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# समाचार पत्रों से चयित अंश Newspapers Clippings

A Daily service to keep DRDO Fraternity abreast with DRDO Technologies, Defence Technologies, Defence Policies, International Relations and Science & Technology

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## Philippines to acquire 3 batteries of BrahMos

*The defence deal is unlikely to go down well with China, whose aggressive behaviour in the disputed South China Sea has taken relations with the Philippines to a fresh low.*

*By Rezaul H Laskar*

New Delhi: The Philippines confirmed on Friday it will acquire three batteries of the BrahMos cruise missile jointly developed by India and Russia in a deal worth almost \$375 million, a development expected to boost India's efforts to become a major exporter of defence hardware.

The defence deal is unlikely to go down well with China, whose aggressive behaviour in the disputed South China Sea has taken relations with the Philippines to a fresh low. The Philippine Marines intend to use the BrahMos as a shore-based anti-ship missile.

Philippine defence secretary Delfin Lorenzana said he had recently signed the "notice of award" – or the acceptance of India's proposal for supplying the missile – for the Philippine Navy's shore-based anti-ship missile acquisition project.

"Negotiated with the Government of India, it includes the delivery of three batteries, training for operators and maintainers as well as the necessary Integrated Logistics Support (ILS) package," Lorenzana said in a brief post on his Facebook page.

The deal for the BrahMos was conceptualised as early as 2017, and the office of the Philippines president "approved its inclusion in the Horizon 2 Priority Projects in 2020", he added.

Hindustan Times had first reported in December 2019 that the Philippines was set to become the first country to buy the BrahMos missile system. Both sides were keen on signing the deal during a proposed visit by President Rodrigo Duterte early in 2021, but the plan fell through because of widespread disruptions caused by the Covid-19 pandemic.

The notice of award signed by Lorenzana on December 31 last year put the value of the BrahMos deal at \$374.962 million. Last month, the Philippines government allocated 2.8 billion pesos (\$55.5 million) for initial funding for the weapon system. A team from the Philippine Navy visited the production unit of BrahMos Aerospace in Hyderabad in December as part of the acquisition process.

"The Coastal Defense Regiment of the Philippine Marines will be the primary employer of this modern strategic defense capability of the Armed Forces of the Philippines," Lorenzana said.

There was no official word from the Indian side, though Sudhir Mishra, who was till recently the CEO of BrahMos Aerospace, said in a tweet: "As then CEO and MD, worked on the Philippines contract for the past five years very hard connecting people, dots, procedures & unseen forces. BrahMos has shown the way for high value defence exports."



An extended-range sea-to-sea variant of BrahMos Supersonic Cruise Missile successfully test-fired from the Indian Navy's newly commissioned INS Visakhapatnam on Tuesday. Philippine defence secretary Delfin Lorenzana said he had recently signed the 'notice of award' – or the acceptance of India's proposal for supplying the missile – for the Philippine Navy's shore-based anti-ship missile acquisition project. (ANI)

According to the government, policy changes have resulted in defence exports increasing by more than 325% over the last five years. India has set an ambitious target of achieving defence exports of \$5 billion by 2024. The country exported defence gear worth ₹8,434.84 crore during 2020-21.

However, the BrahMos deal is being seen as a game changer as India's defence exports so far have been items such as avionics, coastal surveillance systems, spares for radars, personal protective items, and offshore patrol vessels.

The deal with the Philippines could open the door for further sales of the BrahMos – which has a range of 290 km and can carry a 200-kg warhead – to other Southeast Asian countries such as Vietnam and Indonesia, which have been engaged in negotiations for the weapon system for several years.

One of the potential areas for use of the BrahMos by the Philippines is the South China Sea. In 2016, the Permanent Court of Arbitration in the Hague ruled that a specific portion of the South China Sea claimed by both China and the Philippines belonged to the Philippines alone. China rejected the ruling and has continued to send its vessels into the disputed waters.

The Philippines military is currently implementing a revised modernisation programme and signed a contract for two corvettes with South Korea's Hyundai Heavy Industries on December 28 last year. The Philippines also plans to sign contracts for 36 Black Hawk helicopters and six offshore patrol vessels in 2022.

Former Indian Navy chief Admiral Arun Prakash said about the BrahMos deal in a tweet: "This is a long-delayed decision, which could alter the India-China strategic equation. By arming its Indo-Pacific friends, India not only helps bolster their security, but also gives China a dose of its own medicine! Vietnam & Indonesia, too, are waiting."

<https://www.hindustantimes.com/india-news/philippines-to-acquire-3-batteries-of-brahmos-101642188070158.html>

**TIMESNOWNEWS.COM**

Sat, 15 Jan 2022

## **Philippines orders 3 batteries of BrahMos anti-ship missile from India worth \$375 million for its naval fleet – Details**

*The Philippines accepted the BrahMos Aerospace Private Limited's proposal worth \$375 million to supply shore-based Anti-Ship Missile systems for its Navy.*

### **Key Highlights**

- ***The DRDO and BrahMos Aerospace have together been pushing hard to export the missile system to friendly foreign nations as part of the 'Atmanirbhar Bharat' vision***
- ***BrahMos chief Atul Dinkar Rane has reportedly been working extensively towards enhancing the missile system and expanding its production base***

New Delhi: In a major development, the Philippines has placed an order for three batteries of the indigenously-developed BrahMos supersonic cruise missiles, the country's Defence Secretary Delfin Lorenzana confirmed on Friday.

"As head of procuring entity (HOPE), I recently signed the Notice of Award for the Philippine Navy Shore-Based Anti-Ship Missile Acquisition Project. Negotiated with the Government of India, it includes the delivery of three batteries, training for operators and maintainers as well as the necessary Integrated Logistics Support (ILS) package. Conceptualized as early as 2017, the Office of the President approved its inclusion in the Horizon 2 Priority Projects in 202," Lorenzana announced on social media platform Facebook.

The Philippines accepted the BrahMos Aerospace Private Limited's proposal worth \$375 million to supply shore-based Anti-Ship Missile systems for its Navy.

"The Notice of Award has been communicated to BrahMos officials by the Philippines Department of National Defense accepting the proposal worth around \$375 million," government officials said.

The Defence Research Development Organisation and BrahMos Aerospace have together been pushing hard to export the missile system to friendly foreign nations as part of the 'Atmanirbhar Bharat' vision.

The Narendra Modi-led Indian government's push for defence export is from the DRDO stable as it successfully secured orders for 'Made in India' weapon locating radars recently from Armenia.

The BrahMos export order is pegged to be the biggest for India in this sector and will likely propel India among arms exporter countries as several orders for the missile are in the pipeline.

BrahMos chief Atul Dinkar Rane has reportedly been working extensively towards enhancing the missile system and expanding its production base.

<https://www.timesnownews.com/india/article/philippines-orders-3-batteries-of-brahmos-anti-ship-missile-from-india-worth-375-million-dollars-for-its-naval-fleet-details/849513>



The BrahMos anti-ship missile manufactured by India. | Photo Credit: PTI



Sat, 15 Jan 2022

## In first BrahMos missile export order, Philippines approves \$374-million contract

*Negotiations in advanced stages with Indonesia and Thailand, defence officials said*

*By Dinakar Peri*

New Delhi: In the first export order for the BrahMos supersonic cruise missile system, Philippines has approved a \$374.96 million contract for the purchase of shore based anti-ship variant of the missile from India, while discussions are ongoing with few other South East Asian countries. Secretary of National Defence of Philippines, Delfin Lorenzana has signed the 'Notice of award' for the purchase, the contract for which is expected to be signed very soon.

"As head of procuring entity (HOPE), I recently signed the Notice of Award for the Philippine Navy shore-based anti-ship missile acquisition project. Negotiated with the Government of India, it includes the delivery of three batteries, training for operators and maintainers as well as the necessary Integrated Logistics Support (ILS) package," Mr. Lorenzana said on social media. Conceptualised as early as 2017, the Office of the President approved its inclusion in the Horizon 2 Priority Projects in 2020, he stated.

The coastal defence regiment of the Philippine Marines will be the primary employer of this modern strategic defense capability of the Armed Forces of the Philippines, Mr. Lorenzana added.

While Philippines had raised a unit sometime to operate the missile system, the contract was delayed by couple of years due to the COVID pandemic and budgetary constraints.



A file picture of BrahMos, supersonic cruise missile successfully test-fired as part of service life extension program, from the Integrated Test Range (ITR), in Balasore. | Photo Credit: PTI



The Department of National Defence of Philippines, their equivalent of Ministry of Defence, too confirmed the notification and a copy of the notice of award signed by Mr. Lorenzana on December 31, 2021 was posted on the official website.

“This is to inform you that the proposal of BrahMos Aerospace Private Ltd. For the shore based anti-ship missile system acquisition project for the Philippine Navy, with a corresponding price proposal in the amount of \$374,962,800 is hereby accepted,” the letter stated. “You are hereby directed to provide, within 10 calendar days from receipt of this notice, the performance security in the form and amount stipulated in the terms of reference,” it added.

### Discussions underway

As reported by *The Hindu* earlier, there is interest for acquiring BrahMos missiles from several countries and negotiations are in advanced stages with Indonesia and Thailand.

Discussions with Indonesia are in fairly advanced stage, a defence official said. The sale of BrahMos was also on top of the agenda during the visit of the Indonesian Defence Minister Prabowo Subianto to New Delhi in July 2020, another official stated.

BrahMos is a joint collaboration between India and Russia and is capable of being launched from land, sea, sub-sea and air against surface and sea-based targets and has been long inducted by the Indian armed forces.

The range of the missile was originally capped at 290 kms as per obligations of the Missile Technology Control Regime (MTCR). Following India’s entry into the club in June 2016, officials said the range would be extended to 450 kms and to 600 kms at a later stage. An extended range missile has already been tested, the latest on January 11 from indigenous guided stealth missile destroyer INS *Visakhapatnam*.

<https://www.thehindu.com/news/national/in-the-first-brahmos-missile-export-order-philippines-approves-374-mn-contract/article38272238.ece>

## THEWEEK

Sat, 15 Jan 2022

# Philippines to buy India's BrahMos missile

*This is the first order for BrahMos from a third country*

*By Mandira Nayar*

Philippines became the first country in the region to acquire the BrahMos cruise missile system jointly developed by India and Russia. The ripples for this deal—years in the making—is likely to be felt for a while.

The deal is worth 374.9 million dollars and is a significant step forward for India as a regional security provider as well as a defence exporter. The Philippines is not the only country interested in the missile system. Vietnam, Indonesia and Thailand, too, have shown interest. India hopes that there will be exports to the UAE, too.

For India, the deal does more than just bolster its capability image as a defence exporter—it is also a strategic signal to China. Especially since the missile system will be used by the Philippines to defend itself against China.

Philippines' acquisition of the missile system is an assertion of its strength. Of late, the country has been adding to its military strength in a region that is steadily becoming more volatile. Fifteen Black Hawk helicopters were bought last year.



**BrahMos is a joint venture between the DRDO and the NPOM of Russia | Reuters**

India has been steadily strengthening its military exports, as part of its AatmaNirbhar initiative. "Our defence exports have increased by 325 per cent in the last five years. It is our target that our companies not only establish expertise in their products, but also become global brands," Prime Minister Narendra Modi said in October. Both private and public sectors were working together.

According to figures submitted in a reply in Parliament, the defence ministry stated that India has exported defence equipment worth Rs 8,434.84 crore in 2020-21 compared to Rs 1,940.64 crore in 2014-15.

In response to a question in Parliament in 2020, Minister of State for Defence Shripad Naik, in a written reply to Rajya Sabha, stated that India was exporting military equipment to 42 countries, including Azerbaijan, Seychelles, Estonia, Indonesia, Guinea, Singapore and Germany.

India was exporting mortar shell covers to Israel, night-vision binoculars to Thailand, sleeping bags to Guinea, bullet-proof helmets, bomb-suppression blankets and soft armour panels to Germany, hard-armour plates to the Netherlands and the US. Exports to Qatar, Lebanon, Iraq, Uruguay, Japan and Egypt were also in the protective body equipment category.

<https://www.theweek.in/news/india/2022/01/14/philippines-to-buy-indias-brahmos-missile.html>

## COVID 19: DRDO's Contribution



Mon, 17 Jan 2022

### ऐसे जानें कोरोना वैक्सीन के दोनों डोज काम कर रहे हैं या नहीं

कोरोना की तीसरी लहर के साथ ही लोग जानना चाहते हैं कि दोनों डोज लेने के बाद वैक्सीन ने काम किया है या नहीं?

भोपाल: देश में ओमीक्रॉन की के बढ़ते मामले और डेल्टा वैरियंट के साथ ही तीसरी लहर की बात की जा रही है। हर रोज संक्रमण के केस तेजी से बढ़ रहे हैं। ऐसे में आपके मन में भी यह सवाल आता होगा कि आखिर कोरोना रोधी वैक्सीन के दोनों डोज लेने के बाद क्या हुआ? क्या आपके शरीर में वैक्सीन ने काम किया है? अगर किया है, तो पता करने का तरीका क्या है? आपके इन सभी सवालों के जवाब जानने के लिए इस खबर को पूरा पढ़िए...



दरअसल कोरोना टीकाकरण के बाद शरीर में एंटीबॉडी बन जाती है और इसका पता करने के लिए आपको सिर्फ 1 टेस्ट कराना होता है, जिसका नाम है एंटीबॉडी टेस्ट। आप भी एंटीबॉडी टेस्ट कराकर पता करें कि आखिर वैक्सीन ने आपकी बॉडी में काम किया है या नहीं।

ये होती है एंटीबॉडी

हमारे शरीर में जब कोई वायरस प्रवेश करता है वायरस भी प्रोटीन ही होता है। तो शरीर उससे लड़ने के लिए कुछ प्रोटीन का निर्माण करता है, जो वायरस की तरह ही शरीर में मौजूद होते हैं, ये प्रोटीन ही एंटीबॉडी कहलाते हैं।

एंटीबॉडी टेस्ट में पता चलता है वैक्सीन का असर

आप जैसे ही एंटीबॉडी टेस्ट कराते हैं तो पता चलता है कि जो वैक्सीन आपने लगवाई है उसने काम किया है या फिर से वैक्सीन लगवाने की जरूरत है। वही वैक्सीन का दोनों डोज लेने के बाद भी टेस्ट में एंटीबॉडीज कम मिलती हैं तो आपको जान लेना चाहिए कि वैक्सीन का असर कम हो गया है। वही टेस्ट में शरीर में एंटीबॉडीज ज्यादा मिलती हैं तो समझ लीजिए कि आपके शरीर में वैक्सीन अब भी काम कर रही है।

रिकवर के बाद बनती है एंटीबॉडी

आपके शरीर में एंटीबॉडीज केवल वैक्सीन से नहीं बनती हैं। अगर आप कोरोना से संक्रमित हो चुके हैं और उसके बाद रिकवर होने के बाद एंटीबॉडीज टेस्ट करवागें तो आपके शरीर में एंटीबॉडी मिल जाएंगी।

एंटीबॉडी टेस्ट का खर्च

अगर आप अपना एंटीबॉडी टेस्ट कराना चाहते हैं तो आपको लगभग 1 हजार रुपए खर्च करने पड़ेंगे। निजी लैब में एंटीबॉडी टेस्ट करने का खर्च 500 से 1 हजार रुपए तक हो सकता है। वही रक्षा मंत्रालय के रक्षा अनुसंधान और विकास संगठन यानि डीआरडीओ ने एंटीबॉडी की जांच के एक किट बनाई है , इसका नाम डिप्लोवैन किट है। यह डिप्लोवैन किट आपको मात्र 75 रुपए में मिल जाती है। जिससे आप आसानी से पता कर सकते हैं कि आपके शरीर में एंटीबॉडी बनी है या नहीं।

एंटीबॉडी टेस्ट में समय

आपके शरीर में एंटीबॉडीज मौजूद हैं या नहीं इसका पता करने के लिए एंटीबॉडी टेस्ट कराना चाहते हैं तो आपको ज्यादा इंतजार नहीं करना पड़ेगा। एंटीबॉडीज टेस्ट के बाद रिपोर्ट मिलने में सिर्फ 1 से 2 घंटे का समय लगता है और आपको 2 घंटे के अंदर रिपोर्ट भी मिल जाती है।

कब कराना चाहिए एंटीबॉडी टेस्ट

अगर आप कोरोना संक्रमण से पीड़ित हो चुके हैं। तो रिकवर होने के 15 दिन बाद आप एंटीबॉडी टेस्ट करवा सकते हैं, एक्सपर्ट के मुताबिक कोरोना से रिकवर होने के लगभग 13-14 दिन बाद आपके शरीर में एंटीबॉडीज बन जाती हैं।

<https://www.patrika.com/bhopal-news/know-whether-both-the-doses-of-corona-vaccine-are-working-or-not-7279599/>





Press Information Bureau  
Government of India

Ministry of Defence

Sat, 15 Jan 2022 5:43PM

### Indian Army celebrates 74th Army Day

The Indian Army celebrated its 74<sup>th</sup> Army Day today. Every year, 15 January is commemorated as “Army Day” to remember the occasion when General (later Field Marshal) KM Cariappa took over the command of the Indian Army from General Sir FRR Bucher, the last British Commander-in-Chief in 1949 and became the first Indian Commander-in-Chief of Independent India.

The Indian Army’s theme for the year 2022, “In Stride with the Future”, is an acknowledgement of the increasingly critical role played by niche and disruptive technologies in modern warfare. The Indian Army confronts a plethora of security challenges, conventional and non-traditional, and is looking at Artificial Intelligence (AI), 5G, Robotics and Quantum Technology to find innovative solutions to these emerging challenges.

The Army Day celebrations commenced with the Wreath Laying ceremony at the National War Memorial where the three Service Chiefs paid homage to the bravehearts. In his message to all ranks of the Indian Army, the Chief of the Army Staff, General MM Naravane saluted the supreme sacrifice of all personnel who laid down their lives in the line of duty, reiterating his unstinted support to the Veer Naris and Next of Kin of the fallen soldiers. He assured the Nation that the Indian Army was operationally ready to deal with any adverse situation.

The Chief of the Army Staff reviewed the Army Day Parade at the Cariappa Parade Ground, Delhi Cantonment and awarded 15 Sena Medals (including five posthumously) for individual acts of gallantry and 23 COAS Unit Citations to units for their commendable performance. The Army Day Parade this year showcased the evolution of various weapon systems held in the Indian Army’s inventory. New and modern weapon systems and platforms were displayed alongside their old counterparts. Centurion tanks were followed by Arjun Main Battle Tanks and TOPAS was succeeded by the BMP-II. Similarly pairs of the 75/24 Indian Field Gun and Dhanush, PMP/PMS and Sarvatra bridges and Tiger Cat & Akash Surface to Air Missiles were also on display.

The parade also included International Sports awardees and seven marching contingents, including mounted horse cavalry. A song titled ‘Maati’, sung by famed singer Hariharan, dedicated to the Army and the Nation, was exclusively released during the event. The Indian Army also unveiled the latest pattern of its combat dress during the parade.



<https://pib.gov.in/PressReleasePage.aspx?PRID=1790154>



पत्र सूचना कार्यालय  
भारत सरकार  
रक्षा मंत्रालय

Sat, 15 Jan 2022 5:43PM

## भारतीय सेना ने आज 74वां सेना दिवस मनाया

भारतीय सेना ने आज अपना 74वां सेना दिवस मनाया। यह दिन फील्ड मार्शल के.एम. करियप्पा के भारतीय सेना के पहले कमांडर-इन-चीफ का पदभार ग्रहण करने की याद में मनाया जाता है। उन्हें भारत के अंतिम ब्रिटिश कमांडर-इन-चीफ जनरल फ्रांसिस बुचर के स्थान पर 15 जनवरी, 1949 को कमांडर इन चीफ बनाया गया था। वे स्वतंत्र भारत के पहले भारतीय कमांडर-इन-चीफ नियुक्त हुए थे।

सेना दिवस पर वर्ष 2022 के लिए भारतीय सेना की थीम "इन स्ट्राइड विद द फ्यूचर-भविष्य के साथ प्रगति में" है, जो आधुनिक काल के युद्ध में अहम और विध्वंसकारी प्रौद्योगिकियों द्वारा तेजी से निभाई गई महत्वपूर्ण भूमिका की स्वीकृति को दर्शाती है। भारतीय सेना पारंपरिक और गैर-पारंपरिक सुरक्षा चुनौतियों का सामना करती है। ऐसे में इन उभरती चुनौतियों से निपटने में अभिनव समाधान खोजने के लिए आर्टिफिशियल इंटेलिजेंस (एआई), 5 जी, रोबोटिक्स और क्वांटम टेक्नोलॉजी पर विचार किया जा रहा है।



सेना दिवस समारोह की शुरुआत राष्ट्रीय युद्ध स्मारक पर माल्यार्पण करने के साथ हुई जहां तीनों सेनाओं के प्रमुखों ने वीरों और शहीदों को श्रद्धांजलि दी। थल सेनाध्यक्ष जनरल एम.एम. नरवणे ने भारतीय सेना की सभी रैंकों के लिए अपने संदेश में उन सभी कर्मियों के सर्वोच्च बलिदान को सलाम किया, जिन्होंने कर्तव्य का पालन करते हुए अपने जीवन का बलिदान कर दिया। उन्होंने वीर नारियों और शहीद हुए सैनिकों के परिजनों के प्रति अपने अटूट समर्थन को दोहराया। जनरल नरवणे ने राष्ट्र को आश्वासन दिया कि भारतीय सेना किसी भी प्रतिकूल स्थिति से सक्रियता के साथ निपटने के लिए हमेशा तैयार है।



थल सेनाध्यक्ष ने दिल्ली छावनी के करियप्पा परेड ग्राउंड में सेना दिवस परेड का निरीक्षण किया तथा सलामी ली। उन्होंने वीरतापूर्ण साहसिक कार्यों के लिए 15 सेना पदक (पांच मरणोपरांत सहित) प्रदान किये और इकाइयों को उनके सराहनीय प्रदर्शन के लिए 23 सीओएस यूनिट प्रशस्ति पत्र से सम्मानित किया। इस वर्ष सेना दिवस परेड में भारतीय सेना की सूची में शामिल विभिन्न हथियार प्रणालियों के विकास को प्रदर्शित किया गया। नए एवं आधुनिकतम हथियार प्रणालियों तथा प्लेटफार्मों को उनके पुराने समकक्षों के साथ दर्शाया गया था। संचुरियन टैंकों के बाद अर्जुन देश के मुख्य युद्धक टैंक थे और टोपास के स्थान पर बीएमपी-२ को तैनात किया गया था। इसी तरह से 75/24 भारतीय फील्ड गन और धनुष, पीएमपी/पीएमएस तथा सर्वत्र ब्रिजेस एवं टाइगर कैट और आकाश सतह से हवा में मार करने वाली मिसाइलों की जोड़ी भी प्रदर्शित की गई।

परेड में अंतर्राष्ट्रीय खेल पुरस्कार विजेता और घुड़सवार सेना सहित सात मार्चिंग दल भी शामिल हुए। इस कार्यक्रम के दौरान प्रसिद्ध गायक हरिहरन द्वारा गाया गया 'माटी' शीर्षक वाला एक गीत विशेष रूप

से जारी किया गया, जो सेना और राष्ट्र को समर्पित किया गया है। भारतीय सेना ने परेड के दौरान अपनी लड़ाकू पोशाक के नवीनतम पैटर्न का भी अनावरण किया।

<https://pib.gov.in/PressReleasePage.aspx?PRID=1790197>



Press Information Bureau  
Government of India

Ministry of Defence

Sat, 15 Jan 2022 1:29PM

## Rear Admiral KP Arvindan takes over as Admiral Superintendent of Naval Dockyard (Mumbai)

In an impressive ceremony, Rear Admiral KP Arvindan, VSM took over charge as Admiral Superintendent of Naval Dockyard, Mumbai from Rear Admiral B Sivakumar, VSM on 14 January 2022.

Rear Admiral KP Arvindan, an alumnus of Naval College of Engineering, INS Shivaji, Lonavla, is from the first batch of the Naval Engineering Course and was commissioned into the Indian Navy in November 1987. The Admiral holds a B-Tech degree in Marine Engineering and a M-Tech degree in Industrial Engineering from NITIE, Mumbai.

In a career spanning over 34 years of service, the Admiral served in various capacities, including at command headquarters, training establishments, the marine gas turbine overhaul centre, INS Eksila, and Naval Dockyard, Mumbai. He has served onboard a Petya class patrol vessel, the missile corvette Kirpan and guided missile destroyers Rajput and Ranjit. His recent appointments include being the Commanding Officer of the premier training establishment, INS Shivaji, and Commodore (Fleet Maintenance), an assignment he handled for a period of four years, handling issues related to maintenance and repair support for the aircraft carrier, Vikramaditya, and the submarine fleet of the Indian Navy.

On promotion to the flag rank, the officer was appointed as Admiral Superintendent, Naval Ship Repair Yard, Karwar. A recipient of the Vishisht Seva Medal, the Admiral was serving as Chief Staff Officer (Technical) at Headquarters, Western Naval Command, prior to taking over the present assignment.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1790114>



पत्र सूचना कार्यालय  
भारत सरकार

रक्षा मंत्रालय

Sat, 15 Jan 2022 1:29PM

## रियर एडमिरल के.पी. अरविंदन ने नौसेना डॉकयार्ड (मुंबई) के एडमिरल अधीक्षक का कार्यभार ग्रहण किया

रियर एडमिरल के.पी. अरविंदन, वीएसएम ने 14 जनवरी 2022 को एक समारोह के दौरान रियर एडमिरल बी शिवकुमार, वीएसएम से मुंबई में नौसेना डॉकयार्ड के एडमिरल अधीक्षक का कार्यभार ग्रहण किया।

रियर एडमिरल के.पी. अरविंदन लोनावला में नवल कॉलेज ऑफ इंजीनियरिंग, आईएनएस शिवाजी के पूर्व छात्र रहे हैं। वे नौसैनिक इंजीनियरिंग पाठ्यक्रम के पहले बैच से उत्तीर्ण हैं और नवंबर 1987 में भारतीय नौसेना में शामिल हुए थे। रियर एडमिरल अरविंदन एनआईटीआईई, मुंबई से समुद्री इंजीनियरिंग में बी-टेक डिग्री के धारक हैं और उन्होंने औद्योगिक इंजीनियरिंग में एम-टेक की डिग्री भी प्राप्त की है।

34 वर्षों से अधिक समय के सेवाकाल में श्री अरविंदन ने कमांड मुख्यालय, प्रशिक्षण प्रतिष्ठानों, समुद्री गैस टरबाइन परीक्षण केंद्र, आईएनएस एक्सिसला और नवल डॉकयार्ड, मुंबई में कार्यरत रहने सहित विभिन्न पदों पर जिम्मेदारियां संभाली हैं। उन्होंने पेट्या श्रेणी के गश्ती पोत, मिसाइल से लैस युद्धक पोत कृपाण और निर्देशित मिसाइल विध्वंसक जहाज राजपूत व रंजीत पर भी कार्य किया है। उनकी हालिया नियुक्तियों में मुख्य रूप से प्रशिक्षण प्रतिष्ठान, आईएनएस शिवाजी का कमांडिंग ऑफिसर बनना और कमांडोर (फ्लीट मेंटेनेंस) होना शामिल है। उन्होंने पहले असाइनमेंट की जिम्मेदारी चार साल की अवधि के लिए संभाली थी। उन्होंने विमान वाहक पोत विक्रमादित्य और भारतीय नौसेना के पनडुब्बी बेड़े के रखरखाव तथा मरम्मत आदि कार्यों से संबंधित गतिविधियों में भी अपनी सेवाएं दी हैं।



फ्लैग रैंक पर पदोन्नति के बाद श्री अरविंदन को नौसेना पोत मरम्मत यार्ड, कारवार का एडमिरल अधीक्षक नियुक्त किया गया है। विशिष्ट सेवा पदक से सम्मानित रियर एडमिरल वर्तमान कार्यभार को संभालने से पहले, पश्चिमी नौसेना कमान के मुख्यालय में मुख्य कर्मचारी अधिकारी (तकनीकी) के रूप में कार्यरत थे।

<https://pib.gov.in/PressReleasePage.aspx?PRID=1790150>

## THE ECONOMIC TIMES

Sun, 16 Jan 2022

### Army will remain central in securing national interests as India grows in stature: Rajnath Singh

#### Synopsis

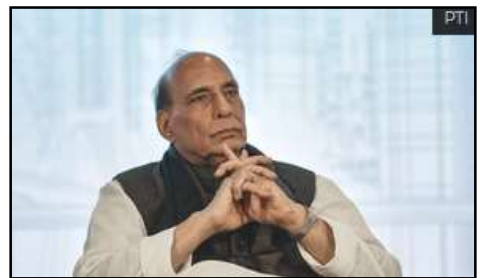
*"The Indian Army is preparing for an enhanced operational role in addressing the newly emerging multi domain security challenges," Defence Minister Rajnath Singh said in a message that was put out by the Army's Twitter handle.*

The Indian Army will remain central to securing the national interests as India grows in stature and strength, Defence Minister Rajnath Singh said on Saturday. Speaking on the occasion of Army Day, the minister noted that the Indian Army inspires confidence among the citizenry as it resolutely maintains an unflinching vigil across the frontiers of the nation.

"The Indian Army is preparing for an enhanced operational role in addressing the newly emerging multi domain security challenges," he said in a message that was put out by the Army's Twitter handle.

Singh said the Army's response during natural calamities has been remarkable and deeply appreciated by one and all.

"As India grows in stature and strength, the Indian Army shall remain central in securing our national interests and pursuing our national aspirations," he mentioned.



Union Defence Minister Rajnath Singh.



The government stands firmly committed to the capability development of the Indian Army and of the welfare of its rank and file, their families, veterans and Veer Naris (war widows).

"On this day, we pay homage to our valiant soldiers who made the supreme sacrifice in the service of the nation," he stated.

Singh said the nation also stands united behind expressing solidarity to their families, who have endured the loss of their loved ones with courage and fortitude.

<https://economictimes.indiatimes.com/news/defence/army-will-remain-central-in-securing-national-interests-as-india-grows-in-stature-rajnath-singh/articleshow/88913307.cms>



Sun, 16 Jan 2022

## Message is clear: Army Chief General Naravane on bid to change status quo along border

*Army Chief General MM Naravane said last year was extremely challenging for the Army while speaking about the standoff with China on eastern Ladakh.*

New Delhi: Army Chief General MM Naravane on Saturday said the Indian Army will not let any attempt to unilaterally change the status quo along the country's borders to succeed.

Speaking at the Army Day parade, General Naravane said, "Our message is clear. The Indian Army won't let any attempt to unilaterally change the status quo along the country's borders to succeed.

Speaking about the standoff with China on eastern Ladakh, he said, "Last year was extremely challenging for the Army. Joint efforts at various levels led to disengagement in many areas which is a constructive step. The 14th round of military-level talks was held between India and China recently to keep the situation under control."

Regarding the Line of Control on the western border, the Army chief said the situation is better than previous year, but Pakistan is still harbouring terrorists.

On the role of women in the armed forces, General Naravane said, the Army has taken major steps to give equal opportunity to women. "Now they can be in a high position and take bigger responsibilities. This year in NDA (National Defence Academy), women cadets will be included and women will also join as Army pilots," he said.

Earlier in the day, the three service chiefs – General Naravane, Air Force Chief Air Chief Marshal VR Chaudhari and Navy Chief Admiral R Hari Kumar – paid their obeisance at the National War Memorial in Delhi to mark the day.

The armed forces chiefs also laid a wreath at the war memorial.

Prime Minister Narendra Modi and President Ram Nath Kovind also extended their greetings on Army day.

<https://www.hindustantimes.com/india-news/message-is-clear-army-chief-on-bid-to-change-status-quo-along-border-101642227752928.html>



Army Chief General MM Naravane, Navy Chief Admiral R Hari Kumar and IAF chief Air Chief Marshal VR Chaudhari pay homage at the National War Memorial to mark the 74th Army Day, Saturday, (PTI)



## Indian Army Gets new uniform! Here is what's new in it

*The Indian Army has been planning to change the pattern as well as the material used in the uniform to make it easy and comfortable to be worn by men and women in the Army.*

*By Huma Siddiqui*

The new uniform of the Indian Army was showcased at the parade ground on Saturday (January 15, 2022) during the Army Day Parade.

The new combat uniform as has been reported by Financial Express Online has been designed in collaboration with the National Institute of Fashion Technology (NIFT).

### More about the NIFT Team

It was a team of eight made up of students and professors who were working on this project of designing the new uniform for the Indian Army. The specifications were provided by the Indian Army. The Indian Army has been planning to change the pattern as well as the material used in the uniform to make it easy and comfortable to be worn by men and women in the Army.

What is new?

It is ergonomically designed.

It is operationally effective.

And it has now eliminated the need to have different uniforms for different terrains – earlier there were uniforms for jungle warfare, desert warfare.

There will be a few changes in the new uniform besides the disruptive pattern.

It will be a lighter fabric, and has been designed to not only protect against the harsh climatic conditions, but have been designed keeping in mind the comfort, to provide the soldier's outfit with camouflage and also increase the survivability.

The NIFT went through four different fabrics, eight different designs and almost 15 patterns before locking it all down.

### The Fabric

It is going to be a combination of cotton and polyester and it will be in a ratio of 70:30. With this combination it will be easy to wear in different weather conditions, rain or heat as it will dry up easily and fast and is lightweight. It will be more durable in summer and winters.

### The Disruptive Pattern

The new uniform will have a mix of colours which include the Olive Green, Earthy shades, keeping in mind the different terrains and areas of deployment of the troops as well as the extreme weather conditions.

The new uniform will not be tucked in. and there will be a T-shirt inside. The pattern is a digital disruptive pattern and more like a pixelated design. The uniform is multi-terrain friendly and it is not just a combination of colours but actually acts as a camouflage.

For the women officers, there are slight modifications made.



It has now eliminated the need to have different uniforms for different terrains

## Why the change?

According to former officers, this is done keeping in mind the security. The new changes have been carried out after wide ranging discussions with the stakeholders, studying the uniforms of several other countries.

## Is the new pattern based on LTTE Uniform?

No.

And, the Indian Army has dismissed this comparison.

It has stated that the uniforms are “distinctively different” from LTTE Uniform.

How? To distort the new pattern of the uniform which will be unveiled tomorrow, filters have been used.

Yesterday, the Indian Army dismissed the comparisons between the new combat uniform with LTTE uniform. The Army said that both are ‘distinctively different’ adding that filters have been used on the new Army pattern to distort its appearance.

<https://www.financialexpress.com/defence/indian-army-gets-new-uniform-here-is-whats-new-in-it/2407180/>

# अमर उजाला

Sun, 16 Jan 2022

## सेना दिवस: अब ऐसी होगी भारतीय सैनिकों की यूनिफॉर्म, जानें क्यों बदली गई सेना की वर्दी, सामने आई तस्वीर

सार

यूनिफॉर्म को राष्ट्रीय फैशन प्रौद्योगिकी संस्थान (NIFT) के प्रोफेसरों समेत आठ लोगों की टीम ने तैयार किया है। इस नई वर्दी में हल्के कपड़े का इस्तेमाल किया गया है।

विस्तार

भारतीय सेना की नई कॉम्बैट यूनिफॉर्म की चर्चाओं के बीच सेना दिवस के मौके पर नई यूनिफॉर्म रिलीज कर दी गई है। रिपोर्ट के मुताबिक, इस यूनिफॉर्म को राष्ट्रीय फैशन प्रौद्योगिकी संस्थान (NIFT) के प्रोफेसरों समेत आठ लोगों की टीम ने तैयार किया है। इस नई वर्दी में हल्के कपड़े का इस्तेमाल किया गया है साथ ही इसमें कुछ बदलाव किए गए हैं। सैनिकों के लिए आरामदायक बनाने का भी पूरा प्रयास किया गया है। योजना से जुड़े एक सूत्र ने बताया कि भारतीय सेना ने नई यूनिफॉर्म के लिए करीब डेढ़ साल पहले संपर्क किया था।

हर मौसम, हर क्षेत्र के लिए उपयुक्त नई वर्दी

सेना से जुड़े अधिकारियों ने बताया कि नई वर्दी सैनिकों के आराम को ध्यान में रखकर तैयार की गई है। यह हर मौसम और हर क्षेत्र के लिए भी उपयुक्त होगी। सेना की इस वर्दी में हल्के कपड़े, नई डिजाइन, डिजिटल पैटर्न के साथ तैयार किया गया। पहले जंगलों और रेतीले इलाकों में लड़ाई के लिए सैनिकों की वर्दी अलग हुआ करती थी, लेकिन हर जगह के लिए उपयुक्त है।



भारतीय सेना की नई वर्दी - फोटो : ANI

तो इसलिए बदली गई ड्रेस

लद्दाख की गलवान घाटी में पिछले साल दोनों सेना के जवान भिड़ गए थे। तब चीनी सैनिकों ने ऐसी ही वर्दी पहन रखी थी, लेकिन उनके पास हथियार होने का भी दावा किया गया था। दरअसल दोनों देशों के बीच एलएसी पर नो फायरिंग की संधि है। यानी वहां गोली नहीं चलाई जा सकती। जब जवान भिड़े तो उन्हें चीनी सैनिकों की खास वर्दी के कारण उनसे निपटने में दिक्कत आई थी। भारतीय सैनिक अब तक एलएसी पर इंसास या फिर एके-47 राइफल के साथ ही तैनात होते थे।

<https://www.amarujala.com/india-news/new-combat-uniform-of-the-indian-army-was-unveiled-at-the-army-day-parade>



Mon, 17 Jan 2022

## Explained: Different pattern, better material — what's new in the Indian Army's new combat uniform

*The new uniform will be made available in a phased manner to the nearly 12 lakh personnel of the Indian Army.*

*By Krishn Kaushik*

Since 1949, January 15 has been celebrated as Army Day every year, to mark the day General KM Cariappa, who later became Field Marshal, took over as the first Indian Commander-in-Chief of the Indian Army from Gen F R Roy Bucher.

During the celebrations on Saturday, which also included a parade and an address by Army Chief Gen M M Naravane, the new combat uniform for the Indian Army was unveiled.

The new uniform will be made available in a phased manner to the nearly 12 lakh personnel of the Indian Army.

### Why does an Army's uniform matter?

Uniforms are one of the most distinctive identifying features for any military force. The uniform not only differentiates civilians from military personnel, and between personnel of different militaries, it also engenders togetherness, conformity, and discipline among the personnel.

The new uniform was unveiled with the soldiers of the elite parachute regiment marching on Army Day.

### How is the new uniform different from the Army's old uniform?

The main changes in the new uniform, compared to the old one that has been in use since 2008, are with regard to the camouflage pattern, design, and the use of a new material.

While the new unique camouflage pattern retains the combination of the same colours — olive green and earthen shades — the pattern is digital now. It has been designed keeping in mind the many kinds of operational conditions that the soldiers function in, from deserts to high-altitude areas, jungles and plains.

### How is the fabric used in the new uniform different?

This is the other important change in the uniform. The fabric for the new material makes it lighter, sturdier, more breathable, and more suitable for the different terrains that soldiers are posted in.

The cotton-to-polyester ratio is 70:30, making it quicker to dry, more comfortable to wear in humid and hot conditions, and lightweight.



The new uniform, unlike the old one, has a combat T-shirt underneath and a shirt over it. (ANI)

According to the Army, it is an ergonomically designed, operationally effective, new-generation camouflage combat uniform. The fabric is 15 per cent lighter, and has 23 per cent more strength against tearing, against the current uniform.

The ergonomic features allow for long-hour use and comfort, and micro features are inbuilt for the use of the wearer in field conditions.

### **What about the components and the style of the uniform?**

The new uniform, unlike the old one, has a combat T-shirt underneath and a shirt over it. Also, unlike the older uniform, the shirt will not be tucked in.

The “jacket”, as the shirt is called, has angular top pockets, lower pockets with vertical openings, knife pleats at the back, a pocket on the left sleeve, a pen holder on the left forearm, and improved-quality buttons.

The trousers will be adjustable at the waist with elastic and buttons, and has a double layer at the groin.

For the caps, the girth will be adjustable, and the logo of the Army will be of better quality than earlier.

For the first time, a modified version of the uniform has been developed keeping in mind the specific requirements of lady officers and troops of the Army.

### **Who designed the uniform, and who chose it for the Army?**

The design process, although finalised by Army Chief Gen Naravane, was initiated before Gen Naravane took over in January 2020. However, once a few designs were shortlisted, the choice was ultimately a collective decision of the Army Commanders.

Designed by a team of 12 people at the National Institute of Fashion Technology (NIFT), which included seven professors, three students, and two alumni, the uniform was created through a consultative process with the Army, keeping in mind the “4Cs” — comfort, climate, camouflage, and confidentiality.

The fabric was selected out of five options curated specifically for the Army by NIFT, and the finalised pattern was one of the 17 options that were specially designed.

Domain-specific experts for fabric, camouflage patterns, and designs were engaged, and prototypes were prepared through a continuous consultative process.

### **Will the uniform be available in markets around the country?**

While all militaries update their uniforms with time, one of the factors that led to this change was the easy availability of the Army’s current combat pattern cloth across the country. Soldiers could get the cloth and simply have the uniform stitched.

To control random proliferation, the new uniform will come in over a dozen pre-stitched standard sizes. The uniforms will be barcoded and QR coded to maintain their uniqueness, and will be available only through the ordnance chain or military canteens.

The Army will issue tenders for private and public companies to manufacture the uniforms, and the uniforms will be issued to personnel in a phased manner.

### **Are all uniforms of the Army changing?**

No. It must be noted that only the combat uniform has been changed. The Army has several uniforms, including the olive greens, as it is called, for peace area postings, and ceremonial uniforms.

<https://indianexpress.com/article/explained/indian-army-new-uniform-7724923/>

## BEL says its new drone can prevent Pathankot-style attack

*BEL is trying to gain a piece of the battlefield drone pie*

*By Akhil Kadidal*

A new drone being developed by Bharat Electronics Limited (BEL) could help prevent a Pathankot-style attack.

In the 2016 attack, at least six heavily armed militants dressed in Indian Army uniforms had breached the outer fence of Air Station Pathankot, Punjab, potentially crossing over using eucalyptus trees growing alongside the fence while exploiting faulty floodlights in that part of the perimeter.

They had possibly then used elephant grass inside the airfield to mask their approach.

BEL's answer is the Tethered Unmanned Aerial Vehicle, a 9-kg unmanned drone that can loiter in a fixed position above airfields and army bases, providing 360-degree surveillance capability.



'The drone is 'tethered' to the ground by a cable which also supplies it with power from a battery,' a BEL source said.

At the heart of the machine is its camera equipment: one a CCD video camera with a range of two kilometres in daylight plus an EO/IR (Electro-Optical/Infra-Red thermal camera with a range of 600 metres.

'The machine can loiter above the base for six hours or a stretch. The rotors tend to overheat after six hours and must be cooled for an hour,' the source said.

A second BEL source specified that an airfield the size of Yelahanka Air Force station, for example, would need between two to three drones operating in shifts to ensure continuous surveillance capabilities. 'Development of this project began six months ago and demonstrations have been made for the army and air force. Interest has been shown,' the source said.

'The deployment of these drones could prevent a future Pathankot-style attack because they would be constantly surveilling the military bases around the clock,' the source added.

### **BEL eyeing drone pie**

The genesis of this project, plus the development of a frontline drone (called the Hexacopter-20), shows that BEL is trying to gain a piece of the battlefield drone pie. One officer told DH that one advantage of their drones is that all systems and components are wholly made in India.

'We are eyeing the drone market in a big way and we are collaborating with the Defense Research and Development Organization (DRDO) in development,' a BEL officer said.

The Hexacopter-20 is a 20-kg UAV with a two-stroke internal combustion engine that can fly for 3.5 hours with a payload of two kgs. A payload could include medical kits. This drone, which can carry out recon and search and air rescue activities has a camera with a peak range of 600 metres. It also has swarming capability, which is being developed in conjunction with a Bengaluru-based startup.

The defense PSU is also planning a mega-display with a hundred different kinds of drones operating in concert with each other.

<https://www.deccanherald.com/national/bel-says-its-new-drone-can-prevent-pathankot-style-attack-1071514.html>



# Challenger to Indian LCA Tejas Fighter Jets: Turkey plans first-phase of mass production of Hurjet Aircraft

*By Ashish Dangwal*

Turkey appears to be warming up to make a name for itself in the jet trainer sector with its ambitious indigenous advanced jet trainer and light attack aircraft, Hürjet, after witnessing the meteoric rise of Turkish drones in the global armed drone market.

Hürjet is also a direct rival of India's Tejas jet in Malaysia's tender for Light Combat Aircraft/Fighter Lead-In-Trainer. Furthermore, both the fighters are projected to be strong contenders for the tender.

Tejas is already in the production phase and serving with the Indian Air Force. Hürjet, on the other hand, is still in the development phase and its first flight is still a year away. However, Turkey looks to be on track to accelerate the development of its advanced trainer jet as soon as feasible.

According to a statement made by the Defense Industry Executive Committee following a meeting led by President Recep Tayyip Erdogan on January 12, Turkey has now decided to move forward with the first-phase mass production of the Hürjet, jet trainer/light attack aircraft.

The Hürjet is expected to make its first flight in 2023. The aircraft is designed with the intention of being a fifth-generation training aircraft.

The committee explored the potential of adding additional indigenous equipment to the Turkish Armed Forces (TSK) inventory as well as other security services, according to a statement from the Communications Directorate.

The committee also made final decisions on numerous air, land, and sea platforms, communication and information systems, ammunition and missiles, equipment, modernization, logistics, cyber security, and artificial intelligence.

The committee emphasized the necessity of indigenous manufacturing of every technology that the country imports, and stated that efforts in this regard will be aided. It was also noted that Turkey will continue to design, develop, and manufacture indigenous systems and technologies. The discussion stressed the importance of R&D and P&D in the development of important and sophisticated technologies, the statement read.

Last week, Erdogan pledged that by next year, the Turkish defense industry will showcase an indigenous fifth-generation fighter. The TF-X concept plane has a similar look to the F-35. Erdogan stated that the plane will fly in 2025 and will be in service with the Turkish Air Force by 2029.

Since Ankara was kicked out of the F-35 program in 2019 over its purchase of Russia's S-400 missile defense system, Erdogan has pushed Turkey's military sector to become more independent of foreign suppliers. Rheinmetall, a German company, also canceled plans to jointly manufacture Turkey's Altay tank in 2019.



Hurjet is a proposed single-engine, tandem seat, supersonic advanced trainer and light attack aircraft, under development by Turkish Aerospace Industries. (AA)

## Turkey's Hürjet

Hürjet is a single-engine, tandem-seat advanced jet trainer and light attack aircraft with modern avionics and high-performance features that play a crucial role in advanced pilot training due to its superior performance characteristics.

Turkey claimed that its wide variety of mission capabilities and a large payload make the combat version a battlefield force multiplier.

Hürjet will be equipped with a sophisticated mission computer in its modern cockpit, allowing it to become a fifth-generation training aircraft. Superior radar and sensitive attack systems, as well as air and ground communication capabilities, will be installed aboard the planes, lowering hazards and risks.

Hürjet will have a wingspan of 11 meters and a length of 13.4 meters (43 feet). The Hürjet project's major goal is to replace the Turkish Air Force's T-38 trainer aircraft fleet, which consists of 70 planes, as well as to address the demands of potential foreign clients. The advanced jet's maximum height is 45,000 feet (14 kilometers), and it has a payload of 3,000 kilograms (6,600 pounds) and a top speed of Mach 1.2.

### Export Potential

Turkish Aerospace Industries is said to have created the HÜRJET Program in response to the prospects of the multi-role aircraft market, utilizing its expertise and capabilities in the design and manufacturing of cost-effective trainer/light aircraft/systems. As mentioned earlier the Aircraft is already competing in the Malaysian tender.

Prof. Dr. Temel Kotil, General Manager of Türk Aerospace Industries A.S., spoke about Jet Training and the Light Attack Aircraft HÜRJET on CNN Türk. Kotil expressed confidence in the fighter, stating that the HÜRJET is on its way to Malaysia since TAI has a great standing in Malaysia's tender. Even domestically, development on the Turkish Hurjet is proceeding at full speed, with considerable improvements to the basic design in the works. "We've been tweaking Hürjet's design so that it can operate on naval assets," he said.

TAI Training Aircraft Program Manager Tuncay Çopur told Anadolu Agency in early 2021 that they took into account both domestic and foreign demands throughout the development stage, and they are attempting to build a platform that can compete on a worldwide scale.

He said that they are now involved in a variety of promotional initiatives, which are expected to rise in the near future. Within the project's scope, two separate prototypes are expected to be produced, according to Çopur.

Turkey has a longstanding experience of supplying weaponry to other countries. It will be a big boost to the country's aerospace sector if it can manufacture an advanced trainer jet on schedule.

<https://eurasianimes.com/challenger-to-indian-lca-tejas-fighter-jet-turkey-plans-hurjet/>

# THE ECONOMIC TIMES

Mon, 17 Jan 2022

## RSP steel to be used by Indian Navy for making submarines

### Synopsis

***A high-level navy delegation led by Rear Admiral R Vishwanathan interacted with SR Suryavanshi, executive director (works) and other senior officers of the Odisha-based RSP here on January 13 for commercial production of DMR grade speciality steel, it said.***

The Rourkela Steel Plant, a unit of Maharatna public sector undertaking

SAIL has received a certificate from the Indian Navy for producing high-strength steel for making submarines, a statement said on Sunday.

A high-level navy delegation led by Rear Admiral R Vishwanathan interacted with SR Suryavanshi, executive director (works) and other senior officers of the Odisha-based RSP here on January 13 for commercial production of DMR grade speciality steel, it said.

Senior officers of the chief minister's office and SAIL headquarters also attended the meeting virtually.

During the interaction, Vishwanathan said, "As a policy, the Indian Navy is using indigenous steel for its ship and submarine manufacturing. The RSP is fulfilling the needs of a tough and meticulous customer like the Indian Navy for the last 10 years...commencement of commercial production of the submarine grade steel will further strengthen our association."

He also hailed the RSP for its efforts in the field of environment and corporate social responsibility.

The RSP has so far supplied more than 7,000 tonne of steel, adhering to stringent quality specifications for use in various naval applications, a source of the unit said.

The special plate plant of the RSP that is dedicated for making steel for the defence sector has been relentlessly working towards developing new grades of customised products that can absorb high ballistic impact, the statement said.

The high-quality steel is being developed with years of research and several rounds of testing, it added.

<https://economictimes.indiatimes.com/news/defence/rsp-steel-to-be-used-by-indian-navy-for-making-submarines/articleshow/88932703.cms>



The RSP has so far supplied more than 7,000 tonne of steel.

**INDIA  
TODAY**

Mon, 17 Jan 2022

## Indian Navy's indigenous INS Kochi takes part in joint exercise with Russian warships

*Earlier on Thursday, three ships of the Russian Navy arrived on a goodwill visit to Kochi, the Indian Navy said.*

*By Manjeet Sehgal*

New Delhi: INS Kochi, the Indian Navy's indigenously designed and built guided missile destroyer, has conducted a joint exercise with ships of the Russian Navy in the Arabian sea. The exercise showcased cohesiveness and interoperability between the two navies and included tactical manoeuvres, cross-deck helicopter operations and seamanship activities.

"Indian Navy's indigenously designed and built guided missile destroyer, INS Kochi, exercised with Russian Federation Navy's RFS Admiral Tributs on 14 January 2022 in the Arabian Sea," the Ministry of Defence said in a statement.

Earlier on Thursday, three ships of the Russian Navy arrived on a goodwill visit to Kochi, the Indian Navy said.

"During the visit, various professional interactions are planned between the Russian Navy and Indian Navy," the statement said.



"Indian Navy's indigenously designed and built guided missile destroyer, INS Kochi, exercised with Russian Federation Navy's RFS Admiral Tributs on 14 January 2022 in the Arabian Sea," the Ministry of Defence said in a statement.

The three Russian ships are missile cruiser Varyag, destroyer Admiral Tribuz and tanker Boris Butoma, PTI reported.

The ships arrived at Kochi at 9 am on Thursday and were received by senior naval authorities in the background of fanfare by the naval band, the Indian Navy statement mentioned.

<https://www.indiatoday.in/india/story/indian-navy-s-indigenous-ins-kochi-takes-part-in-joint-exercise-with-russian-warships-1900676-2022-01-16>



Sun, 16 Jan 2022

## North Korea tests railway-borne missile in latest launch amid rising tension with U.S.

*By Hyonhee Shin*

Seoul, Jan 15 (Reuters) - North Korea tested a railway-borne missile in its firing drills on Friday, state media KCNA said on Saturday, amid a U.S. push for fresh sanctions against the isolated state following its recent series of weapons tests.

South Korea's Joint Chiefs of Staff said two short-range ballistic missiles (SRBMs) travelled about 430 km (267 miles) to a maximum altitude of 36 km (22 miles) after being launched eastward on the northwest coast of North Korea.

The official KCNA news agency did not specify the missiles' range, or trajectory, but said a firing drill was held in North Pyongan Province to "check and judge the proficiency in the action procedures of the railway-borne regiment."

The country tested the rail-based system for the first time last September, saying it was designed as a potential counter-strike to any threatening forces.



Since New Year's Day, North Korea has launched three ballistic missiles in an unusually fast sequence of weapons tests. The previous two launches involved what state media called "hypersonic missiles" capable of high speeds and manoeuvring after launch.

Hours before the latest test drill, North Korea slammed the United States for pursuing new sanctions in response to its recent missile launches, calling it a "provocation" and warning of a strong reaction.

U.S. President Joe Biden's administration imposed its first sanctions against Pyongyang on Wednesday, and called on the U.N. Security Council to blacklist several North Korean individuals and entities.

North Korea has defended the missile tests as its sovereign right to self-defence and accused the United States of intentionally escalating the situation with new sanctions.

North Korean leader Kim Jong Un did not attend the drill. KCNA said the military leadership had ordered the test "at short notice" and the system precisely struck the target set in the east coast with "two tactical guided missiles."

The system "demonstrated high manoeuvrability and rate of hits," KCNA said, adding its success led to discussions to "set up proper railway-borne missile operating system across the country."

North Korea has been steadily developing its weapons systems, raising the stakes for stalled talks aimed at dismantling its nuclear and ballistic missile arsenals in return for U.S. sanctions relief.

South Korean Chung Eui-yong and U.S. Secretary of State Antony Blinken condemned the latest launch during their phone call on Saturday and coordinated responses to the North's recent missile tests, the State Department said.

Both sides highlighted the importance of maintaining firm combined readiness posture and urged Pyongyang to return to a negotiating table, Seoul's foreign ministry said.

'AT SHORT NOTICE'

Cheong Seong-chang, director for North Korean studies at South Korea's Sejong Institute, said the test could be an "instant display of force" to protest against the U.S. sanctions push, noting that it was not planned in advance and unusually took place in the afternoon.

"It's a message that they would take an 'eye to eye' approach if Washington presses for sanctions for testing non-long-range missiles," Cheong said.

KCNA released photographs showing a missile trailing a column of smoke and flame as it was launched from the top of an olive-green train in a mountainous area, before arrowing down on a small island, sending up a cloud of smoke and debris as it hit.

Despite North Korea's limited and sometimes unreliable rail network, rail mobile missiles are a relatively cheap and efficient option to improve the survivability of their nuclear forces, making it difficult for enemies to detect and destroy them before being fired, analysts said.

Kim Dong-yup, a former South Korea Navy officer who teaches at Seoul's Kyungnam University, said North Korea appears to have fired KN-23 SRBMs, which were also test fired in September, when they flew 800 km (497 miles).

First tested in May 2019, the KN-23 resembles Russia's Iskander-M SRBM visually, and is designed to evade missile defences and conduct a precision strikes, experts said.

<https://www.reuters.com/world/asia-pacific/north-korea-used-railway-born-missile-fridays-test-kcna-2022-01-14/>





Sat, 15 Jan 2022

## Advances in theoretical modeling of atomic nuclei

By Ana Lopes

The atomic nucleus is a tough nut to crack. The strong interaction between the protons and neutrons that make it up depends on many quantities, and these particles, collectively known as nucleons, are subject to not only two-body forces but also three-body ones. These and other features make the theoretical modeling of atomic nuclei a challenging endeavor.

In the past few decades, however, ab initio theoretical calculations, which attempt to describe nuclei from first principles, have started to change our understanding of nuclei. These calculations require fewer assumptions than traditional nuclear models, and they have a stronger predictive power. That said, because so far they can only be used to predict the properties of nuclei up to a certain atomic mass, they cannot always be compared with so-called DFT calculations, which are also fundamental and powerful and have been around for longer. Such a comparison is essential to build a nuclear model that is applicable across the board.

In a paper just published in *Physical Review Letters*, an international team at CERN's ISOLDE facility shows how a unique combination of high-quality experimental data and several ab initio and DFT nuclear-physics calculations has resulted in an excellent agreement between the different calculations, as well as between the data and the calculations.

"Our study demonstrates that precision nuclear theory from first principles is no longer a dream," says Stephan Malbrunot of CERN, the first author of the paper. "In our work, the calculations agree with each other, as well as with our ISOLDE data on nickel nuclei, to within a small theoretical uncertainty."



The ISOLDE facility seen from above.  
Credit: CERN

Using a suite of experimental methods at ISOLDE, including a technique to detect the light emitted by short-lived atoms when laser light is shone on them, Malbrunot and colleagues determined the (charge) radii of a range of short-lived nickel nuclei, which have the same number of protons, 28, but a different number of neutrons. These 28 protons fill a complete shell within the nucleus, resulting in nuclei that are more strongly bound and stable than their nuclear neighbors. Such "magic" nuclei are excellent test cases for nuclear theories, and in terms of their radius, nickel nuclei are the last unexplored magic nuclei that have a mass within the mass region at which both ab initio and DFT calculations can be made.

Comparing the ISOLDE radii data with three ab initio calculations and one DFT calculation, the researchers found that the calculations agree with the data, as well as with each other, to within a theoretical uncertainty of one part in a hundred.

"An agreement at this level of precision demonstrates that it will eventually become possible to build a model that is applicable across the whole chart of nuclei," says Malbrunot.

**More information:** S. Malbrunot-Ettenauer et al, Nuclear Charge Radii of the Nickel Isotopes Ni58–68,70, *Physical Review Letters* (2022). DOI: [10.1103/PhysRevLett.128.022502](https://doi.org/10.1103/PhysRevLett.128.022502)

**Journal information:** *Physical Review Letters*

<https://phys.org/news/2022-01-advances-theoretical-atomic-nuclei.html>

