

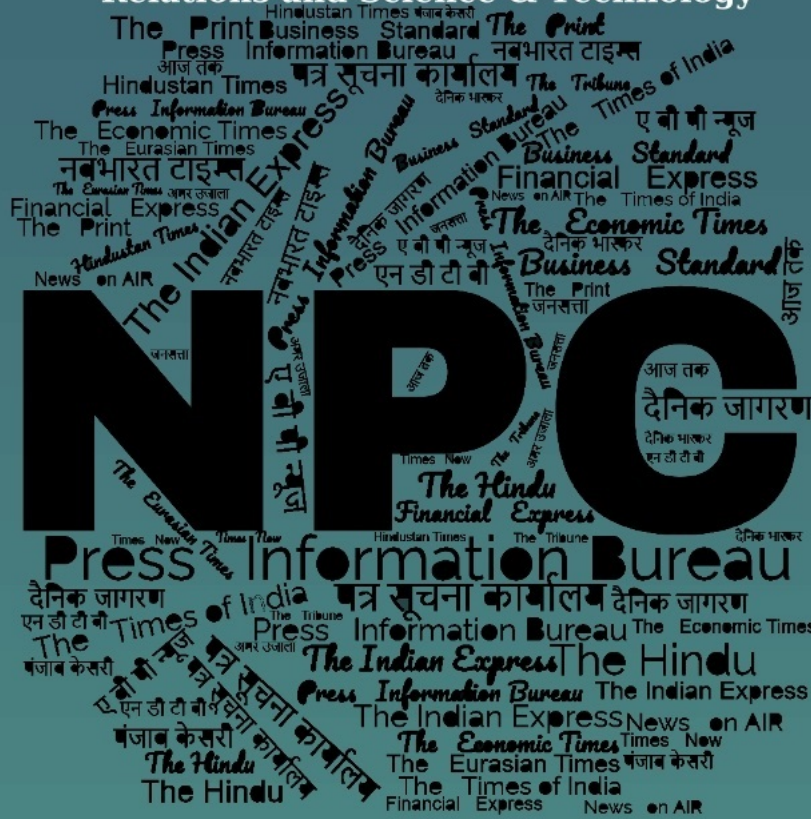
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समाचार पत्रों से चयनित अंश Newspapers Clippings

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

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



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DRDO News

लंबी दूरी की गाइडेड रॉकेट 'पिनाका' का पहला सफल परीक्षण

Source: Dainik Jagran, Dt. 30 Dec 2025

नई दिल्ली, प्रेटर: भारत ने स्वदेशी रक्षा क्षमताओं को और मजबूत करते हुए पिनाक लांग रेंज गाइडेड रॉकेट (एलआरजीआर-120) का पहला उड़ान परीक्षण सोमवार को सफलतापूर्वक पूरा कर लिया। रक्षा मंत्रालय ने बताया कि यह परीक्षण ओडिशा के चांदीपुर स्थित इंटीग्रेटेड टेस्ट रेंज (आइटीआर) में किया गया, जहां रॉकेट ने 120 किमी की अधिकतम दूरी तक उड़ान भरते हुए लक्ष्य को सटीकता के साथ भेदा।

मंत्रालय के अनुसार, परीक्षण के दौरान रॉकेट ने योजना के अनुसार उड़ान के सभी आवश्यक दांव-पेचों का प्रदर्शन किया। तैनात



120 किलोमीटर तक मारक क्षमता, लक्ष्य पर सटीक वार

- डीआरडीओ ने विकसित किया है यह गाइडेड रॉकेट
- रक्षा मंत्री ने बताया 'गेम चेंजर', सशस्त्र बलों की ताकत बढ़ेगी

<< चांदीपुर स्थित इंटीग्रेटेड टेस्ट रेंज में प्रक्षेपण करता पिनाक लांग रेंज गाइडेड रॉकेट ●आइएनएस

सभी रेंज उपकरणों ने इसकी पूरी उड़ान के दौरान गतिविधियों पर नजर रखी, जिससे परीक्षण के सभी मानक सफलतापूर्वक पूरे

हुए। एलआरजीआर को सेवा में शामिल पिनाक लांचर से दागा गया, जिससे यह साबित हुआ कि एक ही लांचर से पिनाक के अलग-

अलग रेंज वाले संस्करणों को दागा जा सकता है। इससे प्रणाली की बहुउपयोगिता में इजाफा होगा। यह रॉकेट डीआरडीओ की प्रयोगशाला आर्मामेंट रिसर्च एंड डेवलपमेंट एस्टैब्लिशमेंट (एआरडीई) द्वारा हाई एनर्जी मटेरियल्स रिसर्च लैबोरेटरी के सहयोग से डिजाइन किया गया है। रक्षा मंत्री राजनाथ सिंह ने इस उपलब्धि पर डीआरडीओ को बधाई दी। उन्होंने कहा, गाइडेड रॉकेट का सफल विकास सशस्त्र बलों की क्षमता बढ़ाएगा और गेम चेंजर साबित होगा। आर्मेनिया ने जहां इसे खरीदा है, वहीं फ्रांस जैसे यूरोपीय देश इसमें दिलचस्पी दिखा रहे हैं।

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India carries out maiden test of long-range Pinaka rocket

Source: Hindustan Times, Dt. 30 Dec 2025

India on Monday carried out the maiden flight test of Pinaka long-range guided rocket (LRGR 120) from Integrated Test Range at Chandipur in Odisha, the defence ministry said. "The rocket was tested for its maximum range of 120 km, demonstrating all in-flight manoeuvres as planned. The LRGR impacted on the target with textbook precision," it said in a statement.



Defence minister Rajnath Singh said the maiden flight test of Pinaka Long Range Guided Rocket (LRGR 120) was conducted successfully at ITR, Chandipur

The successful test conducted by the Defence Research and Development Organisation came on a day the defence acquisition council (DAC) gave its initial approval for the purchase of military hardware worth ₹79,000 crore, including long-range guided rocket ammunition for the army's Pinaka multiple launch rocket system (MLRS).

All the deployed range instruments tracked the flight throughout its trajectory, the ministry said. The rocket is designed by Armament Research and Development Establishment in association with High Energy Materials Research Laboratory, with support from Defence Research and Development Laboratory and Research Centre Imarat.

The LRGR was launched from an in-service Pinaka launcher, demonstrating its versatility and establishing launch capability of Pinaka variants of different ranges from the same launcher. Defence minister Rajnath Singh congratulated DRDO on the achievement, adding that the successful design and development of long-range guided rockets will boost the capabilities of the armed forces.

<https://www.hindustantimes.com/india-news/india-carries-out-maiden-test-of-long-range-pinaka-rocket-101767024339661.html>

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Defence News

79,000 करोड़ रुपये के रक्षा सौदों को मंजूरी

Source: Punjab Kesari, Dt. 30 Dec 2025

पंजाब केसरी/नई दिल्ली

सरकार ने सशस्त्र बलों की क्षमता बढ़ने के लिए 79,000 करोड़ रुपये के रक्षा खरीद सौदों के प्रस्तावों को मंजूरी दी है। रक्षा मंत्री राजनाथ सिंह की अध्यक्षता में सोमवार को हुई रक्षा खरीद परिषद की बैठक में तीनों सेनाओं के लिए आवश्यकता के आधार पर खरीद के इन प्रस्तावों को मंजूरी दी गयी। रक्षा मंत्रालय ने बताया कि इस वर्ष की अंतिम बैठक में मंजूर किये गये इन खरीद सौदों की कुल अनुमानित लागत लगभग 79,000 करोड़ रुपये है और इनमें सेना की तोपखाना रेजिमेंट के लिए



लॉन्चर म्यूनिशन सिस्टम, लो लेवल लाइट वेट रडार, पिनाका मल्टीपल लॉन्च रॉकेट सिस्टम के लिए लंबी दूरी के निर्देशित रॉकेट एम्युनिशन तथा

● कई ड्रोन डिटेक्शन सिस्टम और राडार तथा रॉकेट सिस्टम मिल सकेंगे

इंटीग्रेटेड ड्रोन डिटेक्शन एंड इंटरडिक्शन सिस्टम मार्क-2 की खरीद को मंजूरी दी गई। बैठक में नौसेना के लिए बोलार्ड पुल टग्स, हाई फ्रीक्वेंसी सॉफ्टवेयर डिफाइंड रेडियो मैनपैक तथा हाई एल्टीट्यूड लॉन्ग रेंज रिमोटली पायलटेड एयरक्राफ्ट सिस्टम को लीज पर लेने के प्रस्तावों को आवश्यकता पर खरीद की स्वीकृति प्रदान की गई। वायु सेना के लिए ऑटोमैटिक टेक-ऑफ लैंडिंग रिकॉर्डिंग सिस्टम, अस्त्र मार्क-2 मिसाइलें, फुल मिशन सिम्युलेटर तथा स्पाइस-1000 लॉन्ग रेंज गाइडेंस किट्स आदि की खरीद को आवश्यकता की स्वीकृति दी गई।

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Defence Acquisition Committee gives its nod for defence purchases worth ₹79,000 crore

Source: The Hindu, Dt. 30 Dec 2025

The Defence Acquisition Council (DAC), chaired by Defence Minister Rajnath Singh, on Monday (December 29, 2025) accorded Acceptance of Necessity (AoN) for capital acquisition proposals amounting to about ₹79,000 crore from the Army, the Navy and the Air Force.

According to the Ministry of Defence, the DAC approved the procurement of Loiter Munition Systems for Artillery Regiments, Low Level Light Weight Radars, Long Range Guided Rocket Ammunition for the Pinaka Multiple Launch Rocket System (MRLS), and the Integrated Drone Detection and Interdiction System (IDD&IS) Mk-II for the Indian Army.

The Loiter Munition Systems will enable precision strikes against tactical targets, while the Low Level Light Weight Radars will enhance detection and tracking of small, low-flying unmanned aerial systems. The Long Range Guided Rockets will significantly improve the range and accuracy of the Pinaka MRLS, enabling effective engagement of high-value targets. The IDD&IS Mk-II, with enhanced range, will strengthen the protection of vital assets in tactical battle areas and the hinterland, the Defence Ministry said.

For the Indian Navy, the AoN was accorded for the procurement of Bollard Pull (BP) Tugs, High Frequency Software Defined Radio (HF SDR) Manpack systems, and the leasing of High Altitude Long Endurance (HALE) Remotely Piloted Aircraft Systems (RPAS). The BP Tugs will assist naval ships and submarines during berthing, unberthing and manoeuvring in confined harbour waters. The HF SDR Manpack will enhance long-range secure communications during boarding and landing operations, while the HALE RPAS will provide persistent intelligence, surveillance and reconnaissance, and strengthen maritime domain awareness across the Indian Ocean Region.

For the Indian Air Force, the DAC approved the AoN for procurement of the Automatic Take-off and Landing Recording System, Astra Mk-II beyond-visual-range air-to-air missiles, Full Mission Simulators, and SPICE-1000 long-range guidance kits.

The Automatic Take-off and Landing Recording System will enhance aerospace safety by enabling high-definition, all-weather automatic recording of take-off and landing phases. Astra Mk-II missiles, with enhanced range, will boost the capability of IAF fighter aircraft to engage adversary targets from extended distances.

The Full Mission Simulator for the Light Combat Aircraft Tejas will strengthen pilot training in a cost-effective and safe environment, while SPICE-1000 kits will enhance the IAF's long-range precision strike capability.

<https://www.thehindu.com/news/national/defence-acquisition-committee-gives-nod-for-defence-purchases/article70450196.ece>

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Science & Technology News

Ax-4 put india on human spaceflight path

Source: The Tribune, Dt. 30 Dec 2025

India's space programme, spearheaded by the Indian Space Research Organisation (ISRO), has transformed the nation into a prominent power in global space exploration in 2025. From the historic launch of Aryabhata, India's first satellite in 1975, the country has progressed to pioneering cost-effective satellite launches with the PSLV, delivering over 400 foreign satellites into orbit.

Human spaceflight mission

In June 2025, Indian astronaut Group Captain Shubhanshu Shukla became the first Indian to travel to the International Space Station (ISS) as pilot for the Axion Mission 4 (Ax-4). The private space mission was crucial for India's future human spaceflight programme, Gaganyaan. The Ax-4 has enabled human spaceflight for India, Poland, and Hungary, with each nation's first government-sponsored flight in more than 40 years. While Ax-4 marks these countries' second human spaceflight mission in history, it is the first time all three nations executed a mission on board the International Space Station. Experiments conducted aboard the ISS on microalgae, seed sprouting, tardigrades, muscle cell regeneration, cyanobacteria growth, human-device interaction, and crop seed exposure to microgravity have progressed or concluded, with samples returned for post-mission analysis.

NASA and ISRO collaboration

NISAR is the first of its kind mission, jointly developed by ISRO and NASA. The satellite was launched on 30 July 2025 from Satish Dhawan Space Centre, Sriharikota. The mission's primary objectives are to study land and ice deformation, land ecosystems, and oceanic regions in areas of common interest to the US and Indian science communities. The mission will help to understand changes in wetlands' extent and map Greenland's and Antarctica's ice sheets, dynamics of sea ice and mountain glaciers.

Space Docking and Servicing experiment

Early this year, Space Docking and Servicing (SpaDeX) also demonstrated India's capability in docking, undocking, refuelling, and payload transfer, which are essential for a self-sustained space station. India became the fourth country to successfully carry out a satellite docking process in Low Earth Orbit (LEO). In a very complex procedure, two 20 kg satellites, initially separated with a distance of 11 to 12 km, docked after precise control and measurement.

Future goals

India's Gaganyaan Programme was approved with a financial outlay of approximately Rs 20,193 crore. It is India's first indigenous human spaceflight initiative. It aims to send Indian astronauts to Low Earth Orbit (LEO). Human Rated Launch Vehicle (HLVM3): Development and ground testing completed. Propulsion systems for Crew Module and Service Module developed and tested for the mission and for the Crew Escape System five types of motors have been developed and static tested.

Unlike previous expendable launch vehicles, which were designed for a single use, the Next Generation Launch Vehicles (NGLV) introduces a groundbreaking feature, the recovery and reuse in the first stage. The next-generation launch vehicle under development will have a staggering 30,000 kg payload capacity to LEO, marking a 1,000-fold increase from the SLV 3.

ISRO is also focusing on satellites for communication, navigation, disaster mitigation, and resource monitoring. Building a space station for experiments and a gateway for interplanetary exploration, including landing Indians on the Moon, is a key goal.

<https://www.tribuneindia.com/news/india/looking-back-2025-ax-4-put-india-on-human-spaceflight-path/>

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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
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दैनिक जागरण
The Asian Age
The Pioneer