

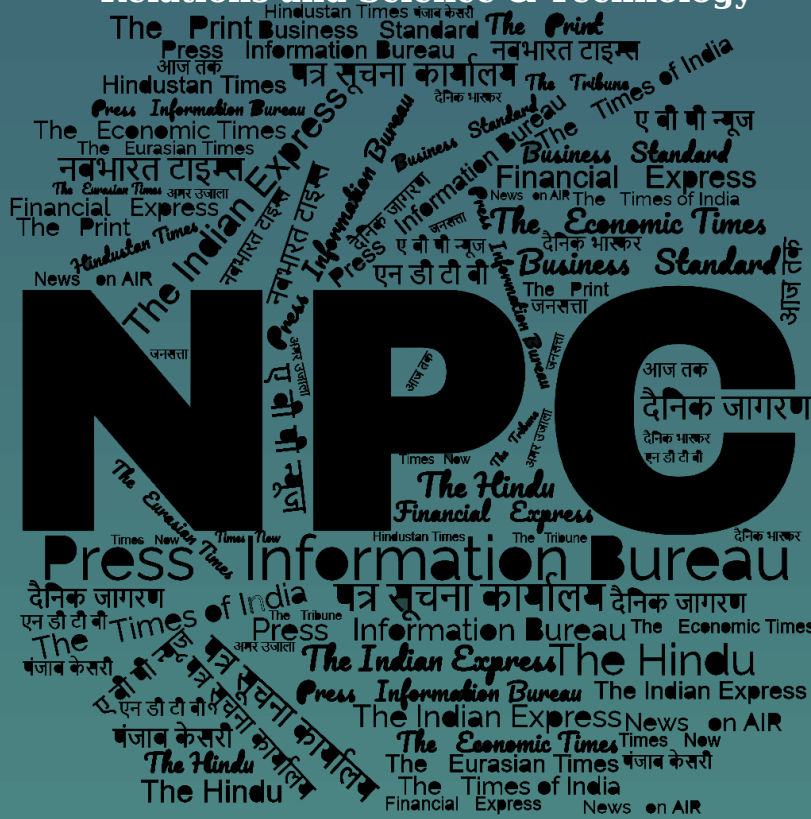
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# समाचार पत्रों से चयित अंश Newspapers Clippings

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

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*Tue, 19 Dec 2023*

## **Akash Air Defence Missile System में क्या है खास? आर्मेनिया के बाद फिलीपींस, ब्राजील और मिस्र ने दिखाई रुचि**

भारत के बनाए हथियार अब दुनिया का ध्यान खींच रहे हैं। एक तरफ जहां भारत दुनिया से हथियार खरीदने के मामले में काफी आगे रहा है वहीं अब दुनिया को हथियार बेचने की ओर भी भारत ने कदम बढ़ाए हैं। इस प्रयास के तहत एक कदम भारत ने आकाश वायु रक्षा मिसाइल प्रणाली की खरीद से बढ़ाया है। जिसमें फिलीपींस, ब्राजील और मिस्र जैसे कई देशों ने दिलचस्पी दिखाई है। मीडिया रिपोर्ट्स के मुताबिक आर्मेनिया भारत की स्वदेशी मिसाइल आकाश की खरीद को लेकर पहले ही 600 मिलियन अमेरिकी डॉलर से ज्यादा के ऑर्डर बुक कर चुका है।

### **रक्षा अधिकारी क्या कहते हैं?**

एक रक्षा अधिकारी ने एएनआई को जानकारी देते हुए बताया कि आर्मेनिया में डिलीवरी अब से अगले कुछ महीनों में शुरू होने की उम्मीद है। इस बीच, ब्राजील, मिस्र और फिलीपींस सहित कई देशों ने आकाश मिसाइल प्रणाली में दिलचस्पी दिखाई है। आकाश मिसाइल रक्षा अनुसंधान एवं विकास संगठन (Defence Research & Development Organisation) के जरिए तैयार की गई है। मिडिल ईस्ट में भी ऐसे देश हैं जिन्होंने आकाश को लेकर दिलचस्पी दिखाई है। भारत लगातार स्वदेशी आकाश मिसाइल प्रणाली के पावर का प्रदर्शन कर रहा है, आकाश के जरिए एक ही फायरिंग में चार लक्ष्यों पर निशाना साधने की पावर है।

आकाश हथियार प्रणाली को Defence Research & Development Organisation द्वारा ही डिजाइन भी किया गया है। आकाश को पिछले एक दशक से भारतीय वायु सेना और भारतीय सेना द्वारा तैनात किया गया है। आकाश हथियार प्रणाली भी स्वदेशी रक्षा प्रणालियों में से एक है जिसे अंतरराष्ट्रीय ग्राहकों से ऑर्डर मिले हैं। इसमें शामिल डीआरडीओ वैज्ञानिकों द्वारा इसे लगातार अपग्रेड भी किया जा रहा है और उन्हें दक्षिण पूर्व एशिया और मध्य पूर्व से अधिक ऑर्डर मिलने की उम्मीद है। कई देशों की दिलचस्पी ने यह दिखाया है कि आकाश मिसाइल काफी मारक है और इससे दुश्मन का मुकाबला बहुत मजबूती के साथ किया जा सकता है।

<https://www.jansatta.com/national/what-is-special-in-akash-air-defense-missile-system-after-armenia-philippines-brazil-and-egypt-showed-interest/3125603/>

*Wed, 20 Dec 2023*

## **After Armenia, Brazil, Egypt Show Interest in Akash Missile System**

Multiple countries from South America, the Middle East and Africa have shown interest in the acquisition of the indigenous Akash Missile system. Defence sources told India Today the Akash

missile system has generated a lot of interest among countries in the Middle East, South American nations including Brazil, Egypt from Africa and other friendly countries.

The missile system has already received a significant export order from Armenia, with supplies set to commence in the next few months. A few days ago, the firepower of the Akash Missile system was demonstrated during the Astrashakti exercise held by the Indian Air Force (IAF).

A single Akash missile system engaged four unmanned aerial targets simultaneously during the exercise. During the exercise, four targets came from the same direction in a close formation and split to attack defence assets from multiple directions simultaneously.

The Akash firing Unit was deployed with Firing Level Radar (FLR), a Firing Control Center (FCC), two Akash Air Force Launcher (AAFL) launchers having five armed missiles.

The FLR detected and tracked and the air scenario with four targets was updated to a higher echelon (IACCS). The targets were assigned to an Akash firing unit to neutralise the threat. The Akash firing unit further assigned the launchers and FCC commander issued the firing commands when the system prompted the engagement as per its capability.

Two Akash missiles were launched from two launchers and the same launcher was assigned to the next two targets. A total of four missiles were launched within a short span and FLR acquired and guided all four missiles towards the respective targets. All four targets were successfully engaged at maximum range (around 30 km) simultaneously.

India has now become the first country to demonstrate the capability of engaging four targets simultaneously at around 30 km ranges by command guidance using a single firing unit.

The Akash Weapon system, designed by the Defence Research & Development Organisation (DRDO) and produced by BEL/BDL and other industries, has been deployed by the Indian Air Force and Indian Army for the past decade.

<https://www.indiatoday.in/india/story/brazil-egypt-show-interest-in-acquiring-akash-missile-system-after-armenia-2478115-2023-12-20>

## Defence News

## Defence Strategic: National/International



Tue, 19 Dec 2023

## कैसा भी हमला संभव... भारत के नए खतरनाक ड्रोन की पहली इमेज, दो इंजन वाला ताकतवर CATS वारियर

अपने काम को दिखाने के लिए हिंदुस्तान एयरोनॉटिक्स लिमिटेड (HAL) ने अपनी वेबसाइट को अपग्रेड किया है. वो क्या करता है. किस तरह से करता है. क्यों करता है. किस तरह के उत्पाद बनाता है. इन सबकी डिटेल

जानकारी दी है। इसी साइट पर भारतीय सेना के फ्यूचर में आने वाले ड्रोन CATS Warrior की डिजाइन भी दिखाई गई है।

CATS क्लास के ड्रोन निगरानी, जासूसी, सामान्य हमला और आत्मघाती हमला करने में सक्षम होंगे। 100 से 170 km की रेंज तक तक ये तबाही मचा देंगे। एक ही ड्रोन से कई तरह के काम लिए जाएंगे। इन्हें फाइटर जेट में लगाकर उड़ाने से रेंज, सटीकता और मारक क्षमता और ज्यादा बढ़ जाती है।

ये अगले एक-दो साल में तैयार हो जाएंगे। इसका नाम है CATS यानी कॉम्बैट एयर टीमिंग सिस्टम। इसे सिर्फ हिंदुस्तान एयरोनॉटिक्स लिमिटेड नहीं बना रहा। बल्कि उसके साथ DRDO और दो अन्य संस्थान भी शामिल हैं। भविष्य में इनका उपयोग आमतौर पर भारतीय वायुसेना और भारतीय नौसेना करेंगे।

CATS के चार वैरिएंट्स बनाए जाएंगे। कैट्स वारियर (CATS Warrior), कैट्स हंटर (CATS Hunter), कैट्स अल्फा (CATS Alfa) और कैट्स इन्फिनिटी (CATS Infinity)। चारों का अलग इस्तेमाल होगा। या फिर एकसाथ एक भी इस्तेमाल कर सकते हैं।

### **कैट्स वारियर**

कैट्स वारियर ड्रोन में PTAE-7 ट्विन टर्बोजेट इंजन लगा है। ये ड्रोन 2-4 का फॉर्मेशन बनाकर हमला करता है। यह स्टेल्थ ड्रोन है। यानी राडार को धोखा देने में माहिर। रेंज है 150 km। यह निगरानी, जासूसी, हमला और आत्मघाती हमला करने में सक्षम है।

सुसाइड मिशन पर इसकी रेंज को बढ़ाकर 700 km कर सकते हैं। यह ऐसा ड्रोन है जिसमें दो कैट्स अल्फा (CATS Alfa-S) ड्रोन भी भेज सकते हैं। ये इन दोनों ड्रोन्स को दुश्मन पर दाग कर वापस आ सकता है। HAL इस ड्रोन के लिए 390 करोड़ रुपए निवेश कर रहा है।

### **कैट्स हंटर**

कैट्स हंटर ड्रोन का वजन 600 kg है। इसमें भी PTAE-7 इंजन लगा है। इसका डिजाइन मिसाइल की तरह बनाया गया है। यह स्टैंडऑफ एयर लॉन्चड क्रूज मिसाइल जैसे दागी जाएगी। इसे भारतीय वायुसेना अपने फाइटर जेट्स मिराज-2000, जगुआर या सुखोई सू-30 एमकेआई में लगा सकते हैं। इसके विंग्स मुड़ सकते हैं। यह 250 kg वजन का हथियार उठा सकता है। या खुद आत्मघाती हथियार बन सकता है। इसकी रेंज 200 से 300 km है। एक बार टारगेट पर बम गिराने के बाद ये वापस भी लौट सकता है।

### **कैट्स अल्फा**

कैट्स अल्फा स्वार्म अटैक के लिए बनाया गया है। यह एयर लॉन्चड फ्लेक्सिबल एसेट स्वार्म (ALFA-S) नाम से जाना जाता है। आत्मघाती हथियार है। यह ग्लाइड करते हुए 100 km की रेंज तक जा सकता है। यह 5 से 8 kg विस्फोटक लेकर 100 km/hr की रफ्तार से दुश्मन पर हमला कर सकती है। यह करीब 2 मीटर लंबी है। इसका वजन 25 kg है। इसे फाइटर जेट्स में लगा सकते हैं। जगुआर में 24 ALFA-S और सुखोई में 30 से 40 अल्फा ड्रोन दागे जा सकते हैं।

### **कैट्स इन्फिनिटी**

इसे न्यूस्पेस रिसर्च एंड टेक्नोलॉजी विकसित करने में लगी है। यह हाई एल्टीट्यूट सूडो सैटेलाइट (HAPS) की तरह इस्तेमाल होगी। यह ऐसा ड्रोन होगा जो 70 हजार फीट की ऊंचाई पर तीन महीने तक लगातार उड़ान भरेगा। वजन 500 kg होगा। यह इतनी ऊंचाई से लगातार निगरानी कर सकता है। इसका विंग स्पैन 50 मीटर होगा। क्रूज स्पीड 90 से 100 km होगी। मुख्य काम जासूसी, निगरानी होगा। भविष्य में इसे हमला करने के लिए भी तैयार कर सकते हैं।

<https://www.aajtak.in/defence-news/story/first-image-of-cats-warrior-uav-hal-website-upgraded-cds-1842083-2023-12-19>

## Indian Navy ‘Surpasses’ Air Force, Army in Space-Based Comm; Leads in ‘Make in India’ Initiative – Naval Chief

*By Prakash Nanda*

India’s Chief of the Naval Staff, Admiral R Harikumar, is very clear that the country needs three aircraft carriers befitting a blue water navy.

“The Navy is seized of the security implications of the changing maritime/naval environment in the Indian Ocean Region (IOR) and maintains a constant and close watch on all developments, fine-tune our concept of operations, and formulate our capability perspective plans to cater to the developing threat.

“There is no doubt that the aircraft carrier is central to the Navy’s concept of operations, and the Navy would need three aircraft carriers to safeguard national maritime interests within our areas of interest against the backdrop of changing geo-politics in the Indian Ocean Region.

“The Carrier Battle Groups (CBGs) are undoubtedly the source of power projection and provide freedom of maneuver in the vast area of operations or interest. The three carriers would arm the Bharatiya Nausena (Indian Navy) with the required teeth to deter our potential adversaries from many misadventures and establish credible deterrence in our area of operations”, the Admiral said in an interview.

Asked how he describes the state of balance between the Indian Navy’s “capacity” and “capabilities” about the dimensions such as surface, sub-surface, aerospace, and cyber on the one hand and spheres such as “brown water” and “bluewater,” the Navy Chief said, “Navy’s military capability and force levels need to encompass a balanced Fleet, with a judicious mix of warships and aircraft of varying sizes and capabilities, possessing requisite reach and combat power in all dimensions.”

Accordingly, capabilities and capacities are both being enhanced in a balanced manner for undertaking missions in all dimensions of warfare. “For instance, the acquisition of warships (Carriers, LPD, Destroyers, Frigates, etc.) is being progressed together with the induction of submarines, Fighter aircraft, Reconnaissance Aircraft and UAVs, Multirole helicopters, etc., and space-based and information warfare Assets.”

Over the years, the Indian Navy has transformed into a technologically advanced Blue water force. The Indian Navy has made significant advancements in its sub-surface capabilities with the induction of Scorpene class submarines. These would be augmented in due course with additional submarines.

“The Navy has pioneered space-based communication amongst the three armed forces. We have also developed requisite in-house capability to address challenges in the cyber domain suitably.”

The Indian Navy is also committed to developing at least 75 technologies/products as part of ‘Azadi Ka Amrit Mahotsav’ (75 Years of India’s Independence), recently showcased during Swavlamban 2023. These technologies and products aim to realize the aim of ‘Aatmanirbhar Bharat’ (Self-Reliant India) and keep pace with emerging technologies.

“Suffice it to note that the state of balance between our capabilities and challenges of operations in blue/brown water is at par, and we are only getting better,” the Navy chief said.

Where does the Indian Navy stand concerning being as self-reliant as possible in line with Prime Minister Narendra Modi's "Make in India" mission? The Admiral answered, "The Navy has nurtured indigenous shipbuilding programs since the 60s, when INS Ajay, the first indigenously built ship, was delivered by GRSE, Kolkata. Since then, the Navy has transformed from a 'Buyers Navy' into a 'Builders Navy,' with an aircraft carrier, destroyers, stealth frigates, corvettes, submarines, and other war vessels being constructed in the country."

He said the Defense Acquisition Procedure (DAP-20) derives its ethos and spirit from the clarion call of an Aatmanirbhar Bharat and Make in India, made by the Prime Minister. "With impetus on indigenous production of Naval equipment and platforms, Bharatiya Nausena (Indian Navy) is committed to becoming fully Aatmanirbhar by 2047. The Navy has been the pioneer Service towards indigenization and promoting the 'Make in India' initiative, with 'Self Reliance in Defense Production' being a top priority for the Service in the past six decades."

This is evident from the fact that, to date, over 130 ships have been built and commissioned in India. 65% of the total expenditure has been focused on indigenous procurement in the last ten years. This year, 80% of our budget is towards domestic spending.

"Navy is committed to timely development and induction of successful indigenized products into the Service. During the 'Swavlamban-2022' seminar, 75 'Challenge Statements' for Indian Industry, as part of an ambitious endeavor titled 'SPRINT' (Supporting Pole-Vaulting in R&D through iDEX, NIIO, and TDAC) were unveiled by the Prime Minister, aimed at developing at least 75 indigenous technologies/products for the Indian Navy."

Subsequently, over 1,100 proposals were received in response to the Defense India Startup Challenge (DISC 7 SPRINT & Open Challenge 6), and 333 firms/MSMEs were shortlisted for presenting their solution to the High Power Screening Committee (HPSC).

The winners (118 firms/ innovators) of the DISC 7 SPRINT & PRIME challenges were declared on September 28 and October 10, 2022 respectively. Based on successful trials, AoN (Acceptance of Necessity) for 14 iDEX cases worth INR 1,342.33 crore have been accorded to date, of which three contracts worth INR 188.21 crore have been concluded.

"It is notable that today, out of 67 shipbuilding projects, 65 are being built by Indian Shipyards. We have achieved impressive milestones, with approximately 90% indigenization in the Float segment, 60% in the Move segment, and 50% in the Fight segment.

"The Government of India has taken commendable steps to promote self-reliance in recent years, and the Bharatiya Nausena has actively embraced various national Make-in-India initiatives. These include Make, Technology Development Fund (TDF) schemes, and Innovation for Defence Excellence (iDEX), which have played a pivotal role in transforming the Navy into a technologically advanced and self-reliant force," the Admiral said.

"Currently, we are advancing more than 100 projects under the IDEX scheme – 25 under the TDF scheme, and 37 under the Make scheme. SWAVLAMBAN 2.0, the Indian Navy's indigenization plan, was unveiled by the Defense Minister on October 4, 2023, to act as a comprehensive reference document of all Indigenisation requirements of the Navy."

On the question of whether, as the principal organization to preserve and promote India's maritime interests in general and in the Indo-Pacific in particular, the Indian Navy has the requisite power to meet the emerging geopolitical and geoeconomic challenges, the Admiral said, "No Commander would ever say that he has everything he needed, to fight every possible war, against every likely enemy, under every probable condition. Therefore, in absolute terms, it will always appear that the capabilities are insufficient.

“However, we are an aspirational growing power where military budgets will be balanced against developmental, social, and welfare-oriented imperatives. Therefore, the Navy looks at maximizing the budget allocation through detailed perspective plans that determine precisely what is needed, how much is required, and when.

“Moreover, these plans align with the broader maritime strategy being pursued. This ensures that we remain well-equipped to tackle the envisaged threats. Our endeavor is to make every rupee count for capital acquisition or revenue expenditure.

“Also, we have kept our focus on spending the full quota of the allocated budget – which, in turn, ensures that our budgetary projections match with our plans, and the impetus remains to materialize the objective on the ground into reality. This results in the timely acquisition of assets, weapons, sensors, and machinery and maintenance and upkeep of our existing inventory.

“The Sum Total of meticulous planning and prudent spending is that the Navy remains Combat Ready, Credible, Cohesive, and Future-Proof as the budget is translated into desired capabilities and capacities, guided by the vision of being a fully Aatma-Nirbhar Force by 2047.

“Having said that, I am confident that, as our Nation continues to maintain a positive trajectory of growth, the Services’ and the Navy’s share of the budget will also increase. We will always have, even if not plenty, sufficient capabilities to surmount any security challenge that our Nation may face.”

Has the Indian Navy learned lessons, if any, from the ongoing War in Ukraine? The Indian Navy replied, “We have been closely monitoring the situation in Ukraine. Regarding its impact on the sustenance of our platforms, we have identified dependencies of spares for the maintenance of our legacy platforms, and alternatives have been found in most cases.

“As far as lessons from the conflict are concerned, self-reliance in the defense sector has re-emerged as one of the important takeaways. We have accordingly intensified our efforts towards self-reliance and accorded greater impetus to indigenization.”

<https://www.eurasiantimes.com/exclusive-indian-navy-surpasses-air-force-army-in-space-based-comm-leads-in-make-in-india-initiative-naval-chief/>



*Tue, 19 Dec 2023*

## **Indian Navy Rescues Injured Crew Member from Hijacked Ship MV Ruen**

The Indian Navy has rendered assistance in the evacuation of an injured crew member from the hijacked merchant vessel MV Ruen in the early hours of Monday.

“The injured crew member sustained injuries during the piracy incident but was reported to be stable. Towards ensuring his safety, the ship was successful in ensuring his release by the hijackers,” the Navy said in a statement on Tuesday. “The injured crew member was medically managed onboard the Naval ship, but due to urgent medical attention required, which was beyond the scope of the ship, he has been transferred ashore at Oman.”

The Malta-flagged tanker, with 18 crew onboard, sent a Mayday message on December 14 indicating boarding by approximately six unknown personnel. The vessel is currently off the Somali coast.



Following the distress call, the Indian Navy diverted its Maritime Patrol aircraft undertaking surveillance in the area and its warship on anti-piracy patrol in the Gulf of Aden to locate and assist MV Ruen.

<https://www.thehindu.com/news/national/indian-navy-warship-helps-in-evacuating-injured-crew-member-from-hijacked-vessel-mv-ruen/article67655643.ece>



*Tue, 19 Dec 2023*

## **Charting the Course: Insights from the 8th IONS Conclave of Chiefs in Bangkok**

The 8th edition of the Indian Ocean Naval Symposium (IONS) Conclave of Chiefs (CoC) is currently underway in Bangkok, Thailand, hosted by the Royal Thai Navy from December 19 to 22, 2023. Leading the charge is Admiral R Hari Kumar, Chief of the Naval Staff, who heads a three-member Indian Naval delegation for the Conclave.

IONS, conceived by the Indian Navy in 2008, serves as a platform to foster maritime cooperation among the Navies of the littoral states in the Indian Ocean Region. This inclusive forum encourages open discussions on regionally relevant maritime issues, aiming to establish a common understanding for the future. The inaugural edition of IONS took place in February 2008 in New Delhi, with the Indian Navy serving as the Chair for the first two years (2008-2010).

The 8th Conclave has brought together Chiefs of Navies and Heads of Maritime Agencies from IONS countries. A significant highlight is the transfer of IONS Chairmanship from France to Thailand. Alongside the Conclave, a seminar themed 'Blue Economy: Ways Forward for Sustainable Development of IONS Member States' is being conducted. Commodore Manmeet S Khurana, responsible for Foreign Cooperation in the Indian Navy, will present a paper titled 'Security is Foundation for Peaceful and Sustainable Blue Economy.'

The sidelines of the Conclave are abuzz with various bilateral interactions, fostering greater maritime cooperation and understanding among IONS countries. Looking ahead, India is poised to assume the Chair of IONS for the term 2025-27 during the 9th CoC, scheduled to take place in India at the end of 2025. This transition signals India's commitment to the shared goals of the IONS community, emphasizing the importance of collaborative efforts for a secure and sustainable maritime future in the Indian Ocean Region.

<https://www.financialexpress.com/business/defence-charting-the-course-insights-from-the-8th-ions-conclave-of-chiefs-in-bangkok-3342859/>



*Wed, 20 Dec 2023*

## **India, EU Discuss Avenues for Strategic Security, Defence Cooperation**

India's Chief of Defence Staff General Anil Chauhan on Tuesday discussed avenues for EU-India Strategic Security and Defence Cooperation with Chair of the European Parliament Subcommittee on Security and Defence (SEDE) Nathalie Loiseau.

The two also discussed about greater collaboration in the Indo-Pacific, avenues for enhanced synergy and defence industry cooperation between India-EU, according to defence officials.

Meanwhile, the CDS recently visited Japan, laid a wreath at the Hiroshima Peace Park in remembrance of the victims of Hiroshima, defence officials said.

He also laid floral tributes at the Gandhi Statue, aimed at enhancing peace and tranquillity in the region.

Further, the CDS was also given a detailed brief at the Hiroshima Museum.

CDS General Chauhan also visited Japan's Yokosuka Base, strengthening the defence ties between the two countries.

He was given an overview of the Japan Maritime Self-Defence Force mission by Vice Admiral Saito Akira, Commander-in-Chief, of the Self-Defence Fleet.

The visit was aimed at reinforcing strategic cooperation while highlighting the growing importance of the India-Japan defence partnership.

Chauhan departed from New Delhi for Japan on Sunday (December 10) night to discuss defence ties between the two Asian countries, the Ministry of Defence (MoD) said in an official press release.

<https://www.aninews.in/news/world/asia/india-eu-discuss-avenues-for-strategic-security-defence-cooperation20231220043417/>



*Tue, 19 Dec 2023*

## **Putin Says Russia is Ready to Talk on Ukraine**

President Vladimir Putin said on Tuesday that Russia would be prepared to talk to Ukraine, the United States and Europe about the future of Ukraine if they wanted to, but that Moscow would defend its national interests.

Putin, who sent troops into Ukraine in 2022, has repeatedly said he would be prepared to talk about peace, though Western officials say he is waiting for the U.S. presidential election in November before making a genuine effort.

"In Ukraine, those who are aggressive towards Russia, and in Europe and in the United States - do they want to negotiate? Let them. But we will do it based on our national interests," Putin told a meeting of the defence leadership in Moscow.

"We will not give up what is ours," Putin said, adding that Russia did not intend to fight with Europe. Russia controls about 17.5% of the territory that was internationally recognised as part of Ukraine when the Soviet Union collapsed in 1991.

Russia annexed Crimea in 2014, and last year said the four additional regions of Ukraine that its troops partially control are part of Russia. Kyiv says it will not rest until every last Russian soldier is ejected from Ukraine.

### **RUSSIA AT WAR**

Putin spoke at a meeting of the defence ministry which was attended by the military top brass, including Defence Minister Sergei Shoigu and General Valery Gerasimov, chief of the general staff, as well as Federal Security Service (FSB) Director Alexander Bortnikov.

Russian troops, Putin said, now had the initiative on the battlefield.

"We are not going to abandon the goals of the special military operation," Putin said, though he added that Russia needed better military communication, reconnaissance, targeting and satellite capability.

He said Russia's defence industry was responding faster than that of the West and said Russia would continue to upgrade its nuclear forces and keep its combat readiness at a high level.

Russia's production of tanks has increased since February 2022 by 5.6 times, unmanned aerial vehicles by 16.8 times and artillery shells by 17.5 times, Shoigu said.

He said Russia had taken on 490,000 contract and voluntary soldiers in 2023. Next year, Russia will try to boost that contracted force to 745,000 men.

Russian forces have laid 7,000 sq km of minefields in Ukraine - some up to 600 metres wide, along with 1.5 million anti-tank barriers and 2,000 km of anti-tank ditches, Shoigu said.

Putin said Ukrainian membership of NATO "is not acceptable for Russia in 10 years, and not in 20".

<https://www.reuters.com/world/europe/putin-says-russia-is-ready-talk-ukraine-2023-12-19/>

## Business Standard

*Tue, 19 Dec 2023*

### **West Accuses Iran of Illegally Testing Missiles, Transferring Drones**

The Western powers in the 2015 nuclear agreement with Iran accused Tehran on Monday of developing and testing ballistic missiles, transferring hundreds of drones to Russia, and enriching uranium to an unprecedented 60 per cent level for a country without a nuclear weapons programme all in violation of a UN resolution endorsing the deal.

Iran and its ally, Russia, dismissed the charges by Britain, France and Germany, strongly supported by the United States, which pulled out of the agreement known as the Joint Comprehensive Plan of Action in 2018.

The six-party agreement was aimed at ensuring that Iran could not develop atomic weapons. Under the accord, Tehran agreed to limit enrichment of uranium to levels necessary for the peaceful use of nuclear power in exchange for the lifting of economic sanctions.

The sharp exchanges came at the Security Council's semi-annual meeting on the implementation of its resolution endorsing the 2015 nuclear deal.

Both Iran's UN Ambassador Amir Iravani and Russia's UN Ambassador Vassily Nebenzia blamed the United States' withdrawal from the JCPOA, Western sanctions and an anti-Iran stance for the current standoff.

Iravani said Iran is allowed to enrich uranium for peaceful purposes under the Nuclear Nonproliferation Treaty, and Nebenzia rejected alleged evidence that it was using Iranian drones in Ukraine.

Then-President Donald Trump said when unilaterally pulling out of the accord in 2018 that he would negotiate a stronger deal, but that didn't happen. Iran began breaking the terms a year later

and its 60 per cent enrichment is near weapons-grade levels, according to the International Atomic Energy Agency, the UN nuclear watchdog.

Formal talks to try to find a roadmap to restart the JCPOA collapsed in August 2022.

At Monday's council meeting, UN political chief Rosemary DiCarlo stressed that UN Secretary-General Antonio Guterres still considers the JCPOA the best available option to ensure that the Iranian nuclear programme remains exclusively peaceful.

She urged Iran to reverse course, as did the three European countries who issued a joint statement quoting the IAEA as saying Iran's stockpiles of enriched uranium now stand at 22 times the JCPOA limit.

There is no credible civilian justification for the state of Iran's nuclear programme, the UK, France and Germany said. The current trajectory only brings Iran closer to weapons-related capabilities.

The Europeans and US Minister Counselor John Kelley stressed that they would use all means to prevent Iran from developing nuclear weapons.

As for the future, Kelley told the council: Iran should take actions to build international confidence and de-escalate tensions and not continue nuclear provocations that pose grave proliferation risks.

The United States is fully committed to resolving the international community's concerns regarding Iran's nuclear programme through diplomacy, he said. Unfortunately, Iran's actions suggest this goal is not its priority.

Iran's Iravani said Tehran has persistently worked toward the JCPOA revival and stands prepared to resume the full implementation of its commitment on the JCPOA once it is revived.

That requires the US and all other parties to fully implement their obligations as well as genuine political attentiveness", he said.

And Nebenzia said: The Russian Federation is firmly convinced that there is no alternative to the JCPOA.

[https://www.business-standard.com/world-news/west-accuses-iran-of-illegally-testing-missiles-transferring-drones-123121900072\\_1.html](https://www.business-standard.com/world-news/west-accuses-iran-of-illegally-testing-missiles-transferring-drones-123121900072_1.html)

## Science & Technology News

INDIA  
TODAY

Wed, 20 Dec 2023

### 'Be Careful with New Technology': PM Modi's Fresh Warning on Deepfake Videos

Prime Minister Narendra Modi has once again highlighted the issue of deepfakes on social media and said AI-generated videos and pictures look real. He cautioned people to be very careful with new technology.

Interacting with students during the grand finale of the Smart India Hackathon, PM Modi highlighted the need for being alert while using new technologies.

"We have to be careful with new technology. If these are used carefully, they can be very useful. However, if these are misused, it can create huge problems. You must be aware of deepfake videos made with the help of generative AI," he said.

"These videos look very real and, therefore, we need to be very careful before believing the authenticity of a video or an image. India is emphasising a global framework for AI," the Prime Minister further said.

PM Modi's comments came against the backdrop of deepfake videos of several Bollywood actors, including Rashmika Mandanna and Kajol on social media, raising concerns over the potential misuse of AI.

Deepfake is a technology that uses AI to doctor pictures or videos in such a manner that the person can impersonate anyone and say something or do activities that never actually occurred.

### **PM MODI'S EARLIER CONCERNS ON DEEPPKES**

During the virtual G20 summit on November 22, PM Modi spoke about the emergence of deepfakes on social media, calling for "global regulations for AI". He said that the AI should be safe for society.

"The world is worried about the negative effects of AI. India thinks that we have to work together on the global regulations for AI. Understanding how dangerous deepfakes are for society and individuals, we need to work forward. We want AI to reach the people, it must be safe for society," he said.

On November 17, PM Modi called deepfakes one of the biggest threats that the Indian system was facing at the moment and said they could cause chaos in society. He also urged the media to educate people about the rising problem.

Addressing journalists at BJP's Diwali Milan programme at the BJP headquarters in Delhi, PM Modi cited a deepfake video of him doing Garba, which India Today fact-checked. Calling the video "very real", he said he had not "played Garba" since he was young.

### **'NOT IMPORTING TECHNOLOGY SHOULD BE INDIA'S GOAL'**

At the Smart India Hackathon, PM Modi said the "world is confident that India can provide low-cost, quality, sustainable and scalable solutions to global challenges".

"Our Chandrayaan mission has increased the expectations of the world manifold," he said and asked the innovators to innovate accordingly.

He said India's goal should be that it doesn't have to import any technology. "Technology has become an important part of our lives like never before. Our goal should be that India doesn't have to import any technology or depend on other nations for it," he added.

Citing the defence sector, which is working towards self-reliance, he pointed out that India was forced to import some defence technology.

<https://www.indiatoday.in/india/story/pm-modi-deepfakes-videos-photos-smart-india-hackathon-rashmika-mandanna-kajol-2478140-2023-12-20>

## **NASA Beams High-definition Cat Video Back to Earth from Deep Space, Calls it a Giant Leap in Mission to Mars**

NASA revealed on Monday that it successfully beamed a high-definition video of a cat back to Earth from deep space. The 15-second video, which features an orange tabby cat named Taters was sent back from nearly 19 million miles away. The space agency achieved this feat by an instrument called a flight laser transceiver. It is a part of NASA's technology demonstration, which aims to “pave the way for high-data-rate communications” from deep space.

### **First HD video of a cat from deep space**

The US space agency shared the video on X, formerly Twitter. The space agency wrote, “We just streamed the first ultra-HD video brought to you via laser from deep space. And it’s a video of Taters, a tabby cat.” This milestone paves the way for “the next giant leap: sending humans to Mars.”

NASA Deputy Administrator Pam Melroy said, “This accomplishment underscores our commitment to advancing optical communications as a key element to meeting our future data transmission needs. Increasing our bandwidth is essential to achieving our future exploration and science goals, and we look forward to the continued advancement of this technology and the transformation of how we communicate during future interplanetary missions.”

### **Here's how NASA did it**

The video of the orange feline was first uploaded to NASA's \$1.2 billion Psyche asteroid probe before its launch in October. It was transmitted on December 11 en route to the asteroid. It was then beamed back to Earth via a cutting-edge piece of tech known as a flight laser transceiver. The space agency revealed that the ultra HD video merely took 101 seconds to reach Earth at the maximum bit rate of 267 Mbps.

Taters' video was downloaded at Caltech’s Palomar Observatory in San Diego County, California. It was then sent “live” to NASA’s Jet Propulsion Laboratory in Southern California, where the video was played in real-time.

<https://www.hindustantimes.com/trending/nasa-beams-high-definition-cat-video-back-to-earth-from-deep-space-calls-it-a-giant-leap-in-mission-to-mars-101703001035229.html>

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