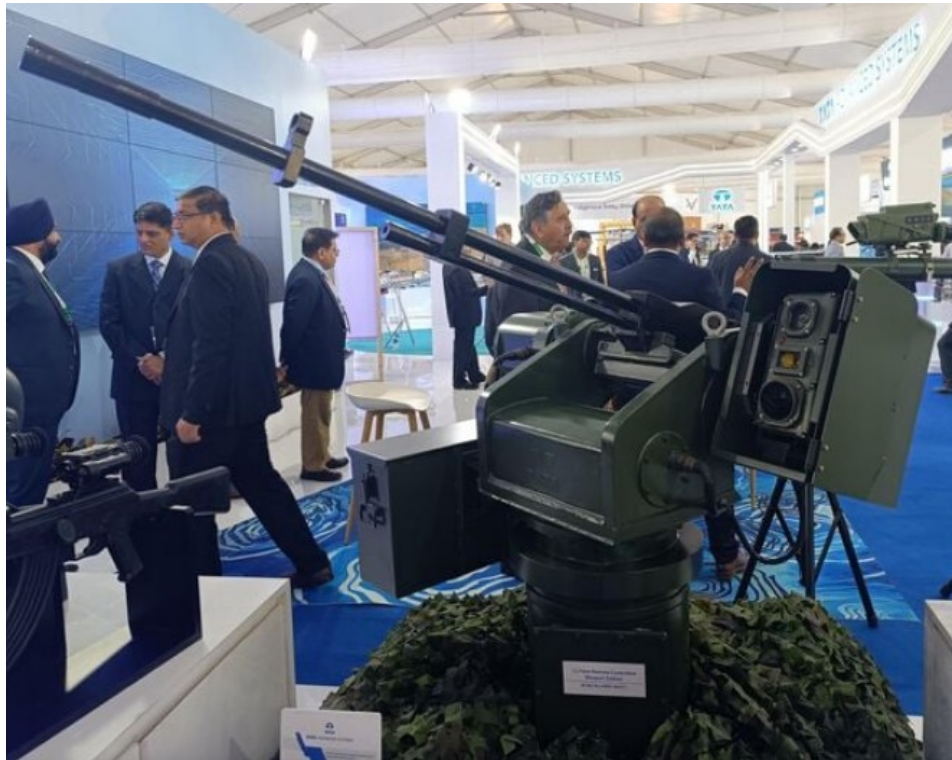
*

Indian Army confirms induction of Tata RCWS

Source: Janes, Dt. 30 May 2025

A Tata Advanced Systems Limited (TASL) remote-controlled weapon station (RCWS) was seen for the first time on a T-72 main battle tank (MBT) during a visit by the General Officer Commanding (GOC) of the Trishakti Corps, Lieutenant General Zubin A Minwalla, to an undisclosed forward post in Northern Sikkim to review the operational readiness.

An image released by the Trishakti Corps on X (formerly Twitter) on 28 May showed Lt Gen Minwalla inspecting a T-72M1 Ajeya, fitted with a TASL RCWS armed with a 12.7 mm NSVT heavy machine gun (HMG).



The RCWS is integrated with a day camera, a thermal camera, and a laser rangefinder (LRF) to enable both day and night operations. It offers an elevation of -10° to 78° , continuous 360° in azimuth traverse, and can engage a target at a distance of up to 4,000 m.

<https://www.janes.com/osint-insights/defence-news/weapons/indian-army-confirms-induction-of-tata-rcws>

*

India-Mongolia joint military exercise 'Nomadic Elephant 2025' commences in Ulaanbaatar

Source: ANI News, Dt. 01 Jun 2025

The 17th edition of the India-Mongolia joint military exercise, Nomadic Elephant, commenced on May 31, 2025, at the Special Forces training centre in Ulaanbaatar, Mongolia. The exercise is scheduled to run until June 13, 2025. The opening ceremony was attended by key dignitaries, including India's Ambassador to Mongolia, Atul Malhari Gotsurve, and Major General Lkhagvasuren Ganselem from the Mongolian side.

Both leaders extended their best wishes to the participating troops and expressed hope that the exercise would strengthen cooperation and mutual understanding between the



armed forces of India and Mongolia. They emphasised that the joint exercise would enhance the operational readiness of both armies and contribute to deepening the enduring defence relationship between the two nations.

This annual exercise is conducted alternately in India and Mongolia. The last edition was held at Umroi, Meghalaya, in July 2024. The Indian contingent comprises 45 personnel, mainly troops from a battalion of the Arunachal Scouts. The Mongolian armed forces contingent, of similar strength, is represented by a 150 Special Forces unit. Scheduled activities include platoon-level field training exercises focusing on semi-conventional operations in semi-urban and mountainous terrain under the United Nations mandate.

The joint drills will include counter-terrorism operations in semi-mountainous terrain, endurance training, reflex shooting, room intervention, small team tactics, rock craft training, and cyber warfare aspects. Troops from both sides will also rehearse activities conducted during United Nations peacekeeping operations, simulating scenarios where multinational forces must work together effectively in complex situations.

This collaboration aims to improve the ability of both forces to respond swiftly and efficiently during operations. Soldiers from both sides will learn from each other's operational experience, share knowledge and expertise, and build lasting bonds of friendship and trust.

The exercise underscores the shared commitment of India and Mongolia towards regional security, peace, and stability. Exercise Nomadic Elephant reinforces the India-

Mongolia relationship as a cornerstone of regional cooperation, fostering strong military ties and promoting cultural understanding.

It stands as a testament to the enduring bond of friendship, trust, and cultural linkages between India and Mongolia, setting the stage for meaningful professional engagement and highlighting the unwavering commitment of both nations to broader defence cooperation.

<https://www.aninews.in/news/world/asia/india-mongolia-joint-military-exercise-nomadic-elephant-2025-commences-in-ulaanbaatar20250601112908/>

*

US expanding military ties with India, says US defence secretary Pete Hegseth, backs deeper QUAD role

Source: The Times of India, Dt. 01 Jun 2025

US defence secretary Pete Hegseth on Saturday said the United States is expanding its security partnership with India, calling for deeper cooperation within the QUAD alliance to counter growing threats in the Indo-Pacific. "We're also expanding our security partnership with India through robust military exercises like Tiger Triumph," Hegseth said. "And we're also amplifying cooperation within the Quad and other multilateral frameworks."

Hegseth made clear that the US sees logistical integration among QUAD partners as a key step forward. "Within the Quad, we're also leading an initiative called the Indo Pacific Logistics Network, enabling QUAD partners to leverage shared logistics capabilities in the Indo Pacific," he said. "You know, they say rookies talk strategy, pros talk logistics."

The Defence Secretary's remarks come amid a broader push by the Trump administration to reinforce its strategic footprint in the Indo-Pacific and to assure allies of America's commitment to countering China's military ambitions, particularly regarding Taiwan. "These exercises enhance our lethality while improving our readiness to respond at a moment's notice," Hegseth added, referencing joint military drills like Towson Sabre with Australia and Cobra Gold in Thailand. He also said that the US-led Partnership for Indo Pacific Industrial Resilience (PIPER), which involves 14 allies and partners collaborating with the private sector to bolster industrial and defence supply chains.

"I'm proud to announce the first PIPER project," Hegseth said. "It plans to establish repair capability and capacity for P8 radar systems in Australia... [and] will also enable Indo Pacific allies and partners operating the aircraft, including New Zealand and the Republic of Korea, to repair aircraft within the region."

A second PIPER initiative will create standards for small unmanned aerial systems and increase supply chain resilience for their critical components. Hegseth described these steps as essential to deterring adversaries and ensuring that multinational forces have

sustained combat support. "It's one thing for an adversary to see multinational forces operating together in exercises," he said. "It's another thing entirely for that same country to see an integrated defence industrial base supporting those forces and standing ready to keep them in the fight."

Speaking in broader terms, Hegseth framed the Trump administration's foreign policy as pragmatic and focused on mutual self-interest. "President Trump's approach is grounded in common sense and national interest... We are not here to pressure other countries to embrace or adopt policies or ideologies," he told the summit. "We are all sovereign nations."

He further stressed the importance of like-minded allies taking more responsibility for regional defence. "Ultimately, a strong, resolute and capable network of allies and partners is our key strategic advantage," Hegseth said. "China envies what we have together."

<https://timesofindia.indiatimes.com/world/us/us-expanding-military-ties-with-india-says-us-defence-secretary-pete-hegseth-backs-deeper-quad-role/articleshow/121535633.cms>

*

India strengthens defence integration, technology and recruitment

Source: *The Sunday Guardian*, Dt. 01 Jun 2025

With the initial success of Operation Sindoor and Prime Minister Narendra Modi's resolve to continue it, India's defence strategy has begun focusing on strengthening the jointness and integration of the armed forces, developing a shared understanding of operational needs, and enhancing technological capabilities. Earlier as well, the Ministry of Defence declared 2025 as the "Year of Reforms," emphasising the promotion of joint operations and the establishment of integrated theatre commands to unify the armed forces.

Advanced Indian weapons, combat aircraft, ships, submarines required for the Air Force and Navy, imports, and digital communication security systems including drones are being reviewed and strengthened. On the other hand, to enhance military strength, special focus is being given to large-scale recruitment, education, and training of youth in various arms of the army. Thousands are also being added to civil security forces in states. The Prime Minister considers the role of superior human resources along with modern technology to be very important in military strength. In this way, new and vast employment opportunities in India's security system are opening doors for the country's socio-economic progress.

India's defence budget is \$81 billion, allowing continuous modernisation and upgrades. By 2025, India's defence and paramilitary forces will showcase strong and diversified strength, placing India among the world's top military powers. India has approximately 1.46 million active military personnel and an additional 1.15 million reserve personnel.

Paramilitary forces add another 2.5 million personnel who contribute significantly to internal security and border management. To augment the active forces, an additional 1.15 million reserves are available.

The Air Force operates over 2,229 aircraft, including advanced fighter jets and support planes. The Navy operates 293 vessels, including two aircraft carriers, destroyers, frigates, and a large fleet of submarines. The paramilitary forces, numbering 2.5 million, play vital roles in internal security, border management, and anti-terrorism operations. These forces include organisations such as the Central Armed Police Forces, Border Security Force, and Assam Rifles.

The Defence Research and Development Organisation is preparing to achieve excellence in hybrid, kinetic, and non-kinetic warfare. According to Home Minister Amit Shah, India will establish new anti-drone units for border security. Defence Minister Rajnath Singh had already instructed in the January meeting that the defence reform programme should focus on emerging areas such as cyber and space, along with artificial intelligence, machine learning, hypersonics, and robotics. Joint service cooperation and training will help develop a shared understanding of operational requirements and joint operational capabilities.

India's armed forces host several world-class cadet training academies and specialised professional schools, as well as excellent educational institutions to prepare future operational commanders. The National Defence University (NDU), established by the Ministry of Home Affairs, is India's national security and police university. This year, NDU will have campuses across India, including Lavad-Gandhinagar (Gujarat), Pasighat (Arunachal Pradesh), Lucknow (Uttar Pradesh), and Shivamogga (Karnataka). Admissions for the academic year 2025-26 are open through the NDU Common Entrance Test (NCET). The university offers various programmes in national security, police technology, and related fields.

NDU now also runs school classes from 8th to 12th following the CBSE 10+2 pattern and acts as a feeder institute to the National Defence Academy, Khadakwasla (Pune), where male students who complete 12th grade are selected as cadets for initial training in the Army, Navy, and Air Force. Military schools are located in various places for education. The Soldiers' Schools are a system of schools in India established and managed under the Ministry of Defence by the Soldier School Society. About 33 such schools are operational nationwide, with more planned for the future.

Infantry School: The Infantry School in Mhow is the Indian Army's largest and oldest military training centre. It is responsible for developing and periodically updating the full spectrum of tactical exercises and concepts related to infantry operations in diverse terrains and environments.

The recruitment scheme introduced by the Modi government involves short-term service in the Indian Armed Forces, where recruits serve for four years. The Indian Army, Navy, and Air Force all participate in the Agniveer recruitment process. In 2025, recruitment

continues for various roles under Agniveer, including soldier, clerk/storekeeper technical, tradesman, and sailor (MR).

This innovative scheme faced political opposition but was implemented after extensive deliberations by the Army chiefs and the Ministry of Defence, with some amendments and improvements. Training new recruits from the beginning and their subsequent entry into other national services will allow India to benefit from military training at various levels.

Indian Army Chief General Upendra Dwivedi recently called the Agnipath recruitment scheme a “big success,” stating that the Agniveers have shown a keen desire to learn and are performing effectively. “This scheme (Agnipath) is proving very successful, and those who are joining us are comparatively very eager to learn,” he said. “Regarding their capability, we can achieve whatever we want from them in three to four years.”

Currently, only 25% of Agniveers are retained for longterm service, a figure considered low by military experts. According to senior Ministry of Defence officials, the Army has recommended increasing retention to 50% to maintain combat power and ensure continuity in training. The planned annual recruitment of Agniveers for the Indian Army is about 46,000 — 40,000 for the Army and 6,000 combined for the Navy and Air Force. It is expected that in the coming years, India’s military security system will rank among the world’s top.

<https://sundayguardianlive.com/news/india-strengthens-defence-integration-technology-and-recruitment>

*

Science & Technology News

“TDB-DST supports Breakthrough in Stroke Care: Backs India’s First Indigenous Thrombectomy Device by S3V Vascular Technologies”

Source: Press Information Bureau, Dt. 30 May 2025

In a significant boost to India’s medtech innovation landscape, the Technology Development Board (TDB), Department of Science and Technology (DST), has extended financial support to M/s S3V Vascular Technologies Limited, Mysuru, for their project titled “Integrated Manufacturing of Mechanical Thrombectomy Kit for Treatment of Acute Ischemic Stroke.” The board has sanctioned assistance to this pioneering initiative aimed at transforming stroke treatment through indigenous innovation.

The project envisions the establishment of a state-of-the-art upstream integrated manufacturing facility at the Medical Devices Park, Oragadam, Sriperumbudur (Chennai),

to develop and manufacture advanced mechanical thrombectomy kits—a life-saving intervention for patients suffering from acute ischemic stroke due to large vessel occlusion. Compared to conventional thrombolysis, thrombectomy offers significantly improved outcomes, reducing the risk of long-term paralysis and disability. Thus making a difference between “PARALYSIS and RECOVERY”

S3V Vascular Technologies is set to become the first Indian company to indigenously design and manufacture the complete suite of neuro-intervention devices, including microcatheters, aspiration catheters, guidewires, and stent retriever systems in an upstream integrated facility. The company also intends to file patents for critical innovations such as the clot retriever head design, braid-over-coil aspiration catheter structures, and several advanced process technologies.

By replacing expensive imported devices with high-quality, locally manufactured alternatives, this initiative is poised to enhance both affordability and accessibility of stroke care in India.

The company aims to integrate these devices into government reimbursement programs such as Ayushman Bharat, thereby unlocking a domestic market estimated at 2 Billion USD. As part of its outreach, S3V also plans to collaborate with leading hospitals to offer simulator-based training for young interventionalists—especially in Tier-II cities, where the stroke burden is high.

Speaking on the occasion, Sh. Rajesh Kumar Pathak, Secretary, TDB, said “TDB is proud to support S3V’s vision of building India’s first comprehensive neuro-intervention manufacturing ecosystem. This project reflects our continued commitment to making India a global hub for affordable, high-end medical technology—especially in areas of critical public health need like stroke care. The company’s focus on integrating these devices into Ayushman Bharat further aligns with the national goal of inclusive healthcare access.”

Commenting on the support, Dr. N.G. Vijaya Gopal, Managing Director of M/s S3V Vascular Technologies Ltd. Said “With Technology Development Boards’ backing, we are setting a new benchmark in indigenous MedTech manufacturing. Our integrated manufacturing facility will not only reduce dependency on imports of the finished medical devices used in Mechanical Thrombectomy but also reduces India’s dependency on import of the raw materials used in manufacturing of these critical complex lifesaving medical devices. We have initiated the CE and USFDA approval process for these devices to expand our access to cutting-edge stroke care solutions across India, Asia, Latin America, Europe and USA. We’re committed to delivering world-class innovation—designed, engineered, and made entirely in India to the World.”

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=2132783>

*

Eyes beyond the skies: How IIIT-Delhi and ISRO are training AI to watch over space debris, rogue satellite

Source: The Economic Times, Dt. 02 Jun 2025

In the fast-crowding highways of space, where satellites whiz past one another and junk from decades of missions hurtles unpredictably, one wrong move could set off chaos.

Keeping tabs on this orbital traffic jam is no longer optional—it's essential. And a team of engineers and AI specialists at IIIT-Delhi is building a system to do just that, with minimal human intervention.

Partnering with ISRO and industry players under the AI for Space Initiative, the Indraprastha Institute of Information Technology, Delhi is crafting an AI-powered Space Situational Awareness (SSA) platform that doesn't just track what's up there—it learns from it, predicts dangers faster, and adapts in real time.

"Human-in-the-loop SSA systems face several significant limitations. They must process vast amounts of data collected from thousands of active satellites, space debris and defunct rocket bodies," said Sanat K Biswas, assistant professor (ECE) at IIIT-Delhi.

That volume of data is beyond what most human analysts can efficiently process. As a result, crucial patterns go unnoticed, decision-making slows down, and inconsistent risk assessments emerge due to varied inputs and algorithms.

Beyond data overload, coordination between global satellite operators is another problem. With no universal standards, efforts to prevent collisions are hampered by communication gaps and unclear points of contact.

"The lack of standardised protocols among satellite operators complicates coordination for collision avoidance. Language barriers and difficulties in locating relevant contacts for operational coordination further limit necessary actions," Biswas added.

The rise of agentic AI

The AI system being developed at IIIT-Delhi aims to cut through this mess. Current AI applications in SSA are narrow—object detection or isolated tracking. But what the team is building is more ambitious: AI that can automate entire pipelines—from sensor management to threat detection—much like air traffic control, but for space.

"Currently, AI algorithms are used mainly for specific support tasks like detecting objects. In the near future, AI is expected to take on more complex roles such as managing sensors, automating data processing and detecting threats... To bring all these functions together, we can develop agentic AI—where multiple AI agents handle different tasks while a human oversees their work," said Biswas.

This vision fits squarely into the larger mandate of the Infosys Centre for Artificial Intelligence (CAI) at IIIT-Delhi, launched in 2016 to explore cutting-edge AI in fields ranging from autonomous mobility to satellite navigation. SSA, for them, is not just about

national security or communication infrastructure—it's a new frontier where AI can prove its worth in high-stakes environments.

Closing India's space collaboration gap

Yet the road ahead isn't only technical. It's institutional. According to Biswas, India's space innovation ecosystem still struggles with fragmented collaboration, especially between academia and state agencies.

"Unfortunately, there are very few examples of these collaboration pathways in India, and the capabilities of academic institutions are often underutilised in the space sector," he said.



He lays out a blueprint for bridging this divide: either let academic institutions build technologies up to a certain stage before handing them off to industry, or let ISRO define the research need, which universities then solve and industry converts into deployable products.

“If we aspire to become a technological leader in AI applications for space or in space technology more broadly, we must recognise that space research is resource-intensive and that immediate results are not always guaranteed,” Biswas cautioned. “To foster productive collaboration, ISRO and Indian space industries should support academic institutions and universities... with focused, sustained long-term funding.”

<https://economictimes.indiatimes.com/news/science/eyes-beyond-the-skies-how-iiit-delhi-and-isro-are-training-ai-to-watch-over-space-debris-rogue-satellites/articleshow/121565100.cms>

*

ISRO's Gaganyatri to carry out microgravity research experiments during upcoming Axiom-4 mission

Source: *The Economic Times*, Dt. 31 May 2025

Indian Space Research Organisation's (ISRO) Gaganyatri to carry out shortlisted microgravity research experiments onboard the International Space Station (ISS) during the upcoming Axiom-4 mission, as per an official statement from ISRO.

The Axiom-4 mission (Axe-4), which Gaganyatri Group Captain Shubhanshu Shukla will pilot to the International Space Station (ISS) on June 8.

The ISRO has shortlisted seven microgravity research experiments proposed by Indian Principal Investigators (PIs) from various national Research and Development laboratories, academic institutions for implementation on the International Space Station (ISS) during the upcoming Axiom-4 mission with its Gaganyatri.

The field of microgravity research with potential applications in diverse areas such as human health, physical/life sciences, material research, novel pharmaceutical development and biotechnology offers significant opportunities to the national scientific community, the statement added.

The research includes the impact of microgravity radiation in the ISS on edible microalgae. Sprouting salad seeds in space: relevance to crew nutrition; survival, revival, reproduction, and transcriptome of the eutardigrade *Paramacrobiotus* sp. BLR strain in space; effect of metabolic supplements on muscle regeneration under microgravity; analysing human interaction with electronic displays in microgravity; impact of microgravity on growth and yield parameters in food crop seeds

These experiments aim at utilising available research facilities onboard the ISS.

Considering the safety-driven operational philosophy as well as other mission constraints of human spaceflight missions, these shortlisted microgravity experiments are undergoing stringent evaluations and reviews on the ground before launch.

The experience gained through this effort in the implementation of these experiments will nurture a microgravity research ecosystem in the country, resulting in the induction of advanced microgravity experiments in various disciplines in the Indian Space Programme, it added.

The upcoming Axiom-4 mission with ISRO's Gaganyatri marks the visit of the first Indian ever to the International Space Station (ISS).

Shukla is set to become the first astronaut from the Indian Space Research Organisation (ISRO) to visit the station as part of a joint effort between NASA and the Indian space agency. He will also be India's second national astronaut to go to space since 1984. Rakesh Sharma earned the distinction of being the first Indian to go to space on board Russia's Soyuz spacecraft in 1984.

IAF Group Captain Prasanth Balakrishnan Nair has been designated an astronaut, as part of the backup pilot of the Ax-4 if Group Captain Shukla is unable fly.

Apart from Shukla, the Ax-4 mission also carries two mission specialists - European Space Agency (ESA) project astronaut Slawosz Uznanski-Wisniewski of Poland and Tibor Kapu of Hungary - to stay aboard the space station. Peggy Whitson, former NASA astronaut and director of human spaceflight at Axiom Space, will command the commercial mission.

<https://economictimes.indiatimes.com/news/science/isros-gaganyatri-to-carry-out-microgravity-research-experiments-during-upcoming-axiom-4-mission/articleshow/121532070.cms>

*

