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**Press Information Bureau  
Government of India**

**Ministry of Defence**

*Fri, 13 Oct 2023*

## **DRDO Special Campaign 3.0: Reducing Pendency and Promoting Efficiency**

DRDO is committed to reduce pendency in terms of MP references, Public Grievances, PMO references during the SCDPM 3.0. The Campaign started from 2 October, 2023 and will continue up to 31 October 2023 to achieve the major targets of SCDPM 3.0.

### **Some of the major initiatives taken are:**

Directorate of Parliamentary Affairs, Rajbhasha and O&M for prompt response to MP references.

Constitution of standing committee for prompt action on receipt of public grievances.

Reviewing and Weeding out of Records.

Microfilming & Digitization of Category A, B and C records.

Disposal of Scraps.

The campaign is regularly monitored by Secretary DD (R&D) & Chairman DRDO and it is simultaneously taken up by all DRDO Labs and Centres across the India.

### **Some of the major achievements are:**

Freed up physical space

Revenue earned from disposal of scrap

Cleanliness inside and outside the office space.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1967406>

**INDIA  
TODAY**

*Mon, 16 Oct 2023*

## **India-made Light Combat Aircraft Mark 1A to be Equipped with Indigenous Systems**

Amid the government's push towards indigenisation in the military, the Indian Air Force (IAF) will equip its made-in-India Light Combat Aircraft (LCA) Mark 1A fighter jets with 'Uttam' radar and 'Angad' electronic warfare suite, replacing the imported systems installed earlier.

The IAF has already commissioned 83 LCA Mark 1A fighter jets, with plans to order an additional 97 in the near future. "The Uttam Active Electronically Scanned Array radar and Angad electronic warfare suite are in the advanced stages of development. They will be ready for integration with the LCA Mark 1A aircraft soon," defence officials told [Indiatoday.in](https://www.indiatoday.in).

The current replacement plan, starting from the 41st aircraft in the order of 83 LCA Mark 1A fighter jets, includes an Indian-made electronic warfare suite and AESA radar. Different laboratories of the Defence Research and Development Organisation (DRDO) are executing the projects.

The 'Uttam' radar, currently in the development phase, has presented very promising results and is also being contemplated for use in high-end fighter jets.

The move to retrofit the LCA with home-grown weapon systems is expected to save millions in foreign exchange while simultaneously creating employment opportunities in the defence sector.

In line with the IAF plans, these made-in-India aircraft will replace the ageing MiG-series fighter jets in its fleet, sources said. They suggested that these plans have been submitted to the Defence Ministry and other relevant stakeholders in national security.

Indian Air Force Chief Air Chief Marshal VR Chaudhari recently held a review meeting with all affiliated parties, including Hindustan Aeronautics Limited (HAL), regarding the indigenous fighter jet programme.

<https://www.indiatoday.in/india/story/iaf-mark-1a-equipped-indigenous-systems-uttam-angad-radar-warfare-suite-air-force-2449417-2023-10-16>



*Sat, 14 Oct 2023*

## **Applications of Industry 4.0 Concepts Focus on Advanced Modules**

Naval Science and Technological Laboratory (NSTL) featured a five-day continuing education programme on 'Applications of industry 4.0 concepts'. This course has advanced modules such as smart manufacturing, additive manufacturing, robotics, Internet of Things, augmented reality, etc., which were delivered by eminent personalities from IITs, universities and industries.

The course laid emphasis on the importance of adopting industry 4.0 elements to develop world-class weapons and bridging the technology gap with advanced nations. Distinguished Scientist and Director General (Naval Systems and Materials) Y Sreenivas Rao highlighted that Industry 4.0 concepts are very much required to progress towards 'Atmanirbharata Bharat' and suggested all the employees to hone their skills in advanced concepts to contribute positively in the development of DRDO and nation.

Outstanding Scientist and Director NSTL Abraham Varughese motivated employees to upgrade knowledge in such concepts on a regular basis to meet project deadlines. Scientist-F and Course Director S Madhu Kiran has initiated and imparted training to DRDO employees on Industry 4.0 concepts to make the workforce aware of cutting edge defence technologies.

<https://www.thehansindia.com/news/cities/visakhapatnam/applications-of-industry-40-concepts-focus-on-advanced-modules-829787>

## Pune: DIAT Professors in Ranking of Top 2% Scientist of Stanford University Ranking 2023

Defence Institute of Advanced Technology (DIAT), Pune under the aegis of DRDO is committed in creating a centre of Excellence for Education, Training, research in contemporary and futuristic Technologies by way of continual improvement and consistent Innovation in Defence.

The Stanford University, US for 2023 released ranking of top 2% Scientist around the world who are experts in their technical domains. Though there were various challenges in publishing Defence related technologies, 4 faculty members of DIAT (DU) were featured in the report in the verticals of Materials (Prof. Balasubramanian K.), Chemical (Prof. P. K. Khanna and Prof. P. Kulkarni) and Electronics Engineering (Dr. Basil Raz).

Recently, faculty members of DIAT were also felicitated by Fellow of Royal Society of Chemistry (UK) and Fellow of Indian National Academy of Engineers. DIAT(DU), is evolving as Unique Research University to develop indigenous contemporary Defence related technologies, secured 57th rank in the recent NIRF ranking of MHRD.

On this achievement, Dr. C. P. Ramanarayanan, Vice Chancellor, DIAT quoted that the institute is geared up to work as a big team for accomplishing security of the Nation through Atmanirbhar Bharat.

<https://www.punekarnews.in/pune-diat-professors-in-ranking-of-top-2-scientist-of-stanford-university-ranking-2023/>

Defence News

Defence Strategic:  
National/International



Press Information Bureau  
Government of India

Ministry of Defence

Sat, 14 Oct 2023

## Coastal Security Exercise – East Coast : SAGAR KAVACH 02-23

A two-day comprehensive Coastal Security Exercise Sagar Kavach 02/23 involving all maritime security agencies was conducted by the Indian Navy in Andhra Pradesh, Tamil Nadu and the UT of Puducherry from 11-12 Oct 2023. The exercise was executed under the aegis of the Flag Officer

Commanding-in-Chief Eastern Naval Command, FOCINC (East) who also exercises the authority of Commander-in-Chief, Coastal Defence (East). About 2500 personnel from the Indian Navy, Coast Guard, State and U/T Administration, Marine Police, Fisheries, Customs, Intelligence Agencies, Light Houses, Ports Forest etc were engaged in the exercise.

The exercise aimed to assess the efficacy and robustness of the coastal security mechanism while dealing with asymmetric threat emanating from the sea. Indian Naval Ships along with assets of the Coast Guard and other coastal security agencies were deployed to augment surveillance in the area. Enhanced security measures were instituted and extensive aerial surveillance undertaken by Dornier aircraft and helicopters operating from Visakhapatnam, Chennai and Ramnathapuram. The exercise was closely monitored at Joint Operations Centre (East) at Visakhapatnam which is the nodal hub for all coastal security operations and exercises in the area of operations.

The exercise witnessed close coordination and synergy among all coastal security stakeholders. Lessons learnt from the exercise would be incorporated to strengthen the coastal security architecture.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1967695>



**Press Information Bureau  
Government of India**

**Ministry of Defence**

*Sat, 14 Oct 2023*

## **Army Commanders Conference, Set to Commence from 16 October 2023**

The Army Commanders' Conference is scheduled from 16th to 20th October 2023 in New Delhi. An apex-level biannual event, it is an institutional platform for deliberations at the conceptual level, facilitating important policy decisions for the Indian Army.

In continuation with the new format adopted this year, the upcoming Army Commanders' Conference is also being conducted in a Hybrid format wherein Army Commanders and other senior functionaries will meet virtually on the first day followed by remaining deliberations being conducted in a physical format.

Shri Rajnath Singh, Hon'ble Raksha Mantri is scheduled to attend the conference on 18th October 2023. General Anil Chauhan, Chief of Defence Staff, General Manoj Pande, Chief of the Army Staff and Air Chief Marshal VR Chaudhari, Chief of the Air Staff will address the gathering. Dr Ajay Kumar Sood, Principal Scientific Adviser to the Government of India will also deliver a talk on "Leveraging Technology for National Security".

The apex leadership will brainstorm current/ emerging security scenarios besides reviewing the operational preparedness of the Indian Army. They will also delve into pivotal subjects including review of the ongoing transformation process, training matters, HR management aspects and issues impacting serving personnel and veterans. The Army Commanders' Conference, with its broad scope, ensures the Indian Army remains progressive, forward-looking, adaptive, and future ready.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1967655>

## IAF may Hold Air Show in Arunachal: Air Marshal Dharkar

The Indian Air Force (IAF) may conduct an air show in Arunachal Pradesh, the first-ever such display of the force's air power in the strategically crucial state bordering China, Air Marshal SP Dharkar said on Sunday. The AOC-in-C of the Eastern Air Command told reporters that it's challenging to hold an air show in a hilly terrain like that of Arunachal Pradesh, but it is still an "interesting" idea for the force to have an air show there.

Dharkar was responding to a query if the IAF will ever conduct an air show in Arunachal Pradesh to display its prowess to the common people.

"It's an interesting proposition, I am sure we will look at it," he added.

Dharkar said, "May be you will cover the next air show that we will hold in some locations in Arunachal Pradesh in the near future."

The Indian Air Force on Sunday organised an air display at Borjhar station involving various choppers and fighter aircraft like Sukhoi-30 and Rafale.

<https://timesofindia.indiatimes.com/india/iaf-may-hold-air-show-in-arunachal-air-marshal-dharkar/articleshow/104444378.cms>



## Study Estimates Count of UAVs Required for the Three Services

The Chief of Defence Staff (CDS) Gen Anil Chauhan recently ordered two studies to be conducted on major military platforms used by all three services. According to defence sources these platforms are Unmanned Aerial Vehicles (UAV) and armoured helicopters. The study on UAVs has since been completed with a recommendation to acquire 31 MQ-9B High Altitude Long Endurance (HALE) UAVs and 155 Medium Altitude Long Endurance (MALE) UAVs.

"The studies, undertaken by triservice teams, are meant to optimise the number of platforms required as well as the resources and avoid duplication," a defence source with knowledge of the matter explained. "The first study was conducted in August-September and the report has been finalised. For the second study, the Terms of Reference are currently being finalised and the study is expected to begin in a month of two," two sources independently confirmed.

"The broad outcome of the study on UAVs was a requirement for 31 MQ-9B HALE UAVs and 155 MALE UAVs. While the deal for MQ-9Bs is in progress, the division of the 155 MALE UAVs between the three services is yet to be decided," the second source stated.

### Upgrade of Heron UAVs

The three services operate a large number of Israeli Heron MALE UAVs. A major upgrade to weaponise and incorporate satellite communication on these UAVs, estimated to cost ₹21000

crore, has been pending for several years. Following the study, officials have expressed confidence that this will now get cleared.

In June, the Defence Ministry cleared the procurement of 31 MQ-9B UAVs from General Atomics, 15 Sea Guardians for the Indian Navy and 16 Sky Guardians – eight each for the Indian Army and Air Force, at an estimated cost of \$3,072 million through the US Foreign Military Sales route.

Last month, just ahead of talks between Prime Minister Narendra Modi and US President Joe Biden on the sidelines of the G20 summit, the Defence Ministry issued the Letter of Request (LoR) to the US Government. Based on LoR, the US Government and MoD will finalise the Letter of Offer and Acceptance (LOA) where details of equipment and terms of the procurement would be negotiated and finalised.

### **Army to get Apaches**

The Indian Air Force has traditionally been responsible for operating attack helicopters. Over the last decade, the Army has sought to operate attack helicopters on its own in support of its strike formations. Army Aviation recently inducted the first batch of Light Combat Helicopter (LCH).

Both Army and IAF are inducting the initial batch of 15 LCH. A bigger deal for 156 LCH, 90 for the Army and 66 for the IAF, estimated to cost ₹45,000 crore is awaiting Government approval.

The Cabinet Committee on Security has already given in-principle sanction for procurement of 39 AH-64 Apache attack helicopters from the US. The IAF has since inducted 22 AH-64E Apaches under a deal signed in September 2015. At this point the Government decided that any further Apache procurements would go to the Army. India signed a deal for six more Apaches, for the Army, at a cost of around \$800mn in February 2020 and the Army will also start receiving them from February 2024.

The Army has been pushing a case for 11 more Apaches and preliminary discussions are on with Boeing. With the study on armoured helicopters due, sources said progress on additional Apaches would be based on the outcome.

<https://www.thehindu.com/news/national/acquisition-of-unmanned-aerial-vehicles-for-tri-services-proposed/article67423853.ece>



*Fri, 13 Oct 2023*

## **NSG to Develop National-level IED Management Software to Share Real-time Inputs: NSG Chief**

The National Security Guard (NSG) is in the process of developing national-level Improvised Explosive Device (IED) management software to facilitate national and select international partners, dealing with IEDs to be connected and share relevant inputs in real-time, the Director General of National Security Guard (NSG) MA Ganapathy said.

He was speaking at the two-day seminar that concluded on Friday and organised on 'Sub-conventional threats: challenges and prospects for definite and enduring solutions' at DRDO Bhawan in Delhi.

The first day of the seminar was devoted to 'Sub Conventional Threats Challenges and Prospects for Definite and Enduring Solutions'. It was upon the response mechanism of security forces to



terror threats and issues related to Left Wing Extremism followed by a breakout session between NSG and State Special Forces.

The second day exclusively deliberated on exploiting technology to mitigate IED threats and the use of forensics in the detection and neutralisation of IEDs.

Ganapathy said that as the counter IED session is concerned, the focus of the seminar would be on the latest trends and counter strategies that need to be adopted with a view to shaping their response in terms of refining mechanisms in the detection, identification, and neutralisation of IEDs.

He added that NSG is in the process of developing national level Improvised explosive device (IED) management software known as NIDMS, National IED Data Management System, which will facilitate national and select international partners, dealing with IEDs to be connected and share relevant inputs in real-time.

"It is an endeavour that the seminar must manifest in coming out with some specific key takeaways in terms of exchanges, operational and tactical level to achieve synergy in the current terrorist response mechanism and refinement in training and integration of technology and operations to neutralise the terrorist threats while minimising own casualties and damage.

During the counter-IED session, senior officers of security and intelligence agencies were also enlightened with the views of the experts who are closely associated with research and employment of artificial intelligence and forensics, in the detection and identification of IEDs.

"In the present day context, there's a growing need to gainfully exploit technology during post-blast investigations, which will be a stepping stone to find long-term solutions to negate the IED threats and present concrete evidence that will assist in prosecution," he said.

The seminar aimed to find some enduring solutions to sub-conventional threats from each other's experiences and recommend an effective and synchronised response mechanism by the responders at all levels. It also aims to build synergy between Defence Forces, CAPFs, State Special Forces, ATS, and Investigation Agencies to deter any terror incident.

<https://www.aninews.in/news/national/general-news/nsg-to-develop-national-level-ied-management-software-to-share-real-time-inputs-nsg-chief20231013165422/>



*Sat, 14 Oct 2023*

## **Chief of Defence Staff Flags Global Changes Creating Uncertainty, Volatile Environment**

Chief of Defence Staff General Anil Chauhan on October 14 said the ongoing geo-political, economic and technological changes are creating uncertainty in the world, and an environment that is volatile, complex and ambiguous.

He said nations are preparing themselves for this uncertain kind of future and it is reflective in most of their national security strategies and defence spending.

The CDS delivered the 14th Air Chief Marshal LM Katre Memorial Lecture organised by Air Force Association (Karnataka Branch), in association with Hindustan Aeronautics Limited (HAL) in Bengaluru.

"If you have a look at national security strategies, countries such as Japan, France, Germany, (the) U.K., Poland, South Korea, Bangladesh and many others have revived their national security

strategies. They actually revived at the time of the Ukraine conflict, but now bigger change is happening in the Middle East," Mr. Chauhan said. "If you look at defence spending of most of these nations they have expanded, almost doubled it up," he pointed out. "Whether the defence industry globally is ready to meet the demand of these nations, that remains to be seen," the CDS said.

"This is where I say, lies a bit of opportunity for us. The environment which is shaping creates an opportunity for the defence industry for the future." Pointing to the change in the nature and character of warfare, which is technology driven, with domains such as space and cyber he said, "we have to be prepared for it."

"The change which is happening is inevitable and India, like others, is at the major crossroads of history and actions that we take today will define India's status in the next 25 years," Mr. Chauhan said.

He also said, "when we look at the military preparedness of the nation, we are looking at a strong Army, navy and air force, also space and cyberspace." Averring that currently the global geo-political environment is in a state of flux, the CDS said, "in fact the world will be transiting between two orders, the old order is withering away, and the shapes and contours of the new world order are yet to stabilise. To predict how it will be in the times to come will be rather difficult."

Explaining about the current geo-political environment, he said that he feels that the geo-political importance of Russia will go down in times to come, in spite of it being a major nuclear power.

"China presently occupies an important place in the geo-economic world order, it was the fastest growing economy, and its economic lift is now visible in the political domain and diplomatic domain also — with them brokering a rapprochement between Saudi and Iran," Mr. Chauhan said.

"It is also reflected in their military power, the greenshoots of this is already visible in the South China sea and in our northern borders. So, we will see a more assertive China in the times to come."

"Of course, there will be convergence of interests between Russians and the Chinese and some other countries like North Korea and Iran may also join this bandwagon in the times to come. Chinese and Russians have already declared that their friendship has no limits," he pointed out.

Indo-Pacific is fast emerging, the CDS said, it's an area of future contestation. "in fact if you see national security strategies of most nations, they will talk about Indo-Pacific," he said.

Suggesting that there will be emergence of a multipolar world order, he said we can witness a polycentric and polyconic competition and cooperation.

"How this will pan out — there will be no permanent friends and no permanent enemies, and this relationship between friends and enemies of nations will evolve faster than ever before. Partnership and new alliances will emerge amid this changing security environment. Expansion of NATO, Quad etc are only indications of this."

Mr. Chauhan further said India may emerge as the leader of the global south, and the successful conduct of the G20 presidency is actually an indication in that direction.

Pointing at uncertainties due to the Israel-Hamas conflict, Russia-Ukraine war and conflicts in Middle-East, Libya, Syria and others, he said, "what people are saying is the world order isn't actually the world order — it is actually the world disorder, which is presently there." He also spoke about geo-economic disruptions and geo-technological disruptions that are taking place.

On the military reforms that are taking place, which started with the appointment of CDS, Mr. Chauhan said creation of theatre commands is fundamental and a major change that is going to happen in the time to come, whenever we are prepared for this.

“We had been doing things in a particular way from independence till now, where three service chiefs are responsible to meet the challenges in their particular domain. This is going to fundamentally change now and the responsibilities will rest theater commanders with theatre command coming into force. This is a major change that is going to happen in the times to come,” he said. “With theaterisation there will also be jointness and integration simultaneously,” he added.

<https://www.thehindu.com/news/national/chief-of-defence-staff-flags-global-changes-creating-uncertainty-volatile-environment/article67420276.ece>

## THE TIMES OF INDIA

Sat, 14 Oct 2023

### **Countering China: India Chooses US Firm Cummins for Engines of Indigenous Light Tank for Indian Army**

India has chosen American company Cummins to supply engines for its indigenous light tanks, which are urgently needed to counter Chinese deployments in high altitudes, according to an ET report. The project to develop these light tanks was approved last year, with Larsen and Toubro collaborating with the Defence Research and Development Organisation (DRDO) to create a prototype.

However, according to the report the project faced obstacles when a German firm, selected for engine supply due to its high power-to-weight ratio, failed to reach an agreement. Despite months of negotiations, the German company could not commit to delivering the engines on time, even after diplomatic intervention, defence insiders said. This delay hindered the progress of the light tank development. As a result, the decision was made to engage with American companies, and Cummins' offer was accepted.

The Indian Army has estimated that it requires 354 light tanks in the high altitude areas of Ladakh. Out of these, L&T-DRDO will manufacture 59 tanks, while the remaining tanks will be produced by other Indian companies after a bidding process. The development plan for the Indian light tank is named Project Zorawar. This tank will incorporate modern features such as artificial intelligence integration, drone warfare capabilities, and active protection systems.

The L&T-DRDO option is based on the chassis of the K9 Vajra self-propelled artillery, which is currently in service and manufactured in India for the Army. The light tanks must be able to operate effectively in various terrains, including high altitude areas and island territories. Additionally, they need to be air-transportable for rapid deployment. Officials have emphasized the importance of a lightweight and agile platform with substantial firepower, protection, surveillance, and communication capabilities.

The need for a light tank arose two years ago when China deployed a significant number of troops and heavy equipment to disputed areas in eastern Ladakh. China's introduction of new type 15 light tanks along the Line of Actual Control in April 2020 temporarily gave them an advantage. In response, the Indian Army deployed several T-72 and T-90 tanks, which were heavier and designed for operations in plains and deserts. While these deployments had a deterrence impact, they faced limitations in high altitude areas.

<https://timesofindia.indiatimes.com/business/india-business/countering-china-india-chooses-us-firm-cummins-for-engines-of-indigenous-light-tank-engines-for-indian-army/articleshow/104427160.cms>

Fri, 13 Oct 2023

## IAF Chief Emphasises on High Operational Preparedness

Chief of the Air Staff Air Chief Marshal VR Chaudhuri has emphasised on the importance of maintaining high operational preparedness at all times, a defence release said on Friday.

Attending a two-day annual Eastern Air Command (EAC) Commanders Conference in Tezpur from October 12, the Air Marshal said operational readiness of all platforms, weapon systems and assets must be ensured.

He also stressed on the need for the root cause analysis of all accidents and incidents, improve maintenance practices to boost mission effectiveness, and focus on physical and cyber security at all times.

The Air Chief Marshal urged all commanders to continue with their efforts to provide a safe operational flying environment.

He reviewed the operational preparedness of the Eastern Command and expressed satisfaction on its major achievements.

The Chief of Air Staff also awarded trophies to stations for achieving excellence in the fields of operations, maintenance and administration.

He was received at the Tezpur Air Force station by the EAC's Commanding-in-Chief Air Marshal S P Dharkar.

<https://www.financialexpress.com/business/defence-iaf-chief-emphasises-on-high-operational-preparedness-3271883/>

 THE HINDU  
BusinessLine

Fri, 13 Oct 2023

## Philippines Looking to Buy More BrahMos Missiles

With Russia-Ukraine and Israel-Hamas conflicts demonstrating the efficacy of long-distance firepower systems, the Philippines Army is contemplating acquiring more than three batteries of BrahMos supersonic cruise missile for which it has already signed a deal with India, to strengthen its coastlines that falls in the Indo Pacific region which has become a theatre of China's assertion.

In January 2022, Philippines had signed a deal worth \$374.96 million for the supply of three batteries of BrahMos supersonic cruise missiles which would be delivered to them either later this year or the next year. Along with the missile system, the contract also included training for support staff and the necessary Integrated Logistics Support (ILS) package.

Armed Forces of the Philippines (AFP) chief General Romeo Brawner Jr. revealed to the media that they are planning to buy more of the BrahMos missile systems. Though General Romeo Brawner Jr did not share more details, he said the new possible acquisition would be for land forces, and together with earlier the order for marines, the BrahMos would be used for coastal defence and bridge the gaps in the coverage, as per the media reports appeared in Philippines.

The Indian Navy provided almost 19 days of training to 21 Philippine Navy personnel in Nagpur which began on January 23, this year. The training focused on the operations and maintenance of some of the most important logistics package of the Shore-Based Anti-Ship Missile System (SBASMS) that will be delivered to the Philippines, Philippines Marine Corps (PMC) had stated in social media post.

Former Defence Secretary of the Philippines Delfin N. Lorenzana had said at the time of signing of the missile contract that the “vital asset (BrahMos) is imperative as the Philippines continues to protect the integrity of its territory and defend its national interests”.

Other countries too have evinced interest in the Brahmos, a joint venture between the Defence Research and Development Organisation (DRDO) and Russia’s NPO Mashinostroyeniya.

<https://www.thehindubusinessline.com/incoming/philippines-looking-to-buy-more-brahmos-missiles/article67415893.ece>



*Sat, 14 Oct 2023*

## **Jaishankar’s Diplomatic Visits to Vietnam and Singapore**

At the invitation of Bui Thanh Son, the Minister of Foreign Affairs of Vietnam, external affairs Minister (EAM) S Jaishankar is scheduled to make an official four-day visit to Vietnam.

During the visit from Oct 15-18, 2023, there will be discussions about the progress made in various areas and ways to further strengthen cooperation between the two countries.

India and Vietnam maintain a strong Comprehensive Strategic Partnership. According to an official announcement by the Ministry of external affairs (MEA) on Saturday, Vietnam plays a significant role in India’s ‘Act East Policy’. During Jaishankar’s visit, there will be discussions about the progress made in various areas and ways to further strengthen cooperation between the two countries.

The minister will be co-chairing the 18th Meeting of India-Vietnam Joint Commission on Economic, Trade, Scientific, and Technological Cooperation with his Vietnamese counterpart.

Also, he will travel to Hanoi and Ho Chi Minh City, where he is expected to engage in discussions with the Vietnamese leadership. Additionally, he will have the opportunity to meet with members of the Indian community in Vietnam and unveil a bust of Mahatma Gandhi in Ho Chi Minh City.

Following his visit to Vietnam, the minister will embark on an official visit to Singapore from Oct 19th to the 20th.

Both countries share a historical relationship that was upgraded to a Strategic Partnership in 2015. In 2023, there were several Ministerial interactions between the two countries on the sidelines of the G20 Summit hosted by India. Singapore was invited as a guest country, and Prime Minister Lee Hsien Loong visited New Delhi for the G20 Summit in September this year.

During his visit to Singapore, Jaishankar will hold meetings with his Singaporean counterpart and the top leadership of the country. He will also chair the regional conference of Indian Heads of Missions.

The minister’s official visits starting tomorrow to Vietnam and Singapore hold great significance for India’s diplomatic relations with these countries. These visits will facilitate discussions on

strengthening bilateral ties and exploring opportunities for further cooperation. Additionally, they underscore India's commitment to fostering strong partnerships in the region.

<https://www.financialexpress.com/business/defence-jaishankars-diplomatic-visits-to-vietnam-and-singapore-3272908/>



Sat, 14 Oct 2023

## National Security – Is Technology in itself the Final Armour?

*By Commodore Shiv Tewari (Retd)*

On the 7th of October, the world woke up to the shocking news of the brazen attack by Hamas on Israel, a nation renowned for its defensive technology, especially in the homeland security domain. It is a known fact that Israel has led the revolution on innovation specifically designed to defend its national security and critical infrastructure. Israel's niche security tech market is an outcome of deep research and development, necessitated by the country's omnipresent threats which are now revealed for the world to see. It is this same security technology that is lauded globally, products of which are the preferred choice of many countries as being tried and tested against real-time threats. With such a reputation and not just the availability of this security tech but also its on ground deployment, how is it that Hamas, with its outdated and primitive technology was able to breach the Iron Dome?

While there is never a single factor that contributes to any event, I would like to limit my analysis to simply reinforcing the fact that technology in itself is not the answer to defence.

Yes, technology is fascinating and, in many ways, it gives us a comfortable blanket of perceived safety, but it also makes us complacent, and very often the thrill of acquiring technology far outweighs the necessity of its induction. Whilst there is no debate that technology does make life simpler and more efficient, however the reason for its induction is often not weighed based on its merit. What we need to understand before racing to acquire technology is that technology by itself is not smart, we humans make our processes smart by using technology, and we cannot, no matter how well equipped we are, take that fact for granted.

My years with the Special Forces made it clear that terror groups do not bang their heads against technology, they breach the process. While Israel's highly sophisticated security systems were in place, they failed to prevent the deaths of over 1,200 of the nation's citizens. Was this the result of an intelligence failure, a technological failure, or a failure in the process?

It is being said that internal political tensions, polarisation, and unrest compromised the country's otherwise effective processes of counterintelligence and a coordinated response, by drawing the attention of Israel's security inwards rather than outward towards their border, distracting their attention away from a foe that had beguiled them into thinking that they were not a threat. This distraction was a lapse in the process of security and not the technology of security, and it is this weakness that was exploited by an adversary which took down the Israeli defence by sheer force of numbers and surprise, using the most primitive means, giving the Israeli troops no time on ground to deploy their defensive technology, and this vindicates my findings through experience with the Special Forces. What lessons does this leave us with, those of us who are in the role of designing, managing, and implementing physical security not just at the national level but at every organisational level, be it governmental or private critical infrastructure, industry and corporate?

It tells us that high end niche technology by itself cannot be the only answer, it cannot replace the human smarts needed to deploy it effectively. Random induction of security technology, because it looks attractive, should not be the primary reason for its induction. Yes, technology must be inducted, however after a detailed analysis of its effective purpose in the existing security process. Technology and associated products need to be purchased to fill gaps that have been well analysed and are part of an overall security design or plan, otherwise they simply remain fancy and expensive gadgets. Relying on technology alone to be our nation's armour has the potential to turn us soft and leave us vulnerable and exposed to a similarly coordinated, low tech attack by similar terror groups that seek to derail the peace and progress of our nation.

Decision makers and budget holders must, thus, demand an analysed well thought out security design that looks at both the short and long term. The purpose of expenditure on security systems and technology must be meaningful, to effectively support the overall security process, rather than being an isolated security hardware induction.

Understanding the threats and risks to physical infrastructure is the first step to formulating a security design and plan. Being aware of the likelihood of an event, and if it occurs what will be its impact, helps in developing mitigation strategies using a combination of technology and process integration. Before investing in the latest gadget, a thorough study needs to be conducted on how the gadget will bridge gaps in the security process of an organisation.

It is only through a study of the local vulnerabilities, capability and intent of adversaries and the damage that can be caused, as well as the organisations response and recuperability, that a meaningful understanding of the existing process gaps can emerge. This will not only help us understand exactly what kind of technology we need to deploy, but will also correctly define how to make the best of it. The probability of success greatly increases when hardware is in sync with well-planned processes that seek to optimise its use.

National security is not just a governmental problem. Given our security concerns and the environment we live in, for us to be safe as a nation we need to instil in our minds that each one of us plays an important role at every level even if we are not directly involved with the security process. We must understand that it is not just defences at the national level that need to be effectively maintained, but every defence system, however small it may be, around our sphere of influence that also needs to be effectively maintained, for us to remain safe as a nation. Thus, policy makers at every level, from the apex to security managers of our growing and vital critical infrastructure would do a huge service to our national security by designing their security systems using a risk-based approach, and integrating technology to complement the process, not simply inducting technology in isolation.

<https://www.financialexpress.com/business/defence-national-security-is-technology-in-itself-the-final-armour-3272962/>



Sun, 15 Oct 2023

## **Hamas Attack on Israel Shows why India Needs to Reassess its Internal Security Mechanism**

*By Deepak Srinivasan and Sagorika Sinha*

The current conflict in Gaza has challenged the idea of a modern world governed by established rules of engagement. The sheer horror unleashed upon Israel is shocking in its scale, with captured

Hamas terrorists admitting on camera their intent to rape captured Israeli women and children, be they soldiers or civilians. Deeply disturbing acts such as the deliberate killing of infants and foreign civilians have been recorded on camera. The savagery Israel faces has raised serious questions about national security, which will need to be addressed as Israeli operations continue. Israel found swift support in India, a country that supports the Palestinian cause and nationhood in its policy, and which is one of the largest donors of aid to the region. However, both Israel and India have experienced the challenges posed by radical extremist religious ideologies, as well as a global network of far-left ideologies that provide intellectual cover for acts of terrorism in both nations.

As Israel takes military action in Gaza, India, with its vast and diverse population, also looks within. A nation's internal security apparatus play a crucial role in addressing domestic challenges that could potentially compromise national security. The Israel-Hamas conflict, despite its geographical distance from the Indian subcontinent, holds significant implications for India.

Indian intelligence agencies have been successful in identifying significant threats to national security in recent times, encompassing issues related to Khalistani violence and secessionism, as well as Islamist extremism, including organisations like the now-banned PFI. Additionally, concerns regarding Chinese money laundering have come to the forefront. These security challenges appear to manifest like a multi-headed hydra, with new threats emerging on a regular basis. The larger geographical area of the Indian nation prevents an absolute state of urgency in much of the population even in times of war, which Israel, being a much smaller nation, cannot afford. The prevailing state of threat, however, underscores the importance of the Indian security apparatus, even though many citizens may not be fully aware of the extent to which it safeguards them.

The country has encountered various instances of domestic security challenges that have resulted in security breaches of varying magnitudes. Some of these have involved law enforcement officers stationed in border regions who have been apprehended for collaborating with external entities. Notably, DSP Sheikh Adil Mushtaq of Srinagar police was recently arrested for allegedly accepting bribes to assist a terrorist in one of India's most sensitive border areas. In January 2021, Davinder Singh of J&K Police was arrested and chargesheeted for allegedly transporting Hizbul Mujahideen terrorists from Jammu to Kashmir and maintaining contact with Pakistani handlers associated with the Pakistani High Commission.

Apart from law enforcement officers, the scientific community has been disrupted by actions attributed to certain hostile foreign entities through a series of attempts to compromise senior scientists. For instance, Pradeep Kurulkar, a senior scientist at the Defence Research and Development Organisation (DRDO), was apprehended by the Anti-Terrorism Squad (ATS) on charges of treason. Apart from Kurulkar, another senior technical officer at the DRDO, Baburam Dey, was also arrested, and a contractual employee Dukka Mallikarjuna Reddy was also found to be supplying sensitive information to Pakistan.

In recent years, cases involving employees of organisations such as Hindustan Aeronautics Limited (HAL), Deepak Shirsat in 2020, and Nishant Aggarwal, employed by BrahMos Aerospace in 2018, have come to light as well. Furthermore, several military personnel have been successfully targeted. Apart from "honey traps", the central government has identified media organisations that have allegedly been involved in promoting Chinese propaganda and engaging in financial irregularities.

While law enforcement continues to uncover explosives and illicit funds, there has been a notable decrease in terrorist violence in this decade, accompanied by a significant rise in attempted acts of terrorism. The efforts of security forces operating under various constraints often go unappreciated.



India finds itself situated between two neighbouring nations with experienced strategies for exploiting weaknesses in its internal security framework. Given India's enormous population of 1.4 billion people with varying allegiances, ensuring an all-encompassing intelligence apparatus presents significant challenges. The numerous internal security incidents, like those mentioned, emphasise the importance of an effective intelligence system for detecting such threats. However, they also highlight the vulnerabilities within the system and the need for sustained vigilance.

A critical aspect that deserves attention is the tendency to suspend or backtrack on security-enhancing reforms such as the National Register of Citizens (NRC) in response to law and order concerns. The complex interplay between economic growth and security measures can significantly impact the nation's development. Similarly, labour reforms have been held in abeyance and agricultural reforms have been reversed due to violent protests that were left unaddressed by the law and order machinery until after they were over. The government has failed to uphold its monopoly on legitimate force, which would have required curbing protest violence through proactive and effective management. Doing so is crucial to address legitimate concerns while ensuring law and order, fostering national stability and prosperity.

In addition to the law of the streets overruling those decided by an elected parliament, the Indian quest for security is also marred by inefficiencies within the judicial system. The judiciary's inability to swiftly address matters related to crime and national security erodes faith in the system and generates a preference for expedient but often arbitrary methods of justice. The common citizen, grappling with the frustration of a sluggish judiciary, often cheers on summary justice, whether in the form of police encounters or the demolition of structures, viewing these actions as their only hope for justice.

In the absence of transparency in the functioning of the judiciary and consistency in legal judgments, India's internal security framework relies on a set of opaque laws such as the Unlawful Activities (Prevention) Act (UAPA), which shares similarities with Israel's Anti-Terror Law. While the necessity of such laws in the face of potential threats is evident, there is a need to prioritise the development of clearer laws and judicial processes.

The recent terrorist attack by Hamas on Israel presents a complex web of challenges with implications for both India's domestic and international security. Incidents such as drone deliveries of narcotics and weapons from Pakistan have increased due to advancements in technology that enables this. To effectively address these challenges without compromising individual freedoms, it is imperative to establish a robust and transparent legal framework, alongside technology that allows for insight without overbearing breaches of privacy.

The ongoing conflict also exposes a peculiar aspect of Indian society: a tendency to forget past traumatic events. India's history has seen numerous instances of religious and communal discord, yet the nation often chooses to overlook these memories to assert an amnesia-based concept of brotherhood. This aspiration, driven by a desire for imposed inclusivity and for recognition in certain segments of the western media, results in the tolerance of individuals or groups who endorse extremist ideologies.

While India's commitment to maintaining law and order is commendable, it must also focus on reforming the judicial and legal systems to ensure that justice is both swift and fair. India must continually reassess its internal security apparatus and adapt to evolving threats, all while upholding the core principles of democracy, rule of law, and individual rights. Striking this delicate balance is essential to safeguarding the safety and well-being of its citizens while maintaining a vibrant and strong democracy.

<https://www.firstpost.com/opinion/hamas-attack-on-israel-shows-why-india-needs-to-reassess-its-internal-security-mechanism-13250562.html>

## **Australia to Send Senior Official to China Defence Forum as Ties Stabilise**

Australia will send a senior defence official to China's top international security forum in October for the first time in four years, officials said on Friday.

China will host foreign defence officials in Beijing on Oct. 29-31 for the Xiangshan Forum, styled by Beijing as its answer to Singapore's annual Shangri-La Dialogue.

Reuters has reported General Liu Zhenli, the head of the military body responsible for China's combat operations and planning, has emerged as the top contender to replace Defence Minister Li Shangfu, who has not been seen in public for more than six weeks.

The appointment of Liu to replace Li was likely to happen before Beijing holds the security forum, which a US representative is also expected to attend, analysts told Reuters.

US security ally Australia has previously sent a defence assistant secretary to the forum, which has not been held since 2019, before a diplomatic dispute erupted between Beijing and Canberra that is now thawing. "As it did for the most recent iterations of the forum held prior to the Covid-19 pandemic, Defence will be represented at the 2023 Beijing Xiangshan Forum by a senior official," a spokesperson for Australia's Department of Defence said in a statement to Reuters.

Chinese and Australian defence officials held their first meeting since 2019 in March, a week after Australia's Aukus partnership with US and Britain unveiled details of a plan to provide Australia with nuclear-powered submarines from the early 2030s, which China opposes.

The deportation on Wednesday of an Australian journalist who had been detained in China for three years on national security charges is the latest step in warming ties between Beijing and Canberra.

Prime Minister Anthony Albanese, who came to power last year with a goal of stabilising relations with Australia's biggest trade partner, said he expects to visit China this year, the first visit by an Australian leader since 2016. While China has said it poses no threat to Australia, Australia has been stepping up its participation in military exercises with its allies, from amphibious drills in the Philippines to navy exercises with Japan, the US and India, amid concern about Chinese pressure on self-ruled Taiwan.

<https://timesofindia.indiatimes.com/world/china/australia-to-send-senior-official-to-china-defence-forum-as-ties-stabilise/articleshow/104396958.cms>



## **France Bets Big on Space, Cyber, and Robotics in New Defence Budget**

France has allocated over a billion euros towards the space, cyber, and robotics domain in 2024, according to the 2024 Projet de loi de finances (PLF) defence budget.

Published on 11 October, the PLF has earmarked EUR47.5 billion (USD50.2 billion) for defence spending in 2024, EUR3.3 billion more than the previous year. Investment will be channelled towards continuing to modernise the armed forces and preparing for the 'tomorrow wars' through the investment in the space and cyber domains.

For space, a total of EUR600 million has been allocated – the largest share of funding for any planned defence programme or focus area under the PLF. Along with the acquisition of 11 Syracuse IV satellite communication (satcom) ground stations, the investment will fund spatial observation technologies and the strengthening of active defence capabilities. The latest very-high-resolution satellite – Composante Spatiale Optique (CSO) – will also be launched in 2024 as well as the Syracuse V programme.

More broadly, EUR1.2 billion will be invested towards developing emerging technologies such as directed energy weapons and “capabilities in active [space] defence”. In addition, funding will support the exploration of the deep seabed and large-scale demonstrations such as ‘drone swarming’ and remotely operated munitions.

Active defence is an approach that aims to “discourage or negate any attempt by adversaries to threaten our interests in space. To ensure credibility, this defensive posture must be supported by the capability to achieve military effects”, a spokesperson from the French Air and Space Force told Janes.

<https://www.janes.com/defence-news/news-detail/france-bets-big-on-space-cyber-and-robotics-in-new-defence-budget>



*Mon, 16 Oct 2023*

## **South Korea to Hold Largest Defence Show in Bid to Boost Global Sales**

South Korea will kick off its largest-ever defence exhibition this week, as the country seeks to turbocharge its arms sales and showcase a rare appearance by a U.S. nuclear-capable bomber.

The biennial Seoul International Aerospace and Defense Exhibition (ADEX) opens its doors on Tuesday, with organisers saying there will be more companies than ever and an unprecedented flyby from a U.S. B-52 bomber, which will make a rare landing at an airbase elsewhere on the peninsula.

This year's show is designed to help South Korea to reach its goal of becoming the world's fourth-largest arms exporter, Lee Jong-ho, chief of the organising office, told a briefing on Monday.

More than 450 senior defence officials from 54 countries are expected to attend, along with hundreds of thousands of other professionals and members of the public, he said.

"This is an opportunity for Korea's defence industry to draw international attention and take a giant leap forward," Lee said.

The Korean government has set a goal of reaching \$20 billion in defence exports this year after sealing a record \$17.3 billion in arms sales last year, including huge deals with Poland for tanks, howitzers, warplanes, and rockets.

South Korea has been roughly ninth in the world for defence exports in recent years, but President Yoon Suk Yeol has called for it to improve.

At a South Korean military airbase south of Seoul on Monday, exhibitors made final preparations as participants in early events wandered among South Korean and U.S. military vehicles and warplanes on the tarmac, including advanced American stealth F-22 and F-35 aircraft.

To commemorate the 70th anniversary of South Korea's alliance with the United States, the show will feature a larger than usual display of American military power, including the B-52 flight said U.S. Air Force Colonel Charles Cameron.

Under Yoon, South Korea and the United States have stepped up displays of strength, particularly U.S. nuclear-capable assets, in an effort to deter North Korea.

Last month South Korea staged a rare military parade, in which thousands of troops and South Korea's home-grown tanks and self-propelled artillery were joined by 300 of the 28,500 U.S. soldiers based in the country.

A South Korean activist group said it planned to protest the event, calling the arms trade a "parasite" that benefits from the suffering in places such as Ukraine and the Israeli-Palestinian conflict.

<https://www.reuters.com/business/aerospace-defense/south-korea-hold-largest-defence-show-bid-boost-global-sales-2023-10-16/>

## Science & Technology News



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### **‘Anusandhan’ National Research Foundation (NRF) will Unfold PM Modi’s Vision for India’s Science Driven Growth, Says Union Minister Dr Jitendra Singh**

**“NRF will catapult us to the league of handful developed nations pioneering new research in new frontiers”:** Dr Jitendra Singh

**Anusandhan Rules & Regulations, Governing Council members under advance stage of finalization**

**Dr Jitendra Singh chairs the Monthly joint Meeting of Science Ministries and Departments**

Posted On: 13 OCT 2023 3:56PM by PIB Delhi

"Anusandhan" National Research Foundation (NRF) will unfold Prime Minister Shri Narendra Modi's vision for India's science driven growth, said the Union Minister of State (Independent

Charge) Science & Technology; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space while chairing the monthly joint meeting of Union Secretaries of all the Science Ministries and Departments, in New Delhi today.

The Minister said, the NRF, envisaged by PM Modi, will catapult us to the league of handful of developed nations pioneering new research in new frontiers.

"Anusandhan" NRF Act was passed by the Parliament in the recent Monsoon session. NRF will provide high level strategic direction for research, innovation and entrepreneurship in the fields of Natural Sciences including Mathematical Sciences, Engineering and Technology, Environmental and Earth Sciences, Health and Agriculture.

Secretary, Department of Science & Technology, Dr. Abhay Karandikar informed the Minister that he convened the first meeting of NRF Implementation Committee recently. The Draft Rules & Regulations will be ready by next week and once finalized, it will be tabled in Parliament.

Principal Scientific Adviser (PSA) to the Government of India, Prof. Ajay Kumar Sood said, a proposal of names for the 16-member NRF Governing Body is also under finalization. It will include 6 Experts, 5 Industry representatives and 1 Humanities expert. The NRF will connect to Tier 2 & Tier 3 institutions since 11% of its budget is earmarked for their Capacity Building.

Dr Jitendra Singh said the Executive Council of NRF is mandated not only to monitor the progress of the different projects but also to analyse the accountability of the funding at different level stages. NRF will promote the culture of research and innovation throughout India's universities, colleges, research institutions and R&D laboratories and give further impetus to Clean Energy research in India and Mission Innovation, he said.

Dr Jitendra Singh stressed that Tier 2/3 Institutions will need handholding so that they can absorb the funds. Besides, he said, the NRF will bring about sweeping changes in the work culture as Industry will have to come forward to take risk cover and await the gestation.

NRF budget envisions a spending of Rs. 50,000 crore over five years, out of which a major share of Rs. 36,000 crore, over 70%, is estimated to come from non-government sources, from industry & philanthropists, from domestic as well as outside sources.

Dr Jitendra Singh said the NRF will hike the R&D spending in the country.

"The demarcation between the Public and Private sector will be bridged and there will be integration. NRF will also act as a think tank, it has the mandate of deciding the themes on which the projects have to be undertaken and funded, and deciding on foreign tie-ups," he said.

Dr Jitendra Singh said there will be Industry linkages right from the beginning, creating an optimum ecosystem for innovation. Active involvement of Industry and the capital to push the quantum start-up ecosystem in India is required to boost the industry.

"Prime Minister Modi envisages the NRF that will pave the way for India to emerge a Developed Nation by 2047," he said.

NRF will be an apex body to provide high-level strategic direction of scientific research in the country as per recommendations of the National Education Policy (NEP) - 2020, at a total estimated cost of Rs. 50,000 crores during five years (2023-28).

The Department of Science and Technology (DST) will be the administrative Department of NRF which will be governed by a Governing Board consisting of eminent researchers and professionals across disciplines. Since the scope of the NRF is wide-ranging – impacting all ministries - the Prime Minister will be the ex-officio President of the Board and the Union Minister of Science & Technology & Union Minister of Education will be its ex-officio Vice-Presidents. NRF's

functioning will be governed by an Executive Council chaired by the Principal Scientific Adviser to the Government of India.

NRF will forge collaborations among the industry, academia, and government departments and research institutions, and create an interface mechanism for participation and contribution of industries and State governments in addition to the scientific and line ministries. It will focus on creating a policy framework and putting in place regulatory processes that can encourage collaboration and increased spending by the Industry on R&D.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1967353>



*Sun, 15 Oct 2023*

## **Gaganyaan Mission: ISRO Gears up for Three Additional Test Missions, here's what they Entail**

The Indian Space Research Organisation (ISRO) is set to undertake three more test vehicle missions as part of the ambitious Gaganyaan program. These missions will follow the inaugural TV-D1 test flight, which is scheduled for October 21, according to ISRO Chairman S Somanath.

### **Gaganyaan's Aim**

The Gaganyaan project aims to demonstrate India's human spaceflight capability by launching a human crew into an orbit 400 kilometers above Earth and safely returning them by landing in the Indian sea waters.

### **Additional Test Missions**

The first test vehicle development flight, TV-D1, will be conducted at the Satish Dhawan Space Centre in Sriharikota, Andhra Pradesh. This mission is designed to test the crew module that is slated to house Indian astronauts for a human spaceflight mission in the coming year.

Somanath announced, "The first test vehicle flight (of the Gaganyaan mission) will be conducted on October 21. After that, we have planned for three more test missions, D2, D3, D4. We will conduct thorough tests during the test flight sequence."

TV-D1 will involve launching the crew module into outer space, bringing it back to Earth, and recovering it after touchdown in the Bay of Bengal.

Union Science and Technology Minister Jitendra Singh recently confirmed ISRO's plans to conduct the first of several test flights in preparation for the maiden Gaganyaan mission on October 21 at Sriharikota.

Regarding the Aditya-L1 program, ISRO's maiden solar mission, Somanath expressed optimism that the spacecraft would reach the Lagrange point (L1) by mid-January 2024, enabling various scientific experiments from that location.

### **ISRO's new launch pad**

Somanath also discussed ISRO's plan to establish a new launch pad in Kulasekarapattinam, Tuticorin district. This launch pad will offer advantages, including the ability to launch smaller rockets and cater to private players. He explained that the new location would eliminate the need

for rockets to make a southward turn over Sri Lanka, a current requirement for launches from the east in Sriharikota.

“The land is currently in the acquisition stage, and it is expected to take two years for completion,” Somanath noted.

<https://www.financialexpress.com/life/science-gaganyaan-mission-isro-gears-up-for-three-additional-test-missions-heres-what-they-entail-3273203/>

