

जनवरी
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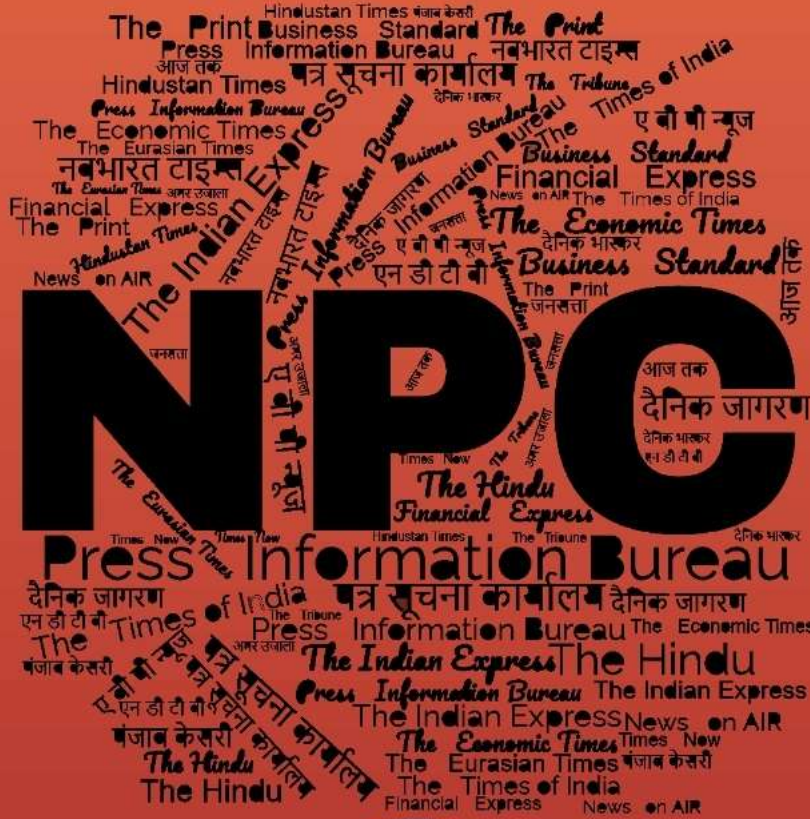
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समाचार पत्रों से चयनित अंश Newspapers Clippings

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

3.25 लाख करोड़ से 114 राफेल खरीदने की तैयारी

Source: Dainik Jagran, Dt. 14 Jan 2026

नई दिल्ली, एएनआइ : एक महत्वपूर्ण घटनाक्रम में भारत इस सप्ताह रक्षा मंत्रालय की उच्च स्तरीय बैठक में फ्रांस से लगभग 3.25 लाख करोड़ रुपये के 114 राफेल लड़ाकू विमान खरीदने के सौदे पर चर्चा करने जा रहा है। इनका निर्माण भारत में ही लगभग 30 प्रतिशत स्वदेशी सामग्री से किया जाएगा। दिलचस्प बात यह है कि भारत, फ्रांस के साथ इस समझौते को ऐसे समय में आगे बढ़ा रहा है जब अमेरिका और रूस दोनों ने भारतीय वायु सेना को अपने पांचवीं पीढ़ी के लड़ाकू विमान क्रमशः एफ-35 व एसयू-57 देने की पेशकश की है।

अगले दो-तीन दिनों में होने



राफेल लड़ाकू विमान • फाइल फोटो

● अगले दो-तीन दिनों में रक्षा मंत्रालय की बैठक में चर्चा के लिए रखे जाएंगे प्रस्ताव

वाली रक्षा मंत्रालय की उच्च स्तरीय बैठक में रखे जाने वाले प्रस्ताव के अनुसार, भारतीय वायु सेना द्वारा 12-18 राफेल जेट विमानों को अधिग्रहित करना भी शामिल होगा।

प्रधानमंत्री मोदी ने मैक्रों के सलाहकार से मुलाकात की

नई दिल्ली, प्रेट्र : प्रधानमंत्री मोदी ने फ्रांस के राष्ट्रपति इमैनुअल मैक्रों के राजनयिक सलाहकार इमैनुअल बोन से मुलाकात की। एक्स पर पोस्ट में पीएम ने कहा कि भारत और फ्रांस की रणनीतिक साझेदारी व सहयोग को निरंतर मजबूत बनाने का प्रयास होता रहेगा। राष्ट्रपति मैक्रों के भारत दौर के दौरान सभी मुद्दों पर विस्तार से

चर्चा होगी। मालूम हो कि मैक्रों जल्द भारत का दौरा कर सकते हैं। बोन की प्रधानमंत्री से मुलाकात 38वें भारत-फ्रांस रणनीतिक संवाद के दौरान हुई। विदेश मंत्रालय के अनुसार वार्ता में भारत-फ्रांस सहयोग के सभी पहलुओं की समीक्षा की गई, जिनमें सुरक्षा, रक्षा, प्रौद्योगिकी, अंतरिक्ष और नागरिक परमाणु ऊर्जा शामिल हैं।

भारतीय पक्ष फ्रांस से अनुरोध कर रहा है कि वह सरकार-से-सरकार समझौते के तहत भारतीय हथियारों और अन्य स्वदेशी प्रणालियों को फ्रांसीसी विमानों में एकीकृत करने

की अनुमति दे। सोर्स कोड केवल फ्रांसीसी पक्ष के पास ही रहेंगे। अगर मंजूरी मिल जाती है तो यह भारत का अब तक का सबसे बड़ा रक्षा सौदा होगा।

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Trust-building with China on, but LAC vigilance essential, says Army Chief

Source: The Hindu, Dt. 14 Jan 2026

Emphasising the need for sustained alertness along the Line of Actual Control (LAC), Army Chief General Upendra Dwivedi on Tuesday (January 13, 2026) said that even as both India and China are working to enhance the “trust factor” between their militaries, constant vigilance remains essential to maintain border stability.

Referring to recent diplomatic and military engagements, General Dwivedi said a significant understanding was reached on October 21, 2024. “Before that, the two top leaders met in Kazan (Russia), followed by another meeting in Tianjin (China). In between, we have had Special Representative-level talks and Working Mechanism for Consultation and Coordination (WMCC) meetings,” he said, adding that India’s Defence Minister and External Affairs Minister have each held two meetings with their Chinese counterparts.

According to the Army Chief, these interactions have generated a sense of urgency and mutual acceptance on both sides to keep the border calm and quiet. “The first step is to keep communication channels open. We now have talks at various levels so that minor issues are resolved locally and do not escalate into major problems,” he noted.

‘1963 Pakistan-China pact illegal’

On the Shaksgam Valley, General Dwivedi reiterated India's long-standing position, stating that New Delhi considers the 1963 agreement between Pakistan and China illegal. "Any activity in the Shaksgam Valley is not approved by us. The Ministry of External Affairs has already issued a statement on this," he said, adding that India does not accept the joint statement issued in China on CPEC 2.0 and views it as an illegal action by the two countries.

Highlighting future capability development, the Army Chief underlined the need for India to establish a dedicated rocket-missile force. "Today, rockets and missiles have become intertwined. If we want to achieve the desired impact, both can deliver it," he said. Pointing to similar forces created by Pakistan and China, General Dwivedi said such a capability is "the need of the hour" for India.

He noted that the Army has successfully tested the Pinaka rocket system with a range of 120 km and has signed additional contracts to extend its range to 150 km, with plans to reach 300–450 km. "You must have also heard about systems like Pralay and BrahMos," he added, signalling a strong push towards enhancing India's long-range precision-strike capability.

<https://www.thehindu.com/news/national/chief-of-army-staff-general-upendra-dwivedi-annual-press-conference-january-13-2026/article70504467.ece>

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जमीनी हमले की तैयारी देख पाकिस्तान ने किया था संघर्ष विराम के लिए संपर्क: सेना प्रमुख

Source: Dainik Jagran, Dt. 14 Jan 2026

संजय मिश्र • जागरण

नई दिल्ली : देश की सीमाओं पर दोहरी सामरिक चुनौतियों से निपटने की प्रतिबद्धता जताते हुए सेना प्रमुख जनरल उपेंद्र द्विवेदी ने आपरेशन सिंदूर जारी होने की बात दोहराते हुए पाकिस्तान को कड़ा संदेश दिया। कहा-सीमा पार से अगर उकसावे की कोई हरकत हुई तो भारत सख्त कार्रवाई करेगा। सीमावर्ती इलाकों में पाकिस्तान द्वारा अब भी संचालित आठ आतंकी शिविरों के महेनजर



नई दिल्ली में प्रेस वार्ता को संबोधित करते सेना प्रमुख जनरल द्विवेदी • प्रे

उन्होंने यह चेतावनी दी। इन शिविरों में लगभग 150 आतंकी हैं।

सेना दिवस के पूर्व मंगलवार को वार्षिक प्रेस कान्फ्रेंस में जनरल

- ऊपर से थे निर्देश, पाकिस्तान दुस्साहस करने की कोशिश करे तो शुरू करें जमीनी आपरेशन
- सीमावर्ती इलाकों में पाकिस्तान अब भी चला रहा आठ आतंकी शिविर, मौजूद हैं 150 आतंकी

द्विवेदी ने कहा कि 88 घंटे के आपरेशन सिंदूर का दूसरा निर्णायक पल 10 मई की सुबह में था, जब सेना को ऊपर से निर्देश मिले थे कि

पाकिस्तान ने कोई दुस्साहस करने की कोशिश की तो आगे जमीनी आपरेशन शुरू करने हैं। हमारी तीनों सेनाएं तैयार थीं। पाकिस्तान को आभास हो गया था कि अगर लड़ाई आगे बढ़ी तो मुश्किल हो जाएगी। इसीलिए पाकिस्तान के डीजीएमओ ने 10 मई की सुबह 9:30 बजे हमारे डीजीएमओ से संपर्क करके कहा था कि लड़ाई रोकना ही उचित होगा। उन्होंने स्पष्ट किया कि इस दौरान परमाणु युद्ध को लेकर कोई बात नहीं हुई थी। **संघित >> पेज 16**

जनरल द्विवेदी ने चीन को लेकर यह कहा...

चीन से लगती उत्तरी सीमा के हालात को स्थिर, मगर लगातार निगरानी के लिए जरूरी बताते हुए सेना प्रमुख ने कहा कि दोनों देशों के बीच शीर्ष स्तर पर बातचीत, नए सिरे से संपर्क और विश्वास बहाली के उपायों से स्थिति को धीरे-धीरे सामान्य बनाने में मदद मिल रही है। 21 अक्टूबर, 2024 को जो समझौता हुआ था, उसे पूरा कर लिया गया है। उत्तरी सीमा से सैनिकों की तेनाती घटाने के सवाल पर कहा कि अभी तेनाती में कमी करने की योजना नहीं है। सशक्म घाटी में चीन और पाकिस्तान के सहयोग पर कहा कि यह अवैध है, क्योंकि यह हमारा क्षेत्र है। भारत इस घाटी पर पाकिस्तान और चीन के बीच 1963 के समझौते को गैरकानूनी मानता है।

बांग्लादेश पर यह बोले...

बांग्लादेश की अंतरिम सरकार की पाकिस्तान के साथ निकटता बढ़ाने की चुनौती से जुड़े सवाल पर सेना प्रमुख ने कहा कि वहां की तीनों सेनाओं के शीर्ष स्तर से हमारा निरंतर संपर्क-संवाद है और वे किसी प्रकार भारत के विरुद्ध नहीं हैं। अंतरिम सरकार चार-पांच महीने रहेगी और इसके बाद नई सरकार आएगी, तब स्थिति का आकलन करेंगे। जनरल द्विवेदी ने इस दौरान सेना की सामरिक जरूरतों तथा चुनौतियों को देखते हुए आधुनिकीकरण से लेकर हथियारों की आपूर्ति में तेजी लाने, राकेट-मिसाइल फोर्स बनाने तथा रक्षा आत्मनिर्भरता की अपनी प्राथमिकताएं भी बताईं।

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Operation Sindoor ongoing, any misadventure will be dealt with firmly: Army Chief

Source: The Hindu, Dt. 14 Jan 2026

Operation Sindoor remains ongoing, and any misadventure by the adversary will be dealt with effectively, Army Chief General Upendra Dwivedi said on Tuesday (January 13, 2026), issuing a firm warning to Pakistan.

The Army Chief said that the anti-terrorism operation had sent a strong deterrent message by successfully destroying seven of the nine identified targets and puncturing the long-standing nuclear rhetoric of the adversary.

Security assessment

Providing an update on the security situation, the Army Chief said that since May 10, the situation along the Western front and in Jammu and Kashmir has been sensitive but firmly under control. In 2025, security forces eliminated 31 terrorists, nearly 65% of whom were of Pakistani origin. The figures include the three perpetrators of the Pahalgam terror attack, who were neutralised during the Operation Mahadev.

General Dwivedi noted a sharp improvement in the internal security environment, stating that the number of active local terrorists has now fallen to a single digit, while fresh recruitment has become almost non-existent, with only two cases reported in 2025.

Highlighting broader indicators of normalcy, he said Jammu and Kashmir has witnessed robust development activities, a strong revival of tourism and a peaceful conduct of the Sri Amarnath Yatra. More than four lakh pilgrims participated in the yatra, surpassing the five-year average, reinforcing the gradual shift from “terrorism to tourism” in the region.

Model military response

Describing Operation Sindoor as a model military response, the Army Chief said it was “the best example of tri-service synergy under a clear-cut political directive and full freedom to act or respond.”

On recent drone sightings along the border, General Dwivedi said the Indian Army had observed a limited number of small drones operating at low altitudes with lights on. “Around six drones were seen on January 10, and two to three were observed on January 11 and 12. These appear to be “defensive drones”, likely looking for gaps to send in terrorists,” he said.

He added that the drones appeared to have received a “negative response,” as no vulnerabilities were found. “There is no gap through which terrorists can be sent,” he asserted, while confirming that the issue was raised during the Director General of Military Operations (DGMO) talks held on Tuesday (January 13, 2026). “We conveyed clearly that this is unacceptable and must be stopped,” General Dwivedi said.

<https://www.thehindu.com/news/national/operation-sindoor-ongoing-any-misadventure-will-be-dealt-with-firmly-army-chief/article70506171.ece>

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₹50,000 cr capital spend this year; no fund shortage, says Army Chief General Upendra Dwivedi

Source: *The Economic Times*, Dt. 14 Jan 2026

The Army is set to overshoot its capital budget allocation and spend close to ₹50,000 crore on new weapons and systems this financial year, driven by a large-scale capability enhancement push. Faster decision-making, introduction of emergency procurement financial powers and the need to build capability in the aftermath of Operation Sindoor, that showed how the modern battlefield has evolved, has led to a focused spending drive, with significant orders going to the private sector.

Army Chief General Upendra Dwivedi has said that the government has assured that there is no fund crunch and additional resources can be allocated if the Army feels the need to place orders. The excess spending planned this year - the capital budget for the Army was 33,000 crore but the force is on its way to spend Rs 50,000 crore - is a big change from the past when services struggled to spend their entire allocation due to procurement and administrative delays.

Gen Dwivedi said the Army is looking for a higher allocation in the upcoming financial year as well. "We are hoping for some increase in the budget because if Atmanirbharta is the clarion call, then the Indian industry also needs to be reassured," Gen Dwivedi said, ahead of the Army Day. He added that the government has conveyed that "if you wish to spend money and you have got the scope, we will get you the money from somewhere." The Air Force and Navy are also expected to get a significant budgetary boost this year.

In the last financial year too, the Army's capital expenses were nearly double the budgeted allocation as the defence ministry signed a mega deal for the procurement of indigenous Light Combat Helicopters. On spending priorities, the Army chief said that the three pillars being looked at are force visualisation, force application and force preservation. Gen Dwivedi said that additional responsibilities have come on the armed forces to protect civilian infrastructure as well, pointing to the attack on a Gurudwara in Poonch by Pakistan during Op Sindoor.

<https://economictimes.indiatimes.com/news/defence/50000-cr-capital-spend-this-year-no-fund-shortage-says-army-chief-general-upendra-dwivedi/articleshow/126512253.cms?from=mdr>

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'Army ready to induct women in infantry if there is societal acceptance': General Upendra Dwivedi

Source: *The Times of India*, Dt. 14 Jan 2026

General Upendra Dwivedi said on Tuesday the Army is ready to induct women in the infantry but that is contingent on societal acceptance. Stressing that women should not be seen as a "vulnerable commodity", the General, during a media briefing, said the Army's focus is on "gender neutrality". "If standards are same, if capabilities are same, and in India as a nation, society is ready to accept it, it (combat role) can be done tomorrow," he said.

He said uniform standards are essential, but achieving them remains a challenge due to medical and operational constraints. Gen Dwivedi said performance data of women officers will determine the opening of more roles, starting with supporting arms, followed by combat arms and eventually special forces, calling it a "sequential and welcome social change."

Giving an estimate of the number of women in the Army currently, the Army chief had last year said, "In the NDA as of today, we have 60 women Army cadets and every year, we are looking at (inducting) 20 cadets. Also, in the Officers' Training Academy (OTA)—Chennai and Gaya—we are looking at 120 per year." When it comes to inducting women in the other ranks (ORs), it involves a change in Section 12 of the Army Act, he had said. The Army was looking at a 12 times increase in women's induction in ORs by 2032. "Currently, the total number of women officers is 8,000," he had said. The Territorial Army opened up for women and 110 vacancies will come up for women, he had added.

Army modernising force for future warfare: General

Taking lessons from conflicts going on around the world, General Upendra Dwivedi said on Tuesday modernisation remains the urgent focus of the Indian Army. Dedicated regiments of drones with enhanced capabilities, rocket cum missile force, loitering munitions, new battalions like Bhairon equipped with modern technologies and advanced weapons and anti-missile defence radar and systems are on the cards.

He said over 90% ammunition is now indigenised, underscoring the push towards self-reliance. "After Operation Sindoor, drones got a new thrust," he said, adding that new drone formations have been raised and each command now has the capability to manufacture up to 5,000 drones depending on operational requirements. This capability can be enhanced to 20,000 or even one lakh drones depending upon the threat perception or conflict, he said. "As of today, we have raised 13 Bhairav battalions, which are meant to bridge the gap between lethal platoons and special forces within infantry battalions," the Gen said.

"Moving on to artillery, we have created a Divyastra battery. It will be part of the artillery regiment and will provide support to a division commander. Again, this involves UAS equipment. For counter-unmanned aircraft system ammunition, we have our powerful regiment, which we are currently raising three units of, and will later raise 12 more. We will then expand this further," he added.

<https://timesofindia.indiatimes.com/india/army-ready-to-induct-women-in-infantry-if-there-is-societal-acceptance-general-upendra-dwivedi/articleshow/126515142.cms>

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Jaishankar, Rubio talk: Trade to rare minerals, nuclear to defence

Source: The Indian Express, Dt. 14 Jan 2026

A day after US ambassador-designate Sergio Gor struck a conciliatory note in Delhi in an attempt to repair strained ties between the two countries, External Affairs Minister S Jaishankar and US Secretary of State and National Security Advisor Marco Rubio spoke over phone Tuesday and discussed bilateral trade negotiations, critical minerals, defence, nuclear cooperation, energy and a possible meeting next month. While the trade deal negotiations are key, the importance of the other topics – critical minerals, defence, energy and nuclear – cannot be underestimated. For both Washington and Delhi, these issues are critical for a productive partnership. It is not clear whether Rubio and Jaishankar will meet during a bilateral visit, or on the sidelines of a multilateral event, including the AI Impact summit in Delhi next month.

Following the discussions, Jaishankar described it as a “good conversation”, while Gor called it a “positive call”. In a post on X, Jaishankar said, “Just concluded a good conversation with @SecRubio. Discussed trade, critical minerals, nuclear cooperation, defence and energy. Agreed to remain in touch on these and other issues.” Minutes later, Gor, in an X post, said, “A quick update: @SecRubio Just concluded a positive call with @DrSJaishankar. They discussed next steps regarding our bilateral trade negotiations, critical minerals and a possible meeting next month.” US State Department’s Principal Deputy Spokesperson Tommy Pigott said, “Secretary Rubio spoke today with Indian External Affairs Minister Subrahmanyam Jaishankar, exchanging best wishes for the New Year.”

US congratulates India on nuclear energy law

Referring to the recently enacted n-energy law, he said, “The Secretary congratulated India on enacting the Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India Bill. He expressed interest in capitalizing on this important development to enhance US-India civil nuclear cooperation, expand opportunities for American companies, advance shared energy security goals, and secure critical mineral supply chains.”

“Secretary Rubio and Minister Jaishankar discussed ongoing bilateral trade agreement negotiations and their shared interest in strengthening economic cooperation,” Pigott said. They also “exchanged perspectives on regional developments, reaffirming the United States’ and India’s commitment to a free and open Indo-Pacific”. On Monday, when he took charge of the US embassy, Gor said that trade negotiators would speak as early as Tuesday, and that India would be invited to the US-led strategic initiative Pax Silica. That the Rubio-Jaishankar conversation took place a day later – and the talking points were similar to what Gor had said – pointed to the willingness to move forward on bilateral ties after months of acrimony.

Gor’s statements and the phone call between Jaishankar and Rubio came days after US Commerce Secretary Howard Lutnick publicly blamed India for delays in concluding a trade deal. Across a carefully calibrated first-day statement, Gor’s outreach Monday had underlined four themes: his personal connection with India; his proximity to President Donald Trump and the trust he enjoys; the centrality of the Trump-Modi relationship; and the need for steady, incremental steps to stabilise the partnership and address public sentiment. Newly appointed United States Ambassador to India Sergio Gor addresses the media upon his arrival at the US Embassy, in New Delhi, Monday, Jan. 12, 2026 Newly appointed United States Ambassador to India Sergio Gor addresses the media in New Delhi upon his arrival at the US Embassy on Monday (Photo: PTI).

Jaishankar-Rubio meetings

These set the stage for the conversation between Jaishankar and Rubio. They have met and spoken several times in 2025, starting from their meeting in January last year, on the very first day Rubio entered the office of the US Secretary of State. In recent months, the two have spoken to each other or met on several occasions, including on the sidelines of the UN General Assembly and the meeting of the G7 Foreign Ministers.

In September 2025, in their first meeting after the Trump administration levied 50 per cent tariffs on India and decided to impose a USD 100,000 fee for H-1B visa applicants, their conversation covered a range of bilateral and international issues of “current concern” – indicating that hot-button issues were part of conversation. They also agreed to continue to engage so that they can make progress on “priority areas”. In October 2025, Jaishankar held talks with Rubio on the sidelines of the ASEAN and East Asia leaders’ summit in Kuala Lumpur amid chill in the ties that

had set in following the 50 per cent tariffs, including a 25 per cent penalty over India's purchase of Russian oil, closer US-Pakistan ties and Trump's repeated claims of brokering a ceasefire between India and Pakistan in May last year.

And in November 2025, the two ministers met on the sidelines of the meeting of G7 Foreign Ministers in Canada, their discussions focusing on trade and supply chains. They also exchanged views on the Ukraine conflict, the Middle East situation and Indo-Pacific. This time, the message after the phone call is clear that they spoke on bilateral issues plaguing the relationship, at a time when the trade deal is still to be concluded. India has reduced its Russian oil imports since September 2025, signalling to Washington that the US should take off the 25 per cent punitive tariffs.

Sources said waiver of the 25 per cent tariff penalty is one that can relieve the relationship stress while the two sides continue negotiating the trade deal to get a reduced tariff on the remaining 25 per cent. The sense of urgency also comes at a time when India and the EU are negotiating their own trade deal, trying to seal it by the time the EU leaders come to India as chief guests for the Republic Day parade and celebrations on January 26 and the India-EU leaders' summit the next day.

<https://indianexpress.com/article/india/jaishankar-us-rubio-talk-trade-defence-nuclear-cooperation-10471956/>

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North out of Atmanirbharta defence mission

-by Lt Gen KJ Singh (retd)

Source: The Tribune, Dt. 14 Jan 2026

THERE is great expectation and a flurry of events on the theme of atmanirbharta (self-reliance) in defence manufacturing, both at the national and regional levels. Unfortunately, these endeavours are yet to find worthwhile traction in the regional context. It is indeed worrying that North India seems to be completely out of this defence-manufacturing mission. As the largest contributor, both quantitatively and qualitatively, in human resource and reputation for innovation or *jugaad*, there is obvious concern.

India has set an ambitious target of achieving a \$26-billion turnover in the defence and aerospace industry by 2025. Projections include planned exports in defence/aerospace sectors, amounting to \$5 billion by 2029. While some may term these as ambitious, yet traction in the creation of an industrial base is clearly evident, with exports touching \$2.76 billion this year.

Defence public sector

undertakings (DPSUs) and ordnance factories (OFs) were set up as part of political favours. The trend was initiated by former Union Minister for Defence Krishna Menon in the early 60s, with heavy vehicle (tanks) plants in Avadi (Chennai).

This defied logic as tanks are mostly deployed on the western front and have to traverse long distances for initial deployment and overhauling. This unfortunate malady has been magnified in the setting-up of two defence industrial corridors in Tamil Nadu and UP, as also clusters concentrated around southern and western India.

The old logic of the hinterland providing security to industrial base is no longer valid with the reach of long-range vectors. In fact, their concentration, in a few states has only enhanced the vulnerability of these corridors/clusters. The more worrying fact is that the trend is multiplying, with even medium repair and overhaul (MRO) bases sprouting in these hubs, entailing the ferrying of equipment over large distances.

The contrarian streak of electing opposition governments in some states like Punjab has further marginalised the Northern Region (NR). The state governments in the region instead of synergising for regional initiatives are engaged in blame game and bickering.

The industrial base of automotive components and machine parts, which had withered/relocated due to terrorism in the 80s, continues to languish, driven by better opportunities in other clusters.

The government has launched a number of initiatives, like the Innovations for Defence Excellence (iDEX) and Technology Development Fund. As per the database, of the 2,100 units mapped in defence-manufacturing, NR accounts for a meagre 30-odd.

The Army Design Bureau had put out 152 problem statements last year, receiving 1,327 responses — the NR accounted for less than 10. Last year, the Army executed 116 capital contracts for Rs 1,80,000 crore, with NR getting just one, valuing Rs 295 crore.

In R&D projects, the picture is even more dismal — out of an outlay of Rs 210,000

crore, the NR has a nominal presence in one project of less than Rs 1 crore.

North India currently has just one unit of Bharat Electronics Limited (BEL), set up during Bansi Lal's tenure as Defence Minister. BEL makes routine cables/connectors in Panchkula. The Semi-Conductor Laboratory, Mohali, after the tragic fire accident in 1989, has only recently started receiving attention as part of restructuring.

It is important to objectively take stock of the claims of the Northern Region. Firstly, the region is the natural logistics base for the large number of deployed Army and Air Force formations. Secondly, the inventory of deployed armaments includes the vast fleet of tracked/wheeled vehicles, rotary-wing helicopters, guns,

drones, surveillance devices and other equipment, which require regular life-cycle sustenance and support.

Thirdly, the location of manufacturing and sustenance facilities in proximity will cut down costs and curtail the transit period, reducing the downtime of operational equipment. Fourth, the region, with high per capita contribution to fighting resources of forces (in terms of numbers and sacrifice), deserves to be given its due share in manufacturing also.

Fifth, having enabled the Green Revolution, northern states are now facing serious problems like depletion of water table, making agriculture non-remunerative. Resultantly, youth are either seeking to migrate abroad or getting addicted to drugs and crime. Industrialisation can alleviate some of these problems in the sensitive border region.

The obvious question is: does the region provide enough opportunities? The critical requirement is land, which can be made available. The pitch to utilise vast tracts of government-owned HMT in Pinjore after its closure has not found any traction. The complex produced heavy machinery and even precision instruments.

It had considerable infrastructure and a resident skill base. In fact, it has all elements, like proximity to deployment bases, connectivity, power, water and labour, yet it is becoming a

fruit market. Hopefully, even belatedly, some correctives can still be applied, with vast tracts still vacant.

The region, which deploys an increasing number of helicopters and is at the receiving end of cross-border drone warfare, as witnessed during Operation Sindoor, makes it ideal for initiatives in these domains. The Punjab State Aeronautical Technical College in Patiala, currently on a ventilator, should be revamped into an aviation and drone university. It can be a multi-disciplinary knowledge, skilling and innovation centre, with MRO hub, leveraging various airfields and flying clubs.

Another interesting suggestion was made at the recent seminar organised by Gyan-Setu and the Chandigarh Citizens Foundation (CCF). It said the state government should fund seed-money (Rs 1.5 crore) for the first 20 iDEX challenge winners, amounting to just Rs 30 crore, to spawn a vibrant ecosystem.

The Central government should act as a catalyst to kickstart defence manufacturing by announcing at least a mini defence corridor, which can be ramped up progressively to a full scale one. In the long run, an empirical model for basing such clusters needs to be adopted, coupled with reassignment, dispersal and re-location of existing entities, which are currently skewed towards the southern and western regions.

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Science & Technology News

इसरो की ये नाकामी आगे कामयाबी में बदलेगी

Source: NavBharat Times, Dt. 14 Jan 2026

इसरो के लिए साल का पहला मिशन असफलता लेकर आया। PSLV-C62 रॉकेट तकनीकी खराबी के चलते रास्ता भटक गया। यह अपने साथ 16 सैटेलाइट और पेलोड लेकर जा रहा था। इस मिशन को भारत की राष्ट्रीय कूटनीतिक जरूरतों और अंतरिक्ष क्षेत्र



शैलेन्द्र पाडेय

मे उसकी वैश्विक महत्वाकांक्षा दोनों के लिए अहम माना जा रहा था। ऐसे में असफलता ने दोनों ही उद्देश्यों को नुकसान पहुंचाया है।

असफलता के सबक | हालांकि स्पेस मिशन में असफलता नई बात नहीं है। इसरो नासा और SpaceX से लेकर चीन-रूस तक सभी को कभी न कभी नाकामी मिली है। इसे किसी भी तरह टाला नहीं जा सकता। दूसरी अहम

बात अंतरिक्ष बहुत जोखिम भरा क्षेत्र है और इन असफलताओं से जरूरी डेटा व आगे के अभियानों के लिए जरूरी सबक मिलते हैं। इन्हीं की बुनियाद पर फिर सफलता भी मिलती है लेकिन इसके लिए जरूरी है कि विफलताओं की ईमानदारी से जांच की जाए। ऐसा नहीं किया गया तो नुकसान बहुत बड़ा होता है। फिर बाजार में हिस्सेदारी और प्रतिष्ठा दोनों को चोट पहुंचती है। रूस का अंतरिक्ष कार्यक्रम इसका सबसे बड़ा उदाहरण है।

दांव पर भरोसा | PSLV लंबे समय से इसरो का सबसे भरोसेमंद रॉकेट माना जाता रहा है। एजेसी इस पर निर्भर रही है। लेकिन लगातार दो मिशन से यह फेल हो रहा है जिससे अब क्लाइंट हिचकेंगे। आज का स्पेस मार्केट बेहद प्रतिस्पर्धी है। नए लॉन्चर तेज उड़ान का वादा कर रहे हैं। ऐसे में ISRO केवल



अपनी पुरानी साख के सहारे आगे नहीं बढ़ सकता।

सुरक्षा चुनौतियां | इस लॉन्च में कई उपग्रह नष्ट हुए हैं जिनमें DRDO का एक अहम रक्षा पेलोड भी शामिल था। भारत में पहले ही निगरानी खुफिया जानकारी और सुरक्षित संचार में कुछ कमियां हैं। अब एक रक्षा उपग्रह के नुकसान से ये कमियां और बढ़ जाती हैं खासकर जब क्षेत्रीय सुरक्षा हालात

की वजह से क्षमता तेजी से बढ़ाने की जरूरत है। देरी देश के हित में नहीं है।

अभियानों पर अस्तर | ऑपरेशन सिद्ध के बाद इसरो ने कहा था कि देश की अंतरिक्ष क्षमताओं की वजह से दुश्मन के इलाके में भीतर तक सटीक कार्रवाई संभव हो पाई। यह असामान्य कदम था। हालांकि हर असफलता अभियानों को महीनों और कई बार बरसों के लिए पीछे धकेल देती है। रिफ्लेसमेंट सैटेलाइट के लिए फंड्स की मजूरी से लेकर निर्माण तक नए सिरे से होता है।

निजी भागीदारी | भारत में प्राइवेट लॉन्च स्टार्टअप की बात हो रही है। हालांकि ऐसे स्टार्टअप से भी इन असफलताओं की तुरंत भरपाई नहीं हो पाएगी। भारत के प्राइवेट लॉन्च वीकल अभी शुरूआती दौर में हैं। देश के लिए जरूरी मिशन को अंजाम देने की जिम्मेदारी अब भी इसरो पर है।

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ISRO's toughest year in decades: 6 launches, 3 strategic setbacks

Source: The Times of India, Dt. 14 Jan 2026

It is rare for Isro's scorecard to feature three failures in one year, rarer still for its most trusted launch vehicle to stumble twice in succession. Yet, between Jan 2025 and Jan 2026, that is precisely what happened. Three missions involving strategic satellites failed, two of them back-to-back, on the Polar Satellite Launch Vehicle (PSLV).

The latest was Monday's (Jan 12) PSLV-C62 mishap, which failed to put the spacecraft in orbit. For an agency that built its reputation on reliability, the past year has been a jolt.

But it is — to use an idiom — rocket science. So, the technical cause of each failure is analysed closely. And what they point to is something larger: a space programme under strain at a time strategic, military, and commercial stakes have never been higher.

The first setback was on Jan 29, 2025, during what was meant to be a milestone moment: Isro's 100th launch mission. GSLV-F15 lifted off cleanly with the NVS-02 navigation satellite. The rocket performed as expected. The failure un-

folded later, in orbit. A valve — responsible for feeding oxidiser to the liquid apogee motor (LAM) — didn't operate as designed. Without the LAM, the satellite could not manoeuvre itself into its final operational orbit. The launch was flawless, but the mission was lost.

When Workhorse Stumbled

The next two failures were more unsettling because they struck during ascent, and they struck the same system. Both PSLV-C61 (May 18, 2025) and PSLV-C62 (Jan 12, 2026) suffered malfunctions in the third stage: the solid-fuel PS3 — the third stage, a solid motor that provides a high-energy boost after the second stage burnout. The pattern of failure was unfamiliar: PSLV had never failed twice in a row, nor had the same stage been implicated repeatedly.

The consequences were immediate and costly. PSLV-C61 carried EOS-09, also known as Risat-1B, a radar imaging satellite critical for strategic surveillance. With its synthetic aperture radar payload, EOS-09 was designed to provide all-weather, day-and-night Earth observation and improve 'revisit frequency' (how often it can image the same spot on Earth, crucial for monitoring dynamic

events like floods or crop health) over sensitive regions. Its loss created a gap that cannot be filled quickly.

Monday's failure compounded the damage. PSLV-C62 was carrying Anvesha, or EOS-N1, another strategic asset. This satellite — built around a 'hyperspectral imaging payload', capable of analysing reflected light across hundreds of narrow wavelength bands, allowing detailed identification of objects, materials, and activities on the ground — was to complement existing satellites.

For the defence establishment, this was meant to sharpen situational awareness. Instead, it was written off minutes after launch. For India's military planners, the losses are not abstract. Space-based intelligence, surveillance, and reconnaissance capabilities are already thin. Losing two high-value satellites within eight months hurts operational readiness and pushes back timelines that were already stretched.

What Global Records Show

For Isro, the reputational impact cuts deeper, because of what the PSLV represents. For nearly three decades, the rocket has been the backbone of India's

space programme, accounting for over 60% of all Isro launches.

Its ability to place satellites into low-Earth orbit, sun-synchronous orbit, and even transfer orbits has made it the agency's most versatile workhorse. It is the vehicle that carried Chandrayaan-1, Mars Orbiter Mission, Aditya-L1, and hundreds of commercial payloads. Of the nearly 400 foreign satellites launched by India, the overwhelming majority rode on PSLV.

This legacy is exactly why back-to-back failures matter. For Isro, 'reliability' is not a non-quantifiable technical metric; it is the measure — and currency — of trust.

Globally, launch statistics offer some context. Nearly half of all launch failures are linked to propulsion systems, and around two-thirds of propulsion-related failures occur in upper stages. In that sense, Isro's troubles are not unique. But context does not soften the strategic impact of failures involving critical national assets that repeat within a short span.

Strategic Gap Widening

The timing is particularly uncomfortable, as India's space environment has changed. The patient, incremental approach that defined Isro's early decades worked in an era whose geopolitics were different. It delivered credibility on modest budgets and built deep engineering expertise over time. Today, space is no longer just a scientific or developmental domain; it is a contested arena of power.

The numbers are stark. India operates fewer than a dozen dedicated defence satellites. The US and China field constellations running into the hundreds, each exceeding 240, while Russia operates more than 100 spacecraft. This gap is not merely about scale. It translates directly into how often a region can be observed, how quickly data can be relayed, and how reliably communications can be maintained during conflict.

India has made progress with platforms such as the Risat series and the GSAT-7 family, but gaps remain. The Army still lacks a dedicated satellite system of its own. NavIC, India's regional navigation system, remains only partially operational. Of the 44 Earth observation satellites launched over the years, just 21 are currently active. Isro's own projections call for around 60 Earth observation satellites within five years, with military requirements pushing the total beyond 100. At current launch rates and with recent failures, those targets look quite ambitious.

A look at China's model underlines how far India still has to go. Beijing maintains overlapping constellations that provide near-continuous coverage over land and sea, including contested waters. India relies on intermittent passes and stitched-together datasets, leaving blind spots. In modern warfare, where decisions are made in minutes, this asymmetry matters.

Budgetary constraints add another layer of difficulty. India spends under \$2 billion a year on space. China's outlay is roughly eight times that. Nasa's budget is more than 10 times larger. Indian launch vehicles are cost-competitive, but low launch frequency and long turnaround

times dilute that advantage. Failures, even isolated ones, slow schedules further.

Commercial Ripple Effect

There is also a commercial dimension that should not be dismissed. The PSLV's reputation has been a key reason foreign customers trusted India with their payloads, especially small satellites. While commercial launch decisions factor in price, orbit availability and scheduling, reliability remains paramount. Insurance premiums, contractual clauses and risk assessments are sensitive to recent performance.

Two failures do not erase decades of success, and the global launch market is forgiving to a point. Yet, competition has intensified. Dedicated smallsat launchers, reusable rockets, and rideshare options offered by foreign providers give customers more choice than ever. Even a small dent in perceived reliability can push marginal customers elsewhere, especially when launch windows are flexible.

This matters because Isro's commercial arm, and India's broader space economy ambitions, depend on sustained credibility. The SSLV is still maturing. The GSLV and LVM-3 are being positioned for

Of the nearly 400 foreign satellites launched by India, the overwhelming majority rode on PSLV. This legacy is exactly why back-to-back failures matter. For Isro, 'reliability' is not a non-quantifiable technical metric; it is the measure — and currency — of trust

heavier and more complex missions, but their commercial cadence is limited. For now, the PSLV remains the mainstay for both strategic and commercial launches. Any prolonged uncertainty around it would ripple across plans.

Isro's Tech Depth & Ability

None of this, however, diminishes Isro's technical depth or its capacity to recover. The agency has navigated failures before and emerged stronger. What the past year underscores is the need for urgency. Technical reviews must be thorough, transparent, and swift. Production quality, testing regimes, and supply chains need close scrutiny, especially for systems that have long been considered mature.

Equally important is clarity of priorities. Strategic missions cannot be treated as just another payload. Launch cadence, redundancy, and backup planning must reflect their importance. In an era where space assets underpin military readiness, economic activity, and diplomatic standing, resilience matters as much as ambition.

One year, six launches, three failures. That is an uncomfortable tally. But it is also a moment to reset. Isro's credibility was built over decades — through consistency. Bouncing back strongly will require the same qualities, applied with greater speed and sharper focus.

HOW ISRO'S ROCKETS HAVE FARED

Launch Vehicle	Total Missions	Success	Failures	Partial Failures
SLV-3*	4	2	1	1
ASLV*	4	1	2	1
PSLV	64	59	4	1
GSLV	18	12	4	2
LVM-3	8	8	0	0
SSLV	3	2	1	0

*Rockets retired from service

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The Tribune
The Statesman
ਪੰਜਾਬ ਕੇਸਰੀ ਜਨਸੱਤਾ
The Hindu
The Economic Times
Press Information Bureau
The Indian Express
The Times of India
Hindustan Times
नवभारत टाइम्स
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