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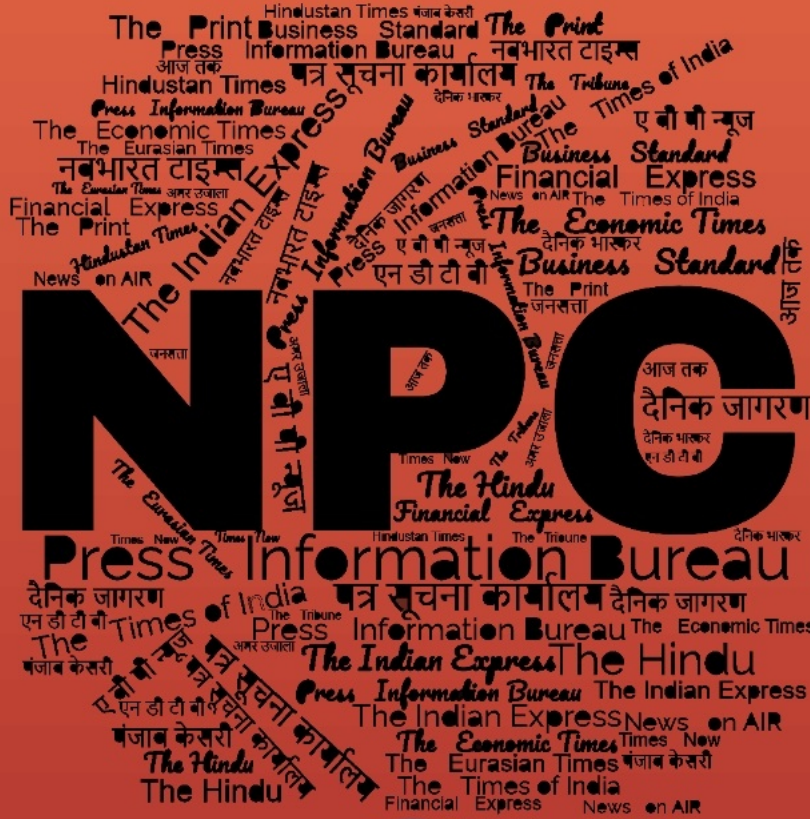
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समाचार पत्रों से चयनित अंश Newspapers Clippings

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

IIT-Madras to begin work on ramjet tech to boost range of army's rocket arsenal

Source: Hindustan Times, Dt. 22 Jan 2026

The Indian Institute of Technology Madras (IIT Madras) is set to begin work on a critical project that seeks to enhance the range of the Indian Army's rocket arsenal by tapping into ramjet technology, with the initial scope of the firepower boost covering the artillery's Russian-origin BM-21 Grad and the locally made Pinaka rocket launcher systems, officials aware of the matter said.



Integrating air-breathing ramjet engines into Russian-origin BM-21 Grad and the locally made Pinaka rocket launcher systems is expected to double their range

Integrating air-breathing ramjet engines into these weapons is expected to double their range --- from a current maximum of 40 km to 80 km for the Grad, and from 120 km to an impressive 250 km for the Pinaka, the officials added.

“Testing of the ramjet engine on the Grad multiple rocket launcher will begin in March and full operational capability is expected to be validated by the end of 2028 before technology can be transferred to a production partner. We will take up the Pinaka upgrade thereafter,” said PA Ramakrishna, a faculty in the IIT's department of aerospace engineering.

The development comes at a time when the army is looking at creating a rocket force at the earliest to boost its combat effectiveness with weapons that can hit targets at longer ranges. It also comes on the back of IIT Madras announcing that it has developed and tested ramjet-assisted artillery shells, and the technological breakthrough has set the stage for doubling the range of the army's major gun systems without compromising their lethality.

The institution is expected to transfer technology for manufacturing ramjet-propelled artillery shells to a production partner by early 2027, HT learns. “We are looking at replicating with the rockets what we have achieved with the artillery shells. These upgraded systems will offer commanders greater tactical flexibility, deeper strike options and enhanced deterrence, without the need for inducting new platforms,” said Ramakrishna, who led the specialised team that worked on enhancing the range of artillery guns. The team included Lieutenant General PR Shankar (retd), a former director general of artillery.

The IIT Madras innovation integrates a ramjet engine into an existing 155mm artillery shell, replacing the conventional base-bleed unit. This approach enables sustained propulsion after the shell exits the barrel, significantly extending its reach while preserving the shell’s destructive power. A ramjet engine uses the vehicle’s high speed to compress incoming air, mix it with fuel, and generate thrust without moving parts like turbines.

Long-range precision weapons proved effective during Operation Sindoor in May when the Indian military struck terror and military installations in Pakistan and Pakistan-occupied Kashmir (PoK). Between the launch of the operation in the early hours of May 7 and the ceasefire on May 10 evening, Indian forces bombed nine terror camps in Pakistan and PoK, killing at least 100 terrorists, and the Indian Air Force struck targets at 13 Pakistani airbases and military installations. Cost-effective upgrades to enhance the ranges of the army’s big guns and rockets will complement the ongoing modernisation of the artillery, said an army official, asking not to be named.

The army plans to enhance its firepower, with a greater emphasis on range, mobility, precision attacks, quick strikes and survivability as it ramps up efforts to buy an array of weapons, including guns, rocket systems and missiles. The linchpin of this capability boost, which will cost tens of thousands of crores, is a five-pronged strategy evolved after an assessment of what the artillery regiments need for battlefield supremacy. The strategy hinges on equipping all regiments with advanced 155mm artillery gun systems, inducting rockets and missiles with longer ranges and precision, lethal ammunition, reorganisation of surveillance and target acquisition units, and shortening the sensor-to-shooter loop for swift detection and destruction of targets.

On January 13, army chief General Upendra Dwivedi said a rocket-missile force was the need of the hour as China and Pakistan have already raised their own rocket forces. “And the faster we organise it, the better it will be for our combat effectiveness.” Ramakrishna said the development of this technology was possible because of the government’s sharp focus on ‘Atmanirbar Bharat’ (self-reliant India) and the introduction of the ‘Professor of Practice’ (PoP) programme that was formalised by University Grants Commission (UGC) in September 2022.

The programme created a new category of positions that brings distinguished professionals and industry veterans without PhDs into higher education institutions, in line with the National Education Policy (NEP) 2020, which envisions integrating vocational education with general education and bridging the industry-academia gap. More than 18,300 professionals and 530 higher education institutions have registered on the UGC’s PoP portal.

<https://www.hindustantimes.com/india-news/iitmadrastobeginworkonramjettechtoboostrangeofarmysrocketarsenal101769023077765.html>

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सिर्फ आर्थिक ताकत बन संप्रभुता की रक्षा नहीं हो सकती

Source: Dainik Jagran, Dt. 22 Jan 2026

बोले- राष्ट्रीय सुरक्षा के लिए सैन्य शक्ति बहुत जरूरी

नई दिल्ली, एएनआइ : वायुसेना प्रमुख एयर चीफ मार्शल एपी सिंह ने बुधवार को राष्ट्रीय सुरक्षा के लिए सैन्य शक्ति के महत्व पर जोर देते हुए कहा कि केवल आर्थिक शक्ति से किसी राष्ट्र की संप्रभुता की रक्षा करना संभव नहीं है। सेंटर फार एयरोस्पेस पावर एंड स्ट्रेटेजिक स्टडीज द्वारा आयोजित सेमिनार को संबोधित करते हुए एपी सिंह ने वेनेजुएला और इराक का उदाहरण दिया और कहा कि हमें यह समझना होगा कि सैन्य शक्ति ही राष्ट्रीय शक्ति का अंतिम मापदंड है।

वायुसेना प्रमुख ने कहा-एक समय में हम और चीन मिलकर विश्व के 60% सकल घरेलू उत्पाद (जीडीपी) को नियंत्रित करते थे। लेकिन, इसके बावजूद हम पर कब्जा कर लिया और हमें उपनिवेश बना दिया गया। वैसे तो कोई भी शक्ति महत्वपूर्ण है, लेकिन अंततः एक मजबूत सेना की आवश्यकता



नई दिल्ली में 22वें सुब्रतो मुखर्जी सम्मेलन को संबोधित करते वायुसेना प्रमुख एयर चीफ मार्शल एपी सिंह • एएनआइ

पड़ती ही है। यदि आपके पास सैन्य शक्ति नहीं है, तो कोई भी आपको अपने अधीन कर सकता है। वेनेजुएला व इराक हालिया उदाहरण हैं। सैन्य शक्ति महत्वपूर्ण है, लेकिन उससे भी अधिक महत्वपूर्ण है, उस सैन्य शक्ति का उपयोग करने की इच्छा शक्ति। वायुसेना प्रमुख ने सशक्त सेना और उसे इस्तेमाल करने की इच्छा शक्ति पर बल

देते हुए राष्ट्रकवि रामधारी सिंह 'दिनकर' के एक दोहे का भी हवाला दिया। उन्होंने कहा-क्षमा शोभती उस भुजंग को, जिसके पास गरल हो/ उसको क्या जो दंतहीन, विषहीन, विनीत, सरल हो। जब तक आपमें वह इच्छा शक्ति नहीं होगी, आप संयम बरतते रह सकते हैं। लेकिन, वह संयम कमजोरी समझी जाएगी। जब आप मजबूत होते हैं और संयम बरतते हैं, तभी उसे क्षमता माना जाता है।

एपी सिंह ने कहा कि भारत की सुरक्षा आवश्यकताएं अक्सर अपने पड़ोस में होने वाले घटनाक्रमों से प्रभावित होती हैं, जिससे कभी-कभी प्रतिक्रिया में निर्णय लेने होते हैं। उन्होंने आत्मनिर्भरता को मजबूत करने के लिए मेक इन इंडिया व अगली पीढ़ी की हथियार प्रणालियों के लिए रणनीतिक साझेदारियों पर तेजी से निर्णय लेने की आवश्यकता पर जोर दिया।

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Military power is ultimate arbiter of national strength: IAF Chief AP Singh

Source: The Tribune, Dt. 22 Jan 2026

Air Chief Marshal AP Singh, IAF Chief, on Wednesday cited the examples of Venezuela and Iraq being targeted by the US to argue that military power remains the ultimate arbiter of national strength. "Military power stands as the ultimate arbiter of national power. All instruments of national power will take you nowhere if you do not have a strong military," the IAF Chief said while addressing the 22nd Subroto Mukerjee Seminar.

Referring to the rapidly changing global scenario, he added, "A nation can be economically strong, but that does not guarantee security." "The whole idea is to use comprehensive national power to impose your will over other nations, while ensuring that no other nation can impose its will on us," he said. "Military power is important, but even more important is the will to use that power. Without the will, restraint is seen as weakness. Only when you are strong enough does restraint reflect capability," he added. Highlighting India's gap in cutting-edge technology, Air Chief Marshal Singh said the country needed strategic partnerships to develop next-generation platforms. "We need to catch up with technology. Maybe we can do it alone, but it will take longer," he said.



Air Chief Marshal AP Singh, Chief of the Air Staff, speaks during the 22nd Subroto Mukerjee Seminar focused on aerospace power and national security at Air Force auditorium in New Delhi on Wednesday.

He cited the example of strategic tie-ups in aero-engine manufacturing — a reference likely to the partnership between French engine-maker Safran and Hindustan Aeronautics Limited. On military preparedness, the IAF Chief said, “We must manage our immediate requirements. We need to assess what we require today and over the next 10 years, and focus on those priorities.”

Meanwhile, speaking at another session, Additional Director General (Strategic Communications), Indian Army, Major General Sandeep Sharda said during Operation Sindoor, Pakistan spread deepfakes, doctored videos and misinformation through official channels and press conferences. He said Pakistan deployed a large network of YouTube channels, X accounts and government handles to amplify fake news during the operation.

<https://www.tribuneindia.com/news/india/military-power-is-ultimate-arbiter-of-national-strength-iaf-chief/>

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Need robust military... look at Venezuela, Iraq: IAF chief

Source: The Indian Express, Dt. 22 Jan 2026

CITING examples of the recent US action in Venezuela and the past war with Iraq, Indian Air Force Chief Air Chief Marshal A P Singh on Wednesday said military power stands as the ultimate arbiter of national power and economic strength alone is not enough to ensure national security. “Anybody can be economically strong, but cannot be secure,” he said while underlining that India was colonised despite controlling 60% of the world’s GDP, along with China. The IAF chief was speaking at the 22nd Subroto Mukherjee seminar in Delhi, organised by the Centre for Aerospace Power and Strategic Studies (CAPSS).

“...Because if you do not have it, you can be subjugated by anybody. Venezuela and Iraq are some of the examples... What does military power do? It will protect your economic activities and give you the freedom and secure the technological infrastructure that you have, and it will give credibility to your diplomacy.” He said all instruments of national power will take you nowhere if you do not have a strong military power.

“That becomes an absolute necessity. It is the military power which is important, but what is more important is the will to use that military power,” he said. “Unless you have that will to use it, you can keep showing restraint, but that restraint will be seen as a weakness. It is only when you’re strong enough, and you show restraint, that it is seen as a capability,” the Air Chief Marshal said. He further said the part of military power that has come in handy, or which has delivered what was required to be delivered, is air power.

He said it is important that attention is put on this part of the military in case India wants to be a force to reckon with. “Whether it is getting people out of the conflict zone, or it is to give a blow to terrorist infrastructure and their perpetrators, or whether it is attacking bases in Pakistan in a matter of a few hours to send a signal that enough is enough and bring them to their knees. It was the air power which did the trick, and that has to be remembered... Let us not rest on past glory. Let us brace up for future challenges...”

In Operation Sindoor launched in May last year, the IAF destroyed 12-13 of Pakistan’s combat aircraft, including four to five F-16s on the ground and five F-16s and JF-17s in the air, along with two other planes. The IAF chief had earlier stated that the operation taught conflict resolution to the world, as it was concluded after India’s military objectives were achieved. Air Chief Marshal Singh said India’s security requirements are often shaped by developments in its neighbourhood, forcing reactive decision-making at times, adding that there is a need for faster decisions on Make in India initiative and strategic partnerships for next-generation engines and weapon systems to strengthen self-reliance.

<https://indianexpress.com/article/india/need-robust-military-look-at-venezuela-iraq-iaf-chief-10487803/>

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Need tech partnerships abroad to achieve 2047 goal: Chief of the Air Staff

Source: Hindustan Times, Dt. 22 Jan 2026

India has the mindset and human capital to become a strong military and take flight towards the national goal of becoming a developed country by 2047 but what it lacks is technology, and bridging that gap requires entering into strategic partnerships with other countries to develop next-generation weapons and systems, Chief of the Air Staff Air Chief Marshal Amar Preet Singh said on Wednesday. This approach, he said, must progress in conjunction with steps towards indigenisation of military hardware.

“While supporting the research and development efforts towards indigenisation and ‘atmanirbharta’ (self-reliance), we need to decide on investing in some other Make in India programmes so that we get the technology and the weapons and platforms that we need in the near future,” Singh said at the 22nd Subroto Mukerjee seminar on National Security Imperatives. The challenge for the Indian Air Force is to strike a balance between the need to become self-reliant and stay potent at the same time with the induction of new weapons and systems to meet its current requirements.

“To catch up with the next generation of technology, we need to join hands with some other countries. We may be able to do it alone but it will take longer. This is the right time to get into a strategic partnership for the development of next-generation weapons and platforms. It could be in

line with the decision we have taken for building engines for the future aircraft,” the IAF chief said, stressing on the need to manage immediate requirements.

To be sure, the government is likely to soon approve a joint project involving French firm Safran and India’s Gas Turbine Research Establishment (GTRE), a lab under the DRDO, to develop and produce a 120-kilonewton thrust class engine to power the indigenous fifth-generation stealth fighter jet or AMCA (advanced medium combat aircraft). The Safran-GTRE combine, HT learns, will develop nine prototypes in a time frame of 12 years, with 100% transfer of technology and intellectual property rights to India. Creating a strong military, especially air force, is a necessity in the backdrop of the world becoming increasingly chaotic and unpredictable, Singh said.

“Unfortunately, our requirements and timelines do get affected by what’s happening in our neighbourhood because we need to be prepared for our adversary. We have to be in the reactive mode at times...It is important that we equip ourselves and, more importantly, how we utilise what we have,” he said. Capability development must be in consonance with the roles and tasks assigned to the military, he said. “We must not be taking a jump into the future thinking about roles which are not there in the next 10-15 years for us, and wasting our effort, energy and money towards that. We must realise what we need today and focus more on immediate requirements.”

The IAF chief spoke of the primacy of airpower and how it shaped battle outcomes during Operation Sindoor, the four-day military confrontation between India and Pakistan in early May following the April 22 Pahalgam terror attack in which 26 people were killed. “Whether it was dealing a blow to the terrorists and their infrastructure or attacking multiple bases in Pakistan in a matter of few hours to send a signal that enough is enough, it was airpower which did the trick. And that has to be remembered,” Singh said. India launched Operation Sindoor in the early hours of May 7 and struck terror and military installations in Pakistan and Pakistan-occupied Kashmir (PoK) before the May 10 ceasefire. The clash involved fighter jets, missiles, armed drones, and a fierce artillery duel. Military power, he said, is the ultimate arbiter of national power.

“If you don’t have a robust military, you can be subjugated by anybody. Venezuela and Iraq are examples. All strategies, all instruments of national power put together will take you nowhere if you don’t have a strong military power. So that becomes an absolute necessity.” The will to use military power is even more important, the IAF chief said. “You have to show the will. Unless you have the military power and the will to use it, you can keep showing restraint, but that restraint will be seen as weakness. It’s only when you are strong enough that restraint is seen as a capability.”

<https://www.hindustantimes.com/india-news/need-tech-partnerships-abroad-to-achieve-2047-goal-chief-of-the-air-staff-101769024159225.html>

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Self-reliance powering national defence

Source: The Pioneer, Dt. 22 Jan 2026

In a significant step towards strengthening indigenous defence capability and operational readiness in the Eastern Theatre, the General Officer Commanding (GOC), Gajraj Corps, interacted with PB Rangarao, CEO, Helicopter Complex — Hindustan Aeronautics Limited (HAL).

The interaction focused on enhancing the serviceability of Army helicopters and strengthening Maintenance, Repair and Overhaul (MRO) support to ensure higher operational availability and

responsiveness. Subsequently, the GOC, Blazing Sword Division, along with PB Rangarao, unveiled the foundation stone of HAL's MRO Hub at Missamari, Assam.

The upcoming facility will significantly augment repair turnaround times, streamline logistics support, and provide sustained MRO support to Army Aviation and the Indian Air Force, thereby enhancing combat readiness in the region.



The establishment of the MRO Hub marks a major milestone in bolstering indigenous aerospace support infrastructure and reinforces the Government of India's vision of #AtmanirbharBharat. This initiative underscores the Indian Army's commitment to self-reliance, operational excellence, and long-term capability development in partnership with India's defence public sector industry.

<https://dailypioneer.com/news/self-reliance-powering-national-defence>

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Booming guns, hovering drones: Army's Regiment of artillery puts up spectacular show of firepower

Source: The Pioneer, Dt. 22 Jan 2026

The K-9 Vajra and M777 Ultra-Light Howitzer breathed fire, even as several other guns, including indigenously manufactured artillery systems, went blazing. With the ear-shattering sound of booming long-range weapons that literally shook the ground, the Regiment of Artillery on Wednesday showcased the Indian Army's ammunition prowess during its annual drill, 'Exercise TOPCHI'.

The event highlighted the seamless integration of advanced firepower and surveillance technologies, including guns, mortars, rockets, drones and aviation assets. Many of these assets were used in a range of offensives, including Operation Sindoor, according to the commentary during the drill, which was conducted at the School of Artillery, Devlali Field Firing Ranges, in Maharashtra's Nashik district. The K-9 Vajra Self-Propelled Gun, M777 Ultra-Light Howitzer, 155 mm FH77802 (Bofors), Soltam, Dhanush, 105 mm Indian Field gun, Light Field Gun, 120 mm Mortar, GRAD BM 21 and Pinaka Multiple Rocket Launcher mesmerised the audience with their firepower.

For the first time, "Gun Dets" from the Border Security Force (BSF), and Indian Navy sailors with drones participated in the annual event. Troopers from the Indian Army's Parachute Regiment, along with paramotors and hang-gliders, showcased their abilities during the exercise. This mega event was organised under the leadership of Lieutenant General Navneet Singh Sarna, Commandant, School of Artillery, and Colonel Commandant of the Regiment of Artillery.

The chief guest of the event was Lieutenant General Manish Erry, Commandant, Defence Services Staff College, Wellington. "The exercise served as a powerful testament to the professionalism and operational excellence of the Indian Artillery. It underscores operational preparedness, technological advancement, and the emphasis on indigenous defence manufacturing, reflecting India's focus on self-reliance and modernisation," Sarna said. Attendees included student officers from Defence Services Staff College, Wellington, Defence Services Technical Staff Course, Nepal Army Command and Staff College, key officials from the Indian Army, civil administration, locals and students from various schools and colleges in Maharashtra.

<https://dailypioneer.com/news/booming-guns-hovering-drones-armys-regiment-of-artillery-puts-up-spectacular-show-of-firepower>

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Pakistan carried out 15 lakh cyberattacks and nearly 30 million attacks on NSE during Operation Sindoor: Top Army Official

Source: The Statesman, Dt. 22 Jan 2026

STATESMAN NEWS SERVICE
New Delhi, 21 January

The Additional Director General (ADG) of Strategic Communications, Major General Sandeep Sharda, on Wednesday revealed that Pakistan launched a large-scale cyber and information warfare campaign against India during Operation Sindoor, carrying out nearly 15 lakh cyberattacks and approximately 30 million attacks on the National Stock Exchange (NSE) on 7 May.

Addressing the 22nd Subroto Mukherjee Seminar, General Sharda said that on the very first day of Operation Sindoor, Pakistan launched a coordinated attack to manipulate narratives through biased media reporting, doctored videos, and AI deepfakes.

"During the first day of the Operation Sindoor, you see

the biases, the reporting channels, what they want you to see.... Each one of them is putting out a certain story based on the editorial board they have... Deepfakes, doctored videos, lies through official channels themselves, through official channels, the press conferences....," he said.

He further stated that Pakistan also tried to strike with information which was being fed through a central agency there - the DGISPR. "There have been 7 APT groups, more than 15 lakh cyberattacks on the 7th of May, and approximately 30 million attacks on the National Stock Exchange on the first day itself. Pakistan deployed a large number of YouTube channels, ex-accounts, and government handles towards this spread of fake news."

According to General Sharda, a large number of accounts were used to



disseminate fake information within 30 to 40 minutes, and the language was nearly the same. More than 1 lakh videos were generated from the same 43 threads of a similar kind.

"They tried to influence through influencers," the General said, and cited the example of Jyoti Malhotra, a YouTuber arrested on charges of espionage.

"The Hindu Post took out documents of 15 instances of global media outlets spreading Pakistan's unverified claim... We traced their origins to a large number of Pakistani journalists embedded deep within various media houses and agencies over there. It continues," he said.

The officer said that this cycle of fake narratives and

AI videos has continued since then. "Even now, on 14th Jan, and even this morning, we have another doctored video circulating. And in the past four months, the ADG Stratcom itself has called out 217 deepfakes, of which 164 relate to the Army, the CDS 9, Chief of the Army Staff 23, the Chief of Air Staff 4, and the Chief of Naval Staff 3," he added.

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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
दैनिक जागरण
The Asian Age
The Pioneer