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# समाचार पत्रों से चयित 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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Tue, 28 May 2024

### रक्षा अनुसंधान के क्षेत्र में एडवांस्ड रिसर्च के लिए कानपुर IIT में बना DRDO का सेंटर ऑफ एक्सीलेंस

आईआईटी कानपुर में अब रक्षा अनुसंधान के क्षेत्र में नवाचार और बेहतर शोध कार्यों के लिए डीआरडीओ की ओर से पहली बार सेंटर ऑफ एक्सीलेंस की स्थापना की गयी है। इसके माध्यम से यह विभिन्न डीआरडीओ प्रयोगशालाओं के वैज्ञानिकों के प्रयासों के साथ, अनुभवी संकाय और प्रतिभाशाली विद्वानों के माध्यम से शैक्षणिक वातावरण में प्रौद्योगिकी विकास की सुविधा के लिए एक पारिस्थितिकी तंत्र का निर्माण करेगा। आईआईटी कानपुर के विशेषज्ञों का कहना है कि यह नया केंद्र प्रारंभ में कुछ खास क्षेत्रों में अनुसंधान और विकास क्षेत्रों में केंद्रित अनुसंधान का नेतृत्व करेगा।

इसमें महत्वपूर्ण ऐप के लिए पतली फिल्मों पर उपकरणों और प्रणालियों के निर्माण के लिए फ्लेक्सिबल सबस्ट्रेट्स पर प्रिंटिंग, सामग्री चयन और डिजाइन में मौलिक योगदान प्रदान करने के लिए उन्नत नैनोमटेरियल्स, उच्च प्रदर्शन वाले विस्फोटकों के मॉडलिंग और धातुयुक्त विस्फोटकों के प्रदर्शन की भविष्यवाणी पर ध्यान केंद्रित करने के लिए उच्च ऊर्जा सामग्री और खतरनाक अपशिष्ट को पहचानने से लेकर घाव भरने तक के ऐप के लिए प्रौद्योगिकी विकसित करने के लिए बायो-इंजीनियरिंग वाले प्रोजेक्ट्स शामिल हैं।

रक्षा क्षेत्र में प्रौद्योगिकी की उन्नति की जरूरत पहले से कहीं अधिक: इस सेंटर को लेकर आईआईटी कानपुर के निदेशक प्रो. मणीन्द्र अग्रवाल ने कहा कि बदलते समय के साथ, सही अर्थों में आत्मनिर्भर भारत बनने के लिए रक्षा क्षेत्र में प्रौद्योगिकी की उन्नति की आवश्यकता पहले से कहीं अधिक है। इसके लिए डीआरडीओ, शिक्षा जगत और उद्योग जगत को मिलकर काम करना होगा। डीआरडीओ द्वारा उद्योग अकादमी उत्कृष्टता केंद्रों की स्थापना इस दिशा में एक उपयुक्त कदम है।

लचीले इलेक्ट्रॉनिक्स, नैनोमटेरियल्स, सामग्री विज्ञान और इंजीनियरिंग, उच्च ऊर्जा और बायोइंजीनियरिंग में मजबूत अनुसंधान एवं विकास विशेषज्ञता और अत्याधुनिक सुविधाओं के साथ, आईआईटी कानपुर इस सहयोगात्मक प्रयास में योगदान देने के लिए तैयार है।

कई जरूरी प्रौद्योगिकियों के स्वदेशीकरण का मार्ग प्रशस्त करेगा: रक्षा अनुसंधान एवं विकास विभाग के सचिव और डीआरडीओ के अध्यक्ष डॉ. समीर वी कामत ने कहा कि यह केंद्र लंबी अवधि में विभिन्न महत्वपूर्ण प्रौद्योगिकियों के स्वदेशीकरण का मार्ग प्रशस्त करेगा. इससे रक्षा क्षेत्र आत्मनिर्भर और टिकाऊ बनेगा. इससे भविष्य की रक्षा प्रणालियों के लिए नई सामग्रियों के विकास में तेजी आएगी, जिसमें अन्यथा 10-15 साल लग सकते थे. उन्होंने कहा कि डीआरडीओ और आईआईटी कानपुर रक्षा क्षेत्र की दीर्घकालिक जरूरतों को पूरा करने के लिए पहचाने गए प्रौद्योगिकी डोमेन में सहयोगात्मक अनुसंधान करेंगे.

सेंटर ऑफ एक्सीलेंस रक्षा क्षेत्र की भविष्य की जरूरतों को पूरा करेंगे: डीआरडीओ के प्रौद्योगिकी प्रबंधन महानिदेशक डॉ. सुब्रत रक्षित ने कहा कि 15 शैक्षणिक संस्थानों में स्थापित डीआईए सीओई रक्षा क्षेत्र की भविष्य की जरूरतों को पूरा करने के लिए अनुसंधान एवं विकास केंद्र के रूप में काम करेंगे.

ये केंद्र डीआरडीओ वैज्ञानिकों के डोमेन ज्ञान, हमारे प्रीमियम शैक्षणिक संस्थानों में निहित अनुसंधान क्षमताओं और उभरती घरेलू रक्षा प्रौद्योगिकियों के व्यावसायीकरण के लिए हमारे उद्योगों के अभियान के साथ तालमेल बिठाने का काम करेंगे. यह उद्घाटन और पहली गवर्निंग काउंसिल की बैठक इस यात्रा में एक महत्वपूर्ण मील का पत्थर है.

<https://www.etvbharat.com/hi!/state/centre-of-excellence-in-iit-kanpur-for-advance-research-in-defence-filed-up-news-in-hindi-ups24052805866>

## THE TIMES OF INDIA

Wed, 29 May 2024

### **IIT-K, DRDO inaugurate centre of excellence in defence technologies**

The Indian Institute of Technology Kanpur (IITK) in collaboration with the Defence Research and Development Organisation (DRDO), has established a DRDO-Industry-Academia Centre of Excellence (DIA CoE) on its campus for interdisciplinary research in next-generation defense technologies. This is in line with the DIA CoEs set up by DRDO in key academic institutions in the country through which it is building an ecosystem to facilitate technology development in the academic environment through experienced faculty and bright scholars, in conjunction with the efforts of the different scientists from DRDO laboratories.

The new centre will spearhead focused research initially in identified research and development verticals. Sanjay Tandon, former director of Institute of Technology Management at Mussoorie, serves as the Director of DIA CoE at , overseeing its strategic initiative and collaborative endeavours. DRDO will fund the projects and establish key technical facilities and modern infrastructure require to enable and boost R&D programs under identified verticals.

The journey of establishment of DIA CoE at IIT Kanpur started in 2022 through a Memorandum of Understanding (MoU) signed during DefExpo-2022 at Gandhinagar.

Prof. Manindra Agrawal, Director of IIT Kanpur , emphasized the importance of the collaborative effort and said, “With the changing times, the need for advancement of technology in defence

sector is more than ever. For this, DRDO, Academia and Industry must join hands together. The establishment of Industry Academia Centres of Excellence by DRDO is an apt step in this direction. With the strong R&D expertise and state-of-the-art facilities in flexible electronics, nanomaterials, materials science and engineering, high energy, and bioengineering, IIT-Kanpur is well poised to contribute to this collaborative effort.” Dr. Samir V Kamat, Secretary Dept of Def R&D and Chairman DRDO, said, “The Centre will pave the path for indigenisation of the various strategic technologies in the long-term, making the defence sector self-reliant and sustainable. This will accelerate the development of new materials for futuristic defence systems, which may otherwise have required 10-15 years”.

<https://timesofindia.indiatimes.com/city/kanpur/iit-k-drdo-inaugurate-centre-of-excellence-in-defence-technologies/articleshow/110515576.cms>

## Defence News

## Defence Strategic: National/International

**ThePrint**

*Tue, 28 May 2024*

### **Indian peacekeeper Major Radhika Sen to receive UN Military Gender Advocate of the Year Award 2023**

Major Radhika Sen, an Indian military peacekeeper who served with the United Nations (UN) mission in the Democratic Republic of Congo, will be honoured with the 2023 UN Military Gender Advocate of the Year Award. Sen is the second Indian to win this award since its inception in 2016.

“Major Sen is a true leader and role model. Her service was a true credit to the United Nations as a whole,” said António Guterres, the Secretary-General of the UN, in a statement on Sen’s commendation.

He added, “In an escalating conflict environment in North Kivu, her troops actively engaged with conflict-affected communities, including women and girls... She earned their trust (...) doing so with humility, compassion, and dedication.”

Sen, a native of Himachal Pradesh, has studied biotechnology and joined the Indian Army in 2016. While pursuing her Masters at Indian Institute of Technology Bombay, she decided to join the armed forces. She will receive the award at a ceremony on 30 May, which is also being observed by the UN as the International Day of UN Peacekeepers.

She served as a part of the United Nations Organisation Stabilisation Mission in the Democratic Republic of Congo (MONUSCO) between March 2023 and April 2024, as the Commander of the MONUSCO's Engagement Platoon for the Indian Rapid Deployment Battalion (INDRDB).

The UN, in a statement, said that as a platoon commander, Sen "helped foster a safe space for men and women to operate together under her command", and was a "role model" for both men and women peacekeepers.

She served in the North Kivu province, where the March 23 Movement (M23) and the Islamic State-linked Allied Democratic Forces (ADF) have been on the offensive in the last few months. The M23, since February 2024, has been conducting an operation to capture the regional capital of Goma. The ADF has also been conducting raids across the province.

Sen helped facilitate English classes for children, and "health, gender and vocational training for displaced and marginalised adults", according to the UN statement. Her efforts "directly inspired women's solidarity, providing safe spaces for meetings and open dialogue", the statement added.

"As a gender advocate, she encouraged women in the village of Kashlira, near Rwindi town, to organise themselves to address issues collectively, advocate for their rights and amplify their voices within the community, in particular in local security and peace discussions," read the statement.

Expressing her gratitude for being selected for the award, Sen said, "This award is special to me as it gives a recognition to the hard work put in by all the peacekeepers working in the challenging environment of DRC and giving their best to bring a positive change in the society."

The first Indian to receive the award was Major Suman Gawani in 2019. Gawani served in the UN mission in South Sudan. Currently, there are 124 Indian women military peacekeepers deployed. New Delhi is the eleventh largest contributor to the force of women peacekeepers.

<https://theprint.in/defence/indian-peacekeeper-major-radhika-sen-to-receive-un-military-gender-advocate-of-the-year-award-2023/2105684/>



*Tue, 28 May 2024*

## **India to commission second nuclear submarine by end of 2024**

India's second nuclear-powered ballistic missile submarine (SSBN) will be commissioned in the next few months, Janes understands.

The vessel, which will be in service as INS Arighat once commissioned by end 2024, is going to be formally inducted almost seven years after it was launched.

According to Janes data, Arighat was launched in Visakhapatnam in November 2017. It has a length of 111.6 m, beam of 11 m, draught of 9.5 m, and a displacement of 6,000 tonnes.

Arighat is one of three SSBNs that have been launched by India. First-of-class INS Arihant was launched in July 2009 and commissioned in August 2016, while a third yet-to-be-named vessel was launched in November 2021.

Built at the Indian Navy's Ship Building Centre (SBC) in Vishakhapatnam, Arighat is powered by an 82.5 MW pressurised light water reactor (LWR) developed with Russian assistance. The submarine can achieve a top speed of 24 kt, and a surfaced speed of 10 kt.

The submarine is armed with 12 K-15 Sagarika submarine-launched ballistic missiles (SLBMs), developed by India's state-owned Defence Research and Development Organisation (DRDO).

Four large vertical launch system (VLS) tubes in the submarine carry these Sagarika SLBMs. Sagarika is a hybrid propulsion, two-stage, solid-propellant missile. The first stage lifts the missile to an altitude of about 4 km. The missile has a range of more than 700 km.

Arighat is built with Russian steel equivalent to US HY-80 grade. The submarine is divided into seven compartments, with main divisions for the propulsion and combat management systems, platform management centre, and the torpedo room.

Arighat also features a double hull, encompassing ballast tanks, two standby auxiliary engines, and a retractable thruster for emergency power and mobility.

<https://www.janes.com/defence-news/news-detail/india-to-commission-second-nuclear-submarine-by-end-of-2024>

# ThePrint

*Tue, 28 May 2024*

## **As Navy starts cost negotiations for Rafale M, India could learn from France**

The Indian Navy is set to formally start the cost negotiations with a French delegation on Thursday for the procurement of 26 Rafale Marine aircraft that will operate from its two aircraft carriers.

While all eyes are on how much the deal will eventually cost, ThePrint has learnt that it is likely to be close to Euro 4 billion, which comes to be a little less than Rs 40,000 crore. This will include the vanilla cost (bare cost) of the aircraft, besides missiles and maintenance contracts.

Sources in the defence establishment said that the Indian side invited the French side for the first round of talks Thursday. The French team will include officials from the defence ministry and industry, including original equipment manufacturers Dassault Aviation and Thales.

In December, ThePrint had reported that the Indian Navy has inched closer to getting 26 Rafale Marine aircraft, with France sending in a detailed bid and that a contract will be inked only after the general elections.

The sources said the focus is to ensure that the government-to-government contract is signed within this fiscal. This is because the delivery will begin only three years after signing the contract, which means it is imperative on the Indian Navy to sign the contract as soon as possible.

Asked if there was a provision for French handing over aircraft meant for its navy as emergency measures, the sources said that no such issue is being discussed as far the cost negotiations are concerned.

Talking about the cost negotiations, sources say that the final cost of the aircraft will be based on what the Indian Navy negotiators focus on. While the exact number is yet to be known, it can be bought cheaper if one follows the French operational concept.

Just like in France where the Navy and the Air Force operate the Rafale fighters, India will also do so since the IAF already has 36 of them. In France, the maintenance and stores for the Rafale is common, besides common simulators.

Similarly, if India decides to go in for common maintenance and stores, the cost of the overall contract can come down, a source explained, adding that the overall cost of the contract involves maintenance and infrastructure building contracts which are also significant.

The IAF has raised two Rafale squadrons — Hasimara and Ambala — which have their own stores and simulators.

Even at that time, many found it odd that the IAF would go in for two separate facilities when all the 36 Rafales could have been housed in one single base. However, since the IAF set up two separate bases, it was felt that this was done because the air force will be procuring more Rafales.

While the IAF is still looking for 114 Medium Multi Role Aircraft (MRFA), there is no forward movement on that.

As per the Indian Navy plan, it will be acquiring 22 single seater fighters and another four twin seaters. In August, ThePrint had reported that the Indian Navy was preparing to send bid papers to France but no joint acquisition was being planned.

Joint acquisition by the IAF and the Navy would have meant that the cost would have gone down and India would have another line of fighter aircraft manufacturing, besides the Tejas fighter. This is because Dassault would have then got the numbers to set up a production line in India.

<https://theprint.in/defence/as-navy-starts-cost-negotiations-for-rafale-m-india-could-learn-from-france/2105546/>



## **Basic principle of French Armed Forces is unicity of command: Gen Valentin**

The fundamental principle of the French Armed Forces is the “unicity of command”, a senior French Army officer said while highlighting the importance of joint military commands for France. Elaborating, General Valentin Seiler, Commander of the 6th Light Armoured Brigade of the French Army said a joint command enables to combine multiple components — land, air and sea as well as space and cyber — effectively to achieve the end result in a given area.

“That’s only possible with a joint command. When you go for an operation, it’s important to have the unicity of command,” he told The Indian Express in an interview. The French military has at least 10 joint commands, including major overseas bases such as New Caledonia, La Reunion, and French Polynesia, the General said.

Seiler was in India for the seventh edition of India-France joint military exercise SHAKTI, which concluded on Sunday at Umroi in Meghalaya. At present, the Indian Armed Forces are in the process of putting in place a final plan to establish integrated theatre commands. Last month, during an official trip of India’s CDS General Anil Chauhan to France, the French military officers had shared the country’s experiences with the former on how its military had transitioned into working under joint military commands, officials familiar with the matter said.

Addressing a query over the relevance of traditional warfare platforms such as tanks and artillery guns in context to the ongoing global conflicts such as the Russia-Ukraine war and the Israel-Palestine crisis, General Seiler said that they “still hold much relevance in modern wars”, even as he focused on the importance of newer technologies like drones in the battlefield.

<https://indianexpress.com/article/india/basic-principle-of-french-armed-forces-is-unicity-of-command-gen-valentin-9358020/>

## **India to start talks for 26 Rafale Marine jets: Here's all about the 'omnirole' naval fighter plane**

India and France will start contract negotiations for the Rs 50,000 crore deal for 26 Rafale Marine fighter jets this week. Earlier, the government has approved the acquisition of Rafale Marine fighter jets from France to equip its indigenous aircraft carrier, INS Vikrant.

## **Rafale Marine Cost and Capabilities**

The Rafale Marine, or Rafale M, was chosen over the American F/A-18 Super Hornets after rigorous testing at the shore-based test facility in Goa. One of the key advantages of selecting the Rafale M is its compatibility with the Indian Air Force's existing Rafale fleet.

This commonality is expected to reduce costs related to spares and maintenance, as both aircraft share about 80 per cent of their components. The primary distinction between the two versions lies in the reinforced nose and landing gears of the Rafale M, designed to handle the demanding

## **Rafale M Specifications**

The Rafale M, manufactured by Dassault Aviation, is a versatile, single-seat aircraft capable of performing a range of missions including air defense, nuclear deterrence, deep strikes, and reconnaissance. With a wingspan of 10.90 meters, a length of 15.30 meters, and a height of 5.30 meters, the Rafale M boasts a maximum take-off weight of 24.5 tonnes and can carry an external load of up to 9.5 tonnes. The aircraft can reach a maximum speed of 750 knots (1,389 kmph) and operates efficiently at altitudes up to 50,000 feet.

## **Rafale M Operational Capabilities**

The Rafale M can execute both air-to-ground and air-to-air missions simultaneously. Its mission system supports a variety of armaments including the long-range Meteor missile, MICA missiles, HAMMER, SCALP, AM39 EXOCET, and laser-guided bombs, along with a 2,500 rounds-per-minute NEXTER internal cannon. Dassault Aviation describes the Rafale as an "omnirole aircraft," capable of adapting to diverse combat scenarios and threats.

## **Rafale's Track Record**

The Rafale fighter has a proven track record with the French military. The initial variant, Standard F1, focused on air-to-air capabilities and was operational from 2004. Subsequent versions expanded its mission profile to include air-to-ground capabilities. The current Standard F3 variant has been in service since 2008. In early 2023, the French military began receiving the upgraded Standard F4 Rafale fighters.

<https://economictimes.indiatimes.com/news/defence/india-to-start-talks-for-26-rafale-marine-jets-heres-all-about-the-omnirole-naval-fighter-plane/articleshow/110498671.cms>



*Wed, 29 May 2024*

## **Indian Army set to get its first chief born after '62 war**

The next chief of the Indian Army, expected to be named by the new government around mid-June, will be the first four-star general born after the 1962 India-China war. The development is significant for the world's second largest army as it is likely to usher in a psychological generational shift that sheds the ghost of a year that was traumatic, some people aware of the

matter said on Tuesday, even while others maintained that it was merely symbolic, and that the army had already put the 1962 debacle behind it.

The current army chief, General Manoj Pande, was born on May 6, 1962, and was supposed to hang up his boots on May 31 before the government handed him a rare one-month extension, with the unexpected development deepening the suspense over who will be India's next army chief. The Appointments Committee of the Cabinet, headed by Prime Minister Narendra Modi, granted the extension under the relevant army rules on May 26.

A service chief can serve for a maximum term of three years or till the age of 62, whichever comes first. Pande will now retire on June 30 after holding the reins of the army for two years and two months. He is the first officer from the Corps of Engineers to hold the top position.

The top generals from among whom the government will choose Pande's successor were all born after the 1962 war that was fought over disputed territories in the Himalayas from October 20 to November 20. They were born in 1964 or later.

Successive Indian governments still haven't declassified the Henderson Brooks-Bhagat report on the reasons behind India's defeat in the 1962 war. To be sure, Australian journalist Neville Maxwell made portions of the report public in March 2014 by uploading it on the internet, triggering a fresh debate on the debacle and the events that led to it. The report practically held the entire civilian and military leadership responsible for driving the country into a war for which it wasn't prepared.

The date till which Pande has been granted extension is significant because it is the day the two senior-most generals believed to be in the running for the top post also retire. Army vice chief Lieutenant General Upendra Dwivedi is currently the senior-most officer after Pande followed by Southern Army commander Lieutenant General AK Singh.

Both generals were born in 1964 and are due to retire on June 30 on turning 60 (the age till which three-star generals serve). To be sure, a top officer can be appointed service chief even if he is retiring on the same day as the outgoing chief.

Dwivedi and Singh are followed in seniority by Northern Army commander Lieutenant General MV Suchindra Kumar, Central Army commander Lieutenant General NS Raja Subramani, Western Army commander Lieutenant General Manoj Kumar Katiyar, South Western Army commander Lieutenant General Dhiraj Seth, Army Training Command chief Lieutenant General Manjinder Singh and Eastern Army commander Lieutenant General Ram Chander Tiwari.

The next army chief, whoever he is, may have been born after the 1962 war, but he will still face the China challenge, the people said.

The army exorcised the ghost of that war many years ago and there is no question of the military leadership being haunted by it, said military affairs expert Lieutenant General DS Hooda (ret'd).

"However, there is a new China challenge on the borders that will require all of the new army chief's professional attention and deft handling with particular attention to building strong deterrence capability," Hooda added.

The dragging military standoff between India and China in eastern Ladakh has entered its fifth year, with no indication of an immediate resolution to the outstanding problems along the contested Line of Actual Control (LAC) even as India is hoping that ongoing negotiations with the neighbour will help restore the status quo ante of April 2020.

Indian and Chinese military commanders concluded the 21st round of talks on February 19, 2024. The corps commander-ranked officers agreed to continue the military dialogue and maintain peace, but there was no breakthrough.

Despite four rounds of disengagement from Galwan Valley, Pangong Tso, Gogra (PP-17A) and Hot Springs (PP-15), the Indian and Chinese armies still have tens of thousands of troops each and advanced weaponry deployed in the Ladakh theatre. Problems at Depsang and Demchok are still on the negotiating table.

When the UPA government was in power, the names of new service chiefs were announced around two months in advance. But the NDA government has made such announcements only a few weeks before the retirement of a service chief.

Successive governments have traditionally followed the seniority principle to appoint service chiefs, though there have been rare instances of senior-most officers being overlooked. The recent ones include the appointment of General Bipin Rawat as army chief in 2016 by the National Democratic Alliance government, and Admiral Robin Dhowan being made the navy chief in 2014 by the United Progressive Alliance government.

<https://www.hindustantimes.com/india-news/indian-army-set-to-get-its-first-chief-born-after-62-war-101716921367976.html>

# THE ECONOMIC TIMES

*Tue, 28 May 2024*

## **National Strategic Policy doesn't have to be written down: CDS Gen Chauhan**

Chief of Defence Staff General Anil Chauhan on Tuesday said that the absence of a written national strategic policy does not imply that the country lacks a strategic policy. Speaking at the release of book "Crafting a New Indian Art of War," Gen Chauhan contested the insistence on having a national security strategy in written format.

"When we talk about national security strategy, I believe it consists of policy, processes, and practices to succeed. In our country, probably all three are addressed. The only thing missing is a written policy. I don't know why people insist on that," Gen Chauhan said.

If we didn't have a policy, we wouldn't have succeeded as we did in revoking Article 370 from Jammu and Kashmir, he asserted.

Chauhan cited the "successful" combating of COVID-19 in a country of 1.4 billion people in support of his argument that India was not bereft of a comprehensive policy.

"If there was no strategy behind it, how did we achieve our goal? Even the Balakot airstrike and the Uri airstrike - if there was no strategy, how did we do it? So there is a strategy, but what is missing is probably a written document. And a written document actually doesn't count," he emphasised.

<https://economictimes.indiatimes.com/news/defence/national-strategic-policy-doesnt-have-to-be-written-down-cds-gen-chauhan/articleshow/110506959.cms>



*Wed, 29 May 2024*

## **India needs substantial defence investment**

**- by Ashok K Mehta**

India's Twin Challenges Warrant Active Deterrence: Achievable through Investment in Defence BJP's defence and national security manifesto is Modi ki guarantee for Surakshit Bharat. It launched a massive 15-day campaign to invite suggestions through face-to-face meetings and the NaMo app from around 10 mn supporters.

The election manifesto is immersed in Modi pictures and a surfeit of Modi ki guarantees. There is plenty the BJP is taking credit for. Eliminating terrorism though attacks occurred only last week in J&K. Cross Border Terrorism has a tragic history: attack on Parliament in December 2001 (under BJP rule) and Mumbai 2008 under United Progressive Alliance (UPA) dispensation. In 2001 BJP applied coercive diplomacy -Operation Parakaram- which was partially successful. In 2008 UPA exercised strategic restraint — doing nothing. Its zero tolerance for terrorism was demonstrated by Uri and Myanmar surgical strikes in 2016 and Balakot air strikes in 2019. These created deterrence against spectacular terrorism. BJP's claim of no attack in the last decade is wrong: terrorists struck at Pathankot, Pulwama and Uri Brigade Headquarters and 2950 civilians and security forces were killed in terrorist-related incidents between 2014 and 2023.

BJP's inventory of achievements is impressive: revocation of Article 370, 52 per cent reduction in Left Wing Terrorism, with Home Minister Amit Shah declaring it will be crushed within three years. There is an overall decline of 73 per cent in the insurgency in the northeast but no mention of Manipur where violence has continued for one year and repolling ordered twice. Manipur, a serious embarrassment for the Government will reignite insurgency.

Given the violent situation on the India-Myanmar border, with the Junta fighting a losing battle with rebels, Myanmar will present a major threat to the North East. Hailing CDS as an achievement, the BJP emphasised the completion of theorisation soonest. Further infrastructure development in the northern borders is matched by a thrust towards the security of the Indian Ocean Region. Defence manufacturing and Atmanirbharta figure prominently under Making India a Global Manufacturing Hub. There is no mention of China or Pakistan and dealing with the twin

threats they pose even as the opposition has attacked the Government for loss of territory in east Ladakh which the Government has denied emphatically. Clean chit to China will resolve the border dispute on India's terms difficult if not impossible. Restoration of status quo ante (April 20, 2020), demanded by successive Army Chiefs, is also not realizable. The lack of political guidance to the Armed Forces is a major deficiency. The first indication in four years that agreement on theorisation is nearing came from RM Rajnath Singh this month.

Leaving it to the CDS whose operational role is unclear to obtain consensus on the allocation of resources, the job profile of service Chiefs when theatre commanders are in place and operational command and control of theatres is unworkable without inputs from RM and NSA to CDS. Equally, NSA Ajit Doval and the National Security Council Secretariate have to update the National Security Strategy submitted by Integrated Defence Staff in 2021. Surprisingly, the Government has not taken these two interlinked issues — Theatrisation and NSS— seriously enough. Speculation is rife these will happen within one year of BJP 3.0. During the UPA rule, NSS was prepared thrice. The issue most befuddling is the static of defence spending on which the 2024 BJP manifesto is silent.

The Congress on the other hand has Stated in its current manifesto that it will arrest the decline in defence spending and allocate sufficient funds. Sufficiency of funds is a challenge no Government has addressed.

Defence allocation has plummeted from a high of 3.5 per cent in Congress rule in the late 1980s when I was a member of the Defence Planning Staff to less than 2 per cent today even when the GDP has risen exponentially. The latest SIPRI report shows India's defence budget is USD 84bn compared to China's USD 296 bn. In defence allocation, for 2024-25, defence outlay was increased by 4.7 per cent which is the lowest in ten years (except in 2020-21) when it was 1.45 per cent of the GDP. As a percentage of GDP defence spending has not reached even 2 per cent at a time when two full-fledged wars are being fought along with several skirmishes. The capital budget for modernisation best illustrates the parsimony: the gap between the amount demanded and the amount allocated in 2015-16 was Rs 16,646 crore while in 2022-23 it rose to Rs 63,328 crore. Government officials offer the perennial excuse that defence forces can't spend the money. Amit Cowshish who was financial advisor (Acquisition) a decade ago says the 1.9 per cent of GDP in the current fiscal is 13 per cent of Government expenditure. A defence spending budget which is 3 per cent of GDP alone can begin to catch up with China in military capability.

The rest of the world is investing hugely in defence with 31 Nato nations committed to reaching 2 per cent of GDP with the UK pledging to reach 2.5 per cent of GDP by 2027. Even pacifist Japan has decided to put aside the 1 per cent spending on defence constitutional limitation and will spend 2.5 per cent of GDP by 2027 and invest USD 315 bn to augment capabilities and deterrence. The capital cost of catheterisation and attendant reforms have to be factored in. Modi has to bite the bullet to deter China and with Jaishankar try to make the twin threat challenge one-front. Modi's This is not the era of war is day-dreaming!

<https://www.dailypioneer.com/2024/columnists/india-needs-substantial-defence-investment.html>

## **Army Expo brings together Coimbatore industry, academia, and Defence forces**

Display of arms and equipment used by the Army, drills by soldiers, band performance in the open theatre, and talks on how MSMEs can supply to Defence forces marked the first day of Army Expo (Southern Star Army Academia and Industry Interface) organised at the CODISSIA Trade Fair Complex in Coimbatore city on May 28, 2024

The two-day exhibition has the MSMEs of Coimbatore displaying their engineering capabilities and the Army exhibiting its requirements. Defence exports from the country crossed ₹21,000 crores in 2023-2024, and are expected to touch ₹50,000 crores by 2028-2029, said G. Satheesh Reddy, former Chairman of DRDO and president of the Aeronautical Society of India. “Ideas (of the Defence startups) should be globally competitive,” he said. In a couple of years there will not be a Defence system without artificial intelligence. Cyber security is also very important now. Coimbatore has a major role to play in this growth of the Defence sector, he added. “This event (Army Expo) is basically to get the Army, the industry and the academia together to build an ecosystem in south India,” said Lieutenant General Karanbir Singh Brar, General Officer Commanding, Dakshin Bharat Area.

The DRDO laboratories, Defence public sector undertakings, startups, the MSMEs and some of the top educational institutions are located in south India. “There is enough capability. We need to get the system going,” he said. Under the Make In India, the users (Defence forces) explain their requirements to the industry and mentor them so that the product developers reach a stage where the product can be put on field. Technology is impacting wars with communications, drones, machine learning and artificial intelligence, he added. Similar events were held in Bengaluru, Chennai, Hyderabad, and Thiruvananthapuram. “This can become a yearly event,” he added. According to Mr. Brar, Coimbatore should become a centre of excellence for the Defence Make in India. Major General K. Narayanan, (retired), senior consultant of the NITI Aayog, said the country has 1.17 lakh startups and execution of ideas is the challenge for the startups.

The Atal Innovation Mission is working at school and college levels and at underserved regions to encourage startups. The Director of CODISSIA Defence Innovation and Atal Incubation Centre, V. Sundaram, said the Centre has 23 startups and 15 more are ready to be onboarded. It has signed an agreement with SIDBI, which has so far invested ₹ 2 crore as equity in the startups. The Indian Army soldiers performed rescue, MMG and mortar drills and staged band performances. Entry is free for the public for the exhibition.

<https://www.thehindu.com/news/cities/Coimbatore/army-expo-brings-together-coimbatore-industry-academia-and-the-defence-forces/article68225217.ece>

## **IAF Rafales To Join US Air Force For Red Flag Exercise In Alaska**

Eight Rafale fighter jets of the Indian Air Force (IAF) are flying off to Alaska to take part in the Red Flag Exercise with pilots of the US Air Force. A large team, including over 20 officers, are involved in the exercise, which is for NATO countries, other allies of the USA and partners, like India.

The eight Rafales (a substantial number for an exercise) will joust with the USAF's F-15 and F-16 fighters over a fortnight. India has two squadrons of Rafales (or 36 war planes) and elements of both will be present. As a senior official said, it would mean "fifteen days of intensive flying in a realistic environment", and clearly, a learning experience for both sides.

The Japanese Self Defence Force has been involved and after the Indian contingent finishes its gig, the German Air Force will be there. On their way back, the Rafales will split up in groups of four—one going to Egypt and the other to Greece. The Hellenic Air Force as well as the Egyptians are formidable—both have the F-16 and the Rafale.

Both exercises, as well as Red Flag, will give IAF pilots the opportunity to check out the F-16, which the Pakistan Air Force has. Exercises are, of course, about preparedness, but they are also about military diplomacy.

The Red Flag effort is just more evidence of the close ties India and the United States of America have. Egypt is one of India's oldest friends and Greece (the prime ministers of the two countries have exchanged visits within a few months) is a new strategic partner.

<https://www.timesnownews.com/india/iaf-rafales-to-join-us-air-force-for-red-flag-exercise-in-alaska-article-110503915>



## **The bigger plan behind the Army chief's extension?**

The appointments committee of the cabinet has given current army chief General Manoj Pande a one-month extension. General Pande was scheduled to retire on May 31. He will now retire on June 30. There are a number of candidates who have the seniority and the experience to replace General Pande. But why has he got an extension? What is the bigger objective behind it?



The bigger plan behind the Army chief's extension? Let's begin with the past. It isn't every day that such an extension happens. An army chief has got an extension only two times before this. What's the precedent for such an extension? It has happened just twice before this. Field Marshal Sam Manekshaw was to retire on June 30, 1972. But the government gave him a six-month extension in recognition of the Indian Army's victory in the December 1971 India.

In 1975, the government gave Field Marshal Manekshaw's successor, General GG Bewoor, a one-year extension in service. This was so that Lt General Prem Bhagat, the next seniormost in line after General Bewoor, would not become army chief.

### **How is the chief of the world's second largest army selected?**

The appointments committee of cabinet picks a candidate from one of the four senior-most army commanders. In most cases the seniormost general is appointed army chief. But this is not binding. In the past the government has overlooked seniority twice. In July 1983, the government chose General AS Vaidya as army chief over his senior colleague Lt general SK Sinha. On December 17, 2016, the government appointed General Bipin Rawat the army chief,

Let's look at the frontrunners to replace General Pande when he retires.

Who are the frontrunners to replace General Pande? In order of seniority, they are- the current vice chief Lt General Upendra Dwivedi, the Southern Command Chief Lt General AK Singh and GoC-in-C Northern Command Lt General Suchindra Kumar. The other contenders are Central Command chief Lt General Raja Subramani and Lt Gen JP Mathew, Chief of Integrated Defence Staff to the Chairman Chiefs of Staff Committee. Both Generals Dwivedi and Singh retire on June 30. But this doesn't mean they are not contenders. The government has in the past pulled off surprises. Air Chief Marshal RKS Bhadauria was appointed air chief on the day he was to retire— 30 September 2019.

What is the government's larger objective behind the extension? India is witnessing a marathon seven-phase election. Did the government want to wait till the elections end? Well, nobody is sure about this extension. When it comes to convention and service rules, there appears to be no recent history behind this mystery.

<https://www.news9live.com/india/news9-plus-decodes-the-bigger-plan-behind-the-army-chiefs-extension-2553627>



*Tue, 28 May 2024*

## **How failed spy satellite launch works in North Korea's favour: 'Tried new fuel'**

North Korea's latest military reconnaissance satellite launch ended in failure as the rocket exploded and fell into the Yellow Sea shortly after liftoff. Analysts say it shows progress in the country's space ambitions despite the setback.

### **Analysts suggest Russia hand**

While the rocket remains unnamed and no photos were released, analysts believe it differs from the Chollima-1 used in previous successful launches. The Chollima-1, which also had explosive test failures, uses hypergolic fuels that ignite on contact and are typically used in North Korea's nuclear missiles, which do not use liquid oxygen due to storage temperature challenges.

The new engine type may indicate Russian assistance, as Russia has previously vowed to help North Korea's satellite programme. Liquid oxygen engines, like those developed by Russia, require specialised storage and handling due to extremely low boiling points.

### **Why North Korea would test new fuel?**

The shift to a new engine type might allow North Korea to differentiate its civilian space program from its missile program, which is banned by the UN Security Council. Russian experts have reportedly visited North Korea to aid in this effort, though the specifics of their assistance are unclear.

Analysts suggest that with proper data analysis from the failed launch, North Korea could attempt another launch soon.

<https://www.hindustantimes.com/world-news/how-failed-spy-satellite-launch-works-in-north-koreas-favour-tried-new-fuel-101716879739125.html>

## **Science & Technology News**

# **THE ECONOMIC TIMES**

*Tue, 28 May 2024*

## **Thapar Institute to submit proposal to Isro to launch its first student satellite 'Thaparsat'**

Thapar Institute of Engineering and Technology (TIET) on Tuesday said it will soon submit a proposal to Indian Space Research Organisation (Isro) for launching of its first student satellite 'Thaparsat' to monitor pollution in north India. The Thapar satellite program aims to monitor environment issues and real-time pollution levels in Punjab and the northern region of India, a statement said.

Taking a step towards imparting experiential education to its students in engineering and technological development involved in satellite building and space missions, the Thapar Institute of Engineering and Technology started the Thapar Satellite Program four years ago, it stated.

The purpose of the satellite is to monitor real-time pollution caused by greenhouse gases like carbon dioxide, methane and nitrous oxide and to measure soil moisture content in northern India.

A proposal to start the launch process will soon be submitted to Isro by the TIET team, it said. The Thapar Satellite Program team was led by Mamata Gulati, Professor, Thapar Institute of Engineering and Technology, Patiala.

<https://economictimes.indiatimes.com/news/science/thapar-institute-to-submit-proposal-to-isro-to-launch-its-first-student-satellite-thaparsat/articleshow/110497088.cms>



Wed, 29 May 2024

## **India to discuss new research station in Antarctica at Kerala climate meeting**

India will discuss the new research station it wants to build in Antarctica at the 46th Antarctic Treaty Consultative Meeting (ATCM) being held in Kochi between May 20 and 30 . Over 350 researchers and officials from nearly 40 countries are expected to attend the meeting.

“The Maitri research station built in 1989 is old and we wish to have a new station there. This is important for our research team. So we will discuss this proposal and seek approval from member states,” said M Ravichandran, secretary ministry of earth sciences (MoES). But, overall, the most important agenda of the meeting tracking climate change impacts, past climate assessments and better monitoring of climate impacts, he added.

The meeting will also see the first-ever discussions on regulating tourism in Antarctica. “Tourism needs to regulated in Antarctica. India is driving discussions on this. We need to regulate the number of visitors, areas that can be accessible, areas that need to be protected, seasons when tourism can be allowed and how whereabouts of visitors can be effectively and continuously monitored. We believe this is very important for Antarctica’s ecology,” said Ravichandran. India’s proposal is being backed by like minded European nations especially Netherlands.

Another issue that is likely to be discussed is giving consultative status to Canada and Belarus who can then have voting rights in the Treaty. Antarctic Treaty is a multilateral agreement of 56 Contracting Parties signed in 1959. India has been a Consultative Party to the Antarctic Treaty since 1983 along with 28 other countries.

“India has a crucial role in governing Antarctica’s scientific exploration and environmental protection. It has the right to propose and vote on decisions and resolutions made during the ATCM in matters of administration, scientific research, environmental protection, and logistical cooperation. Further, it can establish research stations, conduct scientific programs and logistic operations, enforce environmental regulations and access scientific data and research findings shared by Antarctic Treaty members. The Contracting and Consultative Parties are responsible for compliance with the Antarctic Treaty, environment stewardship, promoting scientific research, and maintaining Antarctica as a zone of peace, free from military activity and territorial claims. The ATCM is administered through the Antarctic Treaty Secretariat headquartered in Argentina,” MoES said in a statement on May 21.

“India, being a committed member of the Antarctic Treaty System, recognizes the pressing need to address the growing tourism activities in Antarctica and their potential impact on the continent’s fragile environment. With the number of tourists visiting Antarctica increasing significantly over the past few years, tourism has become a front-burner issue, making it crucial that comprehensive regulations be framed to ensure the sustainable and responsible exploration of this unique and pristine region,” it added.

Ravichandran further highlighted that India has advocated for a comprehensive, proactive, and effective tourism policy anchored in precautionary principles. Discussions around regulating tourism have been ongoing in ATCMs since 1966, but these have been agenda items, sessions, papers, or resolutions. A dedicated working group for regulating tourism in Antarctica has been formulated for the first time at the ongoing 46th ATCM, hosted by India.

Thamban Meloth, Director of National Centre for Polar and Ocean Research (NCPOR) said that India has a legal framework to regulate activities in Antarctica, including tourism, through the Indian Antarctic Act enacted in 2022. “The Indian Antarctic Act aligns India’s tourism regulations with international standards and collaborates with other Antarctic Treaty nations to achieve common conservation goals,” he said in the MoES statement.

<https://www.hindustantimes.com/india-news/india-to-discuss-its-new-research-station-in-antarctica-at-kerala-climate-meeting-101716924728886.html>

