

अक्टूबर  
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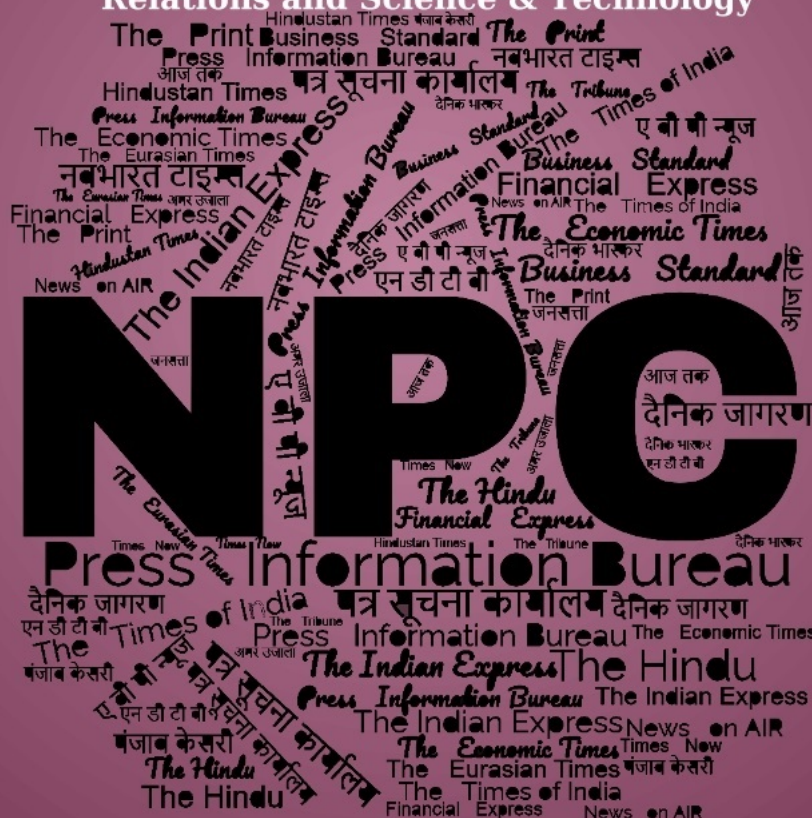
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# समाचार पत्रों से चयनित अंश Newspapers Clippings

डीआरडीओ समुदाय को डीआरडीओ प्रौद्योगिकियों, रक्षा प्रौद्योगिकियों, रक्षा नीतियों, अंतर्राष्ट्रीय संबंधों और विज्ञान एवं प्रौद्योगिकी की नूतन जानकारी से अवगत कराने हेतु दैनिक सेवा

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# Defence News

## 'तीनों सेनाओं का एकीकरण अस्तित्व के लिए महत्वपूर्ण'

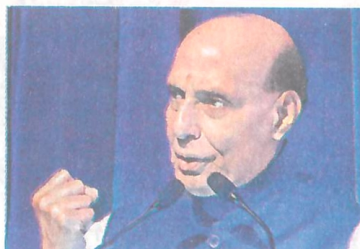
Source: Dainik Jagran, Dt. 01 Oct 2025

नई दिल्ली, प्रेस : रक्षा मंत्री राजनाथ सिंह ने तीनों सेनाओं के बीच तालमेल के महत्व को रेखांकित कर कहा कि हमारी सरकार का उद्देश्य तीनों सेनाओं के बीच एकजुटता व एकीकरण को और बढ़ावा देना है। यह केवल नीतिगत मामला नहीं है, बल्कि तेजी से बदलते सुरक्षा परिवेश में अस्तित्व का मामला है। आपरेशन सिंदूर के दौरान तीनों सेनाओं का तालमेल निर्णायक परिणाम देने का जीवंत उदाहरण था और इस सफलता को भविष्य की सभी सैन्य कार्रवाइयों के लिए एक मानक बनना चाहिए।

मंगलवार को नई दिल्ली के सुब्रतो पार्क में भारतीय वायु सेना द्वारा आयोजित एक सेमिनार के दौरान रक्षा मंत्री ने कहा, “देवी दुर्गा इस बात का सबसे बड़ा उदाहरण हैं कि जब चुनौतियां बड़ी और असाधारण होती हैं तो एकीकृत शक्ति अजेय हो जाती

● रक्षा मंत्री राजनाथ सिंह बोले, यह केवल नीतिगत मामला नहीं है, एकीकृत शक्ति अजेय हो जाती है

● कहा- आपरेशन सिंदूर के दौरान तीनों सेनाओं का तालमेल निर्णायक परिणाम देने का जीवंत उदाहरण था



नई दिल्ली में सेनाओं के सम्मेलन को संबोधित करते रक्षा मंत्री राजनाथ सिंह ● आइएएनएस

है। हमारी सेना परिचालन तत्परता की दिशा में काम कर रही है, और वायु तथा नौसेना भी इस दिशा में काम कर रही हैं। हमारा अगला कदम अखिल भारतीय त्रि-सेवा रसद (लाजिस्टिक्स) एकीकरण पर काम करना होना चाहिए। जब हमारी सशस्त्र सेनाएं एकजुटता, सामंजस्य और पूर्ण समन्वय के साथ कार्य करेंगी, तभी हम सभी क्षेत्रों में विरोधियों का मुकाबला कर पाएंगे और भारत को गौरव की

नई ऊंचाइयों पर ले जा पाएंगे। यह समय की मांग है।”

सेना की विशिष्ट आवश्यकताओं के लिए एक साझा डिजिटल ढांचे की आवश्यकता पर प्रकाश डालते हुए उन्होंने कहा, “दशकों से प्रत्येक सेना ने विभिन्न भौगोलिक क्षेत्रों में अपने विशिष्ट अनुभवों के आधार पर संचालन प्रणालियां, निरीक्षण संरचना और लेखा परीक्षा प्रणालियां विकसित की हैं। अगर थलसेना ने कुछ विकसित किया, तो वह उसके

पास ही रहा। अगर नौसेना या वायु सेना ने कुछ विकसित किया, तो वह उनकी अपनी सीमाओं के भीतर ही रहा। इस विभाजन ने मूल्यवान सबक के पारस्परिक आदान-प्रदान को सीमित कर दिया है। आज के सुरक्षा परिवेश में इस विभाजन की जगह खुले आदान-प्रदान और सामूहिक शिक्षा की जगह मिलनी चाहिए। दुनिया तेजी से बदल रही है। खतरे कहीं ज्यादा जटिल हो गए हैं और हमें यह स्वीकार करना होगा कि कोई भी सेना अलग-थलग होकर काम नहीं कर सकती। किसी भी संघर्ष में सफलता के लिए अब अंतर-संचालन और एकजुटता जरूरी है।”

रक्षा मंत्री ने कहा कि हमारी सेना स्वतंत्र रूप से जवाबी कार्रवाई की क्षमता रखती है, वहीं भूमि, समुद्र, वायु, अंतरिक्ष और साइबरस्पेस की सहयोगात्मक शक्ति को विजय की सच्ची गारंटी बनाती है।”

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## ‘Military jointness will need mindset change’

Source: Hindustan Times, Dt. 01 Oct 2025

Defence minister Rajnath Singh on Tuesday said jointness in the military --- a prerequisite to the creation of theatre commands --- cannot be achieved through structural reforms alone but will also require a change in mindset and the challenges involved will have to be tackled through dialogue and understanding, stressing that tri-service integration is a must for survival in a fast-changing security environment.

Such a change, he said, will not be easy as it will require “overcoming legacy habits and institutional silos,” adding that the integration drive must respect the uniqueness of each service and “uniformity cannot be imposed where it does not fit.”

“We will face challenges as we move towards jointness. But through dialogue, understanding and respect for traditions, we can overcome these hurdles. Every service must feel that the others understand their challenges, and every tradition must be honoured as we build new systems together,” Singh said at a conclave organised by the Indian Air Force (IAF) on Fostering Jointness: Synergy Through Shared Learning.

Singh’s straight talk comes at a critical moment when there are differences within the three services on theaterisation, a long-awaited reform for the best use of the military’s resources to fight



future wars. Theaterisation refers to placing specific units of the army, the navy and the air force under a theatre commander. Such commands are led by an officer from any of the three services, depending on the roles assigned to them. The air force strongly feels it should not be confined to a theatre.

Jointness among the three services was in focus during Operation Sindoor --- New Delhi's direct military response to the April 22 Pahalgam terror attack in which 26 people were killed. It led to a four-day confrontation with Pakistan that showcased the Indian military's synergy.

"During Operation Sindoor, the tri-services synergy produced a unified, real-time operational picture," Singh said. "It empowered commanders to take timely decisions, enhanced situational awareness, and reduced the risk of fratricide. This is the living example of jointness delivering decisive results and this success must become the benchmark for all future operations."

Last week, the government extended the tenure of chief of defence staff General Anil Chauhan by eight months, signalling its confidence in him to implement key military reforms underway in the defence ministry, including theaterisation.

The evolving character of warfare combined with the complex interplay of traditional and non-traditional threats makes jointness a core operational necessity rather than a matter of choice, Singh said.

"Jointness has become a fundamental requirement for our national security and operational effectiveness today. While each of our services possesses the capacity to respond independently, the interconnected nature of land, sea, air, space and cyberspace makes collaborative strength the true guarantor of victory. Our government's objective is to further promote jointness and integration. This is not only a matter of policy but a matter of survival in the fast-changing security environment," the defence minister said.

His comments came a fortnight after Prime Minister Narendra Modi instructed the defence ministry to take swift and concrete steps to bolster jointness in the military to meet future challenges.

"In today's security climate, compartmentalisation must give way to open sharing and collective learning. The world is changing rapidly. Threats have become far more complex and we must acknowledge that no single service can operate in isolation. Interoperability and jointness are now essential for success in any conflict," Singh said. He also brought out that there was no one-size-fits-all approach to jointness.

"The cold of the Himalayas is not the same as the heat of the desert. The navy faces challenges that are different from those faced by the army and air force. We cannot impose uniformity where it does not fit. Our task is to create a shared baseline that preserves uniqueness while building interoperability and trust."

The differences among the services over theaterisation surfaced at the tri-services Ran Samwad conclave in Mhow in August. Chauhan then said that while there may be a certain degree of dissonance among the three services over theaterisation, alternative points of view were being heard without temperatures rising. The differences, he said, would be resolved. Speaking at the same event, navy chief Admiral Dinesh K Tripathi said theaterisation was "the ultimate goal."

Those comments came a day after chief of the air staff Air Chief Marshal AP Singh said the armed forces must not come under any pressure to form joint structures and should not pick any global model that may not be relevant in the Indian context, adding that joint planning and coordination in

Delhi and decentralised execution is what is required. Singh's remarks, also made during Ran Samwad, indicated that the three services held different views on the ongoing theaterisation drive.

The theaterisation model being pursued involves raising the China-centric northern theatre command in Lucknow, the Pakistan-centric western theatre command in Jaipur, and the maritime theatre command in Thiruvananthapuram.

"If you have sensed some kind of a dissonance, let me assure you we will resolve it in the best interest of the nation...whether it is about drones, air littorals (airspace up to a few thousand feet) or even integrated command structures," the CDS said at the time.

Reigniting the debate around theaterisation, the IAF chief then said that any structure --- whether it is current or planned later --- should not add layers to the decision making process. "Why do we need a joint structure? Is there anything ailing us...is there any problem with the structure that we have," the IAF chief had said.

On Tuesday, the defence minister asked the armed forces to continue studying international best practices and adapt them to India's context. "We can learn from others, but our answers must be Indian answers shaped by our geography, our needs and our culture. Only then can we build systems that are truly sustainable and future-ready."

<https://www.hindustantimes.com/india-news/military-jointness-will-need-mindset-change-101759257925985.html>

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## **Rajnath Singh credits 'triservices synergy' for decisive results during Operation Sindoor**

*Source: The Indian Express, Dt. 01 Oct 2025*

Defence Minister Rajnath Singh on Tuesday looked back at Operation Sindoor as a hallmark of jointness in India's defence preparedness. Calling it a living example of delivering decisive results, Singh said the tri-services synergy produced a unified, real-time operational picture during Operation Sindoor, thus empowering commanders to take timely decisions, while enhancing situational awareness and reducing the risk of fratricide.

Addressing a seminar organised by the Indian Air Force (IAF) at Subroto Park, he said this success—achieved through tri-service integration—must become the benchmark for all future operations.

In a separate address at the 100th Raising Day of the Military Nursing Service, Chief of Defence Staff General, Anil Chauhan, said: "While the possibility of use of nuclear weapons in our context is very low, it would be prudent to take this into our security calculus." He added that radiological contamination requires different protocols for treatment and must be part of our training. "Preparedness against nuclear threats contributes to a deterrence against its use," he said.

In the seminar, Singh also highlighted the importance of IAF's Integrated Air Command and Control System (IACCS), working in unison with the Indian Army's Akashteer and the Indian Navy's Trigun, making a joint operational backbone during the operation.

A statement from the Defence Ministry stated the seminar was organised on the theme 'Fostering Greater Jointness – Synergy through Shared Learning in the domain of Inspection and Audits,

Aviation Standards and Aerospace Safety' and it underscores the necessity for India's Armed Forces to embrace deeper integration to meet the demands of modern warfare and to maximise defence preparedness.

The Defence Minister said the evolving character of warfare, combined with the complex interplay of traditional and non-traditional threats, makes jointness a core operational necessity rather than a matter of choice.

"Jointness has become a fundamental requirement for our national security and operational effectiveness today. While each of our services possesses the capacity to respond independently, the interconnected nature of land, sea, air, space and cyberspace makes collaborative strength the true guarantor of victory," he said.

He said the government's objective is to promote jointness and integration in the tri-services, adding that this is not only a matter of policy but also a matter of survival in the fast-changing security environment.

The Indian Express had earlier reported that the standardisation of equipment, common supply chains for logistics and procurement, combined training at all levels, more cross-postings, exposure to other services and even greater social interaction among personnel are among the steps being pushed to increase jointness and integration among the Army, Navy and Air Force, ahead of the creation of theatre commands.

### **Optional Trim...**

At the seminar, Singh commended the Army's Computerised Inventory Control Group (CICG), the Air Force's Integrated Materials Management Online System (IMMOLS) and the Navy's Integrated Logistics Management System.

The Defence Minister noted these have already transformed logistics by bringing automation, accountability and transparency. He said work has begun on the Tri-Services Logistics Application, which will integrate these systems to provide shared visibility of stocks, optimise cross-service resources and reduce redundant procurement.

He added that over decades, each service had developed operational practices, inspection frameworks and audit systems based on their distinct experiences across geographies.

"If the Army developed something, it remained with the Army. If the Navy or Air Force developed something, it remained within their own walls," he said, adding that this compartmentalisation has limited the cross-sharing of valuable lessons and that it must give way to open sharing and collective learning.

"The world is changing rapidly. Threats have become far more complex and we must acknowledge that no single service can operate in isolation. Interoperability and jointness are now essential for success in any conflict," he said.

He warned that in critical domains such as aviation safety and cyber warfare, divergence in standards could prove disastrous. "Even a minor error in inspection can create cascading effects. And if our cyber defence systems differ across services, adversaries can exploit the gap. We must close these vulnerabilities by harmonising our standards," he said, while stressing that integration must respect the uniqueness of each force.

"The cold of the Himalayas is not the same as the heat of the desert. The Navy faces challenges different from the Army and Air Force. We cannot impose uniformity where it does not fit. Our task

is to create a shared baseline that preserves uniqueness while building interoperability and trust,” he said.

He further said that achieving jointness requires not just structural reform but also a change in mindset and called upon senior leadership at all levels to constantly communicate the value of integration to their teams. He also said that such change will not be easy and will involve overcoming legacy habits and institutional silos.

“We will face challenges as we move towards Jointness. But through dialogue, understanding and respect for traditions, we can overcome these hurdles. Every service must feel that the others understand their challenges, and every tradition must be honoured as we build new systems together,” he said.

“Only when our Armed Forces operate in unison, in harmony, and in perfect coordination can we counter adversaries across all domains and lead India to new heights of glory. This is the need of the hour, and I am confident we will achieve it,” he said.

At the seminar, a consensus was reached on the need for greater commonality in inspection processes and exploration of opportunities to enhance interoperability among services in aviation.

A session in the seminar on Joint Aerospace Safety highlighted the importance of a unified approach to enhance safety standards and address emerging challenges.

In his address, the CDS said bio-threats, whether they are man-made, accidental or natural, are likely to increase in future. “Defence against such threats and treatment of infected persons requires different treatment protocols. We must be prepared for this in future.”

<https://indianexpress.com/article/india/rajnath-singh-triservices-synergy-operation-sindoor-10280602/>

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## **‘Jointness will not erase forces’ identity: Rajnath Singh**

***Source: The Tribune, Dt. 01 Oct 2025***

Terming jointness among the three armed forces as a “core operational necessity”, Defence Minister Rajnath Singh on Tuesday said joint-operations during Operation Sindoor, delivered ‘decisive results’ and that success must become a ‘benchmark’ for future operations. The minister was speaking at a seminar on ‘fostering greater jointness’ hosted by the Indian Air Force (IAF).

Highlighting the efficacy of joint operations during Operation Sindoor with Pakistan, Singh said, “The synergy between the tri-services produced a unified, real-time operational picture. It empowered commanders to take timely decisions, enhanced situational awareness, and reduced the risk of fratricide. This is the living example of jointness delivering decisive results and this success must become the benchmark for all future operations.”

The event comes two weeks after Prime Minister Narendra Modi instructed the Ministry of Defence to swiftly implement ‘concrete steps’ to achieve greater jointness among forces to meet future challenges and prevail against any eventuality. In military terms, jointness is the first step towards creating ‘theatre commands’. It entails coordination in planning, operations, training, communications and acquisitions.

This is to be followed by integration or the need to amalgamate different sensors, systems, weapons and networks of each service. The creation of a common commander – called the theatre commander -- for execution of tasks is the next step. The minister was also categorical about the government's objective to promote jointness and integration among the three-services – the Army, IAF and the Navy. He emphasised that it was not only a matter of policy, but a matter of survival in the fast-changing security environment.

"The evolving character of warfare makes jointness a core operational necessity rather than a matter of choice... No single service can operate in isolation. Interoperability and jointness are now essential for success in any conflict," he asserted.

The defence minister, however, clarified that jointness did not mean erasing the unique identity of each service. "Integration must respect uniqueness of each force. We cannot impose uniformity where it does not fit. Our task is to create a shared baseline that preserves uniqueness, while building interoperability". He said that personnel of each service must feel that others understand their challenges, and every tradition must be honoured while building the new systems.

"Each services possesses capacity to respond independently. However, the interconnected nature of war makes collaborative strength a true guarantor of victory," he added. The Defence Minister further announced that work had begun on having a joint 'logistics application', which will integrate systems of the three services to provide shared visibility of stocks, optimise cross-service resources and reduce redundant procurement.

Singh said that in today's security climate, compartmentalisation must give way to open sharing and collective learning. He warned that in critical domains such as aviation safety and cyber warfare, divergence in standards could prove disastrous. "Even a minor error in inspection can create cascading effects. If our cyber defence systems differ across services, adversaries can exploit the gap," he added.

<https://www.tribuneindia.com/news/jointnessinarmedforces/jointness-will-not-erase-forces-identity-rainath>

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## Centre plans revival of Border Wing Home Guards following Ladakh unrest and Pahalgam attack

*Source: The Economic Times, Dt. 01 Oct 2025*

In wake of the recent Ladakh unrest and Pahalgam attack earlier this year, the union government is planning to revive Border Wing Home Guards (BWHG) for its active engagement with border guarding forces along the China and Pakistan borders. The home guards will consist of locals who will act as eyes and ears of the border guarding forces like Indo Tibetan Border Police (ITBP) and Border Security Force (BSF), said officials aware of the developments.

According to officials, the plan existed in the late 1970s but was disbanded due to monetary issues between state police and border guarding forces. The home ministry may act as nodal points between state and central forces, added officials. "After the recent developments in the neighbourhood, including Nepal and Bangladesh, it is being suggested that locals on temporary basis be employed, however, the payment made to them remains a contentious issue between central forces and State police," explained officials.



India shares a 3,488-km border with China across Arunachal Pradesh, Sikkim, Uttarakhand, Himachal Pradesh and Ladakh. It shares 3,323 kms with Pakistan across Gujarat, Rajasthan, Punjab, Jammu & Kashmir and Ladakh. With Bangladesh, India shares 4,096.7 kms across West Bengal, Assam, Meghalaya, Tripura and Mizoram. ITBP is deployed along the Sino-India border whereas BSF is responsible for Bangladesh and Pakistan. As of now, India is following the principle of "one border, one guarding force."

The intelligence failure during the Pahalgam attack led to the killing of 26 innocent Indians by the Lashkar-e-Taiba (LeT) backed The Resistance Force (TRF). Following the attacks, Indian security forces launched operation Sindoor in May this year in which terrorist hideouts were targeted.

The three terrorists who were killed in Operation Mahadev by security forces in July this year were responsible for multiple attacks on security forces and civilians in the past. The National Investigation Agency (NIA) is probing the Pahalgam attack case and have so far arrested two locals for harbouring the three Pakistani militants.

<https://economictimes.indiatimes.com/news/defence/centre-plans-revival-of-border-wing-home-guards-following-ladakh-unrest-and-pahalgam-attack/articleshow/124242967.cms?from=mdr>

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## MoD's Year of Reforms: DEO strengthens transparency, infrastructure, and efficiency

*Source: The Statesman, Dt. 01 Oct 2025*

As part of the Ministry of Defence's Year of Reforms initiative, the Defence Estates Organisation (DEO) has introduced measures to strengthen efficiency, transparency, and institutional capacity.

In a statement issued here, the Ministry of Defence stated that during this period, DEO advanced digitisation, implemented land management reforms, rolled out citizen-centric welfare initiatives, and strengthened infrastructure, reflecting Ministry's commitment to modernising defence administration.

In collaboration with Ministry of Social Justice and Empowerment, DEO extended social welfare schemes in cantonments, including Nasha Mukta Bharat Abhiyan, NAMASTE, and Atal Vayo Abhyuday Yojana, enhancing welfare ecosystem for residents.

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## ‘Drone Kavach’ exercise conducted in Arunachal

Source: *The Pioneer*, Dt. 01 Oct 2025



The Army's 'Spear Corps' under the Eastern Command conducted a 'Drone Kavach' exercise in forward areas of eastern Arunachal Pradesh from September 25-28, a defence official said. The exercise showcased the Army's combat readiness for next generation of drone warfare, besides validating state-of-the-art drone technologies, he said.

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## सेना ने अरुणाचल प्रदेश में किया ड्रोन कवच अभ्यास

Source: *Dainik Jagran*, Dt. 01 Oct 2025

ईटानगर, प्रेद्र: भारतीय सेना की पूर्वी कमान के अधीन स्पीयर कोर ने अरुणाचल प्रदेश की कठिन परिस्थितियों वाले अग्रिम इलाकों

था। इस अभ्यास ने भारतीय सेना को अत्याधुनिक ड्रोन तकनीक और काउंटर ड्रोन उपाय को परखने का मौका दिया।

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## सुरक्षा आकलन में परमाणु हथियारों की चुनौतियाँ ध्यान रखें: सीडीएस

Source: Dainik Jagran, Dt. 01 Oct 2025



नई दिल्ली में सैन्य नर्सिंग सेवा अधिकारियों के साथ सीडीएस अनिल चौहान • प्रेटर

नई दिल्ली, प्रेटर : चीफ आफ डिफेंस स्टाफ (सीडीएस) जनरल अनिल चौहान ने मंगलवार को कहा कि देश की सुरक्षा चुनौतियों के आकलन में परमाणु हथियारों की संभावित चुनौतियों को ध्यान में रखा जाना चाहिए। प्रतिरोधी तंत्र निर्माण के लिए यह दृष्टिकोण सही होगा।

मिलिट्री नर्सिंग सर्विस के शताब्दी समारोह का उद्घाटन करने के बाद जनरल चौहान ने कहा, 'प्रधानमंत्री नरेन्द्र मोदी ने आपरेशन सिंदूर के बाद कहा है कि भारत परमाणु ब्लैकमेल से नहीं डरेगा। हमारे संदर्भ में परमाणु हथियारों के इस्तेमाल की संभावना कम है, फिर भी इसे सुरक्षा आकलन में शामिल करना समझदारी होगी।' उन्होंने कहा, 'रेडियोलाजिकल अशुद्धता से निपटने को अलग प्रोटोकाल की आवश्यकता होती है। यह प्रशिक्षण का हिस्सा होना चाहिए। परमाणु

### ‘भविष्य के युद्ध जीतने के लिए आत्मनिर्भरता जरूरी’

नई दिल्ली, एएनआइ: वायु सेना उप प्रमुख एयर मार्शल अवधेश कुमार भारती ने जोर देकर कहा कि भारतीय सैन्य क्षेत्र को तेजी से आत्मनिर्भरता की ओर बढ़ना होगा। वायु सेना को स्वदेशी परियोजनाओं पर काम करना होगा। भारती ने एयरो टेक इंडिया 2025 पर आयोजित कार्यक्रम में भविष्य के युद्धों पर बात कर कहा कि देश को सामरिक स्वायत्तता सुनिश्चित करने के लिए महत्वपूर्ण तकनीक में छलांग लगानी पड़ेगी। युद्ध जीतने को हमें आत्मनिर्भर बनना पड़ेगा।

खतरों के विरुद्ध तैयारी इसके इस्तेमाल के विरुद्ध प्रतिरोधी तंत्र निर्मित करती है।

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# Science & Technology News

## Made in India AI, for India and the world

*-by Amitabh Kant, former CEO of Niti Aayog*

**Source: Hindustan Times, Dt. 01 Oct 2025**

As Artificial Intelligence (AI) continues to transform and revolutionise the way we live and work, it's essential to recognise its vast potential and harness its power to drive positive and constructive societal change. It is imperative for India to develop sovereign capabilities in this field for three primary reasons.

First, *aatmanirbharta* (self-reliance) will spur our domestic start-up ecosystem and attract private sector investment. Other AI leaders are already seeing the benefits of this independence. For instance, China recently banned Nvidia chips to boost sovereign chip-making capacity.

Second, building AI attuned to the nuances, culture, history, and languages of India will make AI accessible and applicable to every Indian. Third, responsible sovereign capability in this field will become increasingly important for national security. For this, you need advanced models that keep clear records of where their data comes from (data-lineages) to prevent hidden malicious behaviour that could emerge at critical moments. The essential ingredients for building this capability are threefold: Data, computing power, and skilled talent.

Today, OpenAI's ChatGPT in India reportedly has more monthly active users than in any other country. OpenAI, which has raised around \$40 billion in total funding, is burning \$1-2 billion each month to attract users by giving services at zero cost. This predatory pricing is encouraged by US policies, which seek to import data and actively export AI.

Apart from user acquisition, companies are using our data to train more superior, closed-source AI models. If India doesn't develop *aatmanirbharta* in AI, our future may involve having AI services powered by our own data, but owned by others, and then sold back to us. Instead, we should adopt the best features of global models, let them work within India, but set rules that encourage Indian and foreign investment.

The Union government, through initiatives like the India AI Mission, has taken bold steps to support Indian start-ups to build sovereign models from scratch. However, unless these models are used on Indian data in the service of every Indian, their true potential will never be realised. India should ensure that sovereign AI reaches the last mile and provides a bulwark against AI use that leads to wealth centralisation.

In technology, sometimes those who come second can actually build faster, learn smarter, and skip the pitfalls. A massive opportunity exists for India to leapfrog in AI, by addressing the following issues.

First, the government should only deploy sovereign or open-source models that are securely run on sovereign infrastructure for its internal operations. Using closed-source models with non-auditable behaviour poses serious security risks. Additionally, partnerships such as the recent All India Council for Technical Education (AICTE) initiative offering free licences to foreign model providers for students and teachers should be disallowed. Such arrangements result in valuable



data leaving India, which can be used to profile Indian citizens and improve foreign models. They also undermine fair competition through predatory pricing. In AI, data is a fundamental input that directly influences the quality and capabilities of the core product.

Second, the government should require that all AI models and application programming interfaces (APIs) serving users in India operate on infrastructure hosted entirely within Indian borders. No user data should flow outside India for applications involving large language models (LLMs). This approach will attract significant private investment in computing infrastructure, such as graphic processing units (GPUs) and other accelerated hardware, and improve privacy protections for Indian citizens by preventing data from leaving the country and benefiting foreign AI capabilities at India's expense.

Our computing capacity remains vastly behind global leaders. For example, OpenAI and Nvidia will soon be scaling to 10 gigawatts of GPU capacity, whereas India's current capacity is around 30,000 GPUs. Bridging this gap requires massive private sector investment and foreign direct investment (FDI).

The government must aggregate demand and provide access to sovereign models as a public good. The same computing infrastructure used for inference can also be harnessed to train new models. This concept aligns with Nvidia CEO Jensen Huang's idea of "intelligence factories" dedicated to AI "manufacturing". The "manufacturing" of AI within India must be promoted with 100% local value addition, while welcoming global capital and intellectual property.

Third, the government should work on creating a new type of Digital Public Infrastructure (DPI) that integrates all government services, tourism data, NCERT educational content, emergency services, schemes, railway bookings, the Swayam platform, and similar systems. The government should then encourage developers of sovereign models and applications to create platforms that comply with this infrastructure. These platforms would give all Indian citizens easy access to sovereign AI models, government services, and knowledge bases like NCERT textbooks. This approach would enable any citizen to access a wide range of services through a simple, intuitive platform where they can just ask for what they need. To increase reach, multiple modalities such as voice, mobile apps, and messaging platforms should be used.

Fourth, by significantly increasing AI demand in a country of 1.4 billion, both through mandating inference within the country and providing AI services to Indian citizens, India can attract substantial private sector investment in computing infrastructure. This will also encourage FDI and help bring back top global AI talent. Better access to computing resources will reassure talented researchers worldwide that India is a viable place to pursue advanced AI research.

India needs a dedicated national programme focused on attracting and retaining top-tier AI experts. This will lead to better methods for curating data and sharing non-personally identifiable information as a public good, as platforms like AI Kosh under the India AI mission are already doing. Ultimately, this will create a virtuous cycle of data, computing power, and talent — driving India's AI capabilities forward and enabling us to leapfrog in the field.

<https://www.hindustantimes.com/opinion/made-in-india-ai-for-india-and-the-world-101759246224289.html>

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