

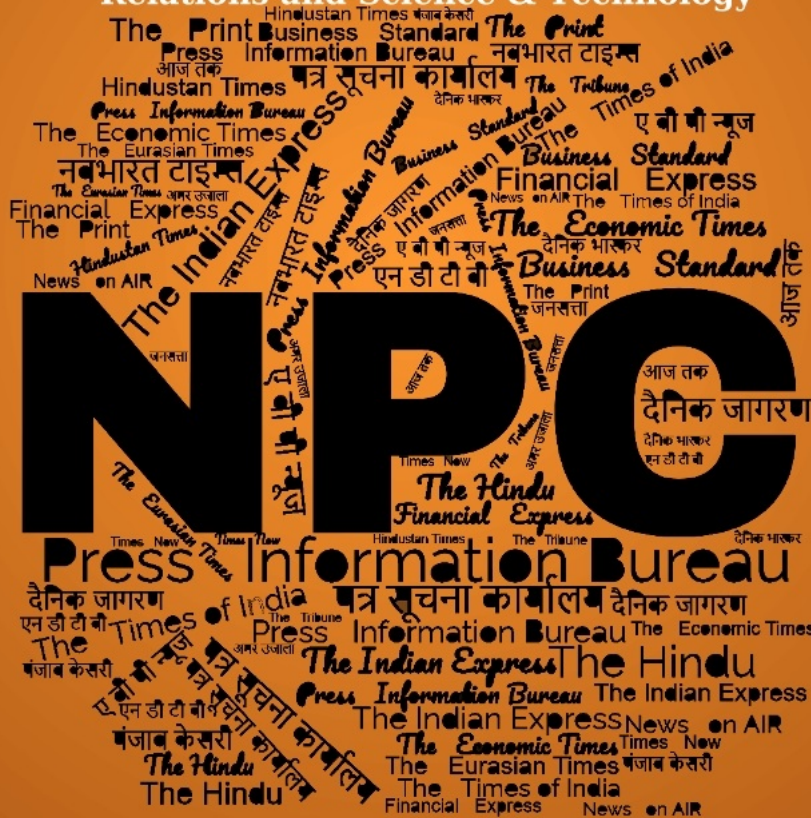
सितम्बर  
Sep  
2024

खंड/Vol. : 49 अंक/Issue : 166  
06 /09/2024

# समाचार पत्रों से चयनित अंश Newspapers Clippings

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

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### **Rajnath Singh stresses on need to evolve joint military vision to face future wars**

Union Defence Minister Rajnath Singh on Thursday (September 5, 2024) called for capability development in space and electronic warfare, with focus on increasing the use of latest advancements in artificial intelligence (AI), describing them as integral to tackle modern-day challenges. He said this while addressing the Joint Commanders' Conference in Lucknow on its 2nd and final day.

“Despite global volatility, India is enjoying a rare peace dividend and it is developing peacefully. However, due to the increasing number of challenges, we need to remain alert. It is important that we keep our peace intact during Amrit Kaal. We need to focus on our present, keep an eye on the activities happening around us, and focus on being future-oriented. For this, we should have a strong and robust national security component. We should have fail-proof deterrence,” Mr. Singh said.

He stressed upon the significance of evolving a joint military vision and preparing for the challenges the country may face in future wars, while emphasising synergised, swift and proportionate response to provocations, a Defence Ministry statement said.

Referring to the ongoing Russia-Ukraine as well as Israel-Hamas conflicts and the current situation in Bangladesh, the Minister exhorted the Commanders to “analyse these episodes, predict the problems that the country may face in the future, and stay prepared to deal with the unexpected”, it stated.

The Minister emphasised the need for a broader and deeper analysis by the top military leadership in view of the situation along the country's northern border and the happenings in neighbouring countries, which pose a challenge to the peace and stability in the region, the statement said.

Calling on the military leadership to focus on increasing the use of latest technological advancements in the fields of data and artificial intelligence, Mr. Singh said, “These components do

not participate in any conflict or war directly. Their indirect participation is deciding the course of warfare to a great extent.”

The focus of the two-day conference was on future capability building, including organisation structures for joint and integrated response and ushering in efficiency, transparency and accountability in work process during peace and war, according to the Ministry.

“Deliberations spanned across a broad spectrum of contemporary issues such as theaterisation, indigenisation and technological developments, including those in the field of robotics and Artificial Intelligence enabled autonomous weapon systems,” it stated.

Special attention was given to the strategic importance of cyber and space-based capabilities in modern warfare, underlining the necessity of preparing for future conflicts that will increasingly span multiple domains, the statement added.

At the conference, Mr. Singh launched eight innovative applications, including e-Museum and e-Granthalaya, and a publication on ‘colonial practises and the armed forces - A review’.

<https://www.thehindu.com/news/national/rajnath-singh-stresses-on-need-to-evolve-joint-military-vision-to-face-future-wars/article68609849.ece>



**Press Information Bureau**  
**Government of India**

**Ministry of Defence**

*Thu, 05 Sep 2024*

## **ICG Participates in the 20th Heads of Asian Coast Guard Agencies Meeting**

### **The 12th ICG-KCG Bilateral Meeting Concluded in South Korea**

Indian Coast Guard (ICG) participated in the 20th Heads of Asian Coast Guard Agencies Meeting (HACGAM) from September 03 to 04, 2024 at Incheon, South Korea. During the meeting, various issues of significance, such as maritime law enforcement, safety and security of life at sea, marine environment protection, illicit trafficking of drugs, weapons & humans and future cooperation were discussed.

On the sidelines of the HACGAM, the 12th annual bilateral meeting between ICG and the Korea Coast Guard was also held on September 04, 2024, under the provisions of the MoU signed between the two agencies in March 2006. The meeting focused on augmenting operational-level interaction and capacity building in the areas of maritime search & rescue, pollution response and law enforcement.

HACGAM primarily focuses on fostering cooperation between the Coast Guards of the member Asian states to ensure and promote safe, secure & clean seas in the region. It is an independent

forum with 23-member Coast Guard Agencies and also two associate members in the form of Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) and United Nations Office on Drugs and Crime (UNODC). It comprises four Working Groups to enable a focused and goal-oriented approach towards coordinated response & synergy towards common maritime issues.

ICG is the chair of Search and Rescue Working Group and a proactive member of the other Working Groups which include Environmental Protection, Controlling Unlawful Acts at Sea and Information sharing.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2052218>



**Press Information Bureau**  
**Government of India**

**Ministry of Defence**

*Thu, 05 Sep 2024*

## **India and Saudi Arabia hold 6th meeting of Joint Committee on Defence Cooperation**

India and Saudi Arabia conducted the sixth edition of Joint Committee on Defence Cooperation (JCDC) meeting in Riyadh, Saudi Arabia on September 4, 2024. The two countries discussed new avenues to further strengthen the long standing and multi-faceted defence cooperation. Detailed deliberations were held to expand the scope of engagement and cooperation in areas such as military, training, defence industry, R&D etc.

India and Saudi Arabia enjoy cordial and friendly relations founded on the centuries old economic and socio-cultural ties. The MoU on Defence Cooperation provides a framework for defence collaboration between the two countries. Joint Defence Cooperation Committee is an institutional mechanism under the MoU to promote the objectives of defence cooperation.

The Indian delegation, led by Joint Secretary Shri Amitabh Prasad, included officials from Ministry of Defence. The meeting was co-chaired by Major General Salman Bin Awadh Al-Harbi from the Saudi Arabia delegation.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2052151>

## **Integrated command centers in Lucknow, Jaipur and Trivandrum; Here's how India plans to counter China-Pak threats**

India's top military leaders have gathered for a two-day Joint Commanders' Conference (JCC) in Lucknow to review the final blueprint for the country's proposed theatre commands. This significant reorganization, focused on threats from China, Pakistan, and the Indian Ocean Region, represents the most substantial overhaul of India's military structure since Independence.

The move aims to improve coordination and joint operations among the Army, Navy, and Air Force, paving the way for a more integrated and effective defence system.

### **Theatre Commands to Enhance Operational Efficiency**

The blueprint, prepared by Chief of Defence Staff (CDS) General Anil Chauhan, outlines command, control, and operational structures for the proposed theatre commands. These commands will consolidate the operational efforts of India's military into three geographic regions:

- Northern Theatre Command (focused on China) with headquarters in Lucknow.
- Western Theatre Command (focused on Pakistan) based in Jaipur.
- Maritime Theatre Command, for addressing threats from the Indian Ocean Region, with Thiruvananthapuram as a potential location.

This reorganization would replace the current 17 single-service commands (seven each for the Army and Air Force, and three for the Navy) that lack synergy in operations, planning, and logistics.

Each new theatre command would integrate the Army, Navy, and Air Force into a single unit to manage security in their respective geographical areas. The Indian Air Force will have to relinquish its Southern Air Command based in Thiruvananthapuram, and the Army will vacate its South-Western Command in Jaipur. The Army's Central Command, currently based in Lucknow, will also be relocated under this new structure.

### **Command Structure and Leadership Changes**

The proposed theatre commands will be led by four-star generals, marking a shift in India's military leadership structure. This would place theatre commanders on the same level as the CDS and service chiefs, who are also four-star officers. The existing 17 single-service commands are currently headed by three-star officers (Lieutenant Generals, Air Marshals, or Vice Admirals).

A senior officer explained the rationale behind appointing four-star generals to lead the theatre commands: "A four-star officer is needed for the requisite command and control of a theatre since he will have all the three Services under him in that geographical region."

There is still uncertainty about whether the government will agree to appoint four more four-star generals. As one senior officer noted, “Whether the politico-bureaucratic establishment agrees to four more four-star officers remains to be seen.”

### **Government Approval Pending**

The blueprint has already been presented to Defence Minister Rajnath Singh, who is expected to attend the JCC for further discussions. Government approval is the final step before the theatre commands can be officially implemented. Once approved, the reorganization will take 12-18 months to fully operationalize.

A senior officer commented on the next steps: “The government will now have to take the final call.” The implementation of theatre commands is expected to significantly enhance India’s military capabilities by enabling better coordination across the services, particularly during conflicts or wars.

### **India’s Path to Theatre Commands**

The move towards theatre commands has been in progress since 2019, following the creation of the Chief of Defence Staff (CDS) position and the establishment of the Department of Military Affairs (DMA).

This initiative was further reinforced by the BJP’s manifesto during the Lok Sabha elections, which promised to “further establish military theatre commands for more efficient operations.” Currently, India’s military operates through individual operational commands, with each service working separately.

The proposed theatre commands would place units from all three services—Army, Navy, and Air Force—under one commander to function as a cohesive entity. This approach aims to integrate personnel, assets, infrastructure, and logistics, allowing for more efficient operations during conflicts or emergencies. General Chauhan highlighted the importance of this step-by-step integration during his address at the JCC.

“With the three Services initiating numerous measures on the roadmap for integration, the CDS said it was ‘a step-by-step process, beginning with cross-service cooperation, leading to a joint culture, and finally achieving integration of forces for joint operations,’” he said.

### **Comparison to China’s Theatre Command System**

India’s reorganization draws some inspiration from China’s military reforms. In 2016, China restructured its 2-million-strong People’s Liberation Army (PLA) into five theatre commands, enhancing its offensive capabilities and establishing better command-and-control structures.

The PLA’s Western Theatre Command handles the entire 3,488-km Line of Actual Control (LAC) from eastern Ladakh to Arunachal Pradesh. In contrast, India currently uses four Army and three Air Force commands to manage its northern borders with China.

The creation of integrated theatre commands is viewed as a necessary step for India to maintain operational readiness and respond more effectively to regional threats, particularly along the

northern borders with China and the western front with Pakistan. As India moves closer to finalizing its theatre command structure, further discussions and adjustments are anticipated.

Defence Minister Rajnath Singh's participation in the JCC is expected to bring more clarity to the government's position on the theatre command proposal. The BJP government's focus on enhancing military integration is likely to continue post-elections, making this overhaul a key component of India's evolving defence strategy.

### **A Pivotal Shift in India's Defence Strategy**

The proposed theatre commands mark a significant change in India's military structure, aiming for a more unified and integrated approach to national defence. The creation of these commands will allow India's armed forces to operate more efficiently, with better coordination across the Army, Navy, and Air Force in times of conflict or emergency.

While government approval is still pending, the full implementation of theatre commands could transform India's defence strategy, aligning it more closely with global military practices.

As General Chauhan emphasized, "This reform is not just about reorganizing the military—it is about building a joint culture that allows the Indian Armed Forces to operate as one cohesive unit for the security of the nation."

<https://economictimes.indiatimes.com/news/defence/integrated-command-centers-in-lucknow-jaipur-and-trivandrum-heres-how-india-plans-to-counter-china-pak-threats/articleshow/113087481.cms>

# THE ECONOMIC TIMES

*Fri, 06 Sep 2024*

## **Global shift towards China+1 and Russia-Ukraine war open doors for India's defence sector: Report**

India's defence exports have surged from Rs 15 billion in 2017 to Rs 210 billion in 2024, registering a CAGR of 46 per cent, highlighted a report on 'Defence Conference 3.0' by Antique Stock Broking.

The report stated that the global shift towards a China+1 strategy and the impact of the Russia-Ukraine war offer India additional opportunities to fill supply chain gaps, potentially boosting its share in the global defence industry. The report noted that the country's long-term goal is to become a global defence manufacturing hub is driven by Defence Public Sector Undertakings (DPSUs), private enterprises, start-ups, and MSMEs.

"Indian defence exports have grown multi-fold from INR 15 bn in 2017 to INR 210 bn in 2024 at a CAGR of 46%. The China + 1 strategy and the RussiaUkraine war provides an additional opportunity for India to fill the gap created in the supply chain and hence increase its contribution to the global defence industry," the report read.



The report added that to achieve this target a well-developed domestic ecosystem is crucial as lower import content in products accelerates approvals by reducing international conflicts. The report added that the Ministry of Defence has taken key initiatives to attract Indian private players and global Original Equipment Manufacturers (OEMs) include establishing aerospace parks and defence corridors, fasttracking project approvals, and enhancing development and testing facilities.

Highlighting the potential in India's Maintenance, Repair, and Overhaul (MRO) segment the report explained that it holds a significant potential for global aerospace companies due to its technical expertise and costcompetitive solutions. "India provides a huge opportunity in the MRO segment for global aerospace leaders given the expertise the country provides as well as the cost efficiency solutions compared to its global competitors" the report added.

India aims to increase domestic defence turnover to Rs 3 lac crore by 2029, Rs 500 billion targeted for exports. This growth will help reduce the Government of India's import bill as India remains the world's largest importer of defence equipment. Under the Atmanirbhar Bharat initiative of the government, 75 per cent of the defence capital outlay is now reserved for domestic players, up from 49 per cent in FY21.

Given the geopolitical challenges and modernization needs of its Armed Forces, the report added that India plans to invest Rs 8.3 lac crore in domestic procurement, offering substantial business opportunities for local companies. "India intends to place orders worth INR 8.3 trn through domestic procurement and thus it presents a massive business opportunity for local players" it added.

As per the Ministry of Defence, India's defence manufacturing sector has witnessed an increase of 16.8 per cent in the fiscal year 2023-24. This significant increase marks the highest-ever growth in the country's defence production value. The total value of defence production reached Rs 1,26,887 crore this year, up from the previous year's figures.

<https://economictimes.indiatimes.com/news/defence/global-shift-towards-china1-and-russia-ukraine-war-open-doors-for-indias-defence-sector-report/articleshow/113080822.cms>

## THE ECONOMIC TIMES

*Fri, 06 Sep 2024*

### **Israeli defence companies showcase in India advanced tech to counter drone threats**

Seeking to enhance security cooperation between Israel and India in combating drone threat, an event was held here during which nine Israeli defence companies showcased advanced technologies to counter such threats, according to an official statement issued on Thursday.

The seminar from September 2 to 4 featured participation from the representatives and senior officials from Israel's Ministry of Defense, economic and security attaches, and representatives

from India's Ministry of Defence, and defence and civilian industries from both countries, the statement issued by the Israeli Embassy here said.

The seminar focused on "addressing the growing threat of drones", both in security and criminal aspects, which poses a significant challenge to the security forces worldwide due to their ability to be used for intelligence gathering, weapon carrying and precise attacks, it added. Throughout the seminar, nine Israeli defence companies showcased advanced technologies to counter the drone threat.

Operational experience was shared and advanced technological capabilities were showcased, aiming to deepen security cooperation between the two countries, the statement said.

The Directorate for Defense Exports at the Israeli Ministry of Defense (SIBAT), in collaboration with the Israel Economic and Commercial Mission in New Delhi, the Israeli Ministry of Economy and Industry, the Israel Export Institute, the Israeli Embassy in India, the Indian Ministry of Defense and SIDM (Society of Indian Defence Manufacturers) held the seminar in Delhi to "enhance security cooperation between Israel and India in combating drone threat", it said.

D-Fend Solutions, Septier and Sentrycs presented Cyber Radio Frequency (CRF) based systems for detecting, locating, and neutralising drones. Smart Shooter demonstrated intelligent fire control systems for small arms to intercept drones. ThirdEye Systems showcased AI-driven vision and robotics systems for detecting and identifying drones and small aircraft, it said.

"ELTA Systems, Rafael, Elbit Systems and Skylock exhibited solutions based on sensors, radars, electronic warfare and communication systems for detecting, identifying and neutralizing drones," the statement said.

The second day of the seminar was all focus on creating business synergies between the industries of both sides to explore partnerships using the Israeli defence and dual-use technologies to address the growing threats of drones, both for defence and civil related applications, it said.

An Israeli delegation held site visits to prominent Indian entities on the last day to learn more about the present and future drone threats. The seminar created a unique opportunity to showcase Israeli companies' advanced technologies, deepen security cooperation between Israel and India, and promote joint solutions to security threats, it added.

"Israeli technologies, particularly in the field of homeland security, are highly regarded in India and generate significant interest from both public and private entities.

The recent seminar, which facilitated over 150 business meetings, is a testament to the strong demand for these technologies. We will continue to support Israeli companies in their endeavours in India until we see these promising opportunities translate into business partnerships that will strengthen the security and relations of both Israel and India," Economic Counsellor at Israel Embassy, Natasha Zangin, was quoted as saying in the statement.

<https://economictimes.indiatimes.com/news/defence/israeli-defence-companies-showcase-in-india-advanced-tech-to-counter-drone-threats/articleshow/113102583.cms>

## **Burevestnik nuclear missile: Russia is developing 'invincible' weapon capable of evading radars, missile systems**

Russia's experimental Burevestnik missile, also known as the SSC-X-9 Skyfall by NATO, has garnered global attention due to its nuclear-powered propulsion, raising serious concerns over its technical feasibility and safety.

First introduced by President Vladimir Putin in 2018 as an "invincible" weapon capable of evading US missile defenses, recent satellite images suggest Russia might be preparing for its deployment near a nuclear warhead storage site in Vologda, around 295 miles north of Moscow. This development prompts questions about the missile's potential impact on global security and the risks it poses.

### **All about Russia 9M370 Burevestnik Missile**

The Burevestnik, powered by a miniature nuclear reactor, theoretically allows for long-range flights, possibly bypassing radar detection and striking targets worldwide. Despite these capabilities, experts are skeptical about its effectiveness and safety.

Jeffrey Lewis, a missile expert at the Middlebury Institute, reviewed the recent satellite images and found, "This imagery suggests something very unique, very different. It aligns with Russia's development of this nuclear-powered missile."

He noted the unusual features of the site and its proximity to nuclear storage bunkers as significant indicators of ongoing preparations. Strategically, the Burevestnik's potential deployment could exacerbate the already volatile global security environment.

Its ability to evade current missile defenses is alarming, though the practical benefits remain unclear to some analysts. If deployed, it could reignite the nuclear arms race, particularly with the New START treaty between the US and Russia nearing expiration in 2026. The missile not only poses threats to other nations but could also impact Russia adversely due to potential radiation leaks from its nuclear propulsion system.

### **Burevestnik Missile Drawback**

One major drawback of the Burevestnik is its subsonic speed, which makes it slower than other missiles and more vulnerable to interception. This limitation questions its supposed stealth advantage.

The missile's design, allowing for extensive low-altitude flights powered by its nuclear reactor, could circumnavigate the globe and evade radar detection. However, its slower speed gives enemy defenses more time to intercept it, potentially diminishing its effectiveness in a real-world scenario. Testing of the Burevestnik since 2017 has seen mixed results, with most of the 13 known tests ending in failure. Only two tests were partially successful.

In a 2019 test, the missile crashed into the White Sea, causing a significant explosion that killed several Russian scientists. This incident highlighted the dangers associated with the missile's nuclear engine, intensifying doubts about whether the benefits outweigh the risks. The possibility of Russia deploying the Burevestnik has alarmed the US and NATO, particularly with satellite images revealing construction near the Vologda-20 nuclear warhead storage facility.

This site, located about 400 miles from Russia's borders with Finland and Estonia, appears designed for large, fixed missile systems. Experts speculate that Russia could be planning to station Burevestnik missiles there, making them launch-ready at short notice.

Diverse opinions exist on the implications of deploying the Burevestnik. Some believe its ability to evade missile defenses and reach long-distance targets gives Russia a strategic advantage, especially for second-strike scenarios. Conversely, others are skeptical about its real-world utility. One major concern is the missile's nuclear propulsion system, as any malfunction could release radioactive material along its flight path.

### **Burevestnik vs Sarmat ICBM**

Compared to other missile systems in Russia's arsenal, like the Sarmat ICBM, the Burevestnik's advantages appear limited. The Sarmat boasts a range of over 11,000 miles (17,700 kilometers) and can deliver multiple warheads at hypersonic speeds, making it significantly harder to intercept than the slower Burevestnik.

Not everyone sees the Burevestnik favorably. Thomas Countryman, a former US State Department official, bluntly described it as "a uniquely stupid weapon system, a flying Chernobyl that poses more threat to Russia than to other countries."

Hans Kristensen from the Federation of American Scientists echoed this sentiment, saying, "The missile will be as vulnerable as any cruise missile." Analyst Jeffrey Lewis added, "The site's design suggests they're preparing for something very unique."

Decker Eveleth, the analyst who first identified the construction site, believes it's clearly meant for the Burevestnik. Eveleth noted the nine horizontal launch pads protected by berms designed to shield against explosions or attacks, indicating serious Russian intent to deploy the missile.

### **How Russia Burevestnik Invincible Missile can Effect Global Arm Race**

As Russia moves closer to possibly deploying the Burevestnik, global security implications loom large. While the missile symbolizes Russia's determination to maintain its status as a nuclear superpower, its practical utility remains questioned due to technical flaws and safety concerns.

The missile's troubled test history does not inspire confidence in its ability to meet the high expectations set by Putin in 2018. Nevertheless, the Burevestnik's development could influence the global arms race, particularly as the New START treaty nears its expiration.

Some experts suggest the missile could serve as a bargaining chip in future arms control negotiations. As tensions between Russia and the West rise, especially with the ongoing conflict in Ukraine, the deployment of the Burevestnik adds another layer of complexity to an already fraught geopolitical landscape.

However, Decker Eveleth from the CNA research group emphasized in a Foreign Policy report, "The Burevestnik is not a wonder weapon, and the challenges it poses for NATO security are neither new nor unmanageable." The Burevestnik missile may be a bold technological leap, but its actual deployment could trigger severe risks and escalate global security tensions. The debate continues over whether its potential strategic advantages outweigh the significant safety concerns it brings.

<https://economictimes.indiatimes.com/news/defence/burevestnik-nuclear-missile-russia-is-developing-invincible-weapon-capable-of-evading-radars-missile-systems/articleshow/113087459.cms>

## अमर उजाला

Thu, 05 Sep 2024

### FRCV: भारतीय सेना को क्यों चाहिए यह फ्यूचर रेडी कॉम्बैट व्हीकल; क्या होगा पुराने रूसी टी-72 टैंकों का?

डिफेंस एक्वीजिशन काउंसिल (डीएसी) ने हाल ही में फ्यूचर रेडी कॉम्बैट व्हीकल (FRCV) के निर्माण के लिए हरी झंडी दे दी है। लगभग 60,000 करोड़ रुपये की लागत से आर्मर्ड कोर के आधुनिकीकरण के लिए भारतीय सेना 1,770 फ्यूचर रेडी कॉम्बैट व्हीकल को शामिल करने की योजना बना रही है। खास बात यह है कि ये फ्यूचर रेडी कॉम्बैट व्हीकल पुराने रूसी T-72 टैंकों की जगह लेंगे। रक्षा मंत्रालय का कहना है कि ये टैंक न केवल तेज रफ्तार से दौड़ेगा, बल्कि सभी तरह के इलाकों में भी काम करने में सक्षम होगा। साथ ही, मल्टीलेयर प्रोटेक्शन, घातक मारक क्षमता से भी लैस होगा।

35 से 45 वर्षों तक सेवा में रहेगा FRCV

रक्षा मंत्रालय ने एक बयान में कहा, "टैंक बेड़े के आधुनिकीकरण के लिए, एफआरसीवी की खरीद के प्रस्ताव को मंजूरी दे दी गई है। FRCV अगले 35 से 45 वर्षों तक सेवा में रहेगा और इसलिए इसे इस तरह से डिजाइन किया जाना चाहिए कि युद्ध के मैदान में ये न केवल दुश्मन पर जबरदस्त प्रहार करे, बल्कि इस पर मिसाइलों के हमलों का भी असर न हो और लंबे समय तक युद्ध के मैदान में टिका रहे। साथ ही, अगली पीढ़ी की ऑपरेशनल कैम्पेबिलिटीज और ऑटोमेशन को देखते हुए इसमें पूरी तरह से डिजिटल डेटा बैकबोन आर्किटेक्चर को भी जोड़ा चाहिए।"

60 टन से ज़्यादा नहीं होगा वजन

रिटायर्ड लेफ्टिनेंट जनरल एबी शिवाने ने बताया कि भारतीय सेना के पास इस समय रूस से खरीदे हुए लगभग 1800 टी-72 टैंक हैं, जो 1979 से सेवा में हैं। वहीं, 2030 तक एफआरसीवी भी सेना में शामिल होना शुरू हो जाएगा, जिसके बाद इन टी-72 टैंकों को सेवा से बाहर करने की शुरुआत की जाएगी। उन्होंने संभावना जताई कि FRCV साल 2045 तक शेष T-72 बेड़े की जगह ले लेगा। उन्होंने बताया कि डीजीएमएफ ने इसके लिए कई टेक्निकल पैरामीटर्स को लिस्ट किया है। इसका वजन 55+/-10% के साथ हाई-पावर टू-वेट रेशियो 27:1 एचपी/टन होगा। कुल मिला कर इसका वजन 60 टन से ज़्यादा नहीं होगा। वहीं इसमें चालक दल के चार लोगों के बैठने की जगह होगी। उन्होंने बताया कि टी-72 को टी-90 से भी रिप्लेस किया गया है। सेना ने लगभग 1,200 टी-90 एस 'भीष्म' टैंकों को शामिल किया है। वहीं, इस साल, 118 स्वदेशी अर्जुन मार्क-1 ए टैंकों में से पहले पांच को शामिल करेगी।

लेफ्टिनेंट जनरल एबी शिवाने के मुताबिक भारतीय सेना ने पहली बार 2015 में रिक्वेस्ट फॉर इनफॉर्मेशन (आरएफआई) जारी किया था। शुरुआत में इसे स्ट्रेटेजिक पार्टनरशिप मॉडल (एसपीएम) के तहत रखा जाना था।

हालांकि, एसपीएम के सामने आने वाली चुनौतियों को देखते हुए सेना ने इसे मेक-1 कैटेगरी के तहत आगे बढ़ाना शुरू कर दिया। जिसके बाद 2015 से सर्विस हेडक्वार्टर्स की तरफ से कई आरएफआई जारी किए गए, जो 2024 में अंतिम चरण में है।

3-4 सालों में बन कर तैयार हो जाएगा प्रोटोटाइप

रक्षा सूत्रों ने बताया कि एफआरसीवी को तीन चरणों में शामिल किए जाने की उम्मीद है। एक्सेप्टेंस ऑफ नेसेसिटी (एओएन) के बाद, सेना अब एक्सप्रेसन ऑफ इंटेस्ट (ईओआई) जारी करेगी, जिसमें वह वह बताएगी कि उसे किस तरह की टेक्नोलॉजी और स्पेसिफिकेशंस इस टैंक में चाहिए। जिसके बाद इसे बनाने की इच्छुक कंपनियां अपना इंटेस्ट जाहिर करेंगी। सूत्रों ने बताया कि फ्यूचर रेडी कॉम्बैट व्हीकल्स बनाने के लिए दो कंपनियों ने अभी तक रुचि दिखाई है, इनमें भारत फोर्ज और लार्सेन एंड टुब्रो शामिल हैं। तीनों चरणों के प्रत्येक फेज में 600 FRCV बनाए जाएंगे। रक्षा अधिग्रहण प्रक्रिया (डीएपी) के अनुसार, पूरी प्रक्रिया में 98 सप्ताह (या लगभग 2 वर्ष) का समय लगेगा। वहीं एओएन मिलने के बाद, इस प्रक्रिया को पूरा होने में लगभग 6-8 महीने और लगेगे। योजना के अनुसार, चयनित कंपनियां पहले प्रोटोटाइप बनाएंगी, जिनका ट्रायल किया जाएगा और फिर अंतिम ऑर्डर दिया जाएगा। वहीं, यह ऑर्डर दोनों कंपनियों के बीच बांटा भी जा सकता है। सेना को उम्मीद है कि पहला प्रोटोटाइप अगले 3-4 सालों में बन कर तैयार हो जाएगा।

रूस-यूक्रेन जंग से भारतीय सेना ने ली ये सीख

सैन्य सूत्रों ने बताया कि भारतीय सेना ने हाल ही में चल रही रूस-यूक्रेन जंग और हमास-इस्राइल जंग से काफी कुछ सीखा है। दो साल से भी लंबे वक्त से जारी रूस-यूक्रेन जंग में टैंकों और आर्मर्ड व्हीकल्स की हालत को देखते हुए FRCV में वह तकनीक लगाई जाएगी, जो उसे भविष्य के युद्धों के लिए बेहतर बनाएगी। सूत्रों ने बताया कि फ्यूचर रेडी कॉम्बैट व्हीकल एक किले से भी ज्यादा मजबूत होगा। इसमें बारूदी सुरंग का विस्फोट झेलने की क्षमता होगी। वहीं रूस-यूक्रेन युद्ध में जिस तरह से टैंकों पर ड्रोन हमले हुए हैं, उससे भी भारतीय सेना ने बड़ा सबक लिया है। भारत में जो 1770 FRCV बनाए जाएंगे उसमें ड्रोन हमलों का काउंटर करने की भी क्षमता होगी। वहीं, एंटी टैंक गाइडेड मिसाइलें भी इसका बाल भी बांका नहीं कर पाएंगी। FRCV में मॉड्यूलर आर्मर, अत्याधुनिक ऑप्टोइलेक्ट्रॉनिक्स, वेट्रॉनिक्स, नॉन-एक्सप्लोसिव रिएक्टिव आर्मर, एक्सप्लोसिव रिएक्टिव आर्मर जैसे हथियार भी लगाए जाएंगे। सूत्रों ने यब भी बताया कि यह टैंक इलेक्ट्रॉनिक वॉरफेयर कैपेबिलिटी के साथ आर्टिफिशियल इंटेलिजेंस टेक्नोलॉजी से भी लैस होगा।

जोरावर हो रहा तैयार

इसके अलावा सेना ने एलएसी पर चीन के जेड-15 'ब्लैक पैंथर' का मुकाबला करने के लिए प्रोजेक्ट जोरावर के तहत लगभग 17,500 करोड़ रुपये की लागत से 354 स्वदेशी लाइट टैंक शामिल करने की योजना बनाई है। ये टैंक हाई एल्टीट्यूड इलाकों में होने वाले युद्ध के लिए डिजाइन किए गए हैं और इनका वजन भी 25 टन से कम है। भारतीय सेना ने शुरुआत में केवल 59 जोरावर टैंकों का ऑर्डर दिया है। जोरावर टैंक में भारत-फोर्ज की बनाई 105 मिमी की तोप लगाई जा सकती है। अवाडी में कैन्नन के ट्रायल पूरे होने के बाद जोरावर को चंडीगढ़ ले जाया जाएगा, जहां से उसे न्योमा में माहे फील्ड फायरिंग रेंज में ले जाया जाएगा। न्योमा पूर्वी लद्दाख में एलएसी के पास स्थित है। इस दौरान जोरावर के शून्य से भी नीचे तापमान में हाई एल्टीट्यूड इलाकों में परीक्षण किए जाएंगे। अगर इसके सभी परीक्षण सफल हुए तो जोरावर को 2027 तक सेना में शामिल किया जा सकता है।

<https://www.amarujala.com/india-news/frcv-why-indian-army-needs-this-future-ready-combat-vehicle-what-will-happen-to-the-old-russian-t72-tanks-2024-09-05>

## Defence ministry to revise Agniveer benefits, increase retention

The central government is considering adjustments to the Agnipath recruitment scheme, according to defence sources cited by India Today. These adjustments may include increasing the retention rate of Agniveers, as well as, revising their compensation and benefits.

These updates are also expected to refine the scheme's overall framework and address criticism and protests from Army aspirants.

The report stated that senior defence ministry officials are currently discussing plans to boost the retention rate of Agniveers, which would allow more individuals to extend their service beyond the initial four-year period. At present, only 25 per cent of Agniveers are retained after their initial service, a figure seen as inadequate by military experts.

The report quoted a top defence source as saying, "One-fourth is too low a number to be retained to maintain the desired combat strength on the ground. The Army has recommended that the percentage of Agniveers retained should increase to around 50 per cent at the end of the four years."

The Army has already forwarded these recommendations to the government based on internal feedback and surveys from various units.

Defence officials noted that while implementing these changes may take some time, efforts are underway to improve the Agnipath scheme.

### What is the Agnipath scheme?

Introduced by the central government in 2022, the Agnipath scheme aims to streamline the armed forces and curb the rising defence pension expenses. Under this scheme, individuals, referred to as Agniveers, are enlisted in the Army, Navy, and Air Force on a four-year short-term contract. Each year, only 25 per cent of the recruits are eligible for a permanent commission.

The Agnipath scheme has sparked widespread protests, with potential recruits expressing concerns about their future after the four-year term. The Opposition, led by the Congress party, has called for the scheme's reversal, while members of the National Democratic Alliance (NDA) have suggested a review. Additionally, Bharatiya Janata Party's (BJP) internal reports indicate that the party faced setbacks in recent Lok Sabha elections in regions with high numbers of defence personnel, the report said.

[https://www.business-standard.com/external-affairs-defence-security/news/agnipath-scheme-defence-ministry-to-revise-agniveer-benefits-increase-retention-124090500450\\_1.html](https://www.business-standard.com/external-affairs-defence-security/news/agnipath-scheme-defence-ministry-to-revise-agniveer-benefits-increase-retention-124090500450_1.html)

Thu, 05 Sep 2024

## यहां होगा भारत और अमेरिका के बीच युद्धाभ्यास, 600 से ज्यादा सैनिक दिखाएंगे दम, इन हथियारों का होगा उपयोग

श्चिमी रेगिस्तान के रेतीले धोरों में भारतीय सेना और अमेरिका के सैनिकों के बीच अब तक का सबसे बड़ा युद्धाभ्यास होगा. दोनों देशों की सेनाओं के बीच संयुक्त युद्धाभ्यास का यह 20 वां संस्करण 9 सितंबर को शुरू होगा. इसमें 600 से ज्यादा सैनिक शामिल होंगे. सेना की महाजन फील्ड फायरिंग रेंज में दोनों देशों के बीच युद्धाभ्यास की तैयारियां शुरू की जा चुकी है. अभ्यास 9 से 22 सितंबर तक 14 दिन चलेगा. इस दौरान युद्ध की अलग-अलग स्थितियां पैदा कर सैनिक अभ्यास करेंगे.

दोनों देश के सैनिक अपने-अपने सैन्य हथियारों का उपयोग करेंगे. अमेरिका अपने साथ हाई मोबाइल आर्टिलरी रॉकेट सिस्टम समेत अत्याधुनिक हथियार लेकर आएगा. वहीं भारतीय सैनिक भी देश में निर्मित असॉल्ट सीरीज की एके-203 राइफल जैसे हथियारों का उपयोग करेंगे. महाजन की युद्ध स्थली पर कई तरह की युद्धक स्थितियों को नियमित किया जाएगा. साथ ही आतंकवादियों के खिलाफ सैन्य ऑपरेशन के अभ्यास किए जाएंगे.

20 वें संस्करण का सबसे बड़ा युद्धाभ्यास

भारत-अमेरिका के बीच संबंधों में रक्षा रणनीति अहम है. रक्षा मंत्री राजनाथ सिंह ने पिछले सप्ताह ही अमेरिका का दौरा किया और कई अहम रक्षा सौदे भी हुए. ऐसे में इस युद्धाभ्यास पर पूरी दुनिया की नजर भी है. दोनों देश की सेना अपनी-अपनी श्रेष्ठ युद्धक तकनीकों को साझा करेंगे. पिछले साल संयुक्त सैन्य अभ्यास का 19 वां संस्करण अमेरिका के अलास्का में हुआ था. इससे पहले 18 वां संस्करण उत्तराखंड के औली में किया गया. परन्तु सैनिकों की संख्या के लिहाज से अब 20 वां संस्करण सबसे बड़ा है.

<https://hindi.news18.com/news/rajasthan/bikaner-war-exercise-between-india-and-america-in-dhor-more-than-600-soldiers-will-participate-these-weapons-used-8659244.html>

## The Tribune

Fri, 06 Sep 2024

### China shifts gears to combat strong rivals

The Chinese military is shifting its focus to winning wars against stronger opponents amid mounting challenges. According to a South China Morning Post report, President Xi Jinping, who is also the Chairman of the Central Military Commission (CMC), China's highest defence body, has directed the People's Liberation Army (PLA) to enhance its strategic capabilities to defend the country's sovereignty and developmental interests.

Xi unveiled the new directive while commemorating Deng Xiaoping's 120th birth anniversary on August 22. He highlighted Deng's vision for the PLA — which was instrumental in developing it into a strong, modernised and well-organised force — emphasising the importance of 'fewer but



better troops'. General Miao Hua, a member of the CMC, stated while commenting on the strategic shift, "In the new journey, we should focus on strengthening capabilities to defeat strong enemies and opponents."

A recent article in the PLA Daily, while referring to Deng's 1980 strategic judgement that "a world war can be postponed or avoided", noted that China now faces great changes unseen in a century. It asserted the need for the armed forces to remain vigilant and maintain strategic clarity on the possible risk of war, make full preparations for military struggle, effectively deter war and resolutely win it.

The Chinese leadership has refined its warfighting doctrines of winning local wars since the 1990s through white papers and strategic guidelines. The first 'White Paper on National Defence' was published in 1998. Following the release of 'White Paper on National Defence (2006)', the PLA adopted the 'local wars under informationised conditions' doctrine to match technologically superior adversaries. Through the 'informationised war' doctrine, China sought to impose high costs on conventionally superior opponents by targeting command, control, communication, computer, intelligence, surveillance and reconnaissance (C4ISR) networks.

The recent directive to the military to prepare for wars against strong enemies marks another strategic shift, primarily as a response to the challenges China is facing, both in the maritime domain and on the land borders. Incidentally, Xi, on assuming power in 2012, had initiated a slew of deep-rooted military reforms as he had envisioned the PLA to play a key role in realising the 'China Dream' of a prosperous and powerful China by the middle of the century. Sovereignty was identified as one of the key national objectives. Besides fostering nationalism, it was to ensure the security of periphery and the integration of Taiwan and all claimed territories with the motherland.

To provide strategic direction to implement Xi's vision, the 'White Paper on National Defence, 2015' (China's Military Strategy) was released. Its theme was 'active defence', and its focus was on winning 'local wars under conditions of modern technology'. It implied a major transition in the naval strategy from 'offshore waters defence' to a combined strategy of 'offshore waters defence and open sea protection' to secure China's maritime interests.

To operationalise the new doctrine, the CMC was restructured and military regions reorganised into theatre commands. A number of measures were instituted to enhance military capabilities across the spectrum. PLA navy (PLAN), numerically the biggest navy today with more than 350 ships, is expected to reach a strength of 450, including six aircraft carriers, in the next few years. The Chinese Coast Guard is the largest in the world, with over 100 vessels. The PLA air force is in the process of building an 'air space defence force' to enhance its power projection capabilities. It is expected to have a fleet of over 1,000 stealth and fifth-generation fighter aircraft by around 2035. Besides, the Rocket Force arsenal is anticipated to go up to 700 before the end of the decade, duly complemented by hypersonic glide vehicles and cruise missiles.

Under Xi, the 'White Paper on National Defence, 2019' (Defence in the New Era) was published; it was US-specific. It flagged the fact that America and China are competing superpowers and the latter's military is developing to the point that it could challenge the US. China further revised the 'limited war fighting doctrine' based on 'informatisation and intelligentisation'; the thrust was on

information technology, artificial intelligence (AI) and digitisation. Through informatised warfare, China plans to take on opponents superior in conventional terms by targeting the C4ISR systems.

The rationale behind China's recent doctrinal shift is the possibility of confrontation with the US and its allies due to the ongoing maritime disputes in South and East China seas and Beijing's persistent claims over Taiwan. Hence, to get the better of its powerful opponents, China plans to increase its strategic capabilities significantly by leveraging disruptive technologies, including the weaponisation of AI by building networks of unmanned weapon systems. The 'grey zone warfare' is a force multiplier that encompasses the concept of 'Three Warfares' (psychological, media and legal warfare). It is already being effectively waged by the Chinese Coast Guard and PLAN in the South China Sea.

China does not consider India as a major threat, considering the prevailing asymmetry in the Comprehensive National Power between the two, which distinctly favours the former. Ironically, the divide is set to widen, given the PLA's fast pace of reforms and modernisation. China remains unrelenting when it comes to de-escalation on the Line of Actual Control (LAC) in Ladakh, despite a number of meetings of the Working Mechanism for Consultation and Coordination and Corps Commanders, besides numerous ministerial-level interactions. Given the massive military build-up across the LAC in Tibet opposite Arunachal Pradesh, the enactment of the new border law in 2022 and the Beijing-Islamabad collusion, China apparently has no design to resolve the border issue anytime soon. India must be fully prepared for possible escalations.

China's periodic pronouncements of new military doctrines serve a dual purpose: it ensures strategic clarity for the defence planners and subtle messaging to the global polity. While the Chinese leadership foresees stability and a peaceful environment, it makes no bones about its intent of using force in pursuit of its national interests. China's recent doctrinal shift merits a realistic analysis to unravel the Dragon's grand design and its implications.

<https://www.tribuneindia.com/news/comment/china-shifts-gears-to-combat-strong-rivals/>



*Thu, 05 Sep 2024*

## **Indian officials conduct study mission in Europe to strengthen security, defence ties**

With a view to further strengthen security and defence cooperation, the European Union (EU) organised in Europe a three-day study visit for senior Indian officials from the Ministry of External Affairs (MEA) and Ministry of Defence (MOD).

Senior Indian officials from MEA and MOD briefed on EU Common Security and Defence Policy (CSDP) during visits to EU institutions in Brussels, Belgium and EU Naval Force Operation (EUNAVFOR) ATALANTA headquarters in Rota, Spain, from September 2-4, 2024 Facilitated by the EU Delegation to India and the EU cofunded Enhancing Security Cooperation In and with Asia

(ESIWA) project, the visit aimed to familiarise Indian officials with the EU's security and defence mechanisms while exploring potential cooperation in CSDP missions and in the Indo-Pacific, a press release by the delegation of the European Union to India and Bhutan said.

Notably, the Indian delegation was led by Muanpuii Saiawi, Joint Secretary, Disarmament and International Security Affairs Division, MEA, and accompanied by Captain (Navy) Fabrizio Falzi, Defence Attache of the EU Delegation to India. The Indian officials' three-day study mission began with detailed briefings and discussions at the European External Action Service (EEAS), in particular the Directorate for Security and Defence Policy, the European Security and Defence College and the European Union Military Staff.

Representatives from the European Maritime Security Agency and FRONTEX also engaged with the Indian delegation to further define possible areas of mutual interest and cooperation between the EU and the Indian Coast Guard. Herve Delphin, Ambassador of the EU to India, highlighted that the visit emphasises the commitment by India-EU on boosting security and defence relations.

He said, "This visit highlights the shared commitment of India and the EU to strengthening security and defence ties. Maritime security is a common concern and prime focus for cooperation, as exemplified by the EU NAVFOR and Indian Navy respective operations in the Indian Ocean."

He added, "Through such visits we can build a deeper mutual understanding, which is essential for advancing cooperation. To take our partnership to new heights, we aim to establish more permanent staff-to-staff interactions, including with military personnel. This will boost our joint operational effectiveness in tackling challenges we face at sea, but also on land and in cyberspace."

Commenting on EU NAVFOR operations, Delphin added that the IndoPacific area is strategically crucial for India and the EU. "The Indo-Pacific region is a vital hub of strategic importance to both India and the EU due to the growing interdependence of global economies and the importance of maritime supply chains. We're committed to forging stronger cooperation with India to ensure free, open, inclusive, and rules-based maritime order, address common security challenges, and promote peace and stability in the region," Delphin said.

The EU's CSDP enables the Union to take a leading role in peacekeeping operations, conflict prevention, and international security. EUNAVFOR ATALANTA is a key component of the EU's CSDP and naval diplomacy in the Indo-Pacific. India remains one of the most relevant actors and partners in the security and defence cooperation, including maritime security in the Indo-Pacific Region, the release said.

Notably, Indian and EU officials benefitted from peer-to-peer exchange and a deeper understanding of each other's strategic and operational frameworks in the context of the CSDP, as well as a better understanding of the EU's collective efforts in peacekeeping, conflict prevention, and strengthening international security, as set out in the EU's strategic vision for an EU-India Strategic Partnership.

The visit to the EUNAVFOR ATALANTA Operation's headquarters in Rota, Spain, highlighted the EU's maritime CSDP activities in the Horn of Africa and the Western Indian Ocean, rounding off the Indian delegation's visit with an opportunity to see firsthand the EU's maritime security operations centre.

In August 2023, the EUNAVFOR ATALANTA flagship, ITS Durand De La Penne, conducted a joint activity at sea with the Indian destroyer INS Visakhapatnam in the framework of the EU's strategy for cooperation in the Indo-Pacific. The cooperation between EUNAVFOR ATALANTA and ASPIDES with the Indian Navy is fundamental to further enhance the security and freedom of navigation in this strategical area, both for India and the EU.

<https://www.aninews.in/news/world/europe/indian-officials-conduct-study-mission-in-europe-to-strengthen-security-defence-ties20240905164411/>



*Thu, 05 Sep 2024*

## **National Defence College Delegation from India concludes five-day Nepal visit**

A 21-member delegation of the 64th course of the National Defence College (NDC), India, completed a five-day visit to Nepal on Thursday, September 5, 2024, according to a press release issued by the Indian Embassy in Kathmandu.

The delegation, comprising senior officers from both India's civil services and defence forces, as well as representatives from friendly foreign nations -- Australia, Bhutan, Japan, Kazakhstan, Oman, and the USA arrived in Nepal on September 1, 2024. Led by Rear Admiral Sandeep S Sandhu, NM, Senior Directing Staff (Indian Navy), the delegation paid courtesy calls on several high-ranking Nepali officials, including Prime Minister K.P. Sharma Oli, Home Minister Ramesh Lekhak, Foreign Minister Dr Arzu Rana Deuba, and Defence Minister Manbir Rai.

The team also met with Lieutenant General Ashok Raj Sigdel, the Officiating Chief of Army Staff of the Nepali Army, to discuss issues of bilateral military cooperation. The visit underlined the strong military ties between India and Nepal, with a focus on enhancing defence cooperation. The discussions centred on bolstering existing military engagements and exploring new areas of collaboration between the two countries.

The National Defence College of India is recognized as a premier institution globally, offering advanced training to senior defence and civil service officers on national strategy and higher-level defence management. Officers from friendly foreign countries also attend the prestigious course. The delegation's visit reaffirmed the longstanding educational and defence cooperation between the two nations, with several senior Nepal officer, including General Prabhu Ram Sharma, being alumni of the institution. Currently, four officers from the Nepali Army are enrolled in the NDC course.

In addition to their official meetings, the delegation visited the Nepali Army Headquarters in Kathmandu and the Western Division Headquarters. These interactions fostered discussions on various aspects of defence cooperation aimed at deepening the strategic partnership between India and Nepal.

The National Defence College, with its long-standing history of training senior military and civilian leaders from India and abroad, continues to play a pivotal role in shaping international defence collaborations. Its alumni have gone on to occupy crucial positions in their respective countries, strengthening global defence networks.

<https://www.aninews.in/news/world/asia/national-defence-college-delegation-from-india-concludes-five-day-nepal-visit20240905233352/>



*Thu, 05 Sep 2024*

## **IIT Madras, National Defence College partner to offer Executive MBA in Leadership**

The Indian Institute of Technology Madras (IIT Madras) is partnering with National Defence College (NDC), an apex inter-service training institute in New Delhi, to offer an Executive MBA Programme in ‘Strategic Leadership and Public Policy’.

This user-oriented programme will last for one year. The programme will be for a 48-week duration with lecture-based courses and practical modules including a thesis.

It is aimed at the intellectual development and strategic enculturation of selected senior officers of the armed forces of India and friendly foreign countries, along with civilian government services of India (IAS, IPS, IRS, DRDO, etc.), for higher leadership positions.

An MoU for this programme was signed by Professor M Thenmozhi, Professor and Head, Department of Management Studies, Indian Institute of Technology Madras and Brigadier Rajesh Raman, Secretary, National Defence College on August 27, 2024 at New Delhi, in the presence of Professor V Kamakoti, Director, IIT Madras, and Dipti Mohil Chawla, Additional Secretary, Ministry of Defence.

Air Marshal Hardeep Bains AVSM VSM, Commandant, National Defence College, Professor HSN Murthy, Professor and Head, Department of Aerospace Engineering, IIT Madras, Lt Gen P R Shankar (Rtd.), Professor of Practice, IIT Madras and other senior NDC Officials were also present during the event.

Highlighting the importance of this programme, Professor V Kamakoti, Director, IIT Madras, said, “The next-gen world needs managers with deep understanding of contemporary technologies. This MBA programme is conceived to address this need.”

Faculty members from the Department of Management Studies and Aerospace and other departments at IIT Madras, faculty from NDC and subject-matter experts will teach the programme at the National Defence College.

The programme will have 120 members drawn from the Indian Armed Forces, Indian Civil Services, Indian Police Services and other organs of the Government. They would be selected after a rigorous screening process. The course also includes officers from friendly foreign countries.

While the Service Officers eligible for this programme would normally be Brigadier or equivalent, the Civil and Diplomatic service officers are at the level of Director/Joint Secretary to the Government of India.

The main purpose of this MoU is to integrate technology-based leadership and policy issues in the curriculum and develop future leaders with knowledge of AI, Cybersecurity and emerging technology applications in strategic decisions.

<https://www.indiatoday.in/education-today/news/story/iit-madras-national-defence-college-partner-to-offer-executive-mba-in-leadership-2594341-2024-09-05>

## Science & Technology News



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*Thu, 05 Sep 2024*

### **Experts discuss on AI-driven solutions that can improve healthcare**

Medical professionals, engineers, scientists and other stakeholders discussed on ways to develop AI-driven solutions that will enhance patient care, optimize clinical processes, and ultimately improve healthcare outcomes at a day-long conference organised at the iHub Anubhuti IIITD Foundation of Indraprastha Institute of Information Technology Delhi (IIIT Delhi) on September 5, 2024.

In his inaugural address, at the conference on "AI in Healthcare" Bridging the Gap Between Medicine and Engineering, Professor Abhay Karandikar, Secretary Department of Science and Technology (DST) highlighted the potential of the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) to transform healthcare by integrating expertise from AI, clinical sciences, and basic sciences to harness India's extensive data sets for improving the access to healthcare.

Prof. Karandikar emphasised on the critical need for interdisciplinary collaboration to address the country's overloaded healthcare facilities. "Over the next three years the NM-ICPS aims to recalibrate and synchronize efforts to achieve impactful advancements", he added.

This conference was jointly organized by DST and five Technology Innovation Hubs (TiHs) established under NM-ICPS and was co-supported by AIIMS, Delhi. The main aim of the conference was to identify key healthcare challenges, foster interdisciplinary collaboration and explore practical implementation.

Highlighting the importance of interdisciplinary research under NM-ICPS, Prof. Karandikar urged participants to provide concrete recommendations that can lead to effective interventions for the benefit of the society. "We will be able to launch an interdisciplinary R&D program which will work at the intersection of engineering, basic sciences, computer scientists, and also the practicing doctors and clinicians," he added.

Dr. Ranjan Bose, Director, IIIT Delhi; Dr. Ekta Kapoor, Head, FFT Division, DST; Dr. Pushpendra Singh & Dr. Vikram Goyal, Project Directors, iHub Anubhuti-IIITD Foundation and other domain experts attended the event.

<https://pib.gov.in/PressReleasePage.aspx?PRID=2052256>



*Fri, 06 Sep 2024*

## **China's Geespace launches 10 low-orbit satellites, eyeing Starlink**

Geespace, a company backed by Chinese automaker Geely, said on Friday it launched a third batch of satellites as part of its plan to form a megaconstellation it described as China's equivalent of US firm SpaceX's Starlink.

"This deployment marks the first time a Chinese commercial aerospace company has offered LEO satellite communication on a global scale," the company said.

The carmaker's Geely Technology Group created Geespace to research, launch, and operate low-orbit satellites in 2018. LEO satellites usually operate at altitudes of 300-2,000 km (186-1243 miles) above the Earth's surface and have the advantage of being cheaper and provide more efficient transmission than satellites at higher orbits.

Geespace placed its first 20 satellites in orbit in two separate launches, in 2022 and earlier this year. Geespace plans to build a constellation of nearly 6,000 LEO satellites that would provide global broadband, the company said, describing the constellation as "China's private equivalent to 'Starlink'".

SpaceX's Starlink is a growing commercial broadband constellation that has about 5,500 satellites in space and is used by consumers, companies and government agencies. Starlink, operated by billionaire Elon Musk, has tens of thousands of users in the United States and plans to add tens of thousands more satellites to its system, the largest of its kind. Geespace's Friday satellite launch is

part of its first construction phase for its constellation, which aims to put 72 satellites in orbit to service over 200 million users worldwide by the end of 2025.

The second phase will add 264 satellites for mobile phone communications, while the third phase will launch 5,676 satellites for high-speed broadband. Geespace is one of several Chinese firms hoping to rival Starlink.

Last month, state-owned enterprise Shanghai Spacecom Satellite Technology (SSST) launched a batch of LEO satellites from Taiyuan for its "Thousand Sails Constellation", also known as the "G60 Starlink Plan". SSST's plan is to launch 108 satellites this year, 648 satellites by the end of 2025 and have 15,000 satellites deployed before 2030.

<https://www.deccanherald.com/science/space/chinas-geespace-launches-10-low-orbit-satellites-eyeing-starlink-3179354>



