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2025

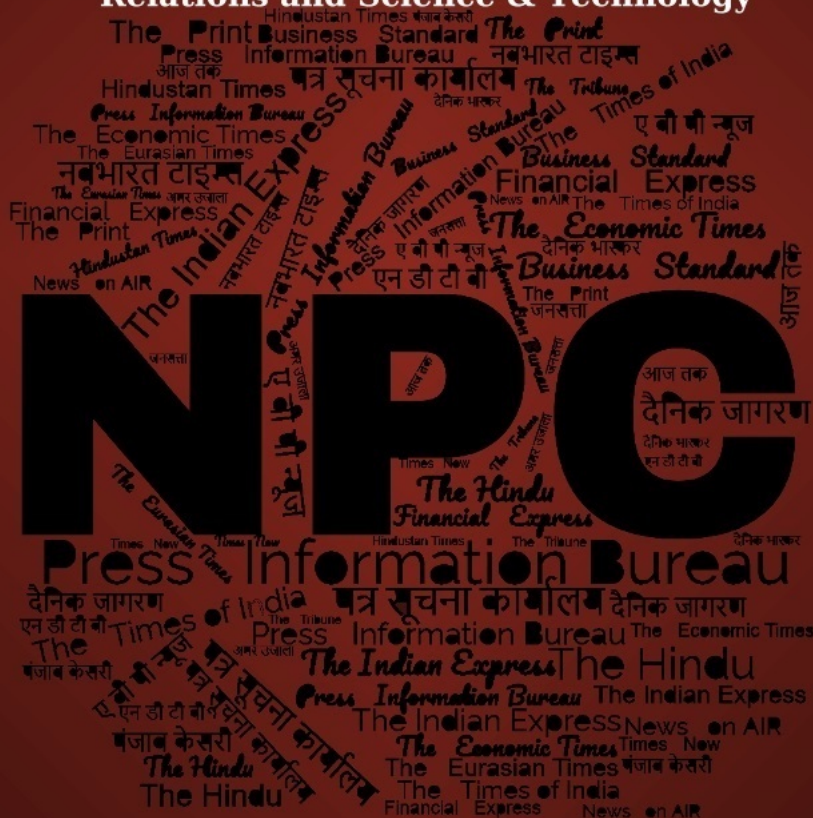
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# समाचार पत्रों से चयनित अंश Newspapers Clippings

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

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# Defence News

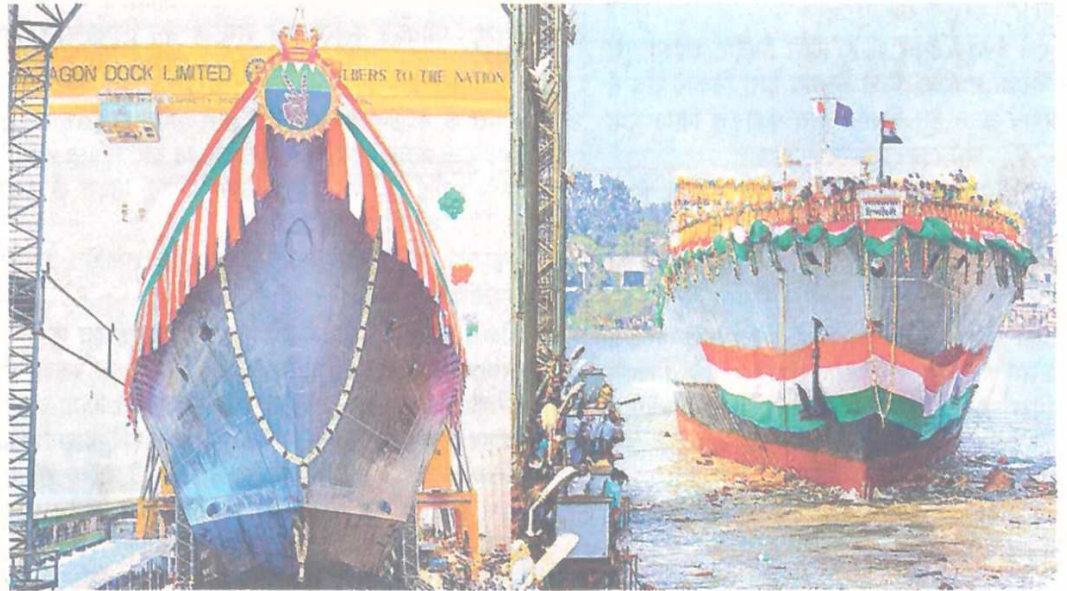
## ब्रह्मोश मिसाइल से लैस दो युद्धपोत एक साथ नौसेना में शामिल

Source: Dainik Jagran, Dt. 27 Aug 2025

विशाखापत्तनम, प्रेद्र : समुद्र में भारत की ताकत और बढ़ गई है। अग्रिम पंक्ति के दो बहुउपयोगी स्टेल्थ युद्धपोत आइएनएस उदयगिरि और आइएनएस हिमगिरि को मंगलवार को नौसेना में शामिल किया गया। दोनों युद्धपोत आठ ब्रह्मोस मिसाइलों से लैस हैं। इनमें स्वदेशी उन्नत हथियारों और सेंसर भी लगे हैं।

रक्षा मंत्री राजनाथ सिंह की अध्यक्षता में नौसेना के पूर्वी कमान में दोनों युद्धपोतों का जलावतरण किया गया। यह पहला अवसर है जब अलग-अलग शिपयार्ड में निर्मित दो प्रमुख युद्धपोतों को एक साथ नौसेना में शामिल किया गया। प्रोजेक्ट 17ए नीलगिरि-श्रेणी के दोनों स्टेल्थ युद्धपोत 'मेक इन इंडिया' और 'आत्मनिर्भर भारत' के प्रतीक हैं। 'उदयगिरि' नौसेना के युद्धपोत डिजाइन ब्यूरो द्वारा डिजाइन किया गया 100वां युद्धपोत है। नौसेना ने एक्स' पर पोस्ट किया, दो अत्याधुनिक युद्धपोत नौसेना के बेड़े में शामिल हो गए हैं, जो समुद्र में भारत की ताकत और मजबूत होगी।

नौसेना प्रमुख एडमिरल दिनेश कुमार त्रिपाठी ने समारोह में कहा कि आपरेशन सिंदूर अभी पूरा नहीं हुआ है। यदि जरूरत हुई तो इस बार नौसेना सबसे पहले कार्रवाई करेगी। नौसेना भारत के दुश्मनों के खिलाफ विश्वसनीय प्रतिरोधक के रूप में खड़ी है।



भारतीय नौसेना में शामिल होने के दौरान आइएनएस उदयगिरि (बाएं) और आइएनएस हिमगिरि (दाएं) • आइएनएस

## सुरक्षा तक सीमित नहीं है नौसेना की भूमिका : राजनाथ

आइएनएस उदयगिरि और हिमगिरि के जलावतरण के बाद रक्षा मंत्री राजनाथ सिंह ने कहा कि नौसेना की भूमिका केवल समुद्र की सुरक्षा तक ही सीमित नहीं है, बल्कि यह आर्थिक सुरक्षा का भी प्रमुख स्तंभ है क्योंकि तेल, प्राकृतिक गैस जैसी भारतीय ऊर्जा आवश्यकताएं काफी हद तक क्षेत्र की सुरक्षा पर निर्भर करती हैं। भारत आक्रामक विस्तारवाद में विश्वास नहीं करता है। दुनिया जानती है कि उसने



रक्षा मंत्री राजनाथ सिंह

कभी किसी देश पर पहले हमला नहीं किया। हालांकि, जब उसकी सुरक्षा पर हमला होता है, तो भारत

जानता है कि कैसे जवाब देना है। रक्षा मंत्री ने कहा, हमारी ऊर्जा आवश्यकताएं, तेल, प्राकृतिक गैस, सभी काफी हद तक इस क्षेत्र की सुरक्षा पर निर्भर हैं। नौसेना की भूमिका केवल समुद्र की सुरक्षा तक ही सीमित नहीं है, बल्कि यह हमारी राष्ट्रीय आर्थिक सुरक्षा का प्रमुख स्तंभ भी है। मैं विश्वास के साथ कह सकता हूँ कि ये दोनों युद्धपोत सुरक्षा में मील का पत्थर साबित होंगे।

- रक्षा मंत्री ने विशाखापत्तनम में एक साथ किया बहुउद्देशीय स्टेल्थ युद्धपोतों का जलावतरण
- आठ ब्रह्मोस मिसाइलों, उन्नत हथियारों और सेंसरों से लैस है 'उदयगिरी' और 'हिमगिरी'

### 'उदयगिरी' और 'हिमगिरी' की ये हैं प्रमुख विशेषताएं

- युद्धपोतों के नाम आइएनएस उदयगिरी (एफ35) और आइएनएस हिमगिरी (एफ34) के नाम पर रखा गया है, जिन्होंने 30 वर्षों से अधिक समय तक देश की सेवा की थी।
- दोनों युद्धपोत सुपरसोनिक सतह से सतह पर मार करने वाली मिसाइलें, मध्यम दूरी की सतह से हवा में मार करने वाली मिसाइलें, 76 मिमी एमआर गन और 30 मिमी और 12.7 मिमी क्लोज-इन हथियार प्रणालियों से लैस हैं।
- उदयगिरी और हिमगिरी में डिजाइन, स्टेल्थ (रडार की पहुंच से बच निकलने की क्षमता), हथियार और सेंसर प्रणालियों में महत्वपूर्ण सुधार किए गए हैं।
- नीलगिरी-क्लास की स्टेल्थ फ्रिगेट्स को कोड के तौर पर प्रोजेक्ट 17-एल्फा (प्रोजेक्ट-17ए) का नाम भी दिया गया है। नौसेना के प्रोजेक्ट-17 फ्रिगेट यानी शिवालिक क्लास के अगले चरण के तौर पर देखा जाता है।
- 17ए प्रोजेक्ट के इन युद्धपोतों में लगभग 75 प्रतिशत स्वदेशी सामग्री का उपयोग किया गया है। 'उदयगिरी' और 'हिमगिरी' के निर्माण में स्वदेशी तकनीक और उद्योग का बड़ा योगदान रहा।
- दोनों युद्धपोतों को बनाने में 200 से ज्यादा सूक्ष्म, लघु और मध्यम उद्योग जुड़े रहे, जिनसे चार हजार लोगों को प्रत्यक्ष व 10 हजार को अप्रत्यक्ष रोजगार मिला।
- 'हिमगिरी' गार्डन रीच शिपबिल्डर्स एंड इंजीनियर्स द्वारा निर्मित पी17ए युद्धपोतों में से पहला युद्धपोत है। दूसरे युद्धपोत उदयगिरी को मझगांव डाक शिपबिल्डर्स लिमिटेड में बनाया गया है।
- लगभग 6,700 टन विस्थापन वाले पी17ए श्रेणी के फ्रिगेट अपने पूर्ववर्ती शिवालिक श्रेणी के फ्रिगेट से लगभग 5 % बड़े हैं।

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## Rajnath commissions Navy frigates, says self-reliance a 'ground reality'

Source: The Hindu, Dt. 27 Aug 2025

Defence Minister Rajnath Singh commissioned two of the Indian Navy's advanced Project 17A multi-mission stealth frigates, INS Udaygiri and INS Himgiri, at the Eastern Naval Command base in Visakhapatnam on Tuesday (August 26, 2025) afternoon.

Addressing a gathering, he said, "This is a historic moment for us and the success achieved demonstrates the success of the 'Make in India' and 'Aatmanirbhar Bharat' initiatives of the Government of India."

The Minister said that the ships are "equipped with next-gen weapons and systems" and will "enhance the Navy's ability to safeguard national interests across full spectrum of maritime missions." He said the frigates will reinforce the Navy's role as the first responder and preferred security partner the in Indian Ocean Region.



Mr. Singh said self-reliance is “no longer a mere slogan” and is becoming a “ground reality”. “Armed Forces are being strengthened under a futuristic vision. India does not believe in aggressive expansionism, but we will not bow before those who mean to harm us,” he said.



*File photo of Indian Navy's advanced frontline frigate Himgiri ahead of its commissioning in Visakhapatnam.*

The Defence Minister expressed confidence that the warships, built with 75% indigenous components, will strengthen the security system, safeguard maritime interests and assist in humanitarian assistance and disaster relief missions.

“This is the first time that two major surface combatant ships from two prestigious shipyards in India are being commissioned simultaneously, which underlines India’s rapid naval modernisation and its ability to deliver advanced warships from multiple shipyards, thus showcasing India’s power to the maritime world,” Mr. Singh said.

Both ships are products of an industrial ecosystem spanning more than 200 MSMEs, supporting approximately 4,000 direct and more than 10,000 indirect jobs. The two frigates, designed in-house by the Navy’s Warship Design Bureau, will join the Eastern Fleet.

Udaygiri and Himgiri are follow-on ships of the Project 17 (Shivalik) class frigates. Both incorporate significant improvements in design, stealth, weapon and sensor systems.

The ships feature modern combined diesel or gas propulsion plants, state-of-the-art Integrated Platform Management System and a suite of advanced weapons and sensors developed by Indian manufacturers.

<https://www.thehindu.com/news/national/ins-udaygiri-and-ins-himgiri-commissioned-by-union-defence-minister-rajnath-singh-at-visakhapatnam/article69978776.ece>

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## पीएम के जापान दौरे से क्वाड सम्मेलन की स्थिति होगी स्पष्ट

Source: Dainik Jagran, Dt. 27 Aug 2025

जयप्रकाश रंजन • जागरण

नई दिल्ली: अमेरिका के विलिमिंगटन में सितंबर, 2024 में क्वाड सदस्यों अमेरिका, जापान, आस्ट्रेलिया और भारत के शीर्ष नेताओं की शिखर बैठक हुई थी। तब यह बताया गया था कि आगामी शिखर बैठक भारत में होगी। उसके बाद फरवरी, 2025 में जब प्रधानमंत्री नरेन्द्र मोदी की मुलाकात वाशिंगटन में अमेरिकी राष्ट्रपति डोनाल्ड ट्रंप से हुई, तब यह बताया गया कि ट्रंप इस साल भारत दौरे पर क्वाड बैठक में हिस्सा लेने के लिए आएंगे। यह भी संकेत दिया गया कि बैठक सितंबर, 2025 में होगी। लेकिन, अभी तक इस बाबत कोई संकेत ना तो भारत की तरफ से और ना ही क्वाड के अन्य तीनों सदस्यों की तरफ से दिए गए हैं। क्वाड शिखर बैठक की तैयारियों को लेकर भी सामान्य तौर पर चारों देशों के बीच बैठक होती है, वह भी नहीं हुई। ऐसे में इस बात की चर्चा है कि क्या भारत और अमेरिका के बीच ट्रंप की शुल्क नीति को लेकर जो अनिश्चितता बनी है, उसका असर तो नहीं है। लेकिन, बहुत संभव है कि 30 अगस्त को जापान के प्रधानमंत्री शीगेरू इशीबा और पीएम मोदी के बीच होने वाली बैठक के बाद आगामी क्वाड शिखर सम्मेलन को लेकर स्थिति स्पष्ट हो।

पीएम मोदी 29-30 को जापान यात्रा पर जा रहे हैं। वहां भारत-



प्रधानमंत्री नरेन्द्र मोदी

मोदी और इशीबा के बीच होने वाली बैठक का काफी विस्तृत एजेंडा है। इसमें रक्षा व सुरक्षा क्षेत्र, कारोबार व इकानमी, विज्ञान व तकनीक क्षेत्र में सहयोग के भावी रोडमैप पर विमर्श होगा।

- विक्रम मिसरी, विदेश सचिव

जापान शिखर सम्मेलन होने वाला है। विदेश सचिव विक्रम मिसरी से जब क्वाड के भविष्य को लेकर पूछा गया तो उनका जवाब था कि, "भारत क्वाड को एक महत्वपूर्ण प्लेटफार्म मानता है। हिंद-प्रशांत क्षेत्र में शांति व विकास के क्षेत्र में काम करने के लिए गठित इस मंच के तहत हाल के समय में कई स्तरों पर काम शुरू हुआ है। क्वाड देशों ने अपने एजेंडे को विस्तार दिया है और इनके बीच स्वास्थ्य, दुर्लभ खनिजों, सप्लाई चेन को सुचारु तौर पर बनाकर रखने जैसे मुद्दों पर सहयोग की सहमति बनी है। भारत और जापान दोनों क्वाड को बहुत महत्व देते हैं।" सितंबर, 2024 के क्वाड शिखर सम्मेलन में डिजिटल पब्लिक इंफ्रास्ट्रक्चर, सेमीकंडक्टर सप्लाई चेन स्थापित करने, कैसर मिशन शुरू करने, समुद्र के अंदर केबल बिछाने और आतंकवाद के खिलाफ रणनीति बनाने की सहमति

- पहले सितंबर, 2025 में भारत में क्वाड शिखर सम्मेलन किए जाने के दिए गए थे संकेत
- लेकिन शुल्क मुद्दे को लेकर भारत व अमेरिका के बीच चल रहे तनाव से स्थिति अस्पष्ट

बनी थी। लेकिन, अभी तक इन विषयों पर चारों देशों के बीच विशेष तौर पर कोई बैठक नहीं हुई है।

मिसरी ने बताया कि, "पीएम मोदी की यात्रा से भारत और जापान के द्विपक्षीय संबंधों में और मजबूती आएगी। यह उनकी आठवीं जापान यात्रा होगी। वैसे द्विपक्षीय दौरे पर सात वर्षों बाद मोदी जापान जा रहे हैं। बैठक में पिछले शिखर सम्मेलन में लिए गए फैसलों के निष्पादन की समीक्षा की जाएगी और सहयोग की रणनीति बनाई जाएगी।

मोदी और इशीबा के बीच होने वाली बैठक में रक्षा व सुरक्षा क्षेत्र, कारोबार व इकानमी, विज्ञान व तकनीक क्षेत्र में सहयोग के भावी रोडमैप पर विमर्श होगा।" अमेरिका की शुल्क नीति की वजह से वैश्विक इकानमी में पैदा हुई अस्थिरता में एक दूसरे को भारत एवं जापान किस तरह से मदद कर सकते हैं, इस पर विस्तार से बात होगी।

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## Focus on Quad as PM Modi heads to Japan; US reaffirms commitment to Quad

Source: The Times of India, Dt. 27 Aug 2025

Quad is an important platform for working on and promoting peace, stability, prosperity, and development in the Indo-Pacific region and India looks forward to working with all partners to take this cooperation forward, said foreign secretary Vikram Misri amid the uncertainty hanging over the Quad summit India would like to host in November. The remarks came ahead of PM Narendra

Modi's visit to Japan this week, during which the 2 sides will review cooperation to promote a free, open and inclusive Indo-Pacific.

Significantly, the US joined India in reaffirming in a joint statement its commitment to promoting a safer, stronger and more Indo-Pacific region through the Quad in a virtual 2 + 2 Intersessional Dialogue between senior officials this week.

Misri said that Quad cooperation will be discussed when Modi meets his Japan counterpart Shigeru Ishiba for the annual India-Japan visit on Friday. Modi will depart on Thursday for a 2-day visit to Japan en route to China.

Some of the likely outcomes from Modi's visit to Japan include an upgrade of the 2008 joint declaration on security cooperation to make it more in sync with current realities and an announcement, as reported by the Japanese media last week, by Japan about investment worth \$ 68 billion in India over the next 10 years.

The 2 sides will look to boost defence and security cooperation with focus on defence exercises and technology transfer, while also launching an economic security initiative.

During the visit, Modi is also likely to travel in a bullet train from Tokyo to Sendai where he's expected to visit a semiconductor facility.

Japan is also hoping that India and the US will be able to resolve their differences in time for a successful Quad summit later this year. With India-US ties in a flux, it's anybody's guess as to whether President Donald Trump will visit India for the summit this year.

Misri said that in recent years, Quad's agenda has expanded to take on issues of practical cooperation and health security. "It covers critical and emerging technologies. There's an initiative with regard to critical minerals that has been discussed recently. Overall, with regard to how to make supply chains more resilient, and also infrastructure development. So, these are all issues that are a priority, both for India and for Japan," said Misri.

"Both our countries attach high value to this forum and to this partnership. And we look forward to working with all Quad partners to take our cooperation forward. I'm sure when the two prime ministers meet, the Quad will be a subject that will be discussed between the two of them," he added.

<https://timesofindia.indiatimes.com/india/focus-on-quad-as-pm-modi-heads-to-japan-us-reaffirms-commitment-to-quad/articleshow/123534090.cms>

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## **HAL, GE may ink deal for 113 more jet engines**

***Source: Hindustan Times, Dt. 27 Aug 2025***

Hindustan Aeronautics Ltd is set to sign a contract with US manufacturer GE Aerospace for an additional 113 GE-404 engines to power the light combat aircraft (LCA) it is building for the Indian Air Force, a person familiar with the matter said.

The engine order, seen costing around \$1 billion, follows the Centre clearing a ₹62,000 crore deal to buy 97 more LCA Mark 1A fighters earlier this month, this person said. The IAF had initially ordered 83 Mk-1A fighters for ₹48,000 crore in February 2021. HAL had ordered 99 GE-404 engines to power these aircraft.



GE in March announced that it has delivered the first of these 99 engines to HAL. A total of 12 engines are expected in 2025 with 20 engines each expected to be delivered by GE every year to fulfill the 2021 contract.

The LCA Mk-1As will replace the IAF's MiG-21 fighter jets that are set to retire in September.

The first Mk-1A jets were slated to be delivered in March, 2024 but the first delivery is expected only sometime this year. In February, Air Chief Marshal AP Singh criticized HAL saying he did not believe it could meet the air force's critical requirements in the backdrop of the delay in the supply of the Mk-1A fighters.

HAL is also negotiating with GE for the joint production of the GE-414 engines in India for the more advanced LCA Mk-2 programme. The deal will involve an 80% transfer of technology and is estimated to be worth around \$1 billion.

In his Independence Day speech, Prime Minister Narendra Modi made a strong case for building jet engines in the country, underlining the need for self-reliance in India's efforts towards becoming a developed nation by 2047.

<https://www.hindustantimes.com/india-news/hal-ge-may-ink-deal-for-113-more-jet-engines-101756235023620.html>

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## 'एकीकृत सेना कमान योजना को लागू करने में जल्दीबाज़ी ठीक नहीं'

Source: Jansatta, Dt. 27 Aug 2025

जनसत्ता ब्यूरो  
नई दिल्ली, 26 अगस्त।

वायुसेना प्रमुख एपी सिंह ने 'एकीकृत सैन्य कमान' योजना को जल्दबाज़ी में लागू करने के प्रति मंगलवार को आगाह किया और सेना के तीनों अंगों के बीच तालमेल सुनिश्चित करने के लिए शीर्ष सैन्य अधिकारियों को शामिल करते हुए दिल्ली में एक संयुक्त योजना एवं समन्वय केंद्र स्थापित करने का प्रस्ताव किया।

महू में सेना युद्ध महाविद्यालय में एक चर्चा के दौरान, वायुसेना प्रमुख ने प्रस्तावित एकीकृत सैन्य कमान का जिक्र करते हुए कहा कि इस समय सब



कुछ बाधित करते हुए एक नया ढांचा बनाना कोई बहुत अच्छा विचार नहीं है। वायुसेना प्रमुख की यह बेहद महत्वपूर्ण टिप्पणी 'आपरेशन सिंदूर' चलाए जाने के साढ़े तीन महीने बाद आई है, जिसने तीनों सेनाओं के बीच तालमेल को प्रदर्शित किया था।

अपने संबोधन में, सिंह ने कहा कि इस आपरेशन ने एक बार फिर वायु शक्ति की 'श्रेष्ठता' स्थापित की। साथ ही, उन्होंने 7 से 10 मई तक पाकिस्तान के साथ हुए संघर्ष के दौरान सेना के तीनों अंगों के समन्वय को भी रेखांकित किया। वायुसेना प्रमुख ने कहा कि प्रमुख रक्षा अध्यक्ष (सीडीएस) जनरल अनिल चौहान ने आपरेशन सिंदूर के दौरान 'बहुत बड़ी भूमिका' निभाई।

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## **‘Shouldn’t rush for theaterisation, Op Sindoor established air power primacy’**

**Source: The Indian Express, Dt. 27 Aug 2025**

Air Chief Marshal A P Singh Tuesday said the theaterisation plans of the Indian military should not be rushed, while emphasising setting up a joint planning and coordination centre in Delhi under the Chiefs of Staff Committee for bolstering jointness among the three services. He also said that Operation Sindoor once again established the “primacy” of air power.

The Indian Air Force Chief was speaking to Lt Gen Raj Shukla (retd) at a fireside chat on the sidelines of Ran Samwad 2025, a first-of-its-kind two-day tri-service dialogue on war, warfare, and warfighting at the Army War College in Mhow.

He further said creating a new structure while disrupting the existing one is not a good idea at present. The Air Chief’s remarks come months after India carried out Operation Sindoor, executed jointly by the three services.

Having a joint planning and coordination centre in Delhi is what is required, which can be kept under the Chiefs of Staff Committee so that directions can be issued jointly, he said.

“We can start with this first, implement it and see how it pans out. If we need any more structure, we can think about it. But disrupting everything and making one structure now at this time, I do not think it is a good idea,” he said. Talking about the primacy of air power, he said, “It has to be used to get you into a decision point and whether it is war today or tomorrow; I think the relevance of air power will continue to grow. So we need to look at leveraging technology to improve our air and space domain positively ...to stay ahead of the curve as far as the adversaries are concerned.”

<https://indianexpress.com/article/india/shouldnt-rush-for-theaterisation-op-sindoor-established-air-power-primacy-10213569/>

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## **2+2 Dialogue: India, US discuss energy security, defence ties amid tariff tensions**

**Source: The Indian Express, Dt. 27 Aug 2025**

Amid the strain in ties over New Delhi’s import of Russian oil, and even as the United States has issued a notification to implement the penalty tariffs on India effective from Wednesday, the two countries discussed energy security and increasing defence cooperation under the India-US 2+2 Dialogue framework. According to a statement issued by the Ministry of External Affairs (MEA) on Tuesday evening, the two sides “looked forward to increasing defence cooperation, including signing a new 10-year ‘Framework for the India-US Major Defense Partnership’, as well as advancing defence industrial, science, and technology cooperation; operational coordination; regional cooperation; and information-sharing”.

The bilateral talks come amid weeks of tension between New Delhi and Washington over an announcement of an additional 25% tariff on Indian goods in response to purchase of Russian oil. US Vice-President J D Vance said President Trump has applied “aggressive economic leverage”, including secondary tariffs on India to force Russia to stop bombing Ukraine. External Affairs

Minister S Jaishankar has reiterated the US tariff was “unjustified and unfair”, and that it was being wrongly “presented as an oil issue”.

Meanwhile, the India-US 2+2 Interseasonal dialogue, held virtually Tuesday, had Nagaraj Naidu Kakanur, Additional Secretary (Americas), MEA, and Vishwesh Negi, Joint Secretary (International Cooperation) in the Ministry of Defence, co-chairing the session alongside US Senior Bureau Official for the Bureau of South and Central Asian Affairs, Bethany P Morrison, and Acting Assistant Secretary of Defence for Indo-Pacific Security Affairs, Jedidiah P Royal, as per the MEA statement. According to a release by the US State Department on Tuesday, “Through this dialogue, officials advanced bilateral initiatives, discussed regional security developments, and exchanged perspectives on a number of shared strategic priorities.”

They also discussed trade and investment; energy security, including strengthening civil-nuclear cooperation; critical minerals exploration; counternarcotics and counterterrorism cooperation, it said, adding that “both sides looked forward to increasing defence cooperation, and build upon the progress made in these areas under the auspices of the US-India COMPACT (Catalysing Opportunities for Military Partnership, Accelerated Commerce & Technology) for the 21st Century and beyond”.

The chairs reaffirmed their commitment to promoting a safer, stronger, and more prosperous Indo-Pacific region through the Quad, the MEA said. India is scheduled to host the Quad Leaders Summit this year, which besides the US, also has Japan and Australia as members. The dialogue concluded with the chairs expressing their appreciation for the productive meeting and eagerness to continue enhancing the breadth and depth of the bilateral relationship in a manner that benefits the people of India and the United States, the MEA said.

<https://indianexpress.com/article/india/22-dialogue-india-us-discuss-energy-security-defence-ties-amid-tariff-tensions-10213539/>

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## **‘Sudarshan Chakra’ will be India’s shield and sword, but needs massive integration, says CDS Anil Chauhan**

***Source: The Indian Express, Dt. 27 Aug 2025***

The Sudarshan Chakra mission will involve building robust infrastructure and processes for the detection, acquisition, and neutralisation of enemy air vectors—using both soft kills (electronic and cyber measures that disable or misguide threats) and hard kills (weapons that physically destroy them such as missiles or lasers)—Chief of Defence Staff General Anil Chauhan said Tuesday, in his first comments on India’s ‘Iron Dome’ equivalent since the Prime Minister announced it in his Independence Day speech.

Gen Chauhan was speaking at Ran Samwad 2025, a first-of-its-kind two-day tri-service dialogue on war, warfare, and warfighting at the Army War College in Mhow. The event features multiple thematic sessions led by serving officers sharing first-hand operational insights and reflections from modern battlefields, alongside the release of joint doctrines and a technology capability roadmap. Referring to the Sudarshan Chakra as India’s own Iron Dome or Golden Dome—a reference to Israel’s air defence system—Gen Chauhan said the aim is to develop a system to

protect India's strategic, civilian, and nationally important sites. It will act both as a shield and a sword.

"Over here, I think it will entail the development of robust infrastructure and processes for the detection, acquisition, and neutralisation of the enemy's air vectors, including the use of soft kills and hard kills, both kinetic and direct energy weapons," he said. Referring to the Defence Research and Development Organisation's successful maiden flight tests of the Integrated Air Defence Weapon System (IADWS) on Sunday, he said it comprised indigenous Quick Reaction Surface-to-Air Missiles (QRSAM), Advanced Very Short Range Air Defence System (VSHORADS) missiles, and 5-kilowatt lasers—all combined into one.

"We'll have to look at multi-domain ISR, integration of ground, air, maritime, undersea, space, sensors, all becoming a key necessity and integrating them," Gen Chauhan said. He added that a "colossal amount of integration" will be required, as multiple fields will need to be networked to provide a fused picture. "Colossal amounts of data will need to be analysed for information in real-time response. Use of artificial intelligence, advanced computation, data analytics, big data, LLM, and quantum technologies will be essential," the CDS said. He added that for a vast country like India, a project of this magnitude will require a whole-of-nation approach. "But like always, I am very sure Indians will do it at a minimal and very affordable cost to us."

Prime Minister Narendra Modi, in his Independence Day address, announced the launch of Mission Sudarshan Chakra—a comprehensive, multi-layered, networked system aimed at protecting India and its vital installations from enemy attacks across domains. The shield is expected to offer multiple layers of protection by combining surveillance, cybersecurity, and air defence systems to detect and destroy threats, including long-range missiles, aircraft, and unmanned aerial vehicles. Defence research organisations and the private sector are expected to collaborate on the project.

In his keynote, Gen Chauhan also referred to Operation Sindoor, calling it a modern conflict from which India has drawn several lessons, many of which are already under implementation. "The operation is still on," he said. "India has always stood on the side of peace. We are a peace-loving nation, but don't get mistaken, we cannot be pacifists. I think peace without power is utopian," he said, drawing from a Latin quote: "If you want peace, prepare for war." "As a Viksit Bharat, we also need to be 'Shashastra', 'Suraksit' and 'Aatmanirbhar'. Not only in technology, but also in ideas and in practice," he said. He added: "There is a need to increase awareness across all fragments of our society on doctrinal and conceptual aspects, the academic pursuits of how war is fought, and practical warfighting techniques and tactics."

Referring to the Mahabharata and the Gita, he said 'Shastra' and 'Shaastra' have always been spoken about in the same breath. "They were actually the two blades of the same sword. We know that a combination of military strategy and warriors is essential to win, and the foremost and best example of this is the Mahabharata and the Gita." He said Arjuna was the greatest warrior of all time, yet he needed Krishna to guide him, while Chandragupta required the wisdom of Chanakya. "India has been a land of Gautam Buddha, Mahavir Jain, and Mahatma Gandhi, all champions of non-violence," he said.

### **On future wars, Gen Chauhan outlined four trends**

"First, there is an increased propensity amongst nations and governments to use force, and this is happening because political objectives today can be achieved by short-duration conflicts," he said. The second, he said, is the lack of distinction between war and peace. "This particular era of



declared wars is over. Contemporary warfare today is a kind of continuum of five C's—competition, crisis, confrontation, conflict and combat—between wars.” “The third important thing is the importance of people. In the past, because of territory and ideology, people and soldiers were sacrificed,” he said.

“The fourth important trend we can debate is the matrices of victory and how we perceive victory. In the past, victory was probably defined by losses inflicted in terms of men and equipment. In 1971, we had 95,000 Pakistanis captured. But in today's warfare, the new matrices of victory are the speed and tempo of operations, effects of long-range precision strikes.” “In today's warfare, the matrix of victory has changed. Effects of long-range precision strikes, display of sophistication in all domains, and superior narrative are important,” he said. He stressed that serious research is needed on all dimensions of war—leadership, motivation, and technology. “We need to be ‘atmanirbhar’ in ideas and practice.”

<https://indianexpress.com/article/india/sudarshan-chakra-india-integration-pm-modi-iron-dome-cds-anil-chauhan-10212016/>

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## महाभारत काल की तरह शस्त्र और शास्त्र साथ लेकर चलना होगा

Source: Dainik Jagran, Dt. 27 Aug 2025

नईदुनिया प्रतिनिधि, इंदौर : सीडीएस जनरल अनिल चौहान ने कहा कि हमें महाभारत काल की तरह शस्त्र और शास्त्र दोनों को साथ लेकर चलना होगा। महान योद्धा अर्जुन ने शस्त्र चलाने में दक्षता हासिल की, लेकिन शास्त्र का ज्ञान भगवान श्रीकृष्ण से प्राप्त किया। एयर डिफेंस सिस्टम ‘सुदर्शन चक्र’ देश के लिए ‘ढाल और तलवार’ की तरह कार्य करेगा। इसके लिए मजबूत ढांचे का विकास करना होगा। हम शांति प्रिय देश हैं, मगर शांति बनाए रखना है तो युद्ध के लिए तैयार रहना होगा।

जनरल चौहान ने मंगलवार को मध्य प्रदेश के महु में ‘तकनीक का युद्ध पर प्रभाव’ विषय पर आयोजित दो दिवसीय ‘रण संवाद’ कार्यक्रम का शुभारंभ किया। रक्षा मंत्री राजनाथ सिंह बुधवार को कार्यक्रम को संबोधित करेंगे। इस संवाद में



GEN ANIL CHAUHAN, कार्यक्रम को संबोधित करते सीडीएस जनरल अनिल चौहान • नईदुनिया

- महु में दो दिवसीय ‘रण संवाद’ कार्यक्रम का शुभारंभ, आज रक्षा मंत्री होंगे शामिल
- जनरल चौहान ने कहा, शांति बनाए रखना है तो युद्ध के लिए तैयार रहना होगा

देश की तीनों सैन्य इकाइयों के 450 से अधिक अधिकारी शामिल हुए।

सीडीएस ने कहा कि पिछले दो वर्षों से हम रण संवाद जैसे कार्यक्रम की तैयारी कर रहे थे, ताकि अपनी सेनाओं को पुनः आकार दे सकें। उन्होंने ऋग्वेद का उदाहरण देते कहा कि हर दिशा से आने वाली जानकारी और सुझावों का विश्लेषण आवश्यक है। सबसे बड़े अर्थशास्त्री कौटिल्य के अनुसार, युद्ध जीतने के लिए शक्ति, उत्साह और युक्ति की

आवश्यकता होती है। उन्होंने कहा कि रक्षा क्षेत्र में आत्मनिर्भरता और एकीकृत लाजिस्टिक्स आगामी युद्धों में सफलता की कुंजी है। युद्ध में तकनीकी मजबूती आवश्यक है, जिसमें एआइ, साइबर, क्वांटम और इलेक्ट्रॉनिक वारफेयर का समावेश होना चाहिए। प्रेटर के अनुसार, भारतीय वायुसेना प्रमुख एयर चीफ मार्शल एपी सिंह ने थिएटराजेशन योजना को जल्दबाजी में लागू करने के खिलाफ चेतावनी दी।

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# Science & Technology News

## What is IADT-1, the Gaganyaan test ISRO conducted on August 24? | Explained

Source: The Hindu, Dt. 27 Aug 2025



*Photos from the IADT-1 event. Left: an Indian Air Force helicopter lofts the dummy crew capsule. Right-top: the capsule descends with the support of its main parachutes. Right-bottom: the capsule is seen on the deck of an Indian Navy vessel following post-splashdown recovery.*

The story so far: On August 24, the Indian Space Research Organisation (ISRO) successfully carried out its first Integrated Air Drop Test (IADT-1), a crucial milestone in the preparation for the country's maiden human spaceflight mission, Gaganyaan. A dummy crew capsule weighing nearly five tonnes was dropped from a helicopter to test whether its parachute system could slow it safely for splashdown.

### What is IADT-1?

The IADT is designed to evaluate the parachute-based deceleration system that will bring the Gaganyaan crew module down safely after reentry. In IADT-1, the parachutes were expected to deploy in a precise sequence after the module was released from a height of about 3 km.

Although the capsule was uncrewed and the drop was conducted from a helicopter, the test simulated the last stages of an actual space mission. In the real scenario, the capsule will first be slowed by atmospheric drag and its heat shields, followed by smaller drogue parachutes and finally the three 25-m main parachutes. The aim was to ensure the capsule slowed to around 8 m/s before splashdown.

**How and why was the test carried out?**

For IADT-1, an Indian Air Force Chinook helicopter lifted a 4.8-tonne dummy crew module into the air. At the designated altitude, the helicopter released the capsule. From then on, automated systems triggered the sequential deployment of parachutes.

ISRO reported that the touchdown conditions matched expectations, demonstrating that the design worked in real-world conditions. The exercise involved extensive modelling, instrumentation, and coordination among multiple agencies. Aside from the Air Force, the Defence Research and Development Organisation (DRDO) contributed to materials and safety systems. The Indian Navy and Coast Guard prepared for post-splashdown recovery. Vikram Sarabhai Space Centre Director A. Rajarajan has said that his centre was responsible for nearly “90%” of the IADT-1 activities.

In a crewed space mission, ascent, descent, and recovery are the riskiest phases. Even after a successful launch and orbital stay, astronauts’ survival hinges on whether the capsule can decelerate safely for re-entry and landing. A failure in parachute deployment could lead to catastrophe. Testing on the ground is thus indispensable.

### **Where does IADT-1 lie on the roadmap?**

Gaganyaan’s ultimate objective is to send Indian astronauts to low-earth orbit on a human-rated LVM3 rocket. But before that happens, ISRO must conduct a series of tests to validate safety systems. Unlike previous satellite or planetary missions, human spaceflight requires human-rating of every system. This involves engineering redundancies, fault detection, and life support.

The Crew Escape System tests are to demonstrate whether astronauts can be pulled away from the rocket in case of launch failure. The first such test vehicle flight, TV-D1, took place in October 2023. TV-D2, scheduled next, will attempt a more complex abort scenario.

The uncrewed Gaganyaan-1 (G1) mission will launch a crew module aboard the LVM3 to orbit. The module will house ‘Vyommित्रा’, a humanoid robot designed to mimic astronaut operations. The recent IADT-1 success will pave the way for TV-D2 and G1.

Further drop tests and subsystem trials, including more IADTs and subsystem checks, will continue in parallel, refining the systems before astronauts are cleared to fly. In all, by the time the first human flight (H1) has happened, ISRO will have conducted several thousand tests.

Some of the critical systems under development include the environmental control and life support system (ECLSS) for oxygen, temperature, waste management, and fire safety; the integrated vehicle health management system (IVHMS), capable of autonomously detecting faults and triggering abort actions; and the strengthened LVM3 rocket, modified to meet the reliability standards necessary to carry humans.

India has also had to indigenise many technologies that were unavailable from abroad, from escape motors to specialised composites. Each subsystem has to pass hundreds of tests before being certified.

### **What are India’s long-term goals?**

Gaganyaan is not an end in itself but the foundation of a broader human spaceflight roadmap. The Indian government has announced plans to establish the Bharatiya Antariksh Station (BAS) by 2035 and to achieve an Indian crewed lunar landing by 2040. These goals will demand repeated flights, extended orbital missions, and deep-space technology.

In this regard, while schedules may slip — IADT-1 was originally planned for April 2024, e.g. — each milestone will build capability for more ambitious tests. For example, according to ISRO, the



TV-D2 mission “will demonstrate Gaganyaan Crew Escape System by simulating an abort scenario. The crew module will separate and descend using thrusters and parachutes before sea splashdown, followed by recovery operations.”

In tandem, ISRO is currently operating its SpaDeX mission in its extended phase, after the mission’s twin satellites successfully demonstrated in-orbit docking in May 2025. This technology will be an important part of the Gaganyaan, Chandrayaan-4, and BAS missions.

H1 is currently scheduled for 2027 but is likely to be delayed further.

<https://www.thehindu.com/sci-tech/science/explained-iadt-1-gaganyaan-test-isro-human-spaceflight/article69978479.ece>

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## With Sci-Hub gone, will the ‘One Nation, One Subscription’ scheme step up?

*Source: The Hindu, Dt. 27 Aug 2025*

When the Delhi High Court ordered internet service providers to block access to Sci-Hub and its mirrors, it closed a chapter in one of the more fraught debates in contemporary research: who gets to read research papers, and who must pay. The verdict followed years of litigation by Elsevier, Wiley, and the American Chemical Society against Sci-Hub founder Alexandra Elbakyan. The court held that Ms. Elbakyan had violated an undertaking not to upload publishers’ articles, and that Sci-Net, a mirror service, was being used to circumvent judicial orders, leaving her prima facie in contempt.

This seemingly straightforward case of copyright violation — private corporations defending intellectual property against piracy — is transformed by its context. The publishers’ legal win must be weighed against the case for public access to knowledge, the economics of scholarly publishing, and the arrival of ‘One Nation, One Subscription’ (ONOS), which together suggest that depending on courtroom battles might be misplaced.

### **An endeavour apart**

Scientific publishing is unlike other enterprises where piracy drains income from creators. Scientists who produce and review research are not paid by journals: their work is largely funded by public money in India. Yet publishers charge institutions exorbitant subscription fees, sometimes lakhs of rupees per journal. Publishers have defended these figures on grounds of quality control and peer review. But with profit margins of 30% or more and a voluntary review system, the system has often resembled rent-seeking.

On the other hand, Sci-Hub was always vulnerable to the charge of copyright infringement. Courts in the U.S. and Europe have consistently ruled against it, and now the Delhi High Court has joined that chorus. While this is uncontroversial from a strictly legal standpoint, the larger implication is troubling. The judgment risks reinforcing the idea that legal strategies to restrict access are valid even in settings where no affordable or equitable alternative exists.

Internationally, publishers have used the courtroom to buttress the legitimacy of their business model and portray shadow libraries like Sci-Hub as rogue actors rather than as symptoms of dysfunction. In fact, the outcome in the High Court fits a pattern: publishers protect a lucrative business model, courts apply the letter of the law, and the underlying lack of access stays

unresolved. Experts have been steadfast that the dysfunction is the real disease that needs to be cured.

### **Unified subscription**

The Indian government recently put forward the ONOS initiative as an alternative. Whether it succeeds will determine if future generations of researchers must still look for back doors. The Union Cabinet approved ONOS in 2024 with an outlay of ₹6,000 crore for its first phase (2023-2026). Under the scheme, the state has negotiated a bulk subscription with 30 major publishers so that research institutions — all public and, in phase II, many private ones — have equal access to some 13,000 journals.

Thanks to the rise of preprints and institutional repositories, more than half of the scientific papers worldwide are now open access. From 2026, all federally funded research in the U.S. must be openly accessible; the EU's Horizon Europe programme has similar requirements. Paying crores for subscriptions at a time when openness is expanding could render ONOS an expensive detour. Until phase II, independent researchers and those at private institutes and centres — who may outnumber their counterparts at public centres — will still have to pay considerable non-ONOS fees to access journals and still depend on platforms like Sci-Hub.

ONOS also doesn't address structural flaws in scholarly publishing, reinforces dependence on foreign publishers, and continues to force Indian researchers to transfer copyrights of their own work to journals. At the same time, the subscription model that ONOS pays for still encompasses several thousand journals, including those that many researchers wish to be published in. Blaming ONOS on this count rather than a long-awaited culture change, especially not one the state could have forced, wouldn't make sense.

Ms. Elbakyan's attempts to (further) incentivise scholars to contribute to Sci-Hub's collection of papers using the Sci-Net portal and its cryptocurrency-based rewards system also don't seem to be succeeding. Whatever moral force Ms. Elbakyan's project once had has since been squandered by technical unreliability and increasing redundancy. The High Court's injunction may thus be decisive less because of its punitive sting than because of the fact that the Indian community is already moving on.

### **Pathology of publishing**

At the time the publishers sued Ms. Elbakyan in 2020, there was no realistic prospect of universal access. For countless researchers outside elite institutions, Sci-Hub was (and remains) often the only path to knowledge. Both legal experts and researchers have thus contended that on principle alone, courts could have acknowledged the unique nature of scientific publishing — that the absence of author royalties, prevalence of public funding, and exorbitant pricing by publishers set it apart from creative industries like music or film — and refused to privilege corporate margins over public good.

Today, ONOS provides a legal path to broader access and its success could render shadow libraries unnecessary. It needs to prove it can seamlessly deliver equitable access at a fair cost while India must foster greater indigenous publishing capacity. On both counts, however, it's not clear if ONOS can do so in its present form. For example, on the first count, the concerned authorities will have to improve the efficiency of use by regularly consulting researchers on which journals are useful and keep other options, like a per-article fee for esoteric journals, open.

On the second, ONOS frees funds at many individual institutes and the scheme currently intends to redirect them towards pay-to-publish (rather than pay-to-read) open-access journals. Instead, governments may consider using them to install and manage institutional repositories. Experts have said this service could in turn be complemented by a national rights retention policy, like those at Harvard University and MIT, that require researchers to deposit their work in the repositories regardless of publishers' restrictions.

This could keep researchers in control of their work, force pay-to-publish journals to modify their terms, and allow people who aren't linked to university and/or public libraries to access papers, including journalists, activists, and independent researchers.

Sci-Hub in many respects remains a symbol of resistance against publishers' profiteering. Following the Delhi High Court order, the question is whether ONOS will step up to eradicate the disease rather than simply manage the symptoms.

<https://www.thehindu.com/sci-tech/science/with-sci-hub-gone-will-the-one-nation-one-subscription-scheme-step-up/article69979362.ece>

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