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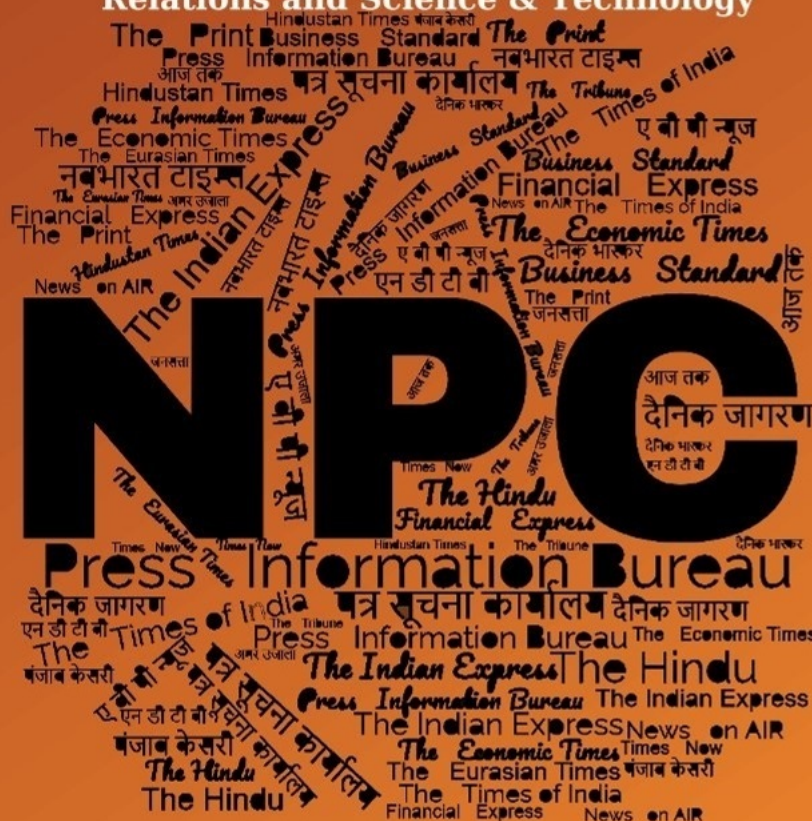
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समाचार पत्रों से चयनित अंश Newspapers Clippings

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CONTENTS

S. No.	Title	Source	Page No.
Defence News			1-9
1	ऑपरेशन सिन्दूर तो ट्रेलर है: सेना प्रमुख की चेतावनी	<i>Punjab Kesari</i>	1
2	'88-hour trailer': Indian Army chief to Pakistan on Op Sindoor	<i>Hindustan Times</i>	1
3	India-China ties improving, says Army Chief	<i>The Hindu</i>	2
4	'Atmanirbharta gave freedom to act decisively'	<i>Hindustan Times</i>	3
5	'दुबई एयरशो में विदेशी खरीदार तेजस में दिखाएंगे जबरदस्त रुचि'	<i>Dainik Jagran</i>	4
6	India-Uk Joint Military Training Exercise 'Ajeya Warrior-25' commences in Rajasthan	<i>Press Information Bureau</i>	4
7	Ajit Doval, Putin's aide Nikolai Patrushev discuss maritime cooperation	<i>The Tribune</i>	5
8	Curtain Raiser of Chanakya Defence Dialogue 2025 held in New Delhi	<i>Press Information Bureau</i>	6
9	Defence Secretary Visits Forward Locations In Central Sector	<i>Press Information Bureau</i>	7
10	A new age of global warfare	<i>The Pioneer</i>	8
Science & Technology News			9-11
11	CSIR-ISRO Space Meet 2025 held in Bengaluru to strengthen India's preparedness for Human Spaceflight Programme	<i>Press Information Bureau</i>	9

Defence News

ऑपरेशन सिन्दूर तो ट्रेलर है: सेना प्रमुख की चेतावनी

Source: Punjab Kesari, Dt. 18 Nov 2025

नई दिल्ली, (पंजाब केसरी): भारतीय सेनाध्यक्ष जनरल उपेंद्र द्विवेदी ने राज्य प्रायोजित आतंकवाद पर पाकिस्तान को कड़ी चेतावनी देते हुए कहा, जो भी आतंकवाद को बढ़ावा देगा, हम उसको जवाब देंगे। सेना प्रमुख ने कहा, यदि हमारे पास 'बैरंग चिट्ठी' भी आई तो उसका भी जवाब देंगे। हम स्पष्ट कर चुके हैं कि पानी और खून एक साथ नहीं बह सकते, यानी बातचीत और आतंकवाद एक साथ नहीं चल सकते। हम तो सिर्फ यह बोल रहे हैं कि यदि आप शांति की प्रक्रिया अपनाएं, हम भी साथ देंगे और जब तक ये नहीं होगा, तो आतंकवादी और उनके आका हमारे लिए एक समान हैं। जो भी आतंकवाद को बढ़ावा देगा, हम उसको जवाब देंगे। सेनाध्यक्ष ने कहा कि भारत अब इतना संपन्न है कि वह किसी ब्लैकमेल से डरने वाला नहीं है। (पढ़ें पृष्ठ 2 पर)



नई दिल्ली, (पंजाब केसरी): भारतीय सेनाध्यक्ष जनरल उपेंद्र द्विवेदी ने राज्य प्रायोजित आतंकवाद पर पाकिस्तान को कड़ी चेतावनी देते हुए कहा, जो भी आतंकवाद को बढ़ावा देगा, हम उसको जवाब देंगे। सेना प्रमुख ने कहा, यदि हमारे पास 'बैरंग चिट्ठी' भी आई तो उसका भी जवाब देंगे। हम स्पष्ट कर चुके हैं कि पानी और खून एक साथ नहीं बह सकते, यानी बातचीत और आतंकवाद एक साथ नहीं चल सकते। हम तो सिर्फ यह बोल रहे हैं कि यदि आप शांति की प्रक्रिया अपनाएं, हम भी साथ देंगे और जब तक ये नहीं होगा, तो आतंकवादी और उनके आका हमारे लिए एक समान हैं। जो भी आतंकवाद को बढ़ावा देगा, हम उसको जवाब देंगे।



सेनाध्यक्ष ने कहा कि भारत अब इतना संपन्न है कि वह किसी ब्लैकमेल से डरने वाला नहीं है। ऑपरेशन सिंदूर पर उन्होंने कहा कि मूवी अभी शुरू भी नहीं हुई थी। यह पूरी फिल्म नहीं थी बल्कि बस एक ट्रेलर था। यह ट्रेलर 88 घंटे में समाप्त हो गया। आगे आने वाले हालात कैसे होंगे, इसके लिए हम अपनी पूरी तैयारी करके बैठे हैं। अगर पाकिस्तान हमें आने वाले दिनों में कोई मौका देता है तो हम उसको भरपूर शिक्षा प्रदान करना चाहेंगे कि कैसे एक जिम्मेदार देश को अपने पड़ोसियों से व्यवहार करना चाहिए। उन्होंने कहा कि हर ऑपरेशन से हम कोई न कोई शिक्षा ग्रहण करते हैं ऐसे ही ऑपरेशन सिंदूर से भी हमने शिक्षा ग्रहण की है।

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‘88-hour trailer’: Indian Army chief to Pakistan on Op Sindoor

Source: Hindustan Times, Dt. 18 Nov 2025

India's Chief of Army Staff (COAS) General Upendra Dwivedi on Monday listed out lessons learnt from Operation Sindoor, the military operation against Pakistan-based terrorists, and highlighted how the action and capabilities of the armed forces gave a reality check to the hostile neighbour.

"Operation Sindoor was just a trailer which ended in 88 hours. We are prepared for any circumstances in future. If Pakistan gives a chance, we will teach it how to behave responsibly with a neighbouring nation," General Dwivedi said while speaking at the 'Chanakya Defence Dialogues' event in New Delhi on Monday.

On lessons learnt from the operation, the General underlined three main points — integration between forces, ensuring proper supplies for a drawn-out battle, and ensuring decisions are taken at every level of the command chain.

"Whenever some operation happened we learn from it, this time too we learned things. One of the things we learned was that the decision we have very less time to take any decision, and take a decision at every level on time," he said.

He stressed on intergration among the forces, "because today's battles are multi-domain". "Just the army cannot fight a battle, everyone has to fight together," he said, mentioning the air force and navy.

"We also cannot say how long a battle will last even today. This time we fought for 88 hours; next time it could be four months too or even four years. Looking at that, do we have enough supplies and weapons to fight that? If we do not have, then we need to prepare for that," he added.

Talking about how India has "set a new normal" after the Pahalgam terror attack on April 22, he said, "When a country encourages state-sponsored terrorism, it becomes a matter of concern for India. India talks about progress. If someone creates obstacles in our course, then we will have to take some action against them. When we talk about the new normal, we have said that talks and terror can't go together."

He added, "All we are asking is to adopt a peaceful process, which we will cooperate with. Until then, we will treat terrorists and their sponsors alike."

He further highlighted the security situation in Jammu and Kashmir, saying that there has been a decline in terrorist incidents in the area following the abrogation of Article 370. "After this, political clarity has come," he said.

Article 370 provided special status and rights to the then state of Jammu and Kashmir, which was bifurcated to re-form it into two UTs, the other being Ladakh.

<https://www.hindustantimes.com/india-news/88hour-trailer-indian-army-chief-to-pakistan-on-op-sindoor-next-time-it-may-101763364019886.html>

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India-China ties improving, says Army Chief

Source: The Hindu, Dt. 18 Nov 2025

Chief of Army Staff General Upendra Dwivedi on Monday (November 17, 2025) said India's relations with China have seen "a lot of improvement" since October last year, following consistent dialogue between Prime Minister Narendra Modi and Chinese President Xi Jinping to restore normalcy. Gen. Dwivedi said the leadership-level engagements had focused on reviving talks and finding a resolution to the border standoff. He noted that the agreement reached on the Line of Actual Control in October 2024 had been "beneficial" for India, adding that both Defence Ministers recently agreed to hold sustained border-level dialogue.

He said that over the past year, more than 1,100 on-ground interactions have helped reduce friction along the LAC. Referring to India's military preparedness, the Army Chief said Operation Sindoor was "just a trailer that ended in 88 hours", adding that India is ready for any future scenario. "If Pakistan gives a chance, we will teach it how to behave responsibly with a neighbouring nation," said Gen. Dwivedi, who was speaking at a private event.

He said each operation provides lessons and emphasised the need for faster decision-making across all levels. He also underlined the importance of integration among the forces, noting that

“today’s battles are multi-domain”. Highlighting the security situation in Jammu & Kashmir, Gen. Dwivedi said terrorist incidents have declined since the abrogation of Article 370. Reiterating India’s stance on terrorism, he said, “Talks and terror can’t go together; blood and water cannot flow together. We are committed to a peaceful process, and we will cooperate with it. Until then, we will treat terrorists and their sponsors alike.”

He said India’s “new normal” in counterterrorism would pose a challenge to Pakistan. The Army Chief said India’s political leadership is determined to strengthen the nation’s deterrence capabilities. “In today’s time, our deterrence is very strong. Our deterrence is working,” he said. Speaking about the situation in Manipur, where ethnic violence broke out in May 2023, Gen. Dwivedi said the events were painful. “It was sad to see such a beautiful State in such a troubled condition. But since February 2025, when President’s Rule was imposed, we have seen greater trust among people and in the government,” he said.

<https://www.thehindu.com/news/national/india-china-ties-improving-says-army-chief/article70291373.ece>

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‘Atmanirbharta gave freedom to act decisively’

Source: Hindustan Times, Dt. 18 Nov 2025

NEW DELHI: The critical role played by indigenous weapons and systems during Operation Sindoor — India’s response to the Pahalgam terror attack — proved that Atmanirbharta (self-reliance) directly translates to strategic autonomy, Lieutenant General Rahul R Singh, deputy chief of army staff (capability development and sustenance), said on Monday.

“In many of the actions that took place, indigenous systems played a critical role. It proved that Atmanirbharta translates into freedom to act decisively when the security situation demands without seeking external clearances. While this was a job well done resulting in a resounding victory, there are a few infirmities that we need to address,” Singh said during a curtain-raiser to the Chanakya Defence Dialogue scheduled for November 27-28.

The infirmities, he said, included “extended timelines, integration hurdles, limited upgrade paths and continued reliance on import for certain high-end technologies”.

“The reliance on external actors during a crisis restricts not only our capability but also choice, speed and operational freedom,” the deputy chief said.

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'दुबई एयरशो में विदेशी खरीदार तेजस में दिखाएंगे जबरदस्त रुचि'

Source: Dainik Jagran, Dt. 18 Nov 2025

दुबई, एनआइ: वायुसेना उप-प्रमुख एयर मार्शल नर्मदेश्वर तिवारी ने सोमवार उम्मीद जताई कि दुबई एयर शो, 2025 में विदेशी खरीदार हल्के लड़ाकू विमान तेजस में जबरदस्त रुचि दिखाएंगे। इस एयर शो का आयोजन अल मकतूम हवाई अड्डे पर 17 से 21 नवंबर तक किया जा रहा है।
केंद्रीय रक्षा राज्यमंत्री संजय

सेठ ने इस एयर शो में भारतीय पवेलियन का उद्घाटन किया। इस अवसर पर उन्होंने कहा कि भारतीय पवेलियन पीएम मोदी के “स्वदेशी और आत्मनिर्भरता” के संकल्प को दर्शाता है। वहीं एयर मार्शल तिवारी ने कहा कि इस एयर शो में भारत की भागीदारी बढ़ते द्विपक्षीय रक्षा सहयोग को दर्शाती है। विश्व के प्रमुख एयर शो में से एक दुबई एयर शो हर दो वर्ष में आयोजित किया जाता है।

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India-Uk Joint Military Training Exercise 'Ajeya Warrior-25' commences in Rajasthan

Source: Press Information Bureau, Dt. 17 Nov 2025

The eighth edition of the India-UK Joint Military Exercise “AJEYA WARRIOR-25” commenced today at the Foreign Training Node, Mahajan Field Firing Ranges, Rajasthan. The 14-day bilateral exercise is scheduled from 17 to 30 November 2025. The exercise brings together 240 personnel with equal representation from Indian Army and the British Army. The Indian Army is being represented by troops of the Sikh Regiment.



Conducted under a United Nations mandate, the exercise focuses on counter-terrorism operations in semi-urban environment. Training over the next two weeks will include joint mission planning at Brigade level, integrated tactical drills, simulation-based scenarios and company-level field training exercises replicating real-life counter-terror contingencies. The exercise also aims to share best practices, enhance tactical proficiency and develop coordinated responses for managing complex operations in challenging environments.

Held biennially since 2011, AJEYA WARRIOR has evolved into a flagship engagement between the Indian Army and the British Army. The 2025 edition further reinforces shared values of professionalism, cooperation and commitment to regional stability and global peace.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=2190881>

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Ajit Doval, Putin's aide Nikolai Patrushev discuss maritime cooperation

Source: The Tribune, Dt. 18 Nov 2025

Russian President Vladimir Putin's top aide and Chairman of the Maritime Board of Russia, Nikolai Patrushev, on Monday met National Security Advisor (NSA) Ajit Doval and National Maritime Security Coordinator Vice Admiral Biswajit Dasgupta (retd) in New Delhi as both the nations discussed important issues, including maritime cooperation.

The Russian Embassy in India said, "Aide to the President of Russia and Chairman of the Maritime Board of Russia Nikolay Patrushev arrived in India. He held talks with India's National Security Advisor Ajit Doval and India's National Maritime Security Coordinator Vice Admiral Biswajit Dasgupta. Russian-Indian consultations on maritime cooperation will take place in New Delhi today."



Ajit Doval welcomes Nikolay Patrushev in New Delhi

Sources said the two sides were negotiating for a fresh US\$1.1 billion deal for S-400 missile re-supply and induction of new air-to-air missile from Russia. Several deals and agreements are under active discussion between New Delhi and Moscow, including on expanding the range of the BrahMos missiles, fighter jet upgrades and production of Sukhoi-57E (stealth jet) in India.

Delhi top priority for Moscow, says Lavrov

India and Russia on Monday underscored the steadiness of their long-standing strategic partnership as External Affairs Minister S Jaishankar met Russian Foreign Minister Sergey Lavrov in Moscow, setting the stage for President Vladimir Putin's upcoming visit to New Delhi.

Jaishankar said the meeting carried "special importance" as both sides prepare for the 23rd Annual India–Russia Summit. "Our regular interactions have greatly helped advance bilateral cooperation

and enabled us to share perspectives on key regional, global and multilateral issues,” he said. Touching on conflicts from Ukraine to the Middle East and Afghanistan, he reiterated India’s support for ongoing peace efforts. Lavrov, calling the meeting “timely”, said the next Russian-Indian summit would take place in New Delhi in three weeks. He said the relationship remained a top priority in Russia’s foreign policy.

<https://www.tribuneindia.com/news/india/doval-putins-aide-patrushev-discuss-maritime-cooperation/>

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Curtain Raiser of Chanakya Defence Dialogue 2025 held in New Delhi

Source: Press Information Bureau, Dt. 17 Nov 2025

The Indian Army, in collaboration with the Centre for Land Warfare Studies (CLAWS), conducted the Curtain Raiser of the Chanakya Defence Dialogue 2025 (CDD-2025) today at the Manekshaw Centre, New Delhi. The Dialogue, scheduled for 27-28 November 2025, will be held on the theme “Reform to Transform: Sashakt, Surakshit aur Viksit Bharat.”



The event commenced with welcome remarks followed by the release of the CDD-2025 teaser. A Fireside Chat with the Chief of the Army Staff (COAS), General Upendra Dwivedi, was one of the key highlights of the programme. During the interaction, the COAS highlighted the linkage between national development and national security, noting that the aspirations of Viksit Bharat @2047 require sustained stability and a secure environment. He recalled the Ministry of Defence’s declaration of 2025 as the ‘Year of Reforms’ and underlined that security and development must advance together. Referring to Operation SINDOOR, he reiterated the national resolve against terrorism, emphasising that “blood and water cannot flow together” and that accountability is essential for those supporting terrorist activities. The COAS noted that the operation demonstrated India’s firm approach towards safeguarding national interests and strengthening regional stability.

A Special Address was delivered by Mr Rajiv Chandrasekhar, Former Minister of State for Electronics & Information Technology and Skill Development & Entrepreneurship. He emphasised the strategic link between technological capability and national security, highlighting the importance of trusted, indigenous digital and emerging-technology ecosystems in strengthening India's long-term self-reliance.

The panel discussion, chaired by Lieutenant General Rahul R Singh, Deputy Chief of the Army Staff (Capability Development & Sustenance), brought together experts from DRDO, the defence industry and academia. Deliberations focused on Atmanirbharta as a pathway to strategic autonomy, emphasising indigenous design, development and innovation; strengthening dual-use technologies; ecosystem integration between DRDO, private sector and academia; reforms in procurement processes; and the role of MSMEs and Defence Industrial Corridors in building competitive and export-capable clusters. Discussions also highlighted the need for resilient supply chains, reduced external dependencies and accelerated development of India's deep-tech ecosystem to address future operational requirements.

CDD-2025 will bring together national and international experts to deliberate on defence reforms, technological transformation, civil-military integration and India's emerging security priorities in the run-up to Viksit Bharat @2047. As part of the broader series of engagements under CDD-2025, the Indian Army had also conducted the Young Leaders Forum on 31 October 2025, focusing on strategic awareness among youth.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=2190758>

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Defence Secretary Visits Forward Locations In Central Sector

Source: Press Informatin Bureau, Dt. 17 Nov 2025

The Defence Secretary, Shri Rajesh Kumar Singh, undertook a comprehensive visit to forward locations in the Central Sector from 15 to 17 November 2025.



At Pithoragarh, the Defence Secretary was briefed on major operational matters by the General Officer Commanding, Uttar Bharat Area and Commander 119 (I) Infantry Brigade Group on operational aspects.

During his visit to Navidang, he interacted with the concerned Battalion Commanders and Chief Engineer Project Hirak of the Border Roads Organisation (BRO). They apprised him on operational aspects and the progress of critical border infrastructure projects aimed at enhancing strategic mobility and strengthening National security. During the visit, the Defence Secretary was accompanied by Director General Border Roads (DGBR).

The visit underscored the Government's commitment to improving connectivity, boosting readiness, and ensuring robust infrastructure development in strategically vital border regions.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=2190903>

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A new age of global warfare

-by Balraj Mehta, Major General

Source: The Pioneer, Dt. 18 Nov 2025

Discussing the Russia-Ukraine war — or even the tragic events in Gaza — has become so routine that the very act of analysing them feels almost mundane. Yet this normalisation of brutality hides a far more discomfoting truth. Beneath the surface of daily headlines and geopolitical commentary lies the unsettling reality that the world, despite the existence of the United Nations and numerous international institutions, remains a jungle where might still prevails over right.

The global order, weakened by the arrogance of a few powerful nations and the passivity of many others, is decaying from within. It now stands in desperate need of a structural reset. The Ukraine conflict, in particular, has rewritten many assumptions about modern warfare. The kinetic dimensions of this war have already reshaped global understandings of how battles will be fought in the years ahead. These tactics and technologies are being studied intensely and will eventually be applied with even greater precision and coordination. In many ways, we are witnessing a new phase of the Revolution in Military Affairs (RMA) — one in which artificial intelligence has just made its formidable entry.

An RMA marks a fundamental transformation in the way wars are conceived and executed. It is driven by advances in science and technology, by organisational restructuring, and by doctrinal changes that reflect new forms of strategy. An RMA does not simply make militaries more efficient; it propels them into an entirely new sphere of warfare defined by speed, surprise, and unprecedented impact. With cutting-edge tools for command, control, communication, intelligence, and real-time precision targeting, militaries become capable of inflicting decisive blows before an adversary even understands what is unfolding. History offers ample examples of such shifts.

The induction of railways, telegraphs, steamships, and rifles transformed conflicts from the Napoleonic era to the American Revolution. World War I saw the rise of aircraft, submarines, and machine guns. World War II brought mechanised warfare guided by radio and radar, culminating in the nuclear strikes on Hiroshima and Nagasaki. Until recently, the refinement of nuclear weapons, satellites, missiles, encrypted systems, and stealth platforms continued to redefine military posturing. Then, almost abruptly, came India's own Operation Sindoor — a turning point that

pushed the country to think beyond conventional paradigms. The operation underscored a timeless military truth: nations must prepare for future wars rather than fight the last one. Its swift suspension after four days — having achieved the intended strategic end state against a declared nuclear power — reflected years of preparation for precisely such an offensive.

It was a signal that India has been quietly building new competencies, and that further refinement of these capabilities is not merely desirable but essential. Going ahead, several trends are likely to dominate the future of warfare. Artificial intelligence will play a central role in data synthesis, surveillance, reconnaissance, and autonomous decision-making. UAVs, drones, directed-energy weapons, loitering munitions, and near-undetectable missiles or underwater vehicles will deliver precise and devastating strikes deep inside enemy territory. Cyber warfare will become a preferred tool for espionage, sabotage, and coercion. Trade wars — through tariffs, asset freezes, and exclusion from global financial networks — will be wielded with scant regard for treaties. Information warfare will intensify, fuelled by deepfakes and sophisticated propaganda machines.

Even targeted assassinations, social disruptions, and the exploitation of Gen Z vulnerabilities may become instruments of statecraft. For India, achieving mastery across these domains is not optional — it is imperative. Safeguarding national and civilisational interests at this critical stage of our developmental journey demands massive investments in technology, manufacturing, research, and human capital. We will need thousands of bright professionals across R&D, testing, production, and deployment. Encouragingly, many national initiatives are already underway. In this context, the new Trump tariffs — seen by some purely as a challenge — could actually be a blessing in disguise. They offer India an opportunity to strengthen domestic ecosystems, retain skilled talent, attract the diaspora, and channel national energy into long-term capability-building. Such moments of recalibration seldom come twice.

Equally important is doctrinal adaptation within the armed forces, coupled with greater alignment among political leadership, bureaucratic machinery, scientific communities, defence establishments, and strategic thinkers. This will require continuous dialogue, deep understanding, and sustained national commitment. An updated and officially declared National Security Strategy — as a single, coherent policy document — would be an important and timely step in that direction.

<https://www.dailypioneer.com/2025/columnists/a-new-age-of-global-warfare.html>

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Science & Technology News

CSIR–ISRO Space Meet 2025 held in Bengaluru to strengthen India's preparedness for Human Spaceflight Programme

Source: Press Information Bureau, Dt. 17 Nov 2025

17th November 2025: The Council of Scientific and Industrial Research (CSIR) and the Indian Space Research Organisation (ISRO) jointly organised the CSIR–ISRO Space Meet 2025 at Bengaluru to align multidisciplinary research, technology development and institutional

collaboration for India's human spaceflight mission requirements. The programme was hosted by CSIR–National Aerospace Laboratories (CSIR–NAL), Bengaluru, the nodal organising institute.

Dr. N. Kalaiselvi, Secretary, DSIR & Director General, CSIR, in her welcome address, outlined CSIR's scientific and technological contributions towards strengthening India's space capabilities and stated that the meet would offer valuable takeaways through knowledge sharing among scientists, researchers, astronauts and international experts and would address the gap areas. She highlighted India's commitment to indigenous innovation and collaborative R&D, while acknowledging the guidance of Hon'ble Union Minister Dr. Jitendra Singh in advancing national scientific and technological goals.

Dr. V. Narayanan, Secretary, Department of Space (DoS) & Chairman, ISRO, delivered the strategic address and said that Gaganyaan space program requires collaboration across different ministries, R&D institutions, academia and partner organisations. He outlined evolving mission priorities including next-generation crew safety systems, advanced life-support technologies and scientific payload development. He recognised the contributions of CSIR and India's national R&D ecosystem and referred to India's long-term objectives including a future human mission to the Moon, Mars exploration and the establishment of an Indian Space Station.

Dr. Abhay A. Pashilkar, Director, CSIR–NAL, welcomed participants and reiterated NAL's commitment to advancing technologies, material research and testing capabilities supporting India's aerospace and human spaceflight goals.



A special video message by Mr. Jean-Francois Clervoy, ESA Astronaut (NASA STS-66, STS-84, STS-103), added a global perspective and underlined the importance of international cooperation and shared scientific learning in advancing human spaceflight.

During the experience-sharing sessions, Group Captain Prasanth B. Nair, ISRO Astronaut, presented insights from astronaut training, microgravity simulations, operational readiness and recovery frameworks. Wg. Cdr. Rakesh Sharma (Retd.), India's first astronaut, reflected on his 1984 Soyuz mission and acknowledged NAL's long-standing aerospace contributions. Both

astronauts emphasised that Indian Human Spaceflight Programme is aimed at the peaceful exploration and human centric research.

Technical and thematic sessions featured presentations by international and national experts, including Dr. Lucia Roccaro (ESA) on human spaceflight physiology, Dr. Akiko Otsuka (JAXA) on collaborative research perspectives, and Prof. Pradipta Biswas (IISc) on human–technology interaction and interface design for crewed missions.

The CSIR–ISRO Space Meet 2025 concluded with a collective resolve to strengthen science–technology convergence, mission-driven R&D and multi-agency collaboration to advance India’s human spaceflight programme, aligned with the national vision of Viksit Bharat.

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The Tribune
The Statesman
ਪੰਜਾਬ ਕੇਸਰੀ ਜਨਸਤਾ
The Hindu
The Economic Times
Press Information Bureau
The Indian Express
The Times of India
Hindustan Times
नवभारत टाइम्स
दैनिक जागरण
The Asian Age
The Pioneer